**Birla Institute of Technology & Science, Pilani**

Pilani | Dubai | Goa | Hyderabad

**Practice School Division**

# CHRONICLES

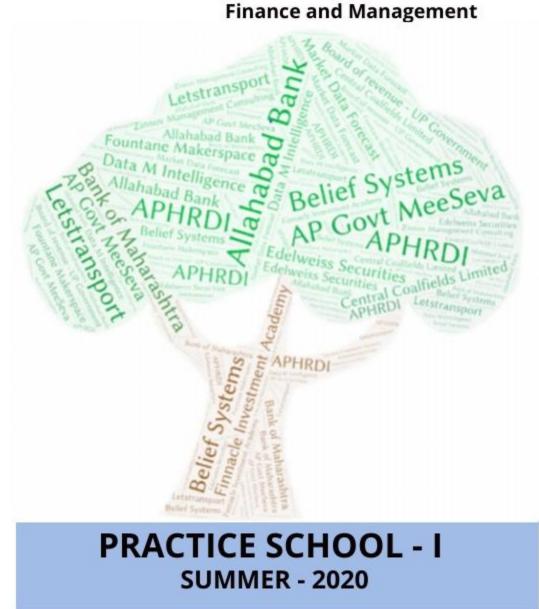## Finance and Management



## PRACTICE SCHOOL - I
### SUMMER - 2020

**From the Desk of the Editor**

It is my great pleasure to bring forth the 2nd edition of the PS-I Chronicles. This edition features over 1800 articles from PS-I students sharing their experiences during summer 2020.

The basic premise behind the release of PS-I Chronicles is to document the PS-I learning experience of students keeping the below objectives in view.

➢   To provide more information on the learning experiences by immediate senior students and PS-I faculty about stations, and thereby enlightening the learning opportunity among the student community.

➢   To provide the faculty with the enhanced information about the type and nature of work carried out at the organizations.

➢   To transform the knowledge gained at the organization into class room teaching and also to identify the scope of deepening the collaborations with organizations.

The articles have been classified into five categories based on the industry domain.

➢   Chronicle 1: Information Technology

➢   Chronicle 2: Electronics

➢   Chronicle 3: Chemical, Mechanical, Cement, Textile, Steel, Infrastructure

➢   Chronicle 4; Health Care and other

➢   Chronicle 5: Finance and Management

I would like to thank students for sharing their experiences during their stint at the organization. I would also like to thank Prof. Arun Maity and Prof. M. K. Hamirwasia for reviewing the articles and providing us the feedback. I would also like to extend my thanks to Mr. Om Prakash Singh Shekhawat, Prof. S. Murugesan, Prof. G. Muthukumar and Mr. Varun Singh of the Practice School Division, BITS Pilani – Pilani Campus for their help in bringing out this edition of PS-I Chronicles.

I would be happy to receive any feedback regarding the Chronicles. Please feel free to email me at psd@pilani.bits-pilani.ac.in or at anil.gaikwad@pilani.bits-pilani.ac.in.


Anil Gaikwad

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# PS-I station: Access Livelihoods Consulting India, Ltd., - Social Sector, Hyderabad

## Student

### Name: AAKASH BANSAL .(2018AAPS0418H)

**Student Write-up**

**Short summary of work done**: We developed a plan for delivery of online content for rural and urban marginalised women. We confirmed how women can access these platforms, did stakeholder assessment and formed a cost analysis document.

**PS-I experience**: There certainly is a learning opportunity associated with the work and I luckily got the PS-I in the sector I want to pursue for placements.

**Learning outcome**: I learned various skills like management, scheduling and plenty analytics.

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### Name: AKSHAY JOSHI .(2018A1PS0993P)

**Student Write-up**

**Short summary of work done**: Secondary research and market study on different commodities on different distribution channel (such as, modern retailers, e-commerce websites and general retailers) of Hyderabad market was done. Prepared an excel models from this extracted data and created a viable business models. We had also extracted data on value chain analysis by talking to the company representative of different firms which are involved in these distribution channels. We got a rough idea about the different players involved in value chain and what percent they contribute in the market retail price of the commodity. From all these plotted data, I calculated fixed and variable cost of the particular commodity and by the use of fixed and variable costs (transport cost), I calculated break even point. At  last, viable business model was prepared to help the producer companies which were operated by economically

marginalized groups (poor farmers, tribal farmers, weavers, non timber forest gatherers, etc). So, basically what we did is get data on how much price the distribution channels sell to consumers and on how much price these channels buy from the producer companies. Difference on these two prices was calculated and analysed thoroughly and tried to minimize the role of middle man so that producer can get high profit and consumer can get the commodity at less price.

**PS-I experience**: It was good PS faculty and as well as my reporting officer was very helpful an I would like to thank my PS faculty Dr Pravin M. Singru sir for always guiding me when ever i faced any problem regarding my PS station.

**Learning outcome**: Excel and google spread sheet skills were improved highly, interpersonal communication, creativity, team work and advanced data analyzing tools such as Jupyter notebook.

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## PS-I station: Akira Consultancy Pvt. Ltd., - Secondary Research, Bangalore

### Student

**Name:  KSHITIZ KASHYAP .(2018A2PS0141P)**

**Student Write-up**

**Short summary of work done**: The objective of the project was to monitor market data and use different data, visualization tools to highlight critical market data including micro, macro data, sentiment indicators, etc. This provided insight about the market base of the company and would help companies to quickly act on their decisions. The aim of the project was to help companies in faster decision making by highlighting the critical market data. This was done using data visualization tools. The data collected was summarized and was then used to review the policies of the company and also plan the decisions ahead. The tools highlighted the sales and demand in various sectors, at various time in the year, etc. This would happen in increasing the reach of the company.

**PS-I experience**: First time experience of working with a company on a project of such long duration.

Gained experience of work from home.

Gained experience of formal company meetings, group discussions, seminars, etc.

Gained confidence and leadership skills to take decision for myself and the project.

Became more responsible.

Developed the spirit of teamwork.

Became more adapt able to adverse conditions.

**Learning outcome**: • Learnt new softwares like Microsoft PowerBI, etc.

• Learnt time and project management by working from remote location with our mentor and project mate.

• Developed content writing skills through report making, diary writing, etc.

• Made new net works and connections while working.

• Improved my problem solving skills.

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## PS-I station: Akira Consultancy Pvt. Ltd., - Sectoral Study, Bangalore

## Student

**Name:  KINSHUK SINGH .(2018A3PS0305G)**

**Student Write-up**

**Short summary of work done**: My work involved me doing a project for the company. The title of the project was, "Sentiment analysis on topics in the news and identify whether it is positive, negative or neutral and the implications and recommendations based on the analysis". For this, I had to classify news on the basis whether they are positive, negative or neutral. Then, I had to apply various classifiers to it and find out the accuracy of the dataset of news headlines I prepared.

**PS-I experience**: My PS-1 experience has been productive for me. I explored various things new to me and tried to implement them on my project. I also learnt soft skills that are very important for one's career.

**Learning outcome**: I gained knowledge on sentiment analysis, data handling, and natural language processing.

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**Name:  VAIBHAV SACHAN .(2018AAPS0410H)**

**Student Write-up**

**Short summary of work done**: Sentiment analysis of news headlines and divide them into positive, negative and neutrals.

**PS-I experience**: It was good experience overall, got to learn new technologies, learnt how things go around in a firm and what are all the various departments responsible for bringing the final product.

**Learning outcome**: I learnt a lot of technical and soft skills some of them to note nltk library of python and taking part in GD's.

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**Name:  SHATARUPA SAIKIA .(2018B5AA0628G)**

**Student Write-up**

**Short summary of work done**: Learnt the basics of web scraping, Python and SQL. Researched and documented about the Bloomberg terminal, clustering techniques and feature analysis. Did a clustering exercise on German credit data available online by applying various clustering techniques. Used the Bloomberg terminal to gather data of Nifty50 companies. Did sentiment analysis on given dataset by industry mentors.

**PS-I experience**: It was good experience. I got to learn about unsupervised learning methods used in machine learning and also got exposure to using Bloomberg terminal.

There were also several webinars held which were helpful to provide some insight in my field of interest.

**Learning outcome**: I know the basics of clustering techniques and learnt how to use the BT. I now have good idea of using Python and its various dictionaries. I also practiced SQL using SQLite browser and performed some web scraping programs.

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# PS-I station: Alma Connect - Customer Relationship Management, New Delhi

## Student

**Name:  KHANT YASHVI ASHOKKUMAR .(2018A3PS0138H)**

**Student Write-up**

**Short summary of work done**: Major work was related to customer relationship management where one was supposed to think of various marketing strategies. Also, worked for data management and analysis.

**PS-I experience**: Its a BITSian startup, Hence, industry mentors are very cool to work with. Also, they guided us in a much simpler and easier way.

**Learning outcome**: Got to learn about customer relationship management of SaaS product and learnt scripting to get my work done easily.  Though majorly learning outcome was related to research and marketing.

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**Name:  VIVEK ARORA .(2018A7PS1016G)**

**Student Write-up**

**Short summary of work done**: The project we worked on was customer data management and analysis. The goal of the project was to understand and optimize ongoing operations at AlmaConnect. A major chunk of the operations at AlmaConnect revolve around the customer data points which is mainly job posts data, applications data, mail campaigns and calls. Our primary work at the company revolved around market research, data analysis and product management.

**PS-I experience**: PS-1 was great experience to learn and apply textbook knowledge. It gave us a great way to interact with industry experts. We were made to work comprehensively in the above mentioned three domains - Market research, data analysis and product management. The work at AlmaConnect was significant not in terms of load, but rather the sort of impact it made, we could see the real life impact on users, signups and clients and how our decisions were directly responsible for the impact it created. I was given multiple market research tasks where I had to create reports for companies struggling or generating revenue during the COVID-19 crisis and this gave me a great overview of how companies and businesses operate. I implemented a personalized sign up system for a small number of potential users to see the impact of personalization and I noticed a great increase in the number of signups. I performed end user testing and reported bugs in the mobile browser variant of the AlmaConnect website. I learnt how to perform competitive benchmarking and learnt how to compare products based on functionalities, revenue models and a variety of other things. I performed data analysis mainly using Excel and analyzed the data to find trends or patterns that would improve the business operations of the company. I was allotted a task where I had to pump new posts into the feed to see how customer engagement can be increased and in order to that I had to first analyze the particular network this was being done in. Lastly, towards the end, I helped add a new feature to jobs portal on AlmaConnect which made it easier for users to push actively for their application.

**Learning outcome**: The first and foremost thing I learnt at AlmaConnect was how to behave and express ideas or thoughts in a professional setting. This also helped improve my interpersonal communications skills. I learnt what goes into making an idea into an actual product or feature. We had some brainstorming sessions on how to improve the product and that improved our critical thinking ability. I learnt how to analyze a product and how to compare it to its competitors and learn how to make it stand apart. I learnt how startups operate and how they are structured. I learnt business analytics and learnt how to analyze revenue models and learnt how to optimize revenue streams. I learnt how UI/UX designing is done and saw how small things like pop-up can lose customer engagement. With the UI/UX design knowledge in mind, I also learnt how to perform end user testing in a structured way, taking into consideration UI/UX and gave suggestions to improve based on it. I implemented a new personalized sign up system for a test and that gave me a lot of insight on how such tasks boost the number

of sign ups on the portal. We had a lot of fun learning from our industry experience and every small task gave us a lot of insight on the functioning of the product. More importantly, we were exposed to the crucial aspects of how an IT SaaS company functions.

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**Name:  SUNIL SAHARAN .(2018B3A30957P)**

**Student Write-up**

**Short summary of work done**: My project was on customer data management and analysis. We were given several tasks which included:
1. Market research exercise to boost the sign-ups on AlmaConnect platform.
2. Comprehensive testing of various features of the portal to find the bugs and report them to resolve the issue.
3. Research on business models of top job recruiting platforms like LinkedIn, Shine, Naukri, etc.
4. Generate data from metabase and analyze.

**PS-I experience**: PS-1 was extremely unique learning experience for me. I learnt a lot about professional ethics after meeting with professionals in the company and I got a chance to apply what I have learnt in the institute in practical life.

**Learning outcome**: In the PS-1, I got to learn a lot of new things and gained many skills, which included soft skills like communication, work ethics and team work as well as technical skills like generating data from database management system, excel, Portal testing, etc. It also helped me to grow my skills in the field of business analytics and data analysis.

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**Name:  MEGHANSH PUNJABI .(2018B5A80578P)**

**Student Write-up**

**Short Summary of work done**: At alma connect, my work  was purely non-tech. It was mostly market research and product management.


**PS-I experience**: Enlightening.


**Learning outcome**: Basics of metabase,  market research, product management.


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## PS-I station: Amazon Jobs, Bangalore

## Student

### Name:  SHUBHAM CHUGH .(2018A3PS0261H)


**Student Write-up**

**Short summary of work done**: The group formulated a report on the issue of maintaining mental and physical health of the employees working from home under current circumstances. The report included various activities, online platforms and applications for betterment of employees without proper working conditions. The group basically undertook the research on the same lines, implementing certain activities especially for Amazon employees and working on technology which can tweaked to help employees work better at home.


**PS-I experience**: The PS-I experience was really good. I got to learn many new skills and worked on my soft skills as well. All in all, the experience was enriching and worth the effort.


**Learning outcome**: I learned many new things about employee engagement and how to increase morale using social media. I also learnt basics of graphic designing. I also learnt many soft skills like group discussion moderation on the way.


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**Name:  SNEH LOHIA .(2018A7PS0171H)**


**Student Write-up**

**Short summary of work done**: The domain of my project was management. The research work was on "Future of Employer Branding in Campuses".


**PS-I experience**: Both the faculty and the mentor were highly cooperative. Despite of the online mode, it was a great learning experience for me.


**Learning outcome**: It enhanced my communication, team work, management and other technical skills.



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**Name:  SHILPI AGRAWAL .(2018AAPS0464G)**


**Student Write-up**

**Short summary of work done**: The work was primarily under the employer brand wing of Amazon and revolved around the amazon.jobs website. The prime objective was to propose a new employer branding strategy for Amazon which is impactful, innovative, and scalable across the business and tech campuses in India. I also worked upon creating a new proposed website for amazon.jobs and further created a webpage specifically dedicated to student programs. I got the kind opportunity to be mentored by Ms. Eileen Choi, Senior program manager at Amazon, Singapore; and it was truly an enriching experience.


**PS-I experience**: Working with Amazon was an amazing experience. I got exposure to the work environment of a technology company and learned how to collaborate and work together in a team. I completely agree with the fact that PS-1 is an exposure-oriented course which forms a direct connection between our learnings and real-world applications.


**Learning outcome**: The learning curve at Amazon was steep and I got to learn a variety of different skills covering an entire spectrum of domains. I gained skills in employer branding, recruitment marketing and HR management. Further, I improved my

skills in web development and web designing. Creating the website for Amazon.jobs was an extremely enriching experience.

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**Name:  MANAV TANWAR .(2018B3A70629G)**

**Student Write-up**

**Short summary of work done**: My project under Amazon jobs was building branding strategies for Amazon HR positions in the external work environment.This project involved research of various tech giants which are also competitors of Amazon, their strategies for branding in the different fields, determining through surveys with candidates and secondary research online to determine what current reputation is for Amazon HR policies and practices and present gaps / recommendations.

**PS-I experience**: Had a nice experience, got supporting and hard working teammates and the work was also interesting. We had several sessions with our mentor who was also very supporting and gave us crystal clear understanding of what was expected from us and checked on us every week. Faculty member allotted to our PS-I station was also supporting and well versed with the topic of our project and helped us overcome any obstacle which we faced and told us every minor mistake so as to make our project better.

**Learning outcome**: Acquired various managerial skills and analysed various branding strategies adopted by various tech giants like google, Microsoft and Amazon especially. How these organisations do branding through social media and we also found out the current reputation of Amazon HR policies amongst both the potential and existing employees through a survey. We also learnt about various HR conferences held in India and different kinds of policies adopted by Amazon to maintain large market share. I also learnt R programming.

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**Name:  ANSH ANAND .(2018B3A70887H)**

**Student Write-up**

**Short summary of work done**: Our project was focused on enhancing the reputation of Amazon HR in the minds of working professionals and potential employees. For this aim of our project, we focused on a set of objectives which were analyzing the forums, competitions and conferences that Amazon can participate in, suggesting a set of employee benefits, analyzing the kind of content required to be shared through social media and also taking input regarding the current reputation of Amazon HR through employee reviews and a customized questionnaire.

**PS-I experience**: Throughout the PS-1 program, we were in regular contact with the instructor and mentor. The program along with providing us with a first-hand industry experience also helped us in looking through the eyes of an employer and improving our chances as a potential employee.

**Learning outcome**: The project has made us see the corporate sector from the view of an employer. The suggestions and research of the project will surely help in laying down the foundations of a startup. It has made us look at another side of the industry besides the product development. The project also changed our views on what to look for in an employer. This project has provided us with a great insight to the industry we are about to step in and hence the choices we will be making while selecting an employer will definitely be inspired by the research work done throughout this PS-1 program. Through this project, we also came across the hardships an employer faces in branding itself since there are a lot of things to take care of when you are actively participating over multiple social media platforms targeting such a large audience.

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**Name:  GRAHITHAA SARATHY .(2018B3A70895H)**

**Student Write-up**

**Short summary of work done**: We had to do in-depth market research on student preferences and using the results, formulate a new employer branding strategy that Amazon could apply across campuses in India.

**PS-I experience**: Good, the work was interesting and our mentor was very friendly.

**Learning outcome**: Soft skills, mainly. Working as a team, presenting research done.

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**Name:  SUBHAM KUMAR .(2018B5A70887G)**

**Student Write-up**

**Short summary of work done**: Our project was enhancing Amazon HR position and suggesting policies. We have recommended many HR websites and social media platform where Amazon lacks its representation. We also learned about different conferences held related to HR manager and how to enroll for those.

**PS-I experience**: Overall, the experience was great working with Amazon.

**Learning outcome**: Better speaking skills, presentation skills and researching.

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## PS-I station: Andhra Pradesh Human Resource Development institute (APHRDI), Bapatla (Near Amravati)

### Student

**Name:  MIHIR SUNIL DABADGHAO .(2018A1PS0849H)**

**Student Write-up**

**Short summary of work done**: I prepared a report on the overall impact of COVID-19 in the country and the state of AP by analyzing impact on various sectors of the economy. SWOT analysis and PESTLE analysis.

**PS-I experience**: Through working on our project and report, I familiarized myself with sectoral studies and trend analysis. I got well-versed in research methodology and data collection. Also, by working on my report, I honed my skill of technical report writing following the entire proper format – titular page, abstract, main body, appendices,

conclusion and bibliography. By conducting regular quizzes, group discussions, review meets and project presentation seminars, our station mentors and faculty in-charge ensured that we were on top of things, which instilled a sense of discipline and work ethic in us.

**Learning outcome**: The extent of impact that the pandemic has had on the society and economy of the country. Moreover, I gained a fair introduction to the area of management by attending the webinars conducted by PSD.

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**Name:  HIMANSHI CHHALLANI .(2018A2PS0214H)**

**Student Write-up**

**Short summary of work done**: We asked to research about COVID-19 on the specific states alloted. How various factors affecting the economy due to COVID-19.

**PS-I experience**: It was a pretty good experience, we were up to date on how country and people reacting against the virus.

**Learning outcome**: Learnt professionalism, soft skills, research skills and languages which helped for data analysis like MATLAB.

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**Name:  ARUN KUMAR SAINI .(2018A4PS0129H)**

**Student Write-up**

**Short summary of work done**: The work alloted was to collect information on COVID-19 in different states of india and compare them. Also collect details of researchers of different institutes relevant to APHRDI.

**PS-I experience**: The PS-I helped a lot. We could use the learning of the class during our project. It was good to work with them.

**Learning outcome**: It was really a great opportunity for me to learn through the PS-I. During the PS-I, the most important part of learning was data collection from different sources. Also, the PS-I helped me improve my skills.

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**Name:  SANIKA ARUN PARASNIS .(2018A5PS1113H)**

**Student Write-up**

**Short summary of work done**: My PS-I work entailed mainly of 2 projects and a few reports. The work domain was policy and pandemic analysis of COVID-19 for the state of Karnataka and database completion of speaker details for the APHRDI. I analysed various policies of the state and national government and used analysis frameworks like PESTLE and SWOT to compare and contrast data and ultimately draw conclusions and feasible solutions and areas to focus upon for the government. The work also entailed data analysis of COVID-19 case numbers for the state.

**PS-I experience**: My PS-I experience was an extremely enriching one. I worked in my field of interest and a learned a lot about the domain closely related to the masters I wish to pursue. I also worked with new team and students from across campuses which was great experience.

**Learning outcome**: I learned a lot about policy analysis and how to write report on publishing quality. I learned about various analysis frameworks that help in compressing large amounts of information to short, coherent forms. I learned a lot about referencing and citations which are really important in any good paper or report. Multitasking and time management are also some of the important soft skills I picked up during PS-1.

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**Name: SANIKA ARUN PARASNIS .(2018A5PS1113H)**

**Student Write-up**

**Short summary of work done**: My work during this internship experience mainly involved a sectoral analysis of public unit sectors of the government of Karnataka in their response to the COVID-19 pandemic. This mainly involved thorough and in-depth policy analysis and research of the on-ground situation relating to the pandemic. Apart from this main project, the PS also involved a few detailed reports on various topics such as departments and functioning of the state government. A minor group project involving data collection of experts from various institutions to be included in the APHRDI's database was also undertaken.

**PS-I experience**: My PS-I experience was an extremely enriching one. I picked up many important skills and got a perspective into how exactly it is working for an organization which is extremely important.

**Learning outcome**: I picked up many important technical skills such as using and predicting forecasts using the SPSS software, policy, and analysis skills to analyze various schemes and policies of the government and how exactly do they work on the ground and even soft skills such meeting deadlines, effective time management, and team building and working skills.

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**Name: ABHISHEK MISHRA .(2018A8PS0143H)**

**Student Write-up**

**Short summary of work done**: I have to analyse and evaluate the impact of COVID-19 in state of Manipur on all aspects of life including social, cultural, health, financial, economic, and to provid a holistic view from all different perspective.

**PS-I experience**: First of all I would like to thank PSD, BITS Pilani for giving me opportunity to work remotely under this pandemic situation and thus utilising my time. I am having good experience at my PS-I station as they are very helpful and always supportive throughout all my project journey. They also organised various knowledge sharing seminars related to my project.

**Learning outcome**: Learnt soft skills like how to give presentation and how to participate in group discussion. Also learnt various types of analysis like SWOT, PESTLE and 5 C. Also get experience that how an organisation works.

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**Name: KATTA SATYA PRANEETH .(2018AAPS0508H)**

**Student Write-up**

**Short summary of work done**: Analysis and research of impacts of COVID-19 on various aspects of life and steps, measures taken by the govt (Central as well as State) and NGOs, companies in combating this pandemic outbreak.

**PS-I experience**: It was a unique experience.

**Learning outcome**: Research, analysis and understanding the impact of COVID-19 in a holistic view.

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**Name: ROHAN DUBEY .(2018B4A30939H)**

**Student Write-up**

**Short summary of work done**: My project work has 2 partm one major: Study on COVID-19 for the state of Uttarakhand and minor: Data collection for resource person from IIMs all across India. So for the first part, I collected data from all the official government sites and monitored the state of Uttarakhand. I did a hostilic quantitative and qualitative analysis of the state. For the second part, I collected resource person based on the requirement by APHRDI. These resource person were having a background so that people at APHRDI would be interested in contacting them and expand their data. All this was compiled into a report.

**PS-I experience**: It has been a wonderful and insightful experience to work for APHRDI on such a motivating project focusing the current situation. The project on study on COIVD-19 and data collection improved my research and analytic skills. Working for such a prestigious and reputed institute was a privilege for me. During the first week of internship, we were assigned Kishore Kumar Sir (Deputy Manager, APHRDI) as our PS mentor. He guided us on how to filter out our data and which resources do we need to take care of. He was also present for our seminars and personally assigned us and told us how can we improve our task more effectively. We were also grateful to be guided by Shri D. Chakrapani, Founder and Retd. Director General (IAS) of APHRDI. He made us understand the functioning of APHRDI and how it works on different levels in the state of Andhra Pradesh.

**Learning outcome**: APHRDI being the state-of-the-art training institute has taught me intuitive skills. I got to know about the hierarchy of the functioning of this institute and the major departments under it like Revenue, Rural, Water works, Education, Women, Healthcare, etc. While working on COVID-19 project, I understood the policies of how government is tackling this pandemic and how this pandemic is affecting on social, rural-urban, economic sectors. As being assigned the state of Uttarakhand, I followed all the policies of state closely and also monitored the intervention of central government in that state. I also learned how to plot graph and understand graphical data. Also, I learned about SWOT and PESTLE analysis which helped me in marking out the pros and cons of the policy and condition of the state. During this internship, I read all the advisories, press briefing, and other documents for general public released by the state from the start of first case, and thus compiled it into this report.

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## PS-I station: Andhra Pradesh Human Resource Development institute (APHRDI), Srikalahasti (Near Tirupati)

### Student

**Name:  Sai Charan Kommana .(2018A3PS0538H)**

**Student Write-up**

**Short summary of work done**: 1. Study on COVID-19 situation in Madhya Pradesh.
2. List of projects happening in IIMs relevant to work of APHRDI.

**PS-I experience**: It was great. I got to learn a lot a lot of new things about corporate lifestyle and work ethic.


**Learning Outcome**: Professional work style, report writing, professional ethics.


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Name:  YASH RAJ AGARWAL .(2018A8PS0782P)


**Student Write-up**

**Short summary of work done**: 1. The project allotted to us fall under the domain of research and data analysis.
2. Project consists realizing the extraordinary psychological, social, economic and cultural significance of corona pandemic for the human society in times to come.
3. And the other group project was to identify about 1000 subjects and speakers relevant for AP HRDI (like Finance and Management, Operation Management, Publicity, Technology etc.) from the following organizations like IIT's, IIM's, IISc etc.
4. And one small task to find cheap publicity technique to spread reaches of APHRDI all over India.


**PS-I experience**: This time PS-I was online so we miss industrial exposure up to some extent but overall it was worthy enough to let you know about hierarchy and functioning of an organization.


**Learning outcome**: Data analysis, presentation skills, business report writing.


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Name:  DISHA SURYAWANSHI .(2018A8PS0911H)


**Student Write-up**

**Short summary of work done**: 1. Study of the Impact of COVID-19 on the State of Chhattisgarh and how it is tackling the pandemic: I gathered a comprehensive report on the social, cultural, economic and psychological aspects, the measures taken by the government, the preparedness of the state, its strengths, weaknesses, opportunities and threats, as well as analyzed the trends in cases by studying collected data and plotting graphs.

2. Collecting project details and speaker contacts relevant to AP HRDI from IIMs across India.

**PS-I experience**: My PS-1 experience was nice. The work given was not particularly overwhelming, but there were way too many evaluative components and deadlines in a very short amount of time, as many as four in a day for instance. The instructor was strict but very inspirational and encouraging. He gave us valuable lessons and detailed individual feedback for us to improve. He was a bit too critical at times, but for our own benefit. Our mentor was extremely hardworking and sincere but also unpredictable. We struggled a bit with his communication skills. He always suggested us ideas on what to improve upon but I felt as if there were no well defined objectives on the project.

**Learning outcome**: I learned various soft skills, especially through components such as group discussion. Overall, PS-1 helped me focus on certain data in detail. The webinars were exceptionally educational.

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**Name:  ADARSH SIDDHARTH A .(2018AAPS0357H)**

**Student Write-up**

**Short summary of work done**: The project assigned was to find the impact of COVID-19 in the state of Maharashtra, moreover there was another side project which involved collecting details on various experts currently working the government laboratories. We were asked to collect as much data as possible and analyse the data.

**PS-I experience**: Pleasant overall experience with the station. Mentors are very very helpful in providing us with suggestions on improving the reports and the project. Also, took time out of their working schedule to assist us in our projects on a couple of days.

**Learning outcome**: Learnt about the structure of government and about multiple aspects related to the life of citizens and the impact of the pandemic. Moreover, learned about various research projects being done in our country.

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**Name:  RITICK SRIVASTAVA .(2018AAPS0366G)**

**Student Write-up**

**Short summary of work done**: Researching about the COVID-19 situation in Jammu and Kashmir and its various aspects, making a database of speakers from CSIR labs across the country.

**PS-I experience**: My PS-1 experience has helped me have a more professional outlook to certain things, it has helped me be more punctual and has also helped me in forming a healthy relation with deadlines.

**Learning outcome**: I have gained better researching skills in general, have bettered my speaking skills and have got knowledge about advanced excel. Further, my discussion, report making and presentation making skills have increased a lot.

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**Name:  CHEREDDY VIVEK REDDY .(2018AAPS0481H)**

**Student Write-up**

**Short summary of work done**: I have studied the general COVID-19 situation in Tamil Nadu, reasons for its spread and the government measures taken in retaliation. It has delved into the statistics of the pandemic, the variation and its cause and possible future trends. It also gives the various steps taken by the government to ensure social distancing in construction sites, market places, hospitals etc. This report has also given the impact of COVID-19 on the various sectors of TN economy, the government initiatives to counter these negative impacts and possible future problems.

**PS-I experience**: I was excited to do my PS-1 in my 4th sem starting, but due to the unexpected corona virus pandemic, we had to do online PS-1. Many seniors told me that everyone would love the days they spend in PS-1 station. They told about their PS-1 experiences, and things they learned in the PS-1 and challenges they faced and had overcome while doing the projects. I was a lot hyped about it, but when I got to know that we are having an online PS-1, I was bit disappointed. After few days, I was allotted a PS-1 station and its Andhra Pradesh Human Resource Management Institute (APHRDI). I was a bit excited as well as surprised, cause I am from AP state and never heard of the institute. I told my dad about this, and he felt happy as he went for a training session in the institute. He said you will learn a lot from the institute. And coming to the PS-1, by seeing the evaluation components, I thought it was similar to every other course with a 5 credits, but after starting the project and going along with I got to know that it is entirely different from what I expected. This would be one of good experiences in my life. From the group discussion, seminars, reports and quizzes and the interactive session, I have learnt a lot and this is completely different experience for me.

**Learning outcome**: Learned many things about different institutions and their functions through webinars. Got to know about the situation of India regarding the COVID-19 crisis and measures taken by governments through different sessions conducted by AP HRDI.
Got to know about functions of government sectors and how they work in this kind of crisis situation. Project allotted to us is study of COVID-19 in particular state (Tamil Nadu for me). During this study, I got to know functioning of different sectors in government and during this crisis how government takes decisions and make measures to help people. We are asked to get speakers from CSIR labs related to APHRDI. I have studied about these labs and went through their websites.

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## PS-I station: Andhra Pradesh Human Resource Development institute (APHRDI), Visakhapatnam

## Student

### Name:  S JEEVAPRIYA .(2018A1PS0478P)

**Student Write-up**

**Short summary of work done**: Collected COVID-19 statistics of various states and prepared a detailed study about the same. Also collected the work done by various institutions and their themes to combat COVID-19.

**PS-I experience**: It was good HRD learning experience. We had regular feedback and improvisation advices.

**Learning outcome**: Communication skills, data analysis, excel, graphs, report writing, pestle and swot analysis.

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**Name:  ARPAN CHATTOPADHYAY .(2018A3PS0319P)**

**Student Write-up**

**Short summary of work done**: The work was mainly on secondary research and study of social and economical effects of COVID-19 in India. I had the opportunity to collaborate with a couple of DRDO scientists on the work they have been doing with the Government of India for producing necessary equipment for Doctors and Nurses. My work also involved modelling a simulation for the Indian economy with the help of Bloomberg terminal provided by PSD. This terminal helped me understand the work done in contact tracing technology and the various stimulus and other measures provided by governments across the world for lifting the economy.

**PS-I experience**: My experience in PS-1 was very good as I was able to freely use some of the most advanced technology for analyzing the pandemic from a political and socio-economic point of view. I built some good relations with DRDO scientists which helped me understand their work and hopefully will help me later in life as well.

**Learning outcome**: Qualitative and Quantitative Research, Data Analytics, Financial Modelling.

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**Name:  SUBODH BAGHEL .(2018A4PS0592P)**

**Student Write-up**

**Short summary of work done**: Made a report on the COVID-19 situation of the state of Uttar Pradesh including different sectors of the state and different aspects of the virus. Also, collected contact information and themes for speakers relevant to the institute.

**PS-I experience**: It was pleasant.

**Learning outcome**: Learned about the finance domain, report making, data collection methods.

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**Name:  AYUSH VIJ .(2018A8PS0371G)**

**Student Write-up**

**Short summary of work done**: Analyzed the economic, geographcal, social and cultural impact of COVID-19 on India and measures taken by various institutions to curb the spread of the virus. Also created a database for APHRDI using the project and expert details from the DRDO website.

**PS-I experience**: Got industry experience. Attended various webinars and presented my work.

**Learning outcome**: Working in team and meeting deadlines for various submissions.

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**Name:  RUPALI ASHISH RANIWALA .(2018A8PS0779G)**

**Student Write-up**

**Short summary of work done**: We were given 19 questions to use as a framework to conduct studies on how COVID-19 has affected different states. We were required to analyse the transportation system, economy, agriculture and so on; measures taken by the State Government; and how effective these measures were. My allotted state was Rajasthan. Another project was data collection of a minimum of 25 different projects and initiatives undertaken by different institutes. The themes of this data had to be relevant to the working of APHRDI. My allotted institute was IISc, Bangalore. I collected 25 contacts covering 14 themes.

**PS-I experience**: Our allotted APHRDI mentor was Mr. Kishore Kumar. He constantly guided us and gave us constructive feedback after every seminar and meeting. Our PS-I faculty mentor was Dr. Nirankush Dutta. He lead the way with weekly meetings. Both mentors suggested value additions to make our study more thorough. Dr. Dutta was able to give us insight into managerial supplements like a SWOT and PESTLE analysis while Mr. Kumar and Mr. D. Chakrapani, Director General of APHRDI, gave suggestions to make the report beneficial to any concerned Government authoritites. In the end, Mr. Chakrapani was very impressed with our work and wanted to publish our reports too. It was an amazing experience overall.

**Learning outcome**: Personally, I learnt R programming language from the series made available on Canvas. I also learnt the basics of using Bloomberg terminal through the online webinars. I honed my soft skills throughout the process. I learnt how to do a SWOT and PESTLE analysis. Mr. Kishore Kumar also conducted sessions teaching us CSS, JavaScript, PhP coding and SQL basics. APHRDI's web professionals led the training.

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**Name:  SHANTANU AJAY PHATAK .(2018B4A30793G)**

**Student Write-up**

**Short summary of work done**: Descriptive study of COVID-19, it's implications in Tripura. Collection of subjects and speakers for APHRDI.

**PS-I experience**: PS-I at APHRDI online was a good experience although there were few barriers initially due to its online nature. Later, I worked with full flow to complete the

project. The expectations from students were too high to be honest but we managed to complete the project in time.

**Learning outcome**: Learnt soft skills, making PowerPoint presentation, drafting a monograph and review of literature.

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**Name:  ALLA LEENA SAMYUKTHA .(2018B4PS0941H)**

**Student Write-up**

**Short summary of work done**: Project assigned to us was basically a study of COVID-19 situation in different states of India. The state that was allotted to me is Jharkhand. We are supposed to collect the details about the corona virus pandemic such as the first case recorded, measures taken by the state governments to control the spread of virus and for testing, different precautions taken to overcome financial crisis, etc. Also, we had to  identify about 1000 subjects and speakers relevant for APHRDI from various organizations like IITs, IIMs, etc.

**PS-I experience**: The project was very interesting and working with APHRDI was great. Their guidance was really helpful to approach the project in different ways.

**Learning outcome**: I got to improve my communication skills. Also, I came to know about how a government reacts during a tough time.

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**Name:  G S K PRAVALLIKA REDDY .(2018A5PS1097H)**

**Student Write-up**

**Short summary of work done**: I was given two projects as a part of this internship. One of which is an individual project – 'Secondary sectoral research and study on

COVID-19 in Odisha' and the other is a group project – 'Database on potential subjects and speakers from DRDO that are relevant to APHRDI'. For the individual project, I had to refer to official India and Odisha state websites and various news articles on a daily basis and gather information to keep myself updated on the changing COVID-19 situation in Odisha and finally draft a comprehensive report regarding the strategies, measures and guidelines issued by the govt. with the changing situation keeping in mind the primary sectors that are impacted. For the group project, I had to find information about the projects taken up by DRDO and cull out the ones that might be relevant to APHRDI and find the contact information of the concerned people.

**PS-I experience**: The opportunity to work with a Human Resource development Institute sparked my imagination, shifted my perspective and pushed me to think about the importance of social and psychological well-being and awareness among people. It was physically and mentally draining to manage the progress of two projects and the evaluation components alongside. At first, managing time was a great challenge but eventually I got the hang of it. Throughout the internship, I gained and improved a lot of skills.

**Learning outcome**: I gained both technical and soft skills which include - Advanced MS-Excel and R programming language.
- Thorough researching and studying
- Data cleaning, scraping and analysis
- SWOT analysis
- Time management
- Effective communication
- Teamwork
- Creative thinking

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## PS-I station: BMG Inida - Sectoral Study, Mumbai

## Student

Name:  SUDHANSHU GUPTA .(2018A1PS0001P)

**Student Write-up**

**Short summary of work done**: 1. Make 3 speculations on the plan of action of the substance business concentrating on to beat the issues it is looking because of corona depression.

2. Talk about with the teacher about the theory in this manner made to pick up his point of view and feelings on the components and alter as needs be.

3. Information examination on the proposed speculation to check the legitimacy of the thought.

4. Completely comprehend the ecosystem of chemical Industries and comprehend the reason impact relationship that different elements have on the equivalent.

5. Get all the pertinent information and diagrams identified with significant players in the chemical business throughout the previous 5 years and do investigation on it.

6. Apply different hypothetical strategies like SWOT examination, Porter's five power model, and so on the information we got and utilize the ends in demonstrating or discrediting the theories we made.

7. Framing BCG matrix for significant players in every part to all the more likely break down and close our theories.

8. Do top to bottom research with respect to various fragments into which the substance business is separated.

**PS-I experience**: • Got knowledge into inward functions of BMGI because of the gatherings and material that was shared.

• Did inside and out research about the chemical industry and made a presentation with respect to the class which was directed on fifth June 2020.

• Got things done as a group in cooperative energy by taking help and assessments from every individual from the group and afterward taking proper choices.

• Learned about social and expert decorum.

• Learned how to introduce your doings to others by realizing what to remember for your introduction and what not to.

**Learning outcome**: Skills Gained (Technical as well as soft skills)

1. Comprehended ideas of plans of action like converse circulation model.

2. Understanding the different segments in which the chemical industry is divided. And do segment wise research like finding revenue division, market division, production division of each segment.

3. Find out about significant players and in India and their market division contrasted with different nations.

4. To do analysis on the pre covid situation of the chemical industry and what will be the future of Indian players after the COVID-19 which is also one of the hypotheses.

5. To do industry investigation on the crude information taken from the bloomberg terminal, by applying hypothetical strategies like Porter's five power model and SWOT examination and utilizing their outcomes in finishing up our theories.

6. Making a timeline for a project and updating regularly.

7. Working through the concept of PESTEL analysis.

8. Expansive use of bloomberg terminal and the capacities utilized on the product which are expected to separate explicit information.

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**Name:  ADITYA TYAGI .(2018A1PS0088H)**

**Student Write-up**

**Short summary of work done**: The project we worked on involved submitting a report containing a detailed analysis of current state and historical affairs of Chemical Industry in India, along the lines of Industry structure, market size, growth, competitors, supply dynamics, PESTEL factors etc while acknowledging various key points such as the current challenges faced by the industry, opportunities given by Made in India, demand dynamics during current and post COVID-19 scenario, changing market structure, future of various segments with emphasis on specialty Chemicals. Our team at BMGI station, formed a few practical hypotheses focusing on above points and corroborated these hypotheses with the help of relevant data collected through Bloomberg terminal and other secondary sources. Various theoretical methods of financial analysis such as BCG matrix, Porter's Five Force model, SWOT analysis etc were applied on the data to arrive at management solutions and consultancy advice for the firm.

**PS-I experience**: PS-1 experience was pleasant credited to knowledgeable and easily accessible Instructor (Dr. D.C. Pathak) and Mentor (Mr. Ambarish Raj). Evaluative components were relevant, evenly distributed, and went on smooth online. Although, the grading at our station was stricter compared to others, that I know of.

**Learning outcome**: In the course of our PS-1, we learnt various tools of financial analysis like BCG matrix, Porter 5 Forces, SWOT analysis etc that were employed in our project.
We also gained some soft skills like meeting etiquette, giving professional look to our slides and report, communication skills etc. Finally, the webinars conducted on various aspects of finance and management helped us learn a lot about these fields.

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**Name:  KUSH SATISH GUPTA .(2018A3PS0406P)**

**Student Write-up**

**Short summary of work done**: In brief, my project was sectoral analysis of chemical industry. Major part of the work involved research and finding data relevant to the project. I worked on creating a report on how to make the speciality chemicals industry organised from its current unorganised state. We also made a presentation for the same.

**PS-I experience**: It was a fun and insightful learning experience.

**Learning outcome**: 1. Presenting a report in a formal manner.
2. Got to learn various analysis techniques like BCG matrix and Porters' five forces.
3. Meeting etiquette.
4. How to use Bloomberg terminal.

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**Name:  BHAVICK R PATEL .(2018B4A70846G)**

**Student Write-up**

**Short summary of work done**: Create 3-4 hypotheses on the business model of the chemical industry focusing on to overcome the problems it is facing due to corona depression. Data analysis on the proposed hypothesis to check the validity of the idea. Using Bloomberg to collect financial data. Fully understand the ecosystem of Chemical Industries and understand the cause-effect relationship that various factors have on the same. Get all the relevant data and charts related to major players in the chemical industry for the last 5 years and do analysis on it. Apply various theoretical methods like SWOT analysis, Porter's five force model, etc on the data we got and use the conclusions in proving or disproving the hypotheses we created.

**PS-I experience**: Understood concepts of business models like reverse distribution model. Learnt about major players and in India and their market division compared to other countries. Learnt how to use various theoretical models to do professional level analysis of an industry.

**Learning Outcome**: Different major players that exist in the Chemical Industry and general consultancy ecosystem. Real world applications of what we learn in subjects like POE (principles of economics). Learnt the gap between what technologies we have studied as pure science students and the commercial market may not be as big as we assume.

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Name:  ANJANI NAIR .(2018B1A30950G)

**Student Write-up**

**Short summary of work done**: Data analysis, market research financial analysis using Bloomberg and such tools for business modeling.

**PS-I experience**: Instructors and mentors were very helpful. Work was manageable and we learnt a lot, especially considering the work was remote and time was less.

**Learning outcome**: Learnt business modeling, data analysis and financial analysis.

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## PS-I station: Data M Intelligence 4 Market Research LLP, Hyderabad

## Student

Name:  PARINISTHA DEV DAS .(2018A1PS0200P)

**Student Write-up**

**Short summary of work done**: In my PS-I station, my team and I worked on business development and lead generation from digital, Email and social media marketing. Lead generation is an important component to business development- it allows the company to find contacts amongst the specific audience it aims to target its product at, this in turn allows them to maximize their productivity linked to the product's marketing process. In all, we generated valid and verified business leads for 60+ companies and learnt about

SEO (search engine optimization) and the ranking factors that go along with it. To apply our understanding of SEO ranking factors practically we worked on pinging websites to improve the companies search page ranking index. Furthermore, we worked on bulk mailing and statistically analysed our success rate and thus extracted leads from the pool of potential leads.

**PS-I experience**: My PS-1 experience was labor intensive. While certain parts could be automated with Python, marketing and lead generation rely heavily on personal judgement and human input. Work of the highest quality was expected from us and in turn our mentor and instructor provided plentiful support and guidance so we could improve upon our results consistently.

**Learning outcome**: I received an in depth exposure into the ins and outside of digital marketing and business development. The tasks allotted to us introduced me to many mail scraping websites like sales navigator, Skrapp, Hunter, etc. and mail verification websites like mailtester and EmailListVerify which I developed a proficiency in using. It also improved upon my Excel skills and provided me with an opportunity to improve my efficiency by automating my work.

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**Name: RAHUL GUPTA .(2018A5PS0997P)**

**Student Write-up**

**Short summary of work done**: Digital, email and sales marketing along with social media marketing. We used different softwares to extract emails of the employees of the company they are currenyly working in and we also approach our target audience through linkedIn or facebook or insta through ads so this is the inbound marketing and outbound marketing works for the sales tean who approaches them on calls or through other media's. The aim of this station is to make reports on product (basically market research and forecasting) and what will be its scope and dynamics in the coming 5-7 years.

**PS-I experience**: It was a complete new experience, mentors, faculty and instructor quite supported us in our work and its going great.

**Learning outcome**: Learnt about making reports on market research, how to do email, digital and social media marketing.

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**Name: MANIKANDAN GUNASEELAN .(2018AAPS0246G)**

**Student Write-up**

**Short summary of work done**: Business development and lead generation from digital marketing, EMail marketing and social media marketing. Helped DataM intelligence find leads in different markets using tools like LinkedIn Sales Navigator, Hunter.io and Mail Tester.

**PS-I experience**: The experience of an online PS-I was quite smooth. The faculty coordinated the Canvas activities and the communication with organization mentors very well. Collaboration using Zoom video call was easy and did not provide any hinderances.

**Learning outcome**: Being my first industry experience, I learned a lot of things working for DataM intelligence. Accountability, delivering the work given on time, collaborating with industry mentors and receiving their feedback taught me a lot in terms of soft skills. I also gained technical skills in software like LinkedIn sales navigator, Hunter.io, Google sheets. Automating a simple task also gave me confidence in the Selenium library of Python, which I had not applied practically before.

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# PS-I station: ECom Express Pvt. Ltd., - Data Analytics, New Delhi

## Student

**Name: ANUBHAV AJMERA .(2018A4PS0054P)**

**Student Write-up**

**Short summary of work done**: My project was building a web application UO based on simulation engine for a logistics network.

**PS-I experience**: Got to learn about corporate world. Learning a lot about formal communication and importance of meetings.

**Learning outcome**: Learnt a lot of new technologies. Get exposure to real life problems.

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**Name: ANIRUDH A .(2018B4A70936H)**

**Student Write-up**

**Short summary of work done**: My project was network optimization (Vehicle routing problem- pick up delivery problem and open vehicle routing problem) using Python. Given a set of customers, I had to write a code that would give me a route in such a way that I could deliver the product / service to all customers and at the same time minimize the cost / distance. There were various constraints like capacity of the vehicle, preferred time of service for the customer, number of workers available, flow constraints etc.

**PS-I experience**: I had really good PS-1 experience. All though, it was a work-from-home PS-I, I could learn a lot. I learnt Python and its various libraries for the first time. I also learnt how an IT company works and it improved my soft skills. With daily review meets, weekly panel reviews and presentations, I improved my communication skills.

**Learning outcome**: I had an opportunity to practically implement what I had learnt in my CDCs (Optimization, Operations research). I had hands on experience with Python and learnt a lot about the vehicle routing problem, various other optimization techniques and their time complexities.

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# PS-I station: Futures First Academy - Secondary Research, Gurgaon

## Student

**Name:  MANAN AHUJA .(2018A2PS0300H)**

**Student Write-up**

**Short summary of work done**: The project allotted was Analysis of petroleum market and energy sector. The project involved an economic analysis in Europe, Asia and the US. There are several economic indicators to look upon in the petroleum market and overall energy sector, but we were expected to look upon the main areas only, namely demand, supply, refining, inventories. Furthermore, these 4 topics had around 7 to 8 sub-topics each and we were supposed to collect data from government websites, EIA, Eurostat, OECD etc, and organize the data collected in seamless time series using pivot tables in Excel, then 2D charts were plotted for data visualization for both last 5 years and last 10 years. Data visualization is an accessible way to see and understand trends, outliers and patterns in data. The data extraction part is the most critical part of this project as the data needs to be collected only from credible sources, on different frequencies (weekly, monthly, annually and data is scattered all over the internet). We also learnt to use one of the most popular terminal "Bloomberg" for collecting data of different European and Asian countries. Different factors we worked upon in this research for different countries were GDP, population growth, manufacturing activity index such as PMI, (monthly), oil demand, sales, exports of crude oil and refined products (everything broken-up by products, grade and regions), motor vehicle production, monthly refined petroleum consumption etc. in both absolute as well as relative terms (Mom and YoY), imports of crude oil and refined products (everything broken-up by products, grade and regions), crude oil production, petroleum and liquids production (monthly), petroleum and other liquid stocks, primary production, refining capacity, oil stock changes etc. This helped in analyzing the historical trend for these factors in all the countries chosen as well as we also indicated the current year 2020 progress for these indicators.

**PS-I experience**: The overall experience was good, we learnt to do economic analysis and handling huge amounts of data and gathering useful insights from data, the only drawback was being a virtual internship it was quite tough to communicate with each other on a regular basis and to keep a track of each other's progress. Yet we learned a lot about the energy sector of different regions across the globe and with the support of our Industry mentor we managed to complete our project on time.

**Learning outcome**: We learnt data collection from credible websites and got a hands-on experience on Bloomberg terminal, we also learnt Pivot tables for auto updating data

and auto-adjusting graphs, we finally learnt plotting 2D area charts instead of regular line graphs, these charts indicated the region between different ranges maximum, average, minimum and doing economic analysis, also we improved upon some of the soft skills like time management, collaboration and teamwork, communication skills, critical thinking etc.

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**Name: AMRITANSHU NAYAK .(2018A3PS0602H)**

**Student Write-up**

**Short summary of work done**: As the station was in the finance / economics domain, we got projects combining both of them. I had 2 projects : 1. Economic analysis of UK and India 2. Presentation on capital and money markets.

**PS-I experience**: A very enriching experience, experienced corporate culture and I had a very good and knowledgeable industry mentor and faculty in-charge.

**Learning outcome**: Sharpened both my technical and soft skills.

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**Name: AREEB AHMAD .(2018A4PS0047H)**

**Student Write-up**

**Short summary of work done**: The aim of the project was to create a model as well as a deep analysis of the US economy that can be replicated periodically. It involves creating a list of broad economic areas (and their sub-areas) that are evaluated by the policymakers before making any decision by reading and summarizing media releases and meet reports of the FOMC (Federal Open Market Committee) meeting held on 29th January, 2020. Each of these main economic areas has sub-economic areas which are economic variables measured by various economic indicators. A list of these economic indicators were prepared and data was collected from various government and bank sources who release the data periodically through internet research.

**PS-I experience**: It was a real learning experience. I got to interact with the director of Futures First academy who guided us throughout our project and it was a really good experience working with him. I learnt a lot of new things about the domain and it was a really fun and great experience.

**Learning outcome**: Foresee the upcoming trends in the US economy based on his understanding of contemporary events, the disruptions, the changing consumer preferences and the past trends.

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**Name: NEMADE VEDANSHU RAMAKANT .(2018B3A30950P)**

**Student Write-up**

**Short summary of work done**: We were allotted 2 projects; In the first project, we have to carry out the economic analysis of India and UK. The data from 7 indicators were obtained from different government sites, organized, cleaned and data visualization was carried out. In the second project, a presentation was to be made on monetary systems, which would be used as raw material for presentations for corporate clients. The sources for this presentation were books which had been used as textbooks for different courses.

**PS-I experience**: The PS-1 experience was fairly good. We had lots of interactions with our industry mentor, who was helpful and corrected us as necessary. As the mode of PS-I was virtual, there were some problems, but overall, the course was completed smoothly. Different components like quizzes, group discussion, report making and seminars were conducted online. The PSD organised webinars from different industry leaders and these were helpful. We had PS-I diaries which had to be submitted at weekly intervals.

**Learning outcome**: I learnt how to conduct detailed economic research and the concepts of monetary systems. The webinars which were conducted taught me the basics of Bloomberg terminal, operations management, managerial finance, corporate strategies.

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Name:  RITIK AGARWAL .(2018B3AA0087H)

**Student Write-up**

**Short summary of work done**: We had 2 projects. The first one was, economic analysis which involved finding macroeconomic data in energy sector like crude oil consumption, reserves, petroleum demand, refinery capacity, etc. for 4-5 countries. Then, we had to arrange the data using Pivot tables and make graphs for all the data to do seasonal analysis (To see if any particular month had high or low values over the years, a seasonal change). The second project involved making content for one topic assigned to each student individually (Had to read books, make around 40 slides). We were told that these slides would later be used to make courses for Future First academy.

**PS-I experience**: Futures First academy participated in PS-1 for the first time this year and the director himself guided us through the PS-1.

**Learning outcome**: Learned economic analysis,  pivot tables, effectively making slides, reading & compiling sources.

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## PS-I station: Good 2 give - Social Sector, New Delhi

## Student

Name:  SAMEER KHAN .(2018A1PS0082G)

**Student Write-up**

**Short summary of work done**: We had to do an in depth research and analysis of missing children in our country by studying data from journals and websites of all states. We then studied current solutions existing to curb the problem. We brainstormed further ideas that can be implemented in our country with feasibility discussions. Finally, we developed a website and a campaign to increase awareness.

**PS-I experience**: It was very nice experience. We often interacted with our mentors who guided us and discussed ideas.

**Learning outcome**: We learnt lot of soft skills like teamwork, group discussions and also developed our ability to do research, discuss ideas. It was interesting to learn how NGOs run and interact with industry mentors to understand their thoughts, which broadened our horizon.

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**Name:  BHUWAN GUPTA .(2018A4PS0003G)**

**Student Write-up**

**Short summary of work done**: We had to do an in depth research and analysis of missing children in our country by studying data from journals and websites of all states. We then studied current solutions existing to curb the problem. We brainstormed further ideas that can be implemented in our country with feasibility discussions. Finally, we developed a website and a campaign to increase awareness.

**PS-I experience**: It was very nice experience. We often interacted with our mentors who guided us and discussed ideas. We got an insight into how the social sector functions and how they work to tackle these huge problems existing in the country.

**Learning outcome**: While working on our project, we learnt lot of soft skills like teamwork, group discussions and also developed our ability to do research, discuss ideas. It was interesting to learn how NGOs run and interact with industry mentors to understand their thoughts, which broadened our horizon. We also learned the basic concepts of digital marketing, web development and social consulting.

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**Name:  AYUSH RAJENDRA MHASKE .(2018A4PS0381H)**

**Student Write-up**

**Short summary of work done**: We had to do an in depth research and analysis of missing children in our country by studying data from journals and websites of all states. We then studied current solutions existing to curb the problem. We brainstormed further ideas that can be implemented in our country with feasibility discussions. Finally, we developed a website and a campaign to increase awareness.

**PS-I experience**: It was good experience. We often interacted with our mentors who guided us and discussed ideas. We got an insight into consulting, and applied it to a huge problem existing in the country.

**Learning outcome**: While working on our project, we learnt lot of soft skills like teamwork, group discussions and also developed our ability to do research, discuss ideas. It was interesting to learn how NGOs run and interact with industry mentors to understand their thoughts, which broadened our horizon.

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**Name:  GUPTA SHIVANGI .(2018A8PS0026G)**

**Student Write-up**

**Short summary of work done**: We had to do an in depth research and analysis of missing children in our country by studying data from journals and websites of all states. We then studied current solutions existing to curb the problem. We brainstormed further ideas that can be implemented in our country with feasibility discussions. Finally, we developed a website and a campaign to increase awareness.

**PS-I experience**: It was wonderful experience. We often interacted with our mentors who guided us and discussed ideas. We got an insight into consulting and applied it to a huge problem existing in the country.

**Learning outcome**: While working on our project, we learnt lot of soft skills like teamwork, group discussions and also developed our ability to do research, discuss ideas. It was interesting to learn how NGOs run and interact with industry mentors to understand their thoughts, which broadened our horizon.

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**Name: AKSHAR TIWARI .(2018AAPS0341G)**

## Student Write-up

**Short summary of work done**: Worked on the non technical part of missing link: An AI driven facial recognition system to find missing children.

**PS-I experience**: An overall good experience.

**Learning outcome**: Got a little insight into consultancy.

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**Name: AKSHAR TIWARI .(2018AAPS0341G)**

## Student Write-up

**Short summary of work done**: We had to do an in depth research and analysis of missing children in our country by studying data from journals and websites of all states. We then studied current solutions existing to curb the problem. We brainstormed further ideas that can be implemented in our country with feasibility discussions. Finally, we developed a website and a campaign to increase awareness.

**PS-I experience**: It was very nice experience. We often interacted with our mentors who guided us and discussed ideas.

**Learning outcome**: We learnt lot of soft skills like teamwork, group discussions and also developed our ability to do research, discuss ideas. It was interesting to learn how NGOs run and interact with industry mentors to understand their thoughts, which broadened our horizon. We also got an insight into consulting and applied it to huge problem existing in the country.

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**Name: TRIVEDI RISHIKESH BHARAT .(2018B4A80798G)**

**Student Write-up**

**Short summary of work done**: The project began in the social consulting domain, where we were supposed to judge the feasibility of an idea formulated by the CEO of Good2Give, for their partner Love without boundaries, a US based NGO that had just been registered in India. Since the tool was predominantly using AI, the project moved to general consulting, where in we evaluated the feasibility of the problem statement w.r.t. the AI solution using PESTLE analysis. We concluded by planning a road-map for the implementation of this solution through Youth4Kids, an initiative aimed at college students who would actively contribute to the cause. As a final assignment, we learnt basic web design and prepared a front-end webpage (without hosting), for the CEO of Good2Give, which was approved by Love without boundaries.

**PS-I experience**: The experience was largely good, with the online sessions and meetings having taken place smoothly. The industry mentor was very friendly, whereas our faculty mentor was very insightful.

**Learning outcome**: Learnt the basics of web design, digital marketing tactics such as SEO and social consulting.

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**Name: MOHNISH GOYAL .(2018B5A10717P)**

**Student Write-up**

**Short summary of work done**: We were assigned one project 'Missing Link' and we started to work on that project. In that project, we have to find solutions for child abduction in our country. Then, we collected data related to the project. We found out different problems we are facing nowadays in this project, ideas that are implemented in other countries and can be implemented in our country, suggestions for the project. There was a sub-part in the project 'Youth 4 Kids' we worked on and collected information for it. We also designed a website for this project. Finally, we submitted all the project information in the final report.

**PS-I experience**: It was good experience. I met many new people and came to know about the working of the organisation. I learnt how something started from scratch can become an organisation which is collaborated with an international organisation and work with them in our country for everyone. It was a type of consultancy internship so it helped me to learn new skills in this field. I tried my best to learn and work for my PS-I station.

**Learning outcome**: I learnt how a problem from scratch can be framed into a step by step process through consulting. I was given a project and I found how to work on the project. I learnt how we should see a problem from all perspectives then find a conclusion for it. I have to find the best possible solution to stop abduction of children in India. I came to know more about my country also. Like about the crime rate, public awareness and other social aspects.

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**Name:  MOHNISH GOYAL .(2018B5A10717P)**

**Student Write-up**

**Short summary of work done**: We had to do an in depth research and analysis of missing children in our country by studying data from journals and websites of all states. We then studied current solutions existing to curb the problem. We brainstormed further ideas that can be implemented in our country with feasible discussions. Finally, we developed website and campaign to increase awareness.

**PS-I experience**: It was a very nice experience. We often interacted with our mentors who guided us and discussed ideas. We got an insight into consulting, and applied it to a huge problem existing in the country. I got some basic ideas about the working of the NGO, charity trust and other social services.

**Learning outcome**: While working on our project, we learnt a lot of soft skills like teamwork, group discussions, and also developed our ability to research, discuss ideas. It was interesting to learn how NGOs run, and interact with industry mentors to understand their thoughts, which broadened our horizon. I gained industrial experience and I got the ideas of being a consultant. We made a website, so it helped me to learn web developement also.

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## PS-I station: IMARC Services Pvt. Ltd. - IT, Noida

### Student

**Name: UTKARSH SINGH CHAUHAN .(2018B1A30671P)**

**Student Write-up**

**Short summary of work done**: Project assigned was focused on Search Engine Optimization. It required the students to work on SEO factors of one of the websites of the company and henceforth improve it's content and ranking in Google search results.

**PS-I experience**: It was quite a learning experience along with exposure to a professional work system.

**Learning outcome**: I learnt about a new subject - SEO. The project lead to addition of new skills in my skill set therefore proving to be a great opportunity.

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## PS-I station: IMARC Services Pvt. Ltd. - Sectoral Study, Noida

### Student

**Name: ARYAN AGRAWAL .(2018A1PS0081G)**

**Student Write-up**

**Short summary of work done**: We were taught how to articulate press releases, report descriptions and articles- all having a fate of getting published. Majorly, data like

complete market size, CAGR value (compound annual growth rate) for forecasting future global market size, the current market trends along with the factors attributing to it (market drivers), leading players in the industry, regional analysis etc. have been represented in the write-ups. Our group was given the project on WELLNESS APPS. These apps comprise one of the most significant parts in the Global Wellness industry, also including wellness tourism, spa facilities, gyms, yoga centers etc.

**PS-I experience**: PS-I was a great learning opportunity as it gave exposure to corporate world and provided insight about skills demanded by the industry. Got to learn new things and bond with students of other campus.

**Learning outcome**: We learned and applied SWOT analysis, global trade analysis, cost analysis of the product and competitive landscape & supplier analysis in our project. We also did a lot of primary and secondary research.

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**Name:  TOSHNIWAL YUKTI SANTOSH .(2018A1PS0666G)**

**Student Write-up**

**Short summary of work done**: My work involved writing articles, press releases and report descriptions in 1st week followed by lot of secondary research and primary research. It all involved doing telephonic interview and analyzing data from the internet to tailor it to client requirement.

**PS-I experience**: My experience in general was good. It was well organized while having an opportunity of working on a live client project. It is not that much of a finance-related work even though the PS-I station is a finance & management station.

**Learning outcome**: I learnt how to make a market research and procurement report.

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**Name: DEVANG DHALL .(2018A4PS0849G)**

**Student Write-up**

**Short summary of work done**: IMARC is a market research firm in Noida, New Delhi. The first week was about writing articles, report descriptions and press releases for existing market research reports. Next week onwards, we were assigned a live project with 3-week deadline. This was an excellent opportunity to work on something that the company would find useful. The plan was to make a report on the Wellness App industry- Pre Corona and Post-Corona. This involved deep primary and secondary research work. In the last two weeks, we got to work with the SEO team in the IT division.

**PS-I experience**: IMARC gave a thorough corporate experience with exposure to relevant live projects and work across multiple divisions within the firm. It is good place to work after your sophomore year, but isn't your typical lite PS-I station.

**Learning outcome**: Primary research, secondary research, qualitative analysis, quantitative analysis, market estimation, company profiling, SEO.

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**Name: HARSHIT PODDAR .(2018B3A30773G)**

**Student Write-up**

**Short summary of work done**: In the first week, I wrote content which got uploaded on the website of the company. In total, I wrote 5 press releases, 2 report descriptions and 2 articles. All the reports followed a typical format; each one started with the market outlook after that the properties and application then the market analysis which included the fundamental driving forces and at last the competitive landscape which had all the key players in the market. After doing all that, I took up full project on the global wellness app market for which secondary research was done for the first few weeks to determine valuable insights on the market, develop a strategy for the client by comprehensively analyzing market drivers, opportunities and threats. Case studies were done on the top apps of the market to provide revenue trends, valuation and funding details in the report. Later, cost and revenue models were estimated for wellness app. In the last week, I was working with the SEO team to improve the rankings of the content already present on the company's website.

**PS-I experience**: A pleasant experience with substantial work being done. It gave exposure to corporate world and provided insight about skills demanded by the industry.

**Learning outcome**: During the course of my internship, I learnt how market research studies are made and the work that goes into them, how to find credible data, how to interpret the numbers we found and make it easy for the client to understand.
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**Name:  ASHISH VERMA .(2018B4A40780H)**

**Student Write-up**

**Short summary of work done**: Made a customized procurement research report on Indian catering industry for corporates, institutions and refineries for client NAYARA Refinery Gujarat to aid them with the appropriate information about the Indian catering market, so that they can make an informed decision and make a good negotiation strategy while hiring a catering company.

**PS-I experience**: Great experience, got a chance to work on a live project and learnt lot of things both technical as well as soft skills. Work load was little high during the first and end weeks but overall I experienced a good corporate exposure.

**Learning outcome**: Learnt a couple of things - Market research, primary research, secondary research, data analysis & interpretation, MS excel, powerpoint presentation & communication skills.

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# PS-I station: India Buys - IT, Hyderabad

## Student

**Name:  AMIT VIGNESHWAR HEGDE .(2018AAPS0421G)**

**Student Write-up**

**Short summary of work done**: I worked in the area of App development during the PS-I. The first few weeks were spent learning React Native and Firebase, app development basics. Then, I started working on my task which was to add a video display feature to the IndiaBuys mobile application. For the front-end, used React Native and imported the links of the videos to be displayed from Firebase.

**PS-I experience**: My PS-I experience was really good. My industry mentors and faculty mentor were extremely supportive. I got to learn a lot and apply the stuff I learnt by the end. I understood how industry wants concrete results to be given, small or big and I tried my best to do that during the internship. Also, my team members become good friends of mine and it was a pleasure working with them.

**Learning outcome**: I have learnt mobile application development to an intermediate level.

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Name: **KARNAVEER SINGH SHAKTAWAT .(2018B1A31026P)**

**Student Write-up**

**Short summary of work done**: 1. Learnt about assisted e-commerce and how Indiabuys works in this sector.
2. Worked on the Indiabuys admin web app which lets franchise owners with various technicalities in a smooth manner. This required us to learn React Js and apply this skills to add functions to the web app such as pdf generation based on user inputs.
3. Integrated WooCommerce into the Indiabuys mobile app and linked it with the new WordPress based Indiabuys store with the help of react-native-WooCommerce-api which let us set up an e-commerce store that can be accessed through the app itself.

**PS-I experience**: Smooth.

**Learning outcome**: Learnt lot of things such as JavaScript, React and react native. Skills that are used for mobile and web app development.

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**Name: SIDDHANT .(2018B3A30559P)**

**Student Write-up**
**Short summary of work done**: I along with my team were able to design the User Interface for the IndiaBuys application using the Figma software which is a UI designing tool and also has the options like building components and prototyping. I learnt various tools in Figma and with the help of this knowledge I was able to create UI mockups and prototypes with animations using various standards and color scheme. I was able to build better and improved page navigation buttons and search fields.

**PS-I experience**: The overall PS-I experience was very good motivator for me in working towards the goal and learning new technologies. I feel that I have actually done work and gained hands on experience with UI designing. This PS-I provided me a real life industry exposure which has helped inculcate critical inter-personal and technical values essential for working in a professional environment which might be helpful in the near future.

**Learning outcome**: I was able to develop various skills not only the technical ones but even soft skills. Technical takeaways include Front end development using HTML5, CSS3, JavaScript and React or React Native Libraries. Also, I was able to learn UI designing using Figma and learn NoSQL database like Google Firebase for backend. Personal takeaways include communication skills which have been improved a lot throughout this journey along with time management and problem solving skills. I was also able to develop a sense of responsibility and accomplishment after realising how critical every part of the project is. Teamwork and decisiveness are another two important takeaways from the Practice School-1.

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**Name: UTKARSH LAL .(2018B3A30771P)**

**Student Write-up**

**Short summary of work done**: React Native app development for company, using existing codebase for app and adding video integration and quiz-taking features to the

official company app and linking them to the backend database on Google's cloud Firestore platform.

**PS-I experience**: Wonderful experience interacting with the PS-I faculty, industry mentors, fellow students and learning to work under industry conditions with real-life applications of the learnings in college, gained perspective of real work and helped realise the challenges and opportunities that come along with it as well as how to deal with them completely independently and permanently.

**Learning outcome**: A great opportunity to learn about skills applicable in the real world, independent development and learning, interacting with mentors and industry professionals, cooperating and discussing ideas with team in terms of execution and debugging and general development of skills relating to coding and app development which will be handy in the career path I am planning for.

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**Name:  PRIYANK THAKUR .(2018B3A80817P)**

**Student Write-up**

**Short summary of work done**: Web development as well as App development using ReactJS and React Native.

**PS-I experience**: It was a nice experience. One of the major problems, I faced was that it took us a lot of time to learn the prerequisites. I suggest for some prior arrangements (like workshops) before the PS-I begins.

**Learning outcome**: I got know how work is done at Industry level. I learnt how to work in teams, manage deadlines and communicate with colleagues as well as authorities. I learnt ReactJS and React Native at a basic level which can get me started with app development.

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**Name:  PRATHAM GUPTA .(2018B4A30932P)**

**Student Write-up**

**Short summary of work done**: Domain of the project was App development. I didn't know anything about it, so I was told by my industry mentors to learn more about Android development. They even suggested me the courses. For the first half of the internship, I was only indulged in learning  more and more about it. After learning the basics I was told to do some minor projects.
**PS-I experience**: All the mentors were very helpful. I made some new friends. Learnt a lot, overall It was a good experience.

**Learning outcome**: I have learnt the basics of Android App development.

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## PS-I station: India Buys - Sales & Marketing, Hyderabad

## Student

**Name:  SHREYAS SRINIVASAN .(2018A3PS0350H)**

**Student Write-up**

**Short summary of work done**: Ran Facebook as campaign for the company.

**PS-I experience**: There was a lot to learn. The instructor was very helpful.

**Learning outcome**: Learned about buyer's persona and details Facebook Ad targeting.

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**Name: SHREYAS SRINIVASAN .(2018A3PS0350H)**

## Student Write-up

**Short summary of work done**: Buyer persona, facebook target audience and making ad creatives.

**PS-I experience**: It was wonderful, my mentor and my factulty helped me a lot to learn.

**Learning outcome**: I learned about Facebook ads and Facebook algorithm in detail.

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**Name: AGARWAL RISHABH VIPUL .(2018A3PS0426P)**

## Student Write-up

**Short summary of work done**: During the PS-I duration we worked on using the concepts of gamification and behavioral sciences to design a strategy to enhance the IndiaBuys franchise sales, increase the customer loyalty and improve the franchise engagement. This was later to be integrated in the company application and implemented in the form of games. The second half of the PS-I dealt with creation of small videos to aid incoming customers with the buying process and integration of the same on the company website.

**PS-I experience**: The experience was fairly good in terms of the work assigned despite the virtual engagement but switched fairly out of the sales and marketing domain for a good amount of time and went into the video making and designing.

**Learning outcome**: Learnt about the basics of use of gamification.

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**Name: AAKASH TIWARI .(2018B2AA0928G)**

**Student Write-up**

**Short summary of work done**: Developed a product recommendation website based on simple question answers.

**PS-I experience**: During my PS-I at IndiaBuys Hyderabad, I was lucky enough to work directly under the guidance of the CEO, I was working on a web development project and my industry mentor kept giving me constant suggestions and advice for creating a good live product.

**Learning outcome**: Web development.

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## PS-I station: India Buys - Secondary Research, Hyderabad

**Student**

**Name: AVDHOOT NITIN BHANDARE .(2018A7PS0763G)**

**Student Write-up**

**Short summary of work done**: We had to run and ad campaign on facebook for the product of the company. Basically, the company gives franchises to people who want to become an online reseller for Amazon. So, we broke down the various categories of potential customers, learned how to make a user persona (which is basically a character sketch of the most ideal customer you can imagine), learned how to find the customers on facebook (this is the most logical and fun part, you have to use the user persona and link it to how the person behaves on facebook) made a bunch of ads and ran the campaign on Facebook.

**PS-I experience**: It was an immense learning experience. It was surprising how many things go into running an advertisement campaign. We had to learn how to analyze a person, and the fact that we were trying to find our customers based on what pages they like and that it worked blew my mind. It was a lot of fun to do this part and next we

had to make the ads as well. Ads are always a creative process and the minute things that we have to take care of while making an ad is also very surprising. Finally, it was also quite the team experience, as we were always covering up for one another, as different people were skilled at different things. Overall, it was a good learning experience.

**Learning outcome**: I can now run an entire advertisement campaign on Facebook from start to end, including designing the ads.

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**Name: PATHI PRUDHVI .(2018B4A80147H)**

**Student Write-up**

**Short summary of work done**: Developed policies and frameworks to protect the IT applications of Indian buys from cyber attacks.

**PS-I experience**: This was my  first experience of working in a project and it all went well and I gained some decent amount of technical knowledge as well as soft skills and all also interaction with PS-I instructor and mentor was very good and I thought it would be better if the course period is extended to 2 more weeks and on overall, it was very good.

**Learning outcome**: I learnt to work in Google Firebase (back-end code to protect the android application from cyber attacks) and android studios and also about GIT hub.

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# PS-I station: Indian Institute of Public Administration - Secondary Research, New Delhi

**Student**

**Name: AVANTIKA .(2018A1PS0730P)**

**Student Write-up**

**Short summary of work done**: A critical analysis of the Government of India's decisions to maintain and manage the supply chain before and after the COVID-19 lock-down in the agricultural and food processing sector.

**PS-I experience**: Learnt a lot and had fun.

**Learning outcome**: Applications of supply chain management in public policy.

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**Name: AVISH GOEL .(2018A1PS0734P)**

**Student Write-up**

**Short summary of work done**: I have worked on the project 'Lessons from COVID-19 for Public Administration'. Most of the work is related to reading & analysing research papers & newspaper editorials.

**PS-I experience**: Overall, It was a good experience. All the evaluatives conducted by instructor helps me to improve my presentation & communication skills.

**Learning outcome**: I have analysed the approaches of different countries of handling COVID-19 & compared it with India's approach & I have also analysed the policies taken by govt. & finally, suggested the policy frameworks for administration to deal with such crisis in future. So, this project helped me to learn more about how administration is dealing with COVID-19 & how can it be effectively deal with.

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**Name:  ANMOL MATHUR .(2018A3PS0409G)**

**Student Write-up**

**Short summary of work done**: Making power point presentation of the givem topics.

**PS-I experience**: The experience was good and a lot of things have been learned by me. It was basically related to various global organization and their effects on the world. After that, it was instructed to us to make an article on the topic given this article will then be published in their IIPA digest.

**Learning outcome**: It was knowledge-full experience and has increase my knowledge in the domain of macroeconomics.

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**Name:  ADITYA SHETH .(2018A3PS0410G)**

**Student Write-up**

**Short summary of work done**: Prepared a report on the "Critical analysis of the education sector pre and post COVID-19". Most of the work was purely based on reading online articles, magazines etc. and documenting them in proper format.

**PS-I experience**: The experience was decent considering it was remote based.

**Learning outcome**: Learnt about various aspects of education sector like Non-state education sector and their important role. Also, analysed some statistics scrapped from International agencies like UNESCO.

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**Name:  ANKIT .(2018A4PS0509P)**

**Student Write-up**

**Short summary of work done**: The work was majorly research-based and required some knowledge of public finance. It was majorly focused on analyzing the COVID-19 economic stimulus package released by the Government of India and its impact on the manufacturing sector. The compiled report highlighted the overall effect of COVID-19 on the manufacturing sector, analysis of the complete break-up of the economic stimulus package and also tried to draw attention towards the ground level implementations of all those norms. Through the aforementioned analysis and data collected through several other secondary sources, the report brought into light the existing favorable policies and also a few suggestions to the GoI for further reforms to be introduced.

**PS-I experience**: Since the work was majorly related to research and penning down personal opinions, the work-from-home concept proved to be pretty beneficial.

**Learning outcome**: Systematic and original research work, collaboration, team-work were some of the areas in which I have benefited from PS-I.

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**Name: ANIKETH M P .(2018A4PS0926H)**

**Student Write-up**

**Short summary of work done**: Did extensive research on Oil sector, with emphasis on Indian and Global Oil marketing companies. The Oil prices fell in the year 2020, and the fall was accelerated by COVID-19 pandemic. My research involved to find out the effects of the pandemic would have on the Oil and Gas industry, both in the short run and long run. Went through reports from IEA (International Energy Agency) and other such reports to understand the Oil sector in detail. India too saw a drastic fall in demand for crude oil due to the restrictions on movement imposed by the Government of India. Lock-down restrictions affected mobility demand, aviation demand, electricity demand adversely. My work was to estimate the fall in demand of these industries and then co-relate with the demand for crude oil. Also, collected historical data of Oil and analysed previous fall in Oil prices such as during the Global financial crisis (2008). The recovery period for the industry is estimated to be around 1-2 years.

**PS-I experience**: PS-1 was a great learning experience. Learnt industry required skills. The webinars were useful and gave an insight to the industry. Allotted PS-I faculty Dr.

Sandeep Kaysatha gave great deal of advice which was very useful. Faculty from IIPA were kind enough to always help in the ongoing process of the project.

**Learning outcome**: Learnt soft skills such as communications skills and so on. Learnt working in Bloomberg terminal, MS office and Tableau. From attending webinars gained insight into risk management and industry knowledge. GD and other group activities enhanced the spirit of competition.

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**Name:  SHREYA NILAY .(2018A5PS1084H)**

**Student Write-up**

**Short summary of work done**: Detailed study on topics like internal affairs, international trade and globalization.

**PS-I experience**: It was a nice experience working with experienced mentor and studying on the above topics.

**Learning outcome**: Got to know about international trade and globalization. How policy making takes place. And decisions before policy making.

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**Name:  MARYADA SAHITHI REDDY .(2018AAPS0467H)**

**Student Write-up**

**Short summary of work done**: I majorly assisted my PS-I station mentor Dr.V.N.Alok in developing course material for public finance and Government accounting. I designed modules on role of the state in development and tax policy and reforms in India. I wrote a paper on local Governance in Telangana state in COVID-19 crisis.

**PS-I experience**: Although, the experience was limited to virtual tour and work, It was strongly engaging. My PS-I instructor, Prof Sandeep kayastha made sure our work is

well organized and coordinated. Even though, there wasn't any scope of meeting my co-interns and working with them in-person, google meets and whatapp groups have bonded us together in such a short span.

**Learning outcome**: I gained necessary domain knowledge in public finance by the end of PS-1. The Webinars by experts from prominent organisations have sparked interest and curiosity in me. PS-1 taught me many other technical and soft skills along the way.

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**Name:  SIDHARTHA BHATTACHARJEE .(2018B3A30819P)**

**Student Write-up**

**Short summary of work done**: I was actively involved in critical commenting / preparation of modules on 'Public Finance' in the earlier half of my PS-I tenure. Owing to my good work, I was given an opportunity to draft a paper on 'Local Public Finance'. In the later half, we were asked to draft a scholarly paper on 'Good governance practice by Govt. of Rajasthan during COVID-19 crisis'. Overall, the work was quite diversified and a good grip on economics (specifically public policy) was required to ace it.

**PS-I experience**: I initially felt that the station would be specifically dedicated to research in economics, although diverse work were allocated to all individuals based on their pre-existing skill sets. I got to know about the proper methodology of doing research under the guidance of highly skilled professors (of IIPA). My report writing & presentation skills improved exponentially post the completion of my PS-I owing to efforts of both my mentor & instructor. All in all, the station provides a good learning experience for all those who want to persue research in public policy.

**Learning outcome**: 1) Improvement in report writing & presentation skills 2) Ability to complete work on / before deadline following a planned approach.

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**Name:  ALANKAR GUPTA .(2018B4A70927H)**

**Student Write-up**

**Short summary of work done**: I was tasked with analysing policies related to healthcare sector during the COVID-19 pandemic and preparing a report on the same.

**PS-I experience**: It was a learning curve and gave me an opportunity to explore  areas completely new to me.

**Learning outcome**: I was able to develop skills required to work in professional setup.

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**Name:  VIRAL TIWARI .(2018B4AA0795H)**

**Student Write-up**

**Short summary of work done**: IIPA, as an organization provides consultancy in policy-related matters to the NITI Ayog. With the COVID-19 pandemic, a huge number of industries and enterprises have taken a hit, due to a large number of factors. The MSME sector, which accounts for more than 30% of the total GDP of India, is perhaps one of the most affected. My project involves an analysis of the MSME sector and giving policy suggestions for the upliftment of this sector. This involves a study of the composition of this sector and giving suggestions for product innovation. The definition of the sector has been expanded to accommodate enterprises with a turnover of up to INR 250 Crore. In lieu of this, the government measures have to adapt to ensure the survival and growth of this sector. The project is largely secondary research-based which builds strong foundations in public policy.

**PS-I experience**: The experience so far has been quite pleasant, especially since this PS-1 is being conducted in a remote manner. The nature of the product is intriguing and finds high relevance in the present day. My industry mentor has been very supportive and ensures that the work received is quite balanced and more than sufficient time is provided to complete it. She has also given me a hefty degree of latitude in the approach to this project. This has made my PS-1 experience fun, informative and productive.

**Learning outcome**: Through the course of Practice School-1 thus far, I have observed a rise in my research skills and also learnt to distinguish irrelevant and misleading data

from useful data. I also used a number of statistical analyses that I had previously learned about through one of my disciplinary electives. I have learnt about the factors to consider while making policy suggestions and drafting suggestions with sufficient sophistication levels for them to find relevance in implementation. By working on a project that is extremely relevant in the present and the near future, I have received valuable exposure in the domain of public policy and providing solutions for real-world issues.

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# PS-I station: IndusInd Bank, Gurgaon

## Student

### Name:  PARTH SHAH .(2018B3A10195P)

**Student Write-up**

**Short summary of work done**: The project title was - To increase customer engagement on the mobile banking platform - financial and non-financial transactions. First, we researched about the term "gamification" and some examples which had already been implemented throughout the world. Then, we took a survey as to what people would like to redeem from their points which they get while transacting online. The objective was to research about the customer loyalty program and see if people were inclined to donate their points to a social cause. Next, we found out certain NGOs which were open to collaborating for such gamification ideas.

**PS-I experience**: It was very amazing and enriching. The industry mentors were very kind and helpful and were always ready to help whenever we had any issues.

**Learning outcome**: We learnt lot of new technologies and terms, few of them being working on online survey tool - Qualtrics, researching about some examples of gamification and using advanced MS excel for data analysis. Further, it helped me improve my communication skills and overall, I got a hang of the corporate world.

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**Name:  AATIF HODA .(2018B3A40020P)**

**Student Write-up**

**Short summary of work done**: As a part of our PS-1, we worked with the senior management to increase customer engagement with reward program and incorporating the concepts of gamification in it. The work included performing secondary research with competitor analysis, followed by primary research using professional survey platforms. We then analysed the data collected using regression analysis and then came up with recommendations.

**PS-I experience**: The experience of working in the corporate industry was one of a kind. There were immense opportunities of applying the book knowledge gained in college to real world scenarios. Starting from the very first meeting with the faculty, where the projects were assigned, there was so much to do. Working with the corporate heads of various departments of the bank helped broaden our horizons and also helped with better understanding of the vast banking industry.

**Learning outcome**: We started off with exploring about the banking products in India as well as around the globe. We also learnt about the the importance of customer loyalty and engagement for products, how does gamification works in reward programs. The videos on the canvas platform also helped in learning Python, R and advanced excel, which were used for data analysis. Finally, we learnt about the culture of corporate world and presentation skills.

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**Name:  SIDDHARTH MALIK .(2018B3A40838P)**

**Student Write-up**

**Short summary of work done**: The project allotted to our group was "Customer Loyalty Program - Mobile Banking". The outcome desired was to devise a model to increase the customer engagement on the mobile banking platform using both financial and non-financial transactions, to engage customers on the mobile banking platform and increase digital footprints. The objective was to promote social activities which will enhance the bank's digital footprints while being socially aware. The program is aimed to enhance customer engagement and increase digital transaction velocity by

incentivising customers for changing physical to digital behaviour as well linking the day-to-day behaviour (e.g., transportation, walking / running) to the banking app.

**PS-I experience**: Working with IndusInd bank was a great learning experience. It really introduced me to industry professionals and helped me understand the working of the corporate world. From conference calls to the presentations, the journey of PS-1 has helped me realise the importance of time management as well as accountability required in the corporate world. One of the most important parts of managing an organisation or a product of that organisation is to ensure the customers continue using the product / service. Hence, gaining knowledge of customer engagement while also incorporating the social responsibility aspect also enlightened us. The project domain helped me gain an understanding of what goes on before and for making a roadmap for launching a new initiative/product and the research required for the same. Primary research, secondary research as well as competitor analysis performed helped us gain exposure to the world of banking and the vast avenues where customer engagement is implemented.

**Learning outcome**: Firstly, I would like to mention that I got to know about the complexity of real life scenarios against the simplicity of the ideal problems we usually solve. This remote internship taught me to learn new skills on the go while multi-tasking and completing other assignments in a short time. I have developed a habit of sharing my ideas and discussing over it. I went through numerous iterations to finally arrive at the desired solution, this made me a lot patient. My internship experience made me feel more responsible and accountable for what decisions I made with my team.

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Name:  A N P PHANEENDRA KUMAR TENNETI .(2018B3A80913H)

**Student Write-up**

**Short summary of work done**: The project was about increasing the digital footprints of  the bank by gamifying customer engagement in the mobile banking app. We did some secondary and primary research, a bits of data analysis and modelling in excel as a part of it.

**PS-I experience**: Remote mode of PS-I was good in a way except for it would have been a much better experience if it was a normal physical PS-1. It really helped learn a lot of new things, opened a completely new field of interest for me working in a

corporate team for one of their live projects. It created a positive impact on my personal abilities altogether.

**Learning outcome**: How digital banking works, how various customer loyalty programs work and various technical fields attached to it. Learnt a few techniques too on the technical side.

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**Name:  REPAKA SAKETH .(2018B3A80996H)**

**Student Write-up**

**Short summary of work done**: Our work is how to increase customer engagement for bank in mobile banking through different loyalty programs. We have done extensive research in loyalty programs and did surveys analysed and made regression analysis of data.made recommendations and did hypothesis testing.

**PS-I experience**: As it was online not much experience with industry mentor but learnt enough.

**Learning outcome**: Market analysis, digital marketing and data analysis.

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## PS-I station: Industry Arc - Sectoral Study-2, Hyderabad

## Student

**Name:  SHUBHAM SINGH .(2017B3PS0710P)**

**Student Write-up**

**Short summary of work done**: Analyse and develop market forecast and market estimation models for consumer goods sales considering macro and micro-economic factors, supply-demand and other parameters.

**PS-I experience**: It was very insightful experience and I got to know uses of various forecast models and why they are used in the particular industry. I developed a predictive model for market forecast of automobile, smartphones and footwear which was adjusted for the impact of COVID-19. V shape trends were common in most of them. The mentors were very helpful.

**Learning outcome**: Analyse the businesses in a sector from the perspectives of business drivers and risks, the market landscape, the way the different players compete with each other, etc. And extract the data from different secondary research sources and use it in a manner that suits his or her purpose, foresee the upcoming trends in the sector based on his understanding of contemporary events, the disruptions, the changing consumer preferences and the past trends.

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**Name:  YASHVARDHAN SOMANI .(2018A2PS0802P)**

**Student Write-up**

**Short summary of work done**: We formed groups of 6. We had to create an automated scraping tool to extract 10-K and 10-Q fillings of companies. After that, we did financial analysis of the data we had extracted from the fillings of the companies. With the help of our code, we were able to analyze more than 200 companies in the US Pharmaceutical preparations industry.

**PS-I experience**: It was a good experience as I was able to practice and apply many things of which I had only theoretical knowledge.

**Learning outcome**: I got proficient in Pandas and learned a few more Python libraries such as Numpy and Beautiful Soup, also a bit about automation.

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**Name:  ADABALA ROHINI .(2018A5PS0719H)**

**Student Write-up**

**Short summary of work done**: Analysing the market trends such as pricing, revenue, sales, export import and how they change with macroeconomic indicators.

**PS-I experience**: Good.

**Learning outcome**: Economical ananlysis, financial analysis, Bloomberg usage, advanced excel, R / Python.

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**Name:  GARVISH GANGWAL .(2018A5PS0963P)**

**Student Write-up**

**Short summary of work done**: I was responsible for analyzing the non-financial KPIs of various companies by preparing an appropriate model and the score card.

**PS-I experience**: The overall experience was good. The mentor assigned from the company side was very helpful and provided necessary feedback and guidance wherever needed.

**Learning outcome**: I got a deeper understanding on how to carry out market research and about how different companies and markets uses different metrics to track their performance. Also, got to know about various business intelligence functions.

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**Name:  RITIK PAGARIA .(2018A5PS1008P)**

**Student Write-up**

**Short summary of work done**: Market forecast using tableau and R.

**PS-I experience**: Great experience.

**Learning outcome**: Got deep insight on tableau and market forecast models.

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**Name:  SADASIVUNI CHAKRADHARI .(2018A5PS1082H)**

**Student Write-up**

**Short summary of work done**: To analyse the trends in different economic indicators across the countries. To develop a report on the co-relation of macro-economic indicators on various industry verticals and sectors.

**PS-I experience**: It was great, learnt few new things and new software, got some industrial experience though it was in virtual platform.

**Learning outcome**: I learnt financial analysis.

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**Name:  RIDDHI ARORA .(2018B2TS1169P)**

**Student Write-up**

**Short summary of work done**: Our project was to create a list of companies operating in market and prepare an automated scraping tool to extract real-time key data from 10-K and 10-Q filings from EDGAR. And then, do the financial analysis of the filings obtained. We first chose a sector (the Pharmaceutical sector) and with the help of SEC and it's database EDGAR, extracted a list of 1503 companies. Then with the help of a web-scraping tool (which was created using Python), we got the individual 10-K and 10-Q filings of each company. These filings contain multiple excel sheets such as statements of earnings, balance sheets, statement of operations and other relevant data. We took most of the parameters present in a 10-K file such as net income, total assets, total liabilities, shareholders' equity and many more. We then created a code that extract these parameters and store it in a CSV file. After the data extraction was done, we consolidated the data in a single file and then proceeded to calculate the various derived parameters such as gross profit, net worth and the numerous financial ratios (like debt to equity ratio, quick ratio, return on equity etc.) and then we performed financial analysis.

**PS-I experience**: It was really good. Our faculty members Dr. Shreya Biswas and Dr. Nivedita Sinha provided a huge amount of their precious time in guiding us throughout this period. Our industry mentor was very helpful too, his careful monitoring throughout working on our project was great. I learnt various skills and for that I'm really thankful.

**Learning outcome**: I learnt to extract graphs of stock (y-axis) vs time (x-axis) from Bloomberg terminal of various companies. I learnt about data extraction from EDGAR, and Macrotrends. I gained more knowledge about working on excel while data cleaning and data collection. Then, I learnt about financial ratios while preparing for the quiz and then utilized it while doing financial analysis. I learnt about concluding graphs about the several financial ratios.

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**Name:  N V SAISREYA .(2018B4TS1154P)**

**Student Write-up**

**Short summary of work done**: We have built a GUI based on the text analysis and sentiment analysis of any given articles by the help of various Python libraries and machine learning. We have used random forests and cluster analysis to help us to the classification of news. For news classification, we implemented the Random Forests algorithm and trained our model on the publicly available BBC dataset on Kaggle*. Random Forests classifier grows multiple decision trees from randomly selected subset

of training set. In order to classify each new object from the input vector, we need to place the input vectors below each of these decision trees in the forest with each tree having its own decision. The final classification is based on the aggregate of the votes of the decision trees. We implemented the PyTextRank model to carry out text summarization. It is a Python based spacy pipeline extension used to implement extractive text summarization. The model is quick to run and does not need to be trained. Hence, it has low processing needs and can be integrated easily with the rest of the models through and can interact easily with the user interface. After the sentences in the text are separated, they are ranked based on the TF metrics of each sentence in the given similarity matrix and graph. The top most ranked sentences are then chosen to generate the summary of the text. Sentiment analysis was carried out using the SentiWordNet Opinion Lexicon. The primary reason of adopting it is because we had to opt for unsupervised learning methods due to the unavailability of supervised dataset which incorporate the corresponding polarity in a continuous form i.e. in a range. SentiWordNet is one of the most advanced opinion lexica  which is publicly available. Along with that, it continuously updates its future versions as it is built on a semi-automated process. For calculating polarity score of the news piece, we have used the weighted average of sentiment scores of each pre-processed token. The weights are decided on the grounds of the impact of an individual token on the opinion of the text. The output received is in the range of (-1, 1) which is amplified using the exponential function and magnified to a range of (10, 10). The sentiment is termed as positive for a score greater than 1, negative for a score less than -1 and neutral for a score between 1 and -1. The main drawback of the model is that it is not very efficient in carrying out sector-specific comparison since the model is designed to accommodate news articles from all kinds of background. Figure 5 frames the average sentiment of front page's news articles of a major daily for a span of two months.


**PS-I experience**: Over the past six weeks, I have thoroughly enjoyed working on the project and have learnt a lot. Though communication was a bit weak but the experience of work and exposure to new topics kept me interested all along. Thank you for this wonderful opportunity.

**Learning outcome**: I have been exposed to the experience of working in an industry. Adding to it, I have gained knowledge in Python and machine learning and various libraries for project purpose. I have gained soft skills and proper communication skills with my mentors and team mates.



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Name:  NEHA SAINI .(2018B4TS1168P)

**Student Write-up**

**Short summary of work done**: Worked on projects ,in which we had selected some specific markets which had availability of maximum amount of public or private data access, worked on import export, market revenue, volumes sales etc., prepared list of macro-micro indicators for which data access is available, submitted the mid sem report and the end sem report. There we also had every week's diary, quizzes, assignments, GD, seminars, report submission etc. activities work done was there.

**PS-I experience**: Definitely, My PS-1 (IN REMOTE MODE)Experience was different from other year's PS-1, I enjoyed it while working. There we all were divided into groups project wise and we had spent some enthusiastic time also but off course we also wanted to go to out stations to experience PS-1.
So, at last I want to say that, it's a very good experience for me and different too.

**Learning outcome**: My learning outcomes were- MS word, excel, powerpoint, got more information about to searching on internet on many specific sites, learnt to prepare and present a presentation, communication skills also got better than before etc.

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**Name: BABITA SAINI .(2018D2TS1177P)**

**Student Write-up**

**Short summary of work done**: Analyse and develop market forecast and market estimation models for consumer goods sales considering macro and micro-economic factors, supply-demand and other parameters. Macro and micro economic indicators have impact on the markets, supply and demand scenarios across and countries globally. Finding the correlation between indicators and consumer goods industries is primary objective.

**PS-I experience**: Due to PS-I, we got a chance to work with industry and different different markets, understand their small small details. Overall, experience is good and confidence, communication skills also improved.

**Learning outcome**: Learnt data extraction from Bloomberg, Python for analysis, communication skills, confidence and listening skills. Linear regression analysis and

pearson correlation using Python. Market insights and different analysis approaches used in making a report like import-export and ratio analysis.


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**Name: HARSHITA TANWAR .(2018D2TS1181P)**


**Student Write-up**

**Short summary of work done**: Making report on medical devices. Making presentations of work done in these 6 weeks. Preparing for evaluation components. Collection of data of various medical devices companies.

**PS-I experience**: I learnt new things and gained more experience from my PS-1.


**Learning outcome**: Learnt more about marketing medical devices banking sector.


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## PS-I station: Industry ARC-Sectoral Study, Hyderabad

## Student

**Name: AASTHA GANDHI .(2018A1PS0727H)**


**Student Write-up**

**Short summary of work done**: Scraping the SEC's EDGAR filings using programs like Python, R, or SAS has become a widely used tool for researchers and practitioners to extract data and other information that are not readily available in a database.


**PS-I experience**: It helped me enhance my technical skills and webinars were very useful.

**Learning outcome**: Web scraping as a business tool can be used to source alternate data or third party data and apply that to gain deep understanding of market. How big data can be easily find using Bloomberg terminal and sec Edgar.

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**Name:  VISHNUBHOTLA NAGA BHARADWAJ .(2018A2PS0834H)**

**Student Write-up**

**Short summary of work done**: Creating list of companies operating in a market and prepare an automated scraping tool to extract real-time key data from 10-K and 10-Q filings from EDGAR, Bloomberg terminal, PROWESS, MCA etc also done financial analysis for some companies.

**PS-I experience**: A lot can be learnt if we have thirst for learning.

**Learning outcome**: Enhanced lot of technical skills and also improved my communication skills.

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**Name:  Rohan Anand .(2018A3PS0334P)**

**Student Write-up**

**Short summary of work done**: Analysis of news reports through text summarization and sentiment analysis models and to give recommendations based on the same.

**PS-I experience**: It was a good experience. Even though micro-management was not possible because of the work from home model, enough support was given to us when needed. There was enough flexibility in terms of the project and meets, hence not very hectic. Also, having BITSian co-founders had its own perks.

**Learning outcome**: Development of both technical skills and professional skills. Technical skills primarily in machine learning and deep learning.

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**Name:  NIKUNJ BAGRI .(2018A4PS0007G)**

**Student Write-up**

**Short summary of work done**: Analyse the trends in different economic indicators across the countries and develop a report on the co-relation of macro-economic indicators on various industry verticals and sectors. I worked in a team of 6 people and all of us had great synergy. Each of us had different industry to analyse. Objective: Macro and micro-economic indicators have an impact on the markets, supply and demand scenarios across industries and countries globally. Finding the co-relation between these indicators and any market in general was the primary objective.
1. I choose to work on wirings and cables industry.
2. Prepared a list of all macro and micro-economic indicators for which data is accessible for past 20 years from public databases.
3. Market revenue, volume sales, pricing, imports and exports are 5 main topics which I analysed from market perspective. How they change as indicators change?
4. By using different models, I tried to find the best fit model which can explain the corelation between the indicators and the markets (modelling was the learning part).
5. Data for the 5 main topics were accessed through public data or from the private access databases (Bloomberg terminal, PROWESS, Factiva, D&B Hoovers etc). Alternatively, industry ARC provided information where available from our database.
6. All assumptions, processes, content were has to be documented in a proper method.
7. An article or whitepaper was to be published in Industry ARC blog, Linkedin or other mediums at the end of the project.

**PS-I experience**: It was great learning experience. From daily meetings, webinars to group discussions and seminars, all of it was a learning experience. We were given access to Bloomberg terminal which was unique and all of us were extremely excited to work and collect data through terminal. It also helped me manage time wisely and improved my communication skills.

**Learning outcome**: We were given access to Bloomberg terminal which was unique and all of us were extremely excited to work and collect data through terminal. It also helped me manage time wisely and improved my communication skills.

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**Name: MANAN SONI .(2018A4PS0722G)**

**Student Write-up**

**Short summary of work done**: Developed Python codes to prepare an automated web scraping tool to extract real-time key data from 10-K and 10-Q filings of the US Pharma sector from EDGAR, Bloomberg terminal, PROWESS and MCA databases. Performed an in-depth business and financial data analysis on key parameters for a 10 year period using SWOT and PESTLE methods. Automated the Python codes to include real-time analysis for future fillings.

**PS-I experience**: I had great experience and learnt a lot by applying my knowledge to an industrial scale.

**Learning outcome**: Learnt basics of web scraping, data analysis using Python, code automation and financial analysis.

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**Name: MANAN SONI .(2018A4PS0722G)**

**Student Write-up**

**Short summary of work done**: Developed Python codes to prepare an automated web scraping tool to extract real-time key data from 10-K and 10-Q filings of the US Pharma sector from EDGAR, Bloomberg terminal, PROWESS and  MCA databases. Performed an in-depth business and financial data analysis on key parameters for 10 year period using SWOT and PESTLE methods. Automated the Python codes to include real-time analysis for future fillings.

**PS-I experience**: I had great experience and learnt lot by applying my knowledge to an industrial scale.

**Learning outcome**: Learnt basics of web scraping, data analysis using Python, code automation and financial analysis.

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**Name: Jash Mehta .(2018A8PS0746G)**

**Student Write-up**

**Short summary of work done**: So at Industry ARC, we were given a project to find the best fit model that shows the correlation between macro and micro indicators and the market segments in the food and beverages industry. So, basically we have to collect data on various macro and micro indicators and on market revenue, volume sales, pricing, import and export of the market segments in the food and beverage industry. Then we have to give weights to the indicators depending on how much they affected the market segments and perform regression analysis on them to forecast the future parameters of the market segments.

**PS-I experience**: It was an enjoyable and educative experience where we learnt lot of things and also explored lot of things. Being in a work from home environment, what are the difficulties people faced in a job and many other things that I experienced for the first time. So, it was good and challenging experience.

**Learning outcome**: I learnt lot from this internship and it was great experience. I learnt how to collect data from public databases efficiently and also to find data from private databases like Bloomberg. I also learnt how to analyse this data in Excel using regression analysis, which I think is very important skill to know in industries. Also, we had various seminars, meetings, presentations and group discussions with the industry and faculty mentor which helped us to improve our communication and presentation skills. I also learnt some interpersonal skills like team work, taking initiative in a group to do the work, leadership and distribution of work as we had done the project in a group. So, it was an enjoyable, educative and challenging experience.

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**Name:  AKASH BHANDARI .(2018AAPS0350G)**

**Student Write-up**

**Short summary of work done**: The project assigned to me was market research of consumer good sales. We collected sales, revenue and import-export data from Bloomberg terminal and analysed the data using Excel and Python research notebook. The final report consists of 10 markets of cosumer goods and their analysis.

**PS-I experience**: The amount of work was enough considering one month internship. GD and seminars were conducted which were really helpful.

**Learning outcome**: Communication skills, advanced Excel, Bloomberg terminal, Python.

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**Name:  ROHIT BHUTRA .(2018B1A30977G)**

**Student Write-up**

**Short summary of work done**: Work is based on secondary research. Our project is related to analysis of non-financial KPIs. In this, we collected data of the companies working in the pharmaceutical sector. We analysed companies on five main divisions which are environment, employee satisfaction, research and development, customer based and market demand.

**PS-I experience**: Doing work online can make it hectic sometimes because of internet. Also, connecting to group members online is a big task otherwise it is a good opportunity to know working style of companies.

**Learning outcome**: I learnt various type of analysis and how company do analysis their procedure. Apart from that team work is main thing I learnt.

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**Name: Saransh Sumedh Gokhale .(2018B3A30033G)**

**Student Write-up**

**Short summary of work done**: Our project was to 'ANALYZE THE TRENDS IN DIFFERENT ECONOMIC INDICATORS ACROSS THE COUNTRIES AND DEVELOP A REPORT ON THE CO-RELATION OF MACRO-ECONOMIC INDICATORS ON VARIOUS INDUSTRY VERTICALS AND SECTORS'. Our work involved finding correlations between different industries and sectors namely- Cement, Shipping, Television, Air Conditioner, Airlines, Commercial Aircrafts, Steel, Zinc, Wirings and cables, Semiconductors and economic conditions. We carried out linear regressions to find these relationships and built models on the same.

**PS-I experience**: It was virtual experience, because of the pandemic and its consequent lockdowns and travel restrictions. We had weekly meetings with faculty mentors, Dr. Shreya and Dr. Nivedita who guided us quite well. The industry mentor, Mr. Chaitanya also gave us guidance about data sources, market estimation, modelling, etc. For a virtual platform, I think it was good experience about how to go about working with a team for your allotted project.

**Learning outcome**: I found out that among other factors, GDP is a very important factor for both airlines and commercial aircraft manufacturers. Whenever the world economy is doing well, both these sectors do well. They're highly interdependent on each other as well. In the coming 2-3 years, both these sectors will struggle because of the pandemic, but after around 5 years, they both should be back on their 2019 growth paths.

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**Name: AVIRAL AGARWAL .(2018B3A40731G)**

**Student Write-up**

**Short summary of work done**: PS-I station was a consulting firm and gave projects on sectoral analysis like analysing impact of macro indicators on GDP or doing a sentiment analysis. My project was the former and as part of it I accessed the Bloomberg terminal to retrieve data and then fit a model to find patterns in said data.

**PS-I experience**: Overall, the experience was quite good, with faculty being responsive and understanding. Getting in contact with the industry mentor was a bit difficult at times.

**Learning outcome**: Learnt how to use Bloomberg terminal and analyze data.

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**Name:  RAJARSHI BASHYAS .(2018B3A40811P)**

**Student Write-up**
**Short summary of work done**: Our project was based on sentiment analysis, news classification and text summarization. We tried out and used different techniques like supervised machine learning, natural language processing and deep learning methods to tackle the objectives.

**PS-I experience**: It was a good virtual learning experience.

**Learning outcome**: I learnt about different machine learning algorithms like DBSCAN, Random Forest and other clustering algorithms. I also learnt about natural language processing and different approaches to predict sentiment like lexicon-based and LSTMs.

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**Name:  SWAYAM BHARGAVA .(2018B3AA0665H)**

**Student Write-up**

**Short summary of work done**: We created an automated scraping tool using Python that can extract data from the EDGAR database of SEC to perform financial analysis for

any industry. We learnt about web scraping and data analysis along with financial statement analysis using ratio analysis.

**PS-I experience**: This particular project was difficult one allocated by this PS-I station. It was difficult to complete the script for extraction and data analysis as we did not have much prior knowledge of python and had to learn about it while working with it.

**Learning outcome**: Web scrapping using BeautifulSoup; data analysis using NumPy and Pandas; Financial statement analysis using ratio analysis.

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**Name:  SAWAL SUDARSHAN .(2018B3AA0760G)**

**Student Write-up**

**Short summary of work done**: Economic research on different sectors and the correlation of those with macroeconomic indicators. Had to build econometric models for sectors' attributes based on macroeconomic variables.

**PS-I experience**: Most of the work was research based. Application of linear regression and modelling in economics.

**Learning outcome**: Economic analysis, economic modelling, Bloomberg terminal.

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**Name:  ARITRA MUKHERJEE .(2018B5A30656G)**

**Student Write-up**

**Short summary of work done**: Collected data and analysed the trends in different economic indicators across countries and developed a report on the correlation of

macro-economic indicators on various industry verticals and sectors using regression models.


**PS-I experience**: PS-1 was good experience with some exposure to the professional world of financial analytics industry.


**Learning outcome**: Learnt about the economics of various industries around the world, factors that affect it and what is their outlook in the future. Also, learnt how to make professional reports that are used in the industry.


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**Name: SATYAJIT GHOSH .(2018B5A80931P)**


**Student Write-up**
**Short summary of work done**: The project allotted to me during PS-1 was to create a software for the company which would predict the sentiment of news articles and classify them as positive, neutral or negative, classify the articles into various industries and then create a text summarization of the news article. We used machine learning models for all the three tasks.


**PS-I experience**: The PS-1 experience was overall good experience and helped me implement few advanced operations in the field of machine learning. Most of the work could be easily done remotely and was good learning experience.


**Learning outcome**: Learnt lot about Natural Language Processing (NLP). Used random forests for news classification, sentiwordnet for unsupervised sentiment analysis and created transformers model and PyTextRank model for text summarization. Created a GUI to wrap all the models into one.


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**Name: SOLANKY SHREY MEHUL .(2018B1A80936G)**

**Student Write-up**

**Short summary of work done**: We made a model for analyzing non-financial KPIs in pharmaceutical industry.

**PS-I experience**: The experience was good and it was good working on a project with people from different campuses. The project was also in a domain which liked and overall it was good.

**Learning outcome**: I learnt lot about market research and modeling of a market and analyzing the company's performance based on their non-financial KPIs.

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## PS-I station: Institute for Human Development - Secondary Research, New Delhi

### Student

**Name:  AMARJEET SINGH LAMBA .(2018B3A30751G)**

**Student Write-up**

**Short summary of work done**: Great work culture with ever helping researchers. The project was well structured and learning was encouraged always.

**PS-I experience**: Excellent.

**Learning outcome**: Worked with R and Python to analyse data.

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Name: MADARAJU NAGA NIDHI .(2018B3A80976H)

**Student Write-up**

**Short summary of work done**: 1.The impact of COVID-19 on employment opportunities, structure of jobs, wages and income.
2. Analysis of future work opportunities in south Asia.

**PS-I experience**: It was great experience with good industry and bits mentor who where always available to clear doubts and guide you through your research work.

**Learning outcome**: Understanding the impact of COVID-19 on jobs, wages, economy and the new future of south Asian countries.

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# PS-I station: ITC (Sales and distribution project) - Sales and Marketing, Hyderabad

## Student

Name: RHYTHM GOEL .(2018A1PS0002P)

**Student Write-up**

**Short summary of work done**: It was divided into 2 phases. Phase-1 was reading and developing an understanding of research papers with respect to various consumer brand relationship related concepts. Phase-2 was about working on market service routing optimization problem.

**PS-I experience**: It was very enlightening. Both industry mentor and PS-1 faculty were very understanding and helped us throughout the PS-1.

**Learning outcome**: I got to learn about how markets across the world function and how they deal with issues that often arise when it comes to their relationship with the consumers.

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**Name:  ISHAAN SINGH DHINDSA .(2018ABPS0471P)**

**Student Write-up**

**Short summary of work done**: ITC's S&M unit based out of Hyderabad, is the regional center for handling ITC's Fast-Moving Consumer Goods (FMCG) distribution for Karnataka, Telangana, Andhra Pradesh, Kerala and Tamil Nadu.
• My Project focussed on formulating a route optimization model for Last-Mile delivery setup. I implemented k-means clustering algorithm directly as an MS excel macro to group markets according to their latitudes and longitudes, thus improving the efficiency of mapping delivery routes for each market cluster. My work simplified a travelling salesman problem with over 2000 nodes into a local route optimization problem for each cluster, with only a maximum of 10 nodes per cluster.
**PS-I experience**: Any typical data analysis job begins with sifting out erroneous data points and correcting the same before implementing learning models on a lump-sum basis. This internship also commenced with the same. Probably the biggest take-away from this experience was how to convert a real-life problem with numerous constraints into an implementable mathematical model, whilst also focusing on finding the most succinct, optimum solution to the problem. In retrospect, some prior academic experience in non-linear optimisation and mathematical methods in operations research (which are unfortunately only taught to us in 3rd year on campus) could have increased the mathematical rigour in our approach to tackle the problem.

**Learning outcome**: Got an idea about how distribution network planning in FMCG supply chains takes place, particularly in the Indian setup. Even though, the work from home environment had huge limitations, such an experience is highly recommended for individuals planning to take up a job in operations management or supply chain strategy , particularly if one is provided with on-site exposure of such distribution networks.

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**Name:  Vaibhav Bansal .(2018ABPS0482P)**

**Student Write-up**

**Short summary of work done**: 1) Read, understand and document research papers in unfamiliar domains.
2) Make optimized delivery plan for ITC Hyderabad, sales and marketing division.

**PS-I experience**: Decent.

**Learning outcome**: Learnt few excel functions, VBA editor, used delivery optimisation apps, k-clustering algorithm, used lot of new features in google maps.

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**Name:  HEMANT AGARWAL .(2018B3A70754P)**

**Student Write-up**

**Short summary of work done**: Studied relevant research papers and worked on market distribution optimising problem.

**PS-I experience**: Since it was an online PS-1, it wasn't what I was hoping for but it was good nonetheless.

**Learning outcome**: Learnt teamwork and how to use Excel macros and many other softwares relevant to our project.

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**Name:  ANANYA MOHAPATRA .(2018B3AA0037H)**

**Student Write-up**

**Short summary of work done**: We had three phases. First phase was reading research papers. Second phase was real life implementation of travelling sales problem (market service optimisation). Third phase is building an online portal.

**PS-I experience**: The entire duration was structured well by our PS-1 and Industry mentor. We were constant guided and assisted and always had some or the other work to do. It was a huge learning curve for us.

**Learning outcome**: Solving TSP (Traveling Salesman Problem), advanced excel.

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**Name: ARMIDA ASHFAQ .(2018B3AA0943H)**

**Student Write-up**

**Short summary of work done**: PS-1 for us was divided into two phases. In phase 1, we had to read, analyse and interpret research papers on cross disciplinary topics and give our big ideas for the same. The topics were consumer psychology, brand management etc. Then Phase-2 was Market service routing optimization where we had to optimise routes for different distribution centres of ITC in Hyderabad.

**PS-I experience**: I had wonderful experience working in ITC during my PS-1. Our industry Mentor, Mr. Gaurav Pundlik guided and encouraged us throughout the PS-1 very well.

**Learning outcome**: I learnt about how big companies like ITC distributes variety of products with efficiency. I got an insight in the working, management and learnt various technological and soft skills.

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**Name:  BHELONDE AMEYA RAVINDRA .(2018B5A41037H)**

**Student Write-up**

**Short summary of work done**: The internship had 2 projects. The first project was about research paper analysis; the time limit for which was 10-12 days. In the first project, we were supposed to read and compile all the important information which was given in a particular research paper around 8-9 different research papers were provided.
The second project was about last mile delivery optimization and the duration for which was about 20-25 days. This project was more close to real life situation and needed a lot of man hours and skills to tackle it. Everyone was given different distributors and we had to find the most optimum paths for the salesman working under each distributors.

**PS-I experience**: It was really fun and got to learn a lot of things.

**Learning outcome**: Improved my comprehensive skills as well as technical skills.

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# PS-I station: ITC, New delhi

## Student

**Name:  JAIN AVNI ANKUR .(2018A4PS0925H)**

**Student Write-up**

**Short summary of work done**: The two automation projects were approached as a data analytics project, extending it further to enabling it as a tool which has user-friendly interface to extract the results of the data processing, every time new data is available for importing into the tool. The raw data coming from variable sources is formed into excel sheets and data wrangling and munching is done to get the target results, visualizations and reports for specific users and beneficiaries of the tools. The audit and rating tool involved automation of the auditing processes based on certain quality and key performance indicators, and further will visually depict the certain parameters trends. The tool is developed using macros and data entry is provided a dashboard

which makes the entire fieldwork while auditing, as well as the communication with the central quality team, very much digitalized and organised.

The second tool which is the 'Vendor Ranking System', revolves around automation, standardization and ranking of different vendors and their products and processes based on certain quality and key performance indicators. Excel-based macros, data extraction, VBA codes are used to construct data segregation algorithms and ranking different units on the basis of their performance parameters. An attractive dashboard will generate visualizations including certain coloured cards as rankings for each month and show trends in the consistency of unit over the year. Finally, automated E-Mails will be sent along with the unit-specific report and results of the ranking and audit for the month.

**PS-I experience**: All in all, my PS-1 experience was much more than I expected a work-from-home PS would be. Our team got chance to present our final tools in front of the entire quality team & CEO, giving us an opportunity to venture into a corporate world. The ITC mentors were very friendly, down-to-earth, supportive, encouraging and always found time to lead us through. Thought the project wasn't mechanics based, it gave us an idea of a corporate office and also gave us introductory idea of automation (which I later wish to pursue and the sole reason i opted for this project).

**Learning outcome**: Advanced excel, macros, VBA, data wrangling, management PPTs.

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**Name:  PRABODH KANT RAI .(2018B3A70748G)**

**Student Write-up**

**Short summary of work done**: The project domain for my PS-I was automated HR dashboards. The objective of this project was to design HR dashboard using relevant metrics divided into various categories of importance to the company. The HR dashboard provides slice-and-dice analysis of various useful HR metrics (workforce, performance, attrition, etc.), which help observe trends and make strategic decisions for the business. In addition to this, students were provided with a series of evaluative components over the duration of PS-I, namely workplan, diary, seminar presentation and report, quiz and group discussions.

**PS-I experience**: PS-I was quite engaging and productive. Overall, it provided me with a great learning experience.

**Learning outcome**: I was able to develop / enhance my data analysis and visualization skills. I found PS-I to be very helpful in developing my communication skills with company professionals. Additionally, I also gained knowledge about report writing and presentation.

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**Name:  SAWANE MOHIT MANISH .(2018A4PS0632G)**

**Student Write-up**

**Short summary of work done**: There were  two automation projects, which  were approached as a data analytics project, extending it further to enabling it as a tool which has a user friendly interface to extract the results of the data processing, everytime new data is available for importing into the tool. The raw data coming from variable sources is formed into excel sheets and data wrangling and munching is done to get the target results, visualizations and reports for specific users and beneficiaries of the tools. The audit and rating tool involved automation of the auditing processes based on certain quality and key performance indicators and further will visually depict the certain parameters trends. The tool is developed using macros and data entry is provided a dashboard which makes the entire fieldwork while auditing as well as the communication
with the central quality team very much digitalized and organised.
The second tool which is the 'Vendor Ranking System', revolves around automation, standardization and ranking of different vendors and their products and processes based
on certain quality and key performance indicators. Cloud based data collection and material testing reports are obtained by the auditors and further analytics of quality delivered and value generated by the vendors and processes is done. Excel based Macros, data extraction, VBA codes are used to construct data segregation algorithms and ranking different units on the basis of their performance parameters. An attractive dashboard will generate visualizations including certain coloured cards as rankings for each month and show trends in the consistency of a unit over the year. Finally, automated EMails will be sent along with the unit specific report and results of the ranking and audit for the month.

**PS-I experience**: The mentors were very down to earth and supportive. The management team was very kind and humble. We were given a weeks extension to our project, baith an official letter from ITC, for presentations to the management CEO as they really liked our projects. FMCG is a great industry to start your career with.

**Learning outcome**: We learnt the process of batti manufacturing and need for auditing. Moreover, the bases of quality assurance, importance of the standardised parameters and need for automating the process was realised. Advanced Excel, VB script was the main focus. The basic data structures have been understood, wrangled and processed. Appropriate algorithms have been discussed, implemented and refined. We've also made

attractive and dynamic dashboards for the tools to make them user friendly. We also completed the task generating automated reports by extracting and organising data. We also added informative and easy-to-understand pivot tables and charts in the report. An automated Emailing system has also been made to send the customized auto generated

reports to multiple recipients at one click.

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# PS-I station: Kwick Living (I) Pvt. Ltd - IT, Mumbai

## Student

### Name:  SIDDHARTH RAJ .(2018AAPS0398H)

**Student Write-up**

**Short summary of work done**: The name of my project was 'Web development using WordPress'. We started by learning about WordPress and its features. We then learnt about creating an E-commerce website with the help of a plugin called WooCommerce on WordPress platform. We then added many features to this E-commerce website using different plugins. We finally hosted this website.

**PS-I experience**: The tasks given were time consuming and hectic. There was no application of coding as we have to create the website using tools present in WordPress. So, all we got to learn was how to operate WordPress and how to create an E-commerce website without the use of coding.

**Learning outcome**: We learnt about WordPress and its features. We learnt about creating an E-commerce website without the use of coding.

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**Name:  ADITYA KRISHNA .(2018B2AA0702H)**

**Student Write-up**

**Short summary of work done**: My project was product development. I learnt how to negotiate with sellers at global level. I learnt about eco-friendly market in India and also learnt about eco-friendly products which are being sold in India.

**PS-I experience**: My PS-1 experience was good. I learnt about so many things and learnt about eco-friendly business.

**Learning outcome**: My communication skills are being improved.

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## PS-I station: Kwick Living (I) Pvt. Ltd - Sales and Marketing, Mumbai

## Student

**Name:  HRITIK VINAYAK LAL .(2018A1PS0281G)**

**Student Write-up**

**Short summary of work done**: First had to make a report on goods sold by BECO. Conducted a competitor analysis in 4 different countries (US, UK, UAE, Australia). Conducted an export analysis contacting several wholesalers, importers, manufacturers in Australia, USA.

**PS-I experience**: My PS-1 experience was good due to constant and unflinching support of my PS-1 mentor Dr. Nivedita Sinha and my industry mentor Mr. Anuj. They

constantly supported and guided me through the project. I am greatly indebted to both of them.

**Learning outcome**: Learnt to conduct a competitor analysis and SWOT analysis. Also gained experience of contacting wholesalers, importers, manufacturers in Australia and in USA.

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Name:  ANIKET JAIN .(2018B2AA0389G)

**Student Write-up**

**Short summary of work done**: I had been alloted in a project of social and influencer marketing where I had to approach various influencers across the country to barter deals for collaboration.

**PS-I experience**: It definitely improved my communication and presentation skills and various webinars were conducted every weeks from which I gained financial knowledge.

**Learning outcome**: Better communication, presentation skills, industrial knowledge, knowledge about general management.

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# PS-I station: L&T Technology Services (Market Research)- IT, Chennai

## Student

Name:  ANNWESHA PANDA .(2018A8PS0515G)

**Student Write-up**

**Short summary of work done**: My project was to come up with an automated way to extract relevant information from open-source literature sources for Clinical Evaluation Report of medical devices. We went on to create a web-scraper after analyzing the structure of the web-page (PubMed). By the end of 6 weeks, we were ready with a standalone rudimentary user interface of the web-scraping application wherein the user had to simply feed in the necessary keywords and filters and data would be automatically stored in an Excel file. For the entire project, we made use of Python as our programming language.

**PS-I experience**: My overall experience in PS-I was fun as well as enlightening. Although, I had basic knowledge of Python programming, this was my first hands-on implementation of the same in a project. I also got a vague experience of working in a team in an actual industry. My mentors Dr. Gaurav Nagpal and Mr. Tony Ignatius were always very encouraging and supportive. They gave significant insights not only on our project but also in the domain we were dealing in.

**Learning outcome**: The most important learning were the skills of time management, dedication, organization, communication an teamwork. Apart from that, the research and effort that went into preparing the overall project also made me technologically more sound.

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**Name:  ADITYA AGARWALLA .(2018B2AA0935G)**

**Student Write-up**

**Short summary of work done**: Built a data scraper. Scrapes data from PubMed.

**PS-I experience**: Good.

**Learning outcome**: Python,Tkinter, data scraper.

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**Name: ARPIT SODANI .(2018B4A30863P)**

**Student Write-up**

**Short summary of work done**: Created a Python program to extract data from a website by applying several user selected filters and store it in excel file.

**PS-I experience**: It was very good. I learnt various things including Python programming, introduction to data analytics and many things in finance and mangement.

**Learning outcome**: Python programming, R programming, finance, management, data analytics.

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**Name: ARPIT SODANI .(2018B4A30863P)**

**Student Write-up**

**Short summary of work done**: Created a Python program with GUI to extract data from a website, applying filters selected by the user ,and storing the data in a CSV file.

**PS-I experience**: It was a wonderful experience. I learnt many new things.

**Learning Outcome**: Python, creating UI in python, teamwork, finance, management, data analytics.

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**Name: ARPIT SODANI .(2018B4A30863P)**

**Student Write-up**

**Short summary of work done**: We created a Python program which extracts data from a website using the keywords given and filters applied by the user. We also created a basic UI for this program.

**PS-I experience**: It was really great. I learnt many new things, including teamwork and meeting deadlines.

**Learning outcome**: Python programming, creating UI using Python, excel, teamwork, industry insight, finance and management, data analytics.

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# PS-I station: Loadshare Networks, Noida

## Student

### Name:  SHUBH MADHAVAN .(2018A2PS0832H)

**Student Write-up**

**Short summary of work done**: We used various Python libraries to build an optimum vehicle selection model (using Numpy and Pandas), web scraper (using beautifulSoup) for compiling a database of vehicular data, a Route Optimization Model, GUI (using Tkinter) for getting and saving data in SQL database and built a code that worked with Google OR's geolocation APi that could give the coordinates of any location.

**PS-I experience**: We worked with our project lead and mentor from Loadshare networks and personally, I am very satisfied with the experience. The fact that I got to work on a variety of tasks definitely helped in improving my skills. Regular meets (via Video Conferencing) and updates regarding the work done added to the professional experience. This also helped in reinforcing my interpersonal and communication skills.

**Learning outcome**: I worked with variety of libraries in Python, including beautifulSoup, Numpy, Pandas, regex, Tkinter, cetera. This was the main learning outcome of the internship as far as technical skills are concerned. I was also able to hone my soft skills like time management, teamwork & problem solving.

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**Name:  ANURAG PRADHAN .(2018B3A30834G)**

**Student Write-up**

**Short summary of work done**: The project I was working on was a route optimization project with an optimum vehicle selection model. The allotted company was a logistics based startup and delivered goods using trucks and trailers all over the country. They wanted us to make a route planner and find the best path and also an optimum vehicle selection model (OVSM), which would output the most optimum vehicle given their client details like weight and volume of goods as input. We created a database of all available trucks and their specifications. We built the database using web scraping and got the data of around 430+ trucks on around 90 different parameters. We had used the 'Beautiful Soup' library in Python to do so. This database would later be used by the OVSM to mask and output the best vehicle using 'Pandas' data-frame. Next, we coded the OVSM and tested its output using dummy data. It worked very well, and we were able to output the best truck keeping in mind the factors like mileage, volume and payload. For the route optimization part, 'HERE' maps API was used and we got outputs in the form of map coordinates, total travel time, total travel distance. A map using 'Folium' showed the best possible path from source to destination through all the pick-up and drop points. We also made a basic GUI using 'Tkinter' for the operations team to enter the client details, which would then be stored in an excel file using 'openpyxl.'

**PS-I experience**: The overall experience was excellent. I learnt lot of hard as well as soft skills. I came to know about some management frameworks like Minutes-of Meeting ( MoM), SIPOC, 5W1H and similar ways to proceed in a project. Since, it is a startup, I got to work on a lot of different domains. Which otherwise would not have been possible in a large company.

**Learning outcome**: I can now confidently scrape websites, comfortable with Python in general and useful libraries like 'NumPy' and 'Pandas.' Can code useful widgets for data retrieval and GUI work in 'Tkinter.' Developed a basic idea of relational databases; foreign keys, primary keys and 'JOIN' command. Understood the general procedure to use an API and request data from it. Able to retrieve information from 'JSON' and 'XML' files to some extent. I also learnt basic 'openpyxl' to read and write data from Python to excel.

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# PS-I station: Market Data Forecast - Secondary Research, Hyderabad

## Student

**Name:  VIVEK VARMA .(2018A7PS0291H)**

**Student Write-up**

**Short summary of work done**: Worked on developing various new features for the site. Work involved using Javascript, PHP and MySql.

**PS-I experience**: Was good to get exposure to the actual development process.

**Learning outcome**: I didn't know PHP before. I now have some knowledge of it.

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**Name:  YATIK BUDHRANI .(2018A8PS0437G)**

**Student Write-up**

**Short summary of work done**: Designed and built new webpages for their website and then uploaded them on their server.

**PS-I experience**: Overall, it was a great experience.

**Learning outcome**: Many new technologies used for website development.
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**Name:  Atul Ravi Unni .(2018B4A30092H)**

**Student Write-up**

**Short summary of work done**: Topic given was content writing, specifically about the agriculture sector. Researched and wrote articles on agri start-ups and submitted them daily. At the end of each week, I had to create a PPT summarizing the week's findings. Goal of the project was to submit research and data (inception, funding, business plan) on various start-ups in the industry to create a market report for potential investors in the agri-tech sector.

**PS-I experience**: While the company is a start-up founded by BITSians, it did give satisfactory work. It took around 2-3 hours every day to submit the daily articles.

**Learning outcome**: Learnt lot about the agriculture and agri-tech industry. Understood quite a lot about agriculture & agri-tech start-ups' funding, their challenges and their path to profitability.

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## PS-I station: National Institute of Rural Development & Panchayati Raj - IT, Hyderabad

### Student

Name:  YASH GULATI .(2018A3PS0347P)

**Student Write-up**

**Short summary of work done**: Developed a chat bot for Kaushal Bharat website under the DDU-GKY scheme of MoRD using google's api.AI.

**PS-I experience**: Firstly, we received orientations about the work being done in NIRDPR and were allotted projects. We learnt about various scheme already in place to further strengthen rural development. We learnt google's bot building platform to configure our own chat bot for Kaushal Bharat website.

**Learning outcome**: We learnt discipline, organised vertical structure of an industry, development of chat bot via multiple approaches.

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**Name: YASH GULATI .(2018A3PS0347P)**

**Student Write-up**

**Short summary of work done**: Created a chatbot for Kaushal Bharat website, the ERP system of the national DDU-GKY scheme.

**PS-I experience**: I had a great learning experience. I improved on my presentation and formal communication skills a lot and understood the underlying concept of the chatbot.

**Learning outcome**: I learnt lot of new stuff. I learnt the value of proper documentation and research for a project can go a long way. I definitely improved on the speaking side and learnt a lot about development in general.

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**Name: MANISH KHAKHAL .(2018A8PS0467P)**

**Student Write-up**

**Short summary of work done**: We had developed web application for PGDRDM course management system. Major part of the work was a database design for the application and making a UI to interact with the database.

**PS-I experience**: It was honestly a great experience. First 4 weeks were just learning and then next was it's implementation and the feeling of having a working product finaaly was amazing.

**Learning outcome**: It was whole new field of web development.

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**Name:  AKSHAT KHARBANDA .(2018AAPS0579G)**

**Student Write-up**

**Short summary of work done**: I configured a chatbot for the NIRDPR website. There are various kind of people who visit the website for various purposes. These people include rural officers or panchayat officials looking for training programs, research students looking for data or publications, students looking for PGDM course etc. My chatbot aims to help them to navigate through the site focusing on their purpose of visit.

**PS-I experience**: Frankly, I was skeptical with the PS-1 initially, given that I hadn't written a single line of code in the first three weeks of the internship. However, I later realised just how crucial this proposal drafting, architectural decision documentation and dialogue flow design was in the process of building a bot. My initial work involved coming up with the methodology and analytical framework, literate review of existing chatbot researches, use case identification and conversation flow implementation. These documents me much better acquainted to the sitemap of NIRDPR website and proved to be invaluable assets when I actually started  building the bot. With the design phase done and dusted, it was time to build a chatbot on dialogflow. After getting acquainted to concepts such as agents and intents, I began defining intents with 10-20 training phrases each. In order to ensure the chatbot is suitable for the Indian audience, I included Hinglish phrases, slangs and opinion changes in between. Continuous testing was carried out throughout the development phase to ensure the chatbot doesn't get stumped. When it came to the final demonstration, my bot performed excellently and was able to recognise statements such as 'm a skool student' and 'ye online courses kya hai', which was obviously a moment of immense pride for me. As they say, all's well that ends well !

**Learning outcome**: I learnt how to draft a proposal and workplan for software development projects, involving ideas such as SDLC waterfall model, use case identification and derive analytical framework by investigating high level architecture. Once I was done with this planning and ideation phase, I also built a MVP, which taught me how to develop bots using dialogflow and dealing with concepts such as intents, entities and parameters. Finally, I got acquainted to the testing and deployment phases too, which I consider to be my greatest learning outcome.

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**Name: SWATI GUPTA .(2018B4A80835P)**

**Student Write-up**

**Short summary of work done**: Created a chatbot for Kaushal Bharat website, which is the ERP system of the DDU-GKY scheme.

**PS-I experience**: I had a decent experience of PS-1. The project wasn't that technical as I had expected. But my PS-1 faculty and mentor alloted were great.

**Learning outcome**: I got over my social anxiety and stage fear, one of my major accomplishments. Apart from that I can easily create a chatbot now. Also got basic knowledge of HTML and CSS.

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# PS-I station: NCAER - Secondary Research, New delhi

## Student

**Name: SARTHAK SEHGAL .(2017B3A70452P)**

**Student Write-up**

**Short summary of work done**: I worked on two projects during my PS-1 which exposed me to various areas in applied economic research. My first project on Green Jobs in India included extensive literature review followed by data extraction and processing using software tools like Python and Excel. The second project I worked on is an ongoing study at NCAER that is backed by the Ministry of Panchayati Raj (MoPR). The primary work was to develop a professional questionnaire and an instruction manual for the research project.

**PS-I experience**: PS-1 is a great platform for industry experience at an early stage. Even in these testing times, the conduct was very office-like with proactive communication from both NCAER and BITS faculty. The weekly remote sessions were also a great addition and provided immense value.

**Learning outcome**: I developed lot of research, technical and soft skills as part of PS-1. One of the key skills I learned in these times of pandemic is active and effective communication. I also learnt technical and software skills like Python and Excel. As part of the research, I learned to do sophisticated literature review and various areas of economic research.

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Name:  RYAN SODHI .(2018B1TS1170P)

**Student Write-up**

**Short summary of work done**: My PS-1 was very hectic as we had meetings everyday even on Sundays for at least 4 hours, some days it was almost 8 hours. I'm very grateful that I learnt lot and am also very thankful for the efforts of our student mentor Mr. Ritwik Kinra who put in the hours in the meetings to teach us new things. Our project was very crucial as we had to learn about everything on telephone and web based surveys and how India should go about conducting research, now that face-to-face interviews are not possible due to COVID-19. We had to cover all of this into a report for the organization. First of all, we started our work by covering all the different sectors which were affected by COVID-19, then we learnt everything about conducting an effective survey and questionnaire on various platforms. We were also given insight on the status of crime victimization survey in India which is in the process of making in the organization. We worked on the effectiveness of computer assisted- telephone and web based interviews. We collected 20 research papers per person in the group which were related to computer assisted telephone and web based interviews, surveys held in different countries. We then selected the most suitable research papers for our work and wrote effective summaries involving the methods used by the researchers in their papers. We also had some books based on different surveys etc involved for our research. In the end, we gave all of our findings of the summary into the report.

**PS-I experience**: It was a tough challenge for me as the work load was very heavy but I'm very happy that I was able to put in a lot of effort and I really feel I have improved a lot mentally from before on my work ethic.

**Learning outcome**: Learnt how to briefly present the work to others and how to work in coordination with others as a team, how to view a summary from a critics point of view, how to go about extracting information from research papers, how to put down all the findings of the summary into a single report.

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**Name: SUSHANT RAI .(2018B3A10799P)**

**Student Write-up**

**Short Summary of work done**: Worked on alternate mode of data collection (CATI / CAWI  surveys).

**PS-I experience**: Good.

**Learning Outcome**: Communication skills, reading research papers.

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**Name: SANAT JAIN .(2018B3A40708G)**

**Student Write-up**

**Short summary of work done**: NCAER is one of the most premier research institute of India. Our work was related to the projects currently undertaken by them. My project was on the topic of Land records in India, in which NCAER has come out with a study on the digitization of the records. We began with reading and understanding of the first phase of N-LRSI report, which had various supply-side factors of land records. After which, we were provided with RoR's of 7 states, from which we had to extract land area and usage.
With the current situation, no proper surveys could be conducted hence we were given to read up, understand and summarize how telephonic surveys could be conducted for the project domain.

**PS-I experience**: This being a remote form of PS-1 was a completely new experience but with the faculty and industry mentors it was a great one. Learnt lot about some new project domains which I would have had no exposure to withing being in a research setting, and learnt lot about the various processes and difficulties in conducting surveys on such a large scale.

**Learning outcome**: Learnt lot on Land records, online methods of surveying, state of digitization in the country and the various steps taken by the government for the same.

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**Name:  VIDHI RAI .(2018B3A40713G)**

**Student Write-up**

**Short summary of work done**: Data analysis on expenditure patterns, analysis of satellite healthcare accounts.

**PS-I experience**: It was good station and the work was interesting, mentors were quite helping and accommodating.

**Learning outcome**: Understood concepts on formulating policies and the things that need to be considered, taking a lot of other variables to have a more accurate understanding of sectors like healthcare and tourism.

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**Name:  AKSHIT JAIN .(2018B3A40809P)**

**Student Write-up**

**Short summary of work done**: We were taught about various types and kinds of surveys. How to develop a questionnaire, types of questions, when to ask particular

questions etc. How to conduct survey. What are the different perspectives that are to be looked while developing and conducting a survey.

**PS-I experience**: It was a fun and exciting experience. Learnt lot of new things. Got to know lot of new people. All in all it was good.

**Learning outcome**: Learnt how to conduct and develop a survey questionnaire.

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**Name: JAYASHREE R .(2018B3A70769G)**

**Student Write-up**

**Short summary of work done**: My project was to determine whether confidence indicators like Business Confidence Index and Consumer Confidence Index of India are leading indicators or not. A cross-correlation analysis was performed to analyze this lead-lag relationship. In addition to this, the causal and long-run relations with economic indicators were also analyzed.

**PS-I experience**: My PS-I experience was quite good. I enjoyed researching about the topic, applying the concepts and learning new approaches to solve the problem at hand. The guidance from my industry mentor and PS-1 faculty immensely aided this learning process.

**Learning outcome**: This PS-I experience helped me to enhance my communication skills and teamwork skills while working with the Business Expectations Survey (BES) team at NCAER. I learnt how to apply the concepts which I had learnt through the coursework at BITS. In addition to this, I also understood the deeper meaning behind each step of the statistical approach that I had taken to solve the problem at hand.

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**Name: VASTAV RATRA .(2018B3A70903H)**

**Student Write-up**

**Short summary of work done**: I worked on two projects - one regarding the survey of community health workers like ASHA workers and ANMs, and their role in dealing with the pandemic, and the second project was an MoPR study on Panchayat's OSR.

**PS-I experience**: The initial days were very slow. Towards the 5th week, we actually picked up speed as we started working on the MoPR study. I thoroughly enjoyed it. They have asked me to stay on for another one and half month. I will continue working with them for some time. I have also proposed a few projects to them to take up after the MoPR study. I hope they consider my entries and let me work as a fellow with them for more time. It is a wonderful addition to my CV.

**Learning outcome**: I learnt everything about research at PS-1 from the very basic outline design to the use of quantitative and qualitative methods to address specific objectives of a study. I also learnt about CAPI and other interview platforms.

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**Name: AARYA MAKWANA .(2018B3A80871P)**

**Student Write-up**

**Short summary of work done**: Our project was on research and study on survey methods in india.

**PS-I experience**: My group was mentored by a BITSian senior and we had regular meets. The work was highly reading-based.

**Learning outcome**: I learned research methodology and gained knowledge about surveying.

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# PS-I station: NCAER - Sectoral study, New delhi

## Student

**Name:  HITIKA GUPTA .(2018B3A10777P)**

**Student Write-up**

**Short summary of work done**: Analyzing databases and parameters used in N-LRSI study report and studying about land records in India, its digitization and further work towards the second phase of N-LRSI. Worked on data extraction and analysis of the land records of various States / UT's. Also, learnt about methodology of telephonic surveys and how telephonic surveys can be more conducted in more efficient way to collect data.

**PS-I experience**: PS-I gave an opportunity to see first hand how it's like in the outside working industry. It was good experience. The staff at the organisation was very helpful. It not only helped to gain industrial exposure but also helped gain many skills like soft skills, analytical skills, teamwork, etc.

**Learning outcome**: I learnt professional and interpersonal skills from my PS-I. I also learnt to work in a team as we were working on the project as a team. Also, the presentations and group discussions added to my communication and presentation skills.

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**Name:  ANANT MULCHANDANI .(2018B3A40058P)**

**Student Write-up**

**Short summary of work done**: The topic of my project was "The Scope of Green Jobs in India, post COVID-19 Pandemic". The primary work revolved around developing an input-output table for 6 green sectors of the Indian economy. Most of the tasks allotted to me were technical, where primarily I used Excel and Python to manoeuvre the statistical technicalities of the project. Excel was used to categorise the sectors of input-output table & USE table (provided by MoSPI) into broader sectors, concerned with the

study, and prepare a modified input-output table & USE table. Python was used to get a cross-tabulation for the 6 green sectors, using the micro-data of the 2018-19 periodic labor force survey containing 1.1 million data points. Besides technical work, some non-technical work was also done, like writing about the concepts and mathematics involved in I-O analysis, multiplier analysis and USE tables, which could be used for illustrative purposes in the report. Apart from this, I also checked the scope of green jobs in the sectors of air quality monitoring and agriculture value chains. I had even gone through many research papers regarding agriculture value chains and then wrote a piece regarding the mechanics of the value chains and the problem associated with the same.

**PS-I experience**: I find myself very lucky that I was allotted a project, which I genuinely found very engrossing. Somewhat, it was a practical experience and an extension to what was taught in the classroom, under the course 'Mathematical and Statistical Analysis'.

The mentors at NCAER were very co-operative and were very prompt in replying via the mail. They even referred me to experts wherever I was stuck. I had to submit a bi-weekly update to report my progress regarding the same. The overall experience was great one, to interact and learn from one of the leading economists of India.

**Learning outcome**: 1. Tabulating and managing data using Excel.
2. Develop skills in using the modules and libraries of Python, Numpy, Pandas and SciPy.
3. Exhaustive literature review.
4. Soft skills to interact with research executives and colleagues.

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**Name: UJJWAL GUPTA .(2018B3A80024H)**

**Student Write-up**

**Short summary of work done**: Worked on tourism and education satellite accounts and inferred important information from their reports.

**PS-I experience**: Good.

**Learning outcome**: Learnt teamwork.

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## PS-I station: NIVEA India Pvt.Ltd.-Operations Management, Bhopal

## Student

Name:  SOUMYA ACHAMMA THOMAS .(2018B4AA0839G)

**Student Write-up**

**Short summary of work done**: My project topic was 'Automation of daily reports using Office 365 functionalities'. NIVEA has around 17 warehouses all over India and all of them have to submit DQR (Daily Quality Reports). We were assigned to automate the system which used to happen through excel sheets using Office 365 tools like power automate and power bi.

**PS-I experience**: The project was group project and we were assigned 2 mentors from NIVEA. They were very helpful and supportive. We could present our ideas to them comfortably and work on them. We made considerable progress with the automation of reports and NIVEA plans to do a pilot with the warehouses soon. My group members were very cooperative and hardworking too. Although, the PS-1 was work from home, we had frequent meetings and coordinated the work. Most of the learning was done on our own and we reported the progress to our mentors twice or thrice a week.

**Learning outcome**: I could learn about advanced office 365 functionalities like power bi and power automate. It was fun to explore and pretty useful as a lot of non value adding activities can be done away if things are automated. But due to the coronavirus outbreak we couldn't get the experience of working in a company and getting to see things in real.

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## PS-I station: Pass Consulting - Election Results Analysis, Hyderabad

## Student

**Name:  ACHLESHWAR LUTHRA .(2018A3PS0401P)**

**Student Write-up**

**Short summary of work done**: Made election result analysis models.

**PS-I experience**: Great experience.

**Learning outcome**: Data analytics.

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**Name:  HARSH YADAV .(2018A7PS0217P)**

**Student Write-up**

**Short summary of work done**: We worked on the election analysis project. The work revolved around data collection and then building a predictive model for future election results.

**PS-I experience**: It was good learning experience.

**Learning outcome**: Data analysis techniques.

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**Name:  NUPUR FUNKWAL .(2018A7PS0624G)**

**Student Write-up**

**Short summary of work done**: The project assigned to us was forecast of election results. This project aimed to develop data analysis model to forecast election results using the research outcomes of a study linking past electoral outcomes of various constituencies to their demographic parameters. It facilitates PASS consulting to predict the results of assembly elections of a constituency at an assembly-constituency level. Another expected use case is to aid political parties in effectively choosing between prospective candidates depending on the input parameters of the candidate.

**PS-I experience**: The overall experience was fine. The workload of the PS-1 was satisfactory. Meetings were held on daily basis to check on us. The mentor was really helpful in solving our doubts. Got to learn how to approach a data science project. Also learnt that working in a team and considering everyone's opinions is a major factor for a project's success.

**Learning Outcome** : I got to learn how to approach a data science project from scratch, how the data collection is done, converting the data into a processable format like CSV / excel, data cleaning techniques using Pandas, data visualization techniques using matplotlib and model building using Scikit-learn. I also got knowledge about time series regression model, decision Trees etc.

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**Name:  HARSH RAKESH TRIPATHI .(2018B4AA0177G)**

**Student Write-up**

**Short summary of work done**: The project revolved around the assembly elections on India and how would we predict the election outcome. The work mainly comprised of three parts - Data collection, data wrangling and model building. The most time consuming was the data collection part where our team explored and researched various sources for data finally deciding to go with SHRUG data. The next part was data wrangling where the data was cleaned and analysis was done. Using the filtered data, a ML model was built that gave a respectable accuracy.

**PS-I experience**: The overall experience was nice. Although, physical work station would have been ideal but due to the pandemic, we had to make do with the virtual meets. The team was amazing, everyone pitched in and did their parts and contributed to make the project a success.

**Learning outcome**: I learnt quite few things from the PS-1. Firstly, my communication with team members improved significantly which resulted in higher efficiency. My technical skills also got sharpened by getting to know about ML models and how to write the code for them.

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## PS-I station: Pepper Content Pvt. Ltd., Mumbai- Sales & Marketing, Pune

### Student

**Name:  VIBHOR JAKHAR .(2018A2PS0124H)**

**Student Write-up**

**Short summary of work done**: My work involved a lot of research and analysis. I used various tolls and techniques to search for contacts of the marketing heads of potential clients. I used the chrome extensions to source for our business and expanded the company's client base. I have sourced over 1100 leads for the business and pitched over 100 potential clients (through email). I mapped 27 of Pepper's competitors, which helped them to gain an edge over their competitors.

**PS-I experience**: PS-1 was great learning experience for me. I learnt something new and useful every day. I got invaluable advice from my PS-1 instructor and industry mentor, which will be useful throughout my career. The PS–1 experience has been a learning journey for me since day one, which will benefit me forever.

**Learning outcome**: These six weeks have been the most productive time in my life. I learnt lot during this time, from the world of marketing, business development to the world of programming and finance. I also learnt to write a professional report, give presentations, take responsibility and be a team player.

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**Name:  SEHAJ PAL SINGH SANDHU .(2018B3A30728G)**

**Student Write-up**

**Short summary of work done**: Made a marketing strategy for reddit with the aim of securing a constant supply of writers for niche topics, did a lot of on boarding calls & resume filtering of content writers based on various different metrics, learnt about zeplin and helped with the UI design of the new webpages.

**PS-I experience**: It has been an eventful journey to work with pepper, in addition to my projects, the pepper talk series conducted by HR department was very engaging and fascinating, listening to how pepper came to be from its founding team was very interesting, Kishan's pepper journey inspired me the most and signified quintessential start-up culture to me.

**Learning outcome**: I learnt how to use data scraping in Python to extract useful data from online websites. This helped me shape our marketing strategy on reddit, I also learnt lot about social media marketing through my projects, the on-boarding calls polished my spoken skills and gave me good insight into the workings of Pepper content. I also learnt how to use Excel and the Zoho CRM interface in a professional capacity, my pitching skills have improved dramatically and I have learnt lot about the content creation market in India.

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**Name:  SHIVANGI SINGH .(2018B4A80841G)**

**Student Write-up**

**Short summary of work done**: I worked under business development team. I handled new expansion project called "Agency Aggregation Model" at Pepper. Pepper is planning to reach out to different digital marketing agencies for affiliate partnership. My work was to create a basic structure and workplan for the project. It was followed by approaching different digital marketing agencies through mails, calls and collecting their corporate decks. It also involved pitching them partnership with Pepper.

**PS-I experience**: My PS-1 experience was good. I got lot of industry exposure and learnt lot from it. I explored different aspects of business development. I also learnt about allover working and functioning of Pepper. The mentors were very supportive throughout my Practice School-1. They helped me in my project too.

**Learning outcome**: I learnt professional communication throughout my PS-1 experience. My major work included making calls and mails. I improved upon my pitching and marketing skills. I also used tools like Norbert and lusha for contact research.

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## PS-I station: Pramartha Investment Partners - Data analytics, New delhi

### Student

Name:  VIRAG NIMESH LAKHANI .(2018B3A70973H)

**Student Write-up**

**Short summary of work done**: Market research, financial model preparation and bit of data analytics.

**PS-I experience**: It was very great experience. Learnt a lot.

**Learning outcome**: Preparation of financial model, data analytics application to raw data, market research.

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## PS-I station: Pramerica - Secondary Research, Gurgaon

### Student

Name:  PRATYUSH NATH SAHU .(2018A3PS0620H)

**Student Write-up**

**Short summary of work done**: Our project was on studying the impact of COVID-19 on the risk management of the Life Insurance companies in India. This project began with the exploration of the life insurance industry, various companies existing in the life insurance industry in India and which are the major competitors of Pramerica Life Insurance company, the challenges faced by these companies during the COVID-19 and their working methodologies. It is followed about various risks and the impact of COVID-19 on those risk management due to pandemic. Risk management is the activity of recognising the risk, risk assessment, developing strategies to manage it and mitigation of risk using managerial skills. The future of life insurance industry will undoubtedly rest on risk management dynamics. Only those companies that have efficient risk management system will overcome the economic recession caused by the pandemic. The effective management of credit risk, underwriting risk, liquidity risk and operational are a critical components of comprehensive risk management essential for long-term success of any life insurance company. We found that these risks have changed and have increased manifolds during recent times and that existing procedures of risk management are not sufficient to compete with the challenging financial and economic environment. Now, companies have become extra cautious and are now more focused on survival rather than on growth. The company managements are trying to avoid any mistake that could prove fatal for the company. This project is concluded with some suggestions and risk mitigation techniques that will help these life insurance companies to sustain in the volatile market.

**PS-I experience**: There were lot of learning experiences in the entire internship. Initially, we faced some issues in getting details about our project from the industry mentor during the initial two weeks which resulted in us, randomly learning things which we thought could be important when we would get the project details. The PS-1 was properly managed and executed in the virtual mode. The Canvas system was easy and intuitive to use. Also, the numerous webinars conducted were very helpful. Those help me to understand the subjects very well and also, I could know about the numerous opportunities available in this domain. Evaluation methods were properly structured to make sure that the student is properly learning and is making progress. Though, our industry mentor did not respond much and did not give much inputs as he was very busy regarding his company. But having an ever ready to help faculty in-charge was a benefit for us. He specialized in the domain which our project belonged to. Hence, with adequate inputs and guidance from him, we were able to complete our project.

**Learning outcome**: Corporate world is not buttery smooth. Ups and downs are essential part of it. Learning to tackle and cooperate in every such situation was major learning. Communication skills are also a major learning. Technical skills like data analysis, risk management, Bloomberg terminal were also essential learning outcomes.

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**Name: ASHTHA SIMONIHA .(2018A5PS1093H)**

**Student Write-up**

**Short summary of work done**: I worked under Mr. Malay Ray, Vice president of Pramerica. My project was evolving Life Insurance industry and risk management method during the times of COVID-19. My report consisted about the life insurance industry, the competitors, market shares and risk management architecture.

**PS-I experience**: With the remote setting, the experience was totally different from the normal PS-1 experience but the faculty and mentors made sure we were learning and had a proper exposure to the industry.

**Learning outcome**: I learnt business norms, etiquette and different risk management techniques.

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**Name: HARSH HEDA .(2018AAPS0386H)**

**Student Write-up**

**Short summary of work done**: We analysed how the marketing of life insurance industry was affected due to COVID-19 and made a report suggesting new ways in marketing strategies.

**PS-I experience**: The PS-1 was overall good and helped me learn many new things.

**Learning outcome**: During PS-1, I learnt about marketing and also got to know the importance of soft skills.

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## PS-I station: ProIndia Healthcare - Operations Management, Pune

### Student

**Name:  AGRAWAL VARAD KAMALKUMAR .(2018A1PS0011G)**

**Student Write-up**

**Short summary of work done**: It was sales and marketing internship. We had to design strategies to access doctors and ensure that they still prescribe our products.The pharma industry work on ethical based marketing and it was thus prohibited to use social media marketing and everything was dependent on the physical accessibility to the doctor. In the rise of the coronavirus pandemic, we had to design immunity booster which had seen enormous rise in market demand.

**PS-I experience**: My PS-1 experience was new and learning experience. I got to learn work life challenges and the hierarchical structure of the organisation and the work profile for various jobs in the pharmaceutical industry. I also developed strategy formulation skills and product designing skills by researching on formulation of immunity boosters.

**Learning outcome**: There are variety of learning outcomes.The major is the organisation structure and industry exposure. I also learnt various challenges associated with ethical marketing and competition in the pharma industry. Every industry has different requirements and it is essential to understand the way we can market based on people's perception. I also developed research skills and strategy formulation skills by researching and presenting immune boosters with proper analysis of demand and perception.

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## PS-I station: Qruise Technologies - Financial Analysis, Chennai

### Student

**Name:  RAJ SHEKHAR SINGH .(2018A1PS0824P)**

**Student Write-up**

**Short summary of work done**: 1. Understanding the RPA industry and analyzing the company's competitors.
2. Make a DCF model spreadsheet with dummy variables choosing an appropriate method of DCF Valuation.
3. Go into depth to understand patterns and problems in the company's financials.
4. Making conclusions from the interview done with the management.

**PS-I experience**: I am a chemical student and I felt that doing an online PS-1 in the chemical industry was not useful so, I chose PS-1 in finance. Qruize is a new startup in a highly competitive RPA industry, my main learning was that the project gave an insight into the challenges faced by a startup in a saturated market.

**Learning outcome**: 1. Since I do not belong to the MSc Economics group I was completely new to this field.
2. So, I had to essentially study fresh concepts and apply them simultaneously, this was something that I had to follow for a complete duration of 6 weeks.
3. This exercise of learning new concepts and then applying them to real data sets cemented my concepts quickly and efficiently.
4.  I had an opportunity to work with two economics students who knew quite a bit about the subject so, I had to push me to work with them.
5. The project gave an insight into the challenges faced by a startup in saturated markets.

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**Name:  TANMAY PATHAK .(2018B3A30846H)**

**Student Write-up**

**Short summary of work done**: Performed financial statement analysis of the company. We were provided with their financial statements of last 7 years. We calculated all the financial ratios year wise and presented them together for comparison. We did balance sheet and income statement comparisons. We did horizontal and vertical analysis of the income statement. We did Dupont analysis of the company over the years. As a part of competitors analysis, we compared company's financial ratios in 2019 to that of its competitors and the industry average of the industry company operates. Also, prepared

a detailed qualitative analysis in the form of report of the comparisons made. Highlighted the areas where company can improve and put forward suggestions from our side.

**PS-I experience**: It was good experience. The process was not as hectic as I thought it would be, and it helped me to learn better. Interactions with the co-founder of the company I was working in helped me to be introduced to the corporate sector. Developed communication skills and learnt to apply the bookish concepts in real world.

**Learning outcome**: Learnt to actually apply the concepts of financial ratios that I had studied and also their qualitative meanings in terms of implications that can be drawn from them.

Learnt Dupont analysis method by one of my team mate in the project.

Saw the financial statements of a company for the first time and got to know how companies report their performance.

Learnt basics of Bloomberg by help of webinar conducted.

Digging out financial data of companies from the internet.

Improved my skills on Excel.

Understood the challenges faced by start ups in corporate world and their method of operation by help of interactive session with co-founder of Qruize.

Developed communication skills by the help of meetings with the co-founder of company, group discussions, seminars and interaction with team mates.

Developed team work skills and learnt to do division of work among peers.

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**Name: BANDARI ABHILASH .(2018B3A40227P)**

**Student Write-up**

**Short summary of work done**: Qruize Technologies is a Chennai based startup in the automation industry. It deals with business process automation, engineering consultancy and infrastructure management. It also works in the area of product development. We were a team of three members and the project given to us is to analyse the financial statements of Qruize Technologies and provide suggestions as to why it is unable to operate efficiently. We had to perform horizontal and vertical analysis, comparative financial statements, DuPont analysis, peer group analysis and analyse them over the years. We calculated several financial ratios and used excel sheets for our analysis. We were able to provide few solutions to the company.

**PS-I experience**: This is my first step in the practical world. Qruize taught me many soft skills, few technical and conceptual skills. The project is entirely related to my branch and few courses which I learnt in the campus helped me accomplishing the project.

**Learning outcome**: Learnt how to analyse financial statements and it would help me lot in my future. Apart from the conceptual skills, I learnt various softskills like team work. time management, adaptability, communication skills, divergent thinking, etc.

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**Name:  YASH BOHRA .(2018B3AA0711G)**

**Student Write-up**

**Short summary of work done**: In my PS-1, I was allotted the project on business valuation. The company shared with us their financial statements and we had to analyse them and the market in which the company operates, and then provide a valuation of the company and project their 5 year financial statements. Since the company was private, lot of information wasn't available on the internet like the analyst reports or extensive news about the company. We had to research about the industry and the scope of their business in present time and in the future. We had to study about various valuation methods and the procedure of forecasting financial statements. We also had to conduct management interview in order to gain further insights of the company. At the end, we included few recommendations for the company and provided a per share valuation along with projected financial statements.

**PS-I experience**: My PS-I experience was quite good. Our PS-1 mentor was very helping and he was always ready to discuss about our progression in project and would help us if we got stuck at any point. Our Industry mentor was very knowledgeable about his company and the market in general. We got several insights from him while we conducted our interview.

**Learning outcome**: I was able to gain much learning from this PS-1. I learnt about financial analysis, business valuation and forecasting, cash flows during the course of the project. I was also able to develop my soft skills while giving presentations and interviewing the company management.

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**Name: VEDANT GERA .(2018B5A30260P)**

**Student Write-up**

**Short summary of work done**: Financial statement analysis of the past 5 years statements provided by the company using horizontal, vertical and DuPont analysis. And also do comparitive analysis of RPA industry.

**PS-I experience**: Learnt new things but was easy.

**Learning outcome**: I learnt how to read financial statements and how to analyse them using various methods.

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## PS-I station: Qruise Technologies - Secondary Research, Chennai

## Student

**Name: ADITYA BHARDWAJ .(2018A2PS0599P)**

**Student Write-up**

**Short summary of work done**: We had to perform market analysis, competitor analysis and product valuation of RPA.

**PS-I experience**: Fine.

**Learning outcome**: We prepare market analysis, competitor analysis and product valuation report.

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**Name:  ADITYA BHARDWAJ .(2018A2PS0599P)**

**Student Write-up**
**Short summary of work done**: I performed market analysis, competitor analysis and product valuation.

**PS-I experience**: Fine.

**Learning outcome**: I learnt how to perform market analysis, competitor analysis and product valuation.

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**Name:  CHHAPARWAL SARVESH KRISHNAGOPAL .(2018A4PS0052H)**

**Student Write-up**

**Short summary of work done**: My project was product valuation of the product of the company using DCF process. Learnt about various valuation methods and learnt Python.

**PS-I experience**: It was Good. Prof. Ambatipudi Vamsidhar is very helpful and understanding. Got to learn different things from him.

**Learning outcome**: Learnt different valuation method and about window dressing of the financial statements. Learnt Python, simple Monte Carlo simulation and how equity research is done although it was not in project.

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# PS-I station: Reckitt Benckiser - IT, Gurgaon

## Student

### Name:  B N SAI RAJESH .(2018A4PS0296H)

**Student Write-up**

**Short summary of work done**: We are trying to make a tool so that the company can make an instantaneous decision on whether to take an application to cloud based solution or make it on premise.

**PS-I experience**: It is been wonderful working with the both the faculty as they are very responsive and helpful.

**Learning Outcome**: Learnt about various aspects of cloud based solutions and on premise solution.

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### Name:  ARPIT RAY .(2018A7PS0163G)

**Student Write-up**

**Short summary of work done**: Developed a tool for facilitating movement from on-premise solution to cloud solution. Tool was in the form a front end website.

**PS-I experience**: Good.

**Learning outcome**: Teamwork, gained valuable experience, web development.

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**Name:  AMIT SANJAY KSHIRSAGAR .(2018AAPS0381G)**

**Student Write-up**

**Short summary of work done**: Project Title: Establishing a Tool (Matrix Based) and / or a Guideline to help organizations identify the possibility of migration from an On-Premise solution to a cloud-based solution for Pharmaceutical and Healthcare organizations. We created a website that served as a tool / guideline for the company. The tool was made, keeping in mind factors such as deployment of the services, the cost involved in setting up the services, control, security aspects involved and compliances that included the rules and regulations needed to be followed by service providers and the healthcare organizations. Most of the work done was research related to the above-mentioned factors and understanding the various services followed by making of the website.

**PS-I experience**: The overall experience was good, considering the work from home environment. I got to learn many things through the industry exposure provided during PS-1. It was well structured, and also helped to learn a lot of different things. The industry mentor was very helpful and guided us throughout the project duration.

**Learning outcome**: Got a WFH experience of the industry, improved my soft skills by interacting with the mentor and faculty in-charge. Due to various evaluative components, I developed my professional skills. As we had prepared a website for the project, I got to learn the basics of web development such as HTML, CSS, JavaScript.

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**Name:  ASWATH VINAYAK K .(2018B4A70713H)**

**Student Write-up**

**Short summary of work done**: Most of the applications within the Healthcare organisation has to abide by certain global regulations that have been setup by various authorities like FDA, MHRA, TGA etc. Computer system validation is the framework / methodology to achieve compliance with these regulations for computerized systems. The GAMP 5 framework does lay the foundation for achieving CSV for any system or applications deployed within the health and life sciences organization. Lately, there has

been a trend in moving from in-house developed and hosted or On-Premise solutions to cloud based solutions. The need here is to identify, how will the approach and effort change for a Healthcare organization in doing the computer system validation for a cloud based solution / application as compared to an On-Premise solution.

During our PS-1, experience the team has understood and analyzed the concept of C.S.V, what GxP regulations are and how IT systems comply with them, key phases of validation life-cycle of a computer system, GAMP 5 framework and learnt about various cloud-based solutions. Next, we addressed the threats posed by usage of cloud-based solutions particularly in health-care industry. This helped us identify what changes we need to make to our existing V-model in order to develop a new validation model for cloud-based solutions.

**PS-I experience**: PS-1 helped me understand how to work with a team and coordinate with others while working. I got good understanding of how deadlines work and how to present oneself in front of their superiors. It was over all very good experience.

**Learning outcome**: My team and I understood and analyzed the concept of C.S.V, how IT systems comply with GxP regulations, the key phases of the validation life-cycle of a computer system, GAMP 5 framework, and learnt about various cloud-based solutions. This was build-up to achieve the ultimate goal of the project, to provide a definitive approach of computerized system validation for cloud-based solutions.

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**Name: AKSHAYJYOTI BORDOLOI .(2018B4A70833P)**

**Student Write-up**

**Short summary of work done**: We worked in a group of five to design a tool to help organisations identify possibility of migration from an on-premise solution to a cloud-based solution for pharmaceutical and healthcare organizations. The tool developed was web application that took responses for questions in the form of survey and suggested the optimal solution. For looking into the optimality of the cloud-based solutions, we considered five disciplines, namely deployment, cost, control, security, compliance. The questions on compliance were used as pre-requisite to check if cloud solution is compatible. For the other four disciplines, some of the questions had binary choices, while others had up to five options depending on the scale based on the question. There was also a question to determine the priority of each of the four disciplines for the organization. Also, the questions in each discipline had an associated weightage. The weightage of every question under a particular discipline added up to

100%. These weightages had been decided after numerous discussions among the team and also with industry specialists. The response to each question was multiplied by the priority number assigned to its discipline and also that particular question. All the final answers were added, and the final score was determined. There were three zones used to imply the nature of the recommended solution. Green zone implied that the cloud-based solution is suitable. Orange zone implied that either of the two is suitable. Red zone implied that on-premise solution is suitable.

**PS-I experience**: It was wonderful experience. Initially, I had bit of doubt as to how the PS-1 would go in a work from home mode. Also, I was worried as to how the interactions among the group members would work. As it turned out, the level of involvement of the students, and also the continuous efforts made by our PS-1 instructor and industry specialist really helped in the smooth functioning of the PS-1 and made wonderful experience for me.

**Learning outcome**: I was not much into web development before the PS-1. Working on a web application during the PS-1 really helped me understand a lot about web development and has also motivated me to continue learning the details of web development, even after the PS-1 is over. Interacting with an industry expert also helped me learn about the functioning of healthcare organization like Reckitt Benckiser. Moreover, the webinars held during the PS-1 helped me learn the basics of several new and interesting topics in finance and management.

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Name:  ARUNABHA MUKHERJEE .(2018B5A70687G)

**Student Write-up**

**Short summary of work done**: I was part of a team that was working on designing and establishing a tool that would help companies, especially the ones working in the healthcare and pharmaceutical sector, to decide on whether to migrate to cloud based solutions from on-premise infrastructure. We had to weigh the pros and cons of cloud computing when compared to on-premise infrastructure and accordingly assign weights to different parameters while designing the tool.

**PS-I experience**: It was good experience specially considering the fact that this was the first time that PS-1 was organised in a work-from-home format in order to combat the COVID-19 crisis. I got to learn about cloud computing and its implementation in

companies. While designing the tool, I also learnt some of the skills involved in web development. The industry mentor and the PS-1 faculty were extremely thorough in their approach and helped the students at each and every point.

**Learning outcome**: Learnt about cloud computing and web development. Also, had great experience working as part of 5 member team and in the process learnt about the intricacies of team work.

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## PS-I station: Reckitt Benckiser - Sectoral Study, Gurgaon

### Student

**Name:  ARNAV SHIVAKUMAR .(2018A1PS0017G)**

**Student Write-up**

**Short summary of work done**: Market research into how the Indian market for sanitization products is changing due to the current corona pandemic. Is it that the local players are grabbing the market share from global competition or is it the other way round? What should organizations like Reckitt Benckiser do to improve market share and root out the competition.

**PS-I experience**: This was rather interesting internship as it was work from home. We initially had very low expectations from our PS-1 but it was very good learning experience. Our mentors were supportive and helped us along the 6 weeks. We definitely would've loved more interactions with other company executives.

**Learning outcome**: We learnt the basics of market research, data analysis and presentation. We also learnt professional ethics, good oratory practices and overall professionalism in work environment.

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**Name: MAYANK PALIWAL .(2018A4PS0770P)**

**Student Write-up**

**Short summary of work done**: Market research into how the Indian market for sanitization products is changing due to the current corona pandemic. Is it that the local players are grabbing the market share from global competition or is it the other way round? What should organizations like Reckitt Benckiser do to improve market share and root out the competition.

**PS-I experience**: Overall, PS-1 was a good learning experience. Your time working in association with global organisation widens your way of thinking. You understand the working of that organisation and how the work culture influences their success. It also provides you with an opportunity to participate in professional environment. You learn about specific problems faced by organisation and can identify future problems as well. And having been assigned a mentor from said organisation, further helps in your overall professional development.

**Learning outcome**: Since, the broad domain was market research, We learnt about the whole market research process from Industry researchers. This includes how research is approached and conducted at every step. This was followed by specific learning about the hygiene market and how it has been impacted by COVID-19. Then, research methodologies were considered and the best one for our report was selected. This learning experience also included study about financial aspects as well as marketing aspects of the said product. Finally, recommendations were also provided which further increased our knowledge about the market and what strategies could be beneficial at such a unique opportunity.

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**Name: JAYANT JAIN .(2018A5PS1064H)**

**Student Write-up**

**Short summary of work done**: The Indian market for hygiene and sanitization products is behaving rather peculiarly in this phase of COVID-19 pandemic. We identified and analyzed this behaviour of the hygiene and sanitization product market within India. We also identified the gaps that it may be facing and figure out what would be the best strategy for an organization like RB to grab or dominate the market and root out the competition. The above analysis included a comparison of their performance with their competitors. We also analyzed the involvement of local manufacturers in this

industry. The primary emphasis was on how they broke the long existed oligopoly of this industry due to the onset of COVID-19 and how they can be a threat to the global firms like Reckitt Benckiser.

**PS-I experience**: It was very engaging experience. We got to learn a lot regarding how sectorial analysis is performed with industry-specific problems. It has not only given hands-on experience with industry-driven data but also enhanced our problem-solving techniques. Through our PS-1 under the guidance of our industry and faculty mentor, we got an opportunity to learn various soft and technical skills like business communication, presentation and report writing skills and email etiquettes. It wouldn't have been possible without their constructive criticism for the work we did. The webinars organized by the PS-1 was beneficial for students in gaining insights on what goes on in different domains like data analytics, operation management, six sigma. These topics were not only new for us but also very popular in the current industry. These sessions took up by our faculty members and some renowned industry people helped in bridging the gap between our academic and industry work.

**Learning outcome**: We learnt various strategies and frameworks which we can use to analyze the sector and how to improve the already existing product portfolio of the company so that they acquire the maximum market share in their domain.

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**Name: RAJPUT TEJAS VIKRAMSING .(2018A7PS0253H)**

**Student Write-up**

**Short summary of work done**: We worked on a project about indian sanitizer market analysis in view of the COVID-19 pandemic, and what RB should do to increase its market share. We divided the project in 2 halves. Pre-midsem we identified all the issues or problems in an issue tree. These followed a timeline from pre-COVID-19 to onset and impacts. The next half was dedicated to finding recommendations, both short term and long term for RB.

**PS-I experience**: In spite of being work from home, the project was quite interesting and kept us engaged. The work load was not much and weekly tasks could be completed on time easily. The industry expert and PS-1 faculty were also very cooperative and helping.

**Learning outcome**: Analyzing the market and various articles helped me gain insight how to analyze any market in general, keeping in mind all the relevant factors, especially in this crisis period. Various frameworks to analyze the companies increased my knowledge regarding business valuation. Team work was a valuable skill gained.

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## PS-I station: Sattva Media and Consulting-Social Sector, Bengaluru

### Student

**Name:  ADVAIT ABHIJIT GOGATE .(2018A1PS0060G)**

**Student Write-up**

**Short summary of work done**: During PS-1, we were asked to shadow our mentor and help them in their ongoing projects. It was great experience and would definitely recommend it for anyone looking to explore consulting.

**PS-I experience**: I had great experience. Work culture and goals of the organisation were clearly conveyed. All work we did had an impact on the project and it was great learning experience overall.

**Learning outcome**: Understood how consulting works and what are all the different aspects involved in project planning along with approaching possible clients.

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**Name:  EIBEL SALIL .(2018A8PS0271G)**

**Student Write-up**

**Short summary of work done**: I was allotted to the 'Shift team' in Sattva. Shift is a cloud based CSR management software developed by Sattva to help organisations drive effective CSR. The project I had been allotted was based on web development &

SEO. I had to revamp the existing landing page of the Shift website using WordPress CMS, migrate the website from the Hostgator server to AWS EC2 server, perform keyword analysis and on-site SEO on the revamped website.

**PS-I experience**: We were treated very kindly and were given guidance at all stages. The projects were allotted keeping our interests in mind. My mentor was very supportive and open to my suggestions and ideas, this made me really comfortable at work. I was exposed to new technologies and new challenges. The experience gave an insight into the office culture. Also, it gave an idea about the differences between student life and office life. Overall, I had a great experience.

**Learning outcome**: I learnt great deal about the different aspects of web development, SEO. Apart from the technical skills acquired, I developed work ethics, time management skills and communication skills.

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**Name:  VATHSALYA POLURI .(2018B2AA0585H)**

**Student Write-up**

**Short summary of work done**: The major learning outcome during PS-I was to learn to use the cloud-based technological tool developed by Sattva which is Shift which is used for end-to-end management of CSR programmes. The CSR project data is given in the form of MoU's between the bank and the grantee.The project data is then analysed and is aligned in the format of Shift platform so that the CSR projects are set up on Shift platform so that the NGO's can visualize their data and make data-driven decisions which help them to increase the social impact through their CSR  project. Many projects have been set up on Shift for the organisations like Eicher, Act Grants, MUGF, Anaha foundation.

**PS-I experience**: My PS-I experience was good where I got an opportunity to understand about the domain general management through the activities of the organisation Sattva.

**Learning outcome**: I learnt how to use the technological tool Shift which is a tech tool developed by Sattva for the complete management of CSR programmes.

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**Name: HARSHDEEP SINGH .(2018B4A30875G)**

**Student Write-up**

**Short summary of work done**: Most of my work at Sattva revolved around doing secondary research for various ongoing projects. This included assisting the CSR advisory teams at every point they required. To give a brief context what CSR advisory team does: Advisory services focus on helping the clients achieve their vision and goals for social impact. It consults on strategy for transformative ideas and models of social change, to ensure client success. So basically, in easy words, our job as a part of the CSR advisory team was to guide clients (corporates mainly) how to spend their CSR money to maximize the social impact as well as the companies profit. Now, doing secondary research is the foundation of any consulting project. I also had a chance to speak with clients about their issues and stuff, and how can we help them. This was a very front end job. One of the most interesting project was to prepare a proposal to a company on "Impact Branding" i.e. using CSR to boost a companies image in market. Here, we had to build a strategy on how Sattva could achieve this, its timeline, steps involved and most importantly pitch on how Sattva is a expert at doing this. I assisted on many other projects. One of them was the EVP (Employee Volunteering Program), which focused on virtual volunteering during this pandemic. For example, company employees teaching to rural children online via skype. Overall, it never felt that I was just 2nd yearite and not a part of Sattva's family. The projects were good, well structured and quite exciting. The work load was also balanced.

**PS-I experience**: This PS-1 experience was one of a kind which I will never forget. Doing work remotely (due to this COVID-19 situation) was new and very different experience. This way, I (probably we all) learnt to be ready to adapt in every situation, no matter what it is. Talking about the company Sattva, it was an overwhelming experience. Luckily, I got the PS-1 station of my choice, which works to bring a social impact (the field I am highly inclined to, and on top of that working for the society, that too in such pandemic situation brought a lot of internal happiness and joy). The people at Sattva were highly helpful and treated me as a part of their family. I made a lot of new friends there. We had work meetings, team meetings, webinars, fun sessions, intern activities. All in all, it was a wonderful experience.

**Learning outcome**: The most important learning was to understand the office / work culture. This includes how the organization functions, meetings, deadlines and time management skills. The major skills I acquired were: secondary research, Microsoft excel, data analysis, sending proposals thus improving my communication skills also.

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**Name: YATHARTH GAIROLA .(2018B5A40939P)**

**Student Write-up**

**Short summary of work done**: I learnt how to use Shift, which was the tech enabled platform of Sattva. I designed LinkedIn posts on Canva. I also got a chance to talk to many people for working on setting up different CSR projects on Shift. I also made FAQs for Shift's website.

**PS-I experience**: I really enjoyed talking to different people. Also, I really enjoyed designing the different LinkedIn posts on Canva.

**Learning outcome**: CSR projects, Canva (Designing), communication skills, team work, Shift (Sattva's tech enabled platform).

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## PS-I station: ScoVelo Consulting, Chennai - IT, Chennai

### Student

**Name: ARYAN A SINGH .(2018A3PS0407G)**

**Student Write-up**

**Short summary of work done**: The project was in the web development domain. The project involved building a web scraper from scratch and optimising its performance with respect to space and time. The web scraper was optimised using multithreading and caching for reducing its runtime and a queue was implemented in the web scraper to decrease the load on the server.

**PS-I experience**: It was great learning experience. It helped me gain a lot of technical and soft skills.

**Learning outcome**: Learnt lot about the web development domain and how to optimise code using caching and queueing in Python.

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Name:  PRANAV GAUR .(2018A7PS0099G)

**Student Write-up**

**Short summary of work done**: I was in the web development team and I had to create a tool which could record users mouse whenever he / she visits the website and also create a heatmap out of the time spent by all the users on the website. For frontend, I had to use React and jQuery and for backend I had to use Django. At the end, I was successful in completing the project that was assigned to me.

**PS-I experience**: The PS-1 experience was very good with relevant learning experience and it was great to learn tools for frontend as well as backend development.

**Learning outcome**: Learnt frontend web development using react and backend web development using Django. I also learnt howw to use libraries like Axios, jQuery and heatmap.js.

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Name:  MAYANK NEGI .(2018A7PS0210H)

**Student Write-up**

**Short summary of work done**: Creating a named entity recognition model using LSTM and CRF.

**PS-I experience**: There was good learning curve and application to the project area. Overall, learnt many new things in the area of data science and machine learning.


**Learning outcome**: Succesfully created the model as requested by the client.


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**Name:  YOGYA MODI .(2018A7PS0235P)**


**Student Write-up**

**Short summary of work done**: The project assigned to me was in the emerging field of sentiment analysis (in the deep learning domain). In simple words, we had to come up with a model that had to predict the average star rating (out of 5) of any given review. We chose the neural network approach and made use of different variations of the LSTM layers. Later, we also ensembled this model with a logistic regression model to finish the prediction part. After that, we had to help the company's target user interface with our model for any random input product name or keyword or URL to scrape the reviews off various websites and display our predictions in a neat format (.xlsx file).


**PS-I experience**: The PS-1 was completely virtual. The company CEO was very friendly and supportive. We were given complete freedom over our work and it was up to us to decide whether or not we must commit changes or continue exploring other possibilities at every step of the project. We had at least two station-wide Google meet calls every week on top of the day-to-day correspondence. Overall, it was good to know what kind of work to expect from a small yet productive firm.


**Learning outcome**: I have learnt a lot about Sentiment analysis throughout the period. The first week and half was also spent on the deep-learning specialization on Coursera. On the whole, I have gained lot of experience and working-knowledge in natural language processing.


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**Name: SAI RAMA KRISHNA PRANEETH PULLELA .(2018A7PS0257H)**

**Student Write-up**

**Short summary of work done**: Building a blog-writer with a text editor which stores the data and shares it on various social platforms. It includes certain text-formatting tools which makes the content look attractive.

**PS-I experience**: My mentor and the environment were really accommodating. I had to learn new stuff on web development. They helped with the resources for the study and im each step through my work. It felt really easy to work eventhough we were online. Most of my doubts were clarified swiftly thus making my work easier.

**Learning outcome**: My project mainly involved ReactJS and Django. It revolves around core concepts of web development.

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**Name: NILESH GUPTA .(2018B4A30676P)**

**Student Write-up**

**Short summary of work done**: I have been asked to develop site-navigation chatbot using ReactJS (frontend) and Django (backend) framework. Initially, I was asked to learn basics of both these languages and to get familiar with web-development. After getting familiar with the basics, I was asked to use Dialogflow (a Google's API.AI) for making and maintaining user-friendly chatbots. The task become tedious when I have to integrate this Dialogflow's bot with my backend and frontend. This was done by calling a custom callback namely webhook. However, due to non-availability of rich responses (like buttons, GIFs, Images, carousels, cards etc.) use of dialogflow was not much appreciated for a website. Thus, I then started developing the chatbot using some softwares available on the internet. Also integrated this dialogflow's bot with google assistant and facebook messenger so that it can get access to the rich responses. And thus 3-4 different chatbots have been created.

**PS-I experience**: The experience I had in my PS-1 station Scovelo consulting was overwhelming. With proper and helpful guidance of the CEO of the station Mr. Balaji, our student mentor Mr. Abhishek and our PS-1 faculty Ms. Uma I was able to complete

my project before time. Regular standups and weekly diaries always keep us up to date with our work and also maintain a professional environment.

**Learning outcome**: Exposure to web-development, automation, GCP and a professional environment.

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## PS-I station: Takshila Learning- Sales and Marketing, Delhi

## Student

**Name: ADVITIYA SRIVASTAVA .(2018A4PS0483G)**

**Student Write-up**

**Short summary of work done**: I started the PS-1 with complete analysis of the company. After this, over the duration of the PS-1, I had to make models for the station for their new ventures into franchise, network marketing and affiliate marketing. These were improved continuously and by the end, all of these models were uploaded on the website and the marketing for these was also started. In the last week, I had to call franchise candidates based on the leads generated beforehand.

**PS-I experience**: PS-1 was very helpful experience. All the work involved, helped me develop perspective in line with that of the industry experts and hence work more efficiently.

**Learning outcome**: I learnt about the difference in my approach versus that of the industry experts to the problems and tasks in front of me. I was constantly working with my mentors and hence learning this particularly easy.

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**Name: PANGULURI JAYADEVA SAKETH .(2018A4PS0654H)**

**Student Write-up**

**Short summary of work done**: Analyzed social media reach of the company and provided a few suggestions in order to improve the reach. Helped the company in creating various bookmarking sites and bookmarked few of their courses. Learnt about SEO, which is important for organic promotion.

**PS-I experience**: It was exciting as it was my first time in the world of digital marketing. PS-1 definitely helps one in providing baby steps in order to gain experience in the real world.

**Learning outcome**: My company is an online education provider. I have learnt about how social media works, how content is promoted and how a bootstrapped company markets its contents in order to grow amidst heavy competition.

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**Name: JHA SHIVANK SUDHIR .(2018AAPS0298G)**

**Student Write-up**

**Short summary of work done**: My project was website implementation and customer acquisition. We had to develop LMS for the company using WordPress. Also had to work on customer acquisition, finding and onboarding faculties.

**PS-I experience**: It was nice experience with Takshila learning. The mentor helped me learn relevant things for the project. They also helped me to understand how various other things in the project worked and then assigned tasks to me.

**Learning outcome**: I gained knowledge about WordPress and things which help in SEO. I also gained an insight on how an organization works and how the teams need to co-ordinate throughout the project.

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**Name:  NAVYA REDDY CHERABUDDI .(2018AAPS1238H)**

**Student Write-up**

**Short summary of work done**: Over the last couple of weeks, few of us have been working on the development of a video conferencing platform. I was part of the product management team. I worked with the product manager, the CTO and the founder. While conducting market research, competitive analysis of pricing, and observing social media presence, several reports were written and discussed in meetings. My main project was to make a business model for the live one-on-one videoconferencing platform we were planning to launch. One of the most important roles was the classification of features, figuring out a priority order to follow for our first release and composing user stories for each feature, all of which were put up on JIRA. There were multiple debates between the two different open-source codes that we could've gone with. But once it was decided, all our efforts were concentrated on pushing out the first release by the end of this month. I was also responsible for onboarding faculty – college students or graduates who have the passion to teach. Towards the end, we started working on the business model, summarizing our product, target audience, revenue and sales models, etc. Lastly, I worked on determining the right pricing strategy for our courses.

**PS-I experience**: Overall, it was great experience; even though we had PS-I online this year, we did get hands-on experience with how the industry works. My station allowed us to work alongside the employees and help with all kinds of work - not treating us differently because we were interns. It was definitely great opportunity to learn new skills and improve on the ones we have. I'm grateful to all those who were responsible for managing / conducting PS-I this year. Thank you!

**Learning outcome**: - Product management and marketing.
- Adaptive learning technologies (research paper / course at CMU).
- How pricing works and how business models are written.

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**Name:  AADIL GOYAL .(2018B1A10672P)**

**Student Write-up**

**Short summary of work done**: Due to this summer internship, I learnt every aspect of digital marketing including business development process, content writing and social media. The company asked me to do their competitive and research of our target segments digital habits. With the help of the research, we got a flow of what are the major criteria's we need to have. I had to identify various sectors in the market that actually have a need of digital marketing services. And then the task is to approach them before your competitors. There is a standard process which companies need to follow for approaching clients, and these certain steps cannot be altered or skipped. These are followed in sequences and executed after evaluating the process again and again. I particularly also worked in promoting our latest program 'Brilliant 50'. In addition, I researched on various topics such as social media content marketing, content writing, trends of online marketing, consumer attitude to sales and marketing strategy.

**PS-I experience**: It is an amazing experience working virtually this time due to the unfortunate event of COVID-19 taking center stage all over the world. I came to many new terminologies of digital marketing, corporate world etc. The project contain the task which has been done by me during my internship as well as what I have learnt from it.

**Learning outcome**: The summer internship project has helped me to understand how the sales and marketing works in the corporate world. The various departments and its functions and how all are interrelated to each other. Takshila learning is a Delhi-based e-learning firm which shows me the complete process of how they work at each functional level, especially about the sales and marketing operations as it was my job profile. The process of marketing starts from research and ends at project closure. This project has made me understand the various key- points which are considered to crack a deal, promote our company name, market our product in the market and therefore reach the top with these steady but strong measures. The company helped me to learn and to stay in touch with a lot of corporate people, which helped me to understand the required skills in this field.

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**Name:  ARYAMAN KUREEL .(2018B4A30956H)**

**Student Write-up**

**Short summary of work done**: My work was mostly making reports on the target market online courses. I would have to make reports on who our target audience were,

where we would need to market it to get the most consumers,competitive analysis of our rivals' courses, what additions we should make to our course so we could get an edge over our them.

**PS-I experience**: I was highly motivated by few of my industry mentors to perform and do my best. They were very supportive and always open if I had any doubts. We had weekly meetings where I would get feedback on my current work and how should go about it next. However objectively, many times I felt my reports weren't getting any feedback or were barely implemented. I had to ask my mentor for work everyday and resend many mails because they were "lost".

**Learning outcome**: I learnt about how to conduct competitive analysis. How to market to a niche segment of the market to monopolize them before we attempted to capture bigger more competitive markets.

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# PS-I station: Walmart - IT, Bangalore

## Student

Name:  ERANKI VENKATA JHAHNAVI .(2018A3PS0154H)

**Student Write-up**

**Short summary of work done**: We were assigned the project  "Data Engineering and ETL Pipeline". In this project, we extracted the data and transformed it into an easily processed one to load into the software ETL tool Talend to cleanse the data. After cleansing the data, we have designed some relevant queries and business logic+. We performed these queries to analyze the well-processed data to find out the best and worst-performing stores, items for a timeline that helps the retail company for their future purposes. We applied all the logics on PostgreSQL software by connecting the Talend through the AWS platform and solved the problem statement.

**PS-I experience**: It was gratifying to work with the mentor, PS-1 faculty and the team. The project theme was really interesting and got to know about the present scenario of the retail companies. Challenges during the project made me understand the concepts in a better way. I got good exposure to the technical world.

**Learning outcome**: Through this project, I learnt how to collaborate and interact with the team members, our mentor and the PS-1 faculty in group discussions, seminar and while trying to solve the problem statement. I also got to know about the company profile of Walmart labs and Walmart. I got acquainted with the technical terms like ETL, data warehousing, etc and got used to the software involved in the project.

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**Name: ASHISH ASTHANA .(2018A7PS0239P)**

**Student Write-up**

**Short summary of work done**: Built an ETL pipeline to load unstructured raw data into a temporary storage for cleaning and transformations. Later, this was exported to a PostgreSQL database for running queries.

**PS-I experience**: It was nice experience for gaining experience in the IT industry. The work wasn't hectic and we were okay with the concepts most of the time.

**Learning outcome**: Learnt how to do professional communication and collaborate with team members. Also, learnt new technologies like Talend open studio and metabase.

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**Name: ANSH GUPTA .(2018A7PS0338H)**

**Student Write-up**

**Short summary of work done**: We need to build a data pipeline using the ETL workflow. After building the pipeline, we need to perform some form of data analysis on it. Our official problem statement asked us to extract data on the retail company and perform the required transformations using the provided business logic, and then build a data mart using that data. After building the data mart, we had to find the best and worst performing stores and items of that retail company.

**PS-I experience**: This was good experience. My team consisted of 5 people and all my team mates were very friendly. I really enjoyed working with them and got to learn lot of new things.

**Learning outcome**: I learnt how team work could help complete your project efficiently. In terms of technology, I learnt using AWS for collaboration work environment, Talend open studio for data integration (an ETL tool) and postgreSQL for querying useful information out of the data mart.

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# PS-I station: Walmart - Operations Management, Bangalore

## Student

**Name:  PRANJAL SRIVASTAVA .(2018A7PS0211G)**

**Student Write-up**

**Short summary of work done**: Our team had initially started learning the software Tableau, including all the basic terminology revolving around it, such as making worksheets, dashboards and stories. At the same time, we started surfing for the appropriate dataset for our project, which includes the important determinants of sales trend analysis of a company. We went through countless sources and finally decided on one of them to work on, which includes sales data for a retail store at the store level. This project taught us not only a new BI software, but also what all we look at when we talk about 'sales trend analysis' in the corporate world.

**PS-I experience**: It was great learning opportunity for us since we get to learn what happens in data visualization, which has become an upcoming field in today's corporate world. It gives us the exposure on how people in a company make decisions about the goods and services produced by them.

**Learning Outcome**: The learnings from the project are as follows:

● Data visualization skills (using Tableau) - We learnt about plotting data, creating worksheets and building interactive dashboards helping us to better understand the data and get insights from the same.

● Analytical thinking - We developed analytical skills while deciding the apt parameters to be worked upon to get useful insights from the data which can help in either improving or optimizing the operations of the company.

● Identifying the areas of interest for a company using metrics - We learnt the importance of metrics as they give us an insight of how to measure the performance of a parameter in the data and make conclusions about them.

● Building of informative dashboards - Learning how to combine the worksheets in tableau to make an interactive dashboard so that we could connect the relevant worksheets and observe the effects of the parameters which are interlinked.

● Business ethics - We gained an insight of how the corporate world works and the required communication skills. We also learnt about time management.

● Teamwork - We learnt how to work together in a team and complete the projects and assignments by dividing the work between us and managing the resources effectively.

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**Name:  ARYANSH GOEL .(2018AAPS0272G)**

**Student Write-up**

**Short summary of work done**: Any huge data can be easily visualized and can be represented through various graphical tools using Tableau. Tableau makes use of suitable graphical representations to make the job of a data analyzer much easier, simple, and more efficient in concluding. When Tableau also helps in filtering out certain measures and dimensions, according to the user's interest, it also can combine various parameters of the data and find the trends between any of them. This project is completely dedicated to being able to represent any huge data graphically and draw efficient conclusions through dashboards that will be helping the company to analyse, improvise and optimise their operations. In this project, we, as a team, will be working on data and identify sales trends based on retail sales data.

**PS-I experience**: The experience was good.

**Learning outcome**: I learnt about tableau software and how to analyse data through visualization.

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**Name:  RITIKA GARG .(2018B3A70258H)**

**Student Write-up**

**Short summary of work done**: My team was assigned a data visualization project, which was to be completed in 6 weeks. We worked on Tableau, a BI software to analyze the sales trends for an e-commerce company and provide appropriate conclusions and suggestions on how the company could increase revenue and improve their services. We collected data from Kaggle, used Tableau and SQL to link all the Excel sheets to come up with appropriate graphs and charts to draw our conclusions. Finally, we complied our results on dashboards and displayed them using cross tabulations in Excel and a PPT.

**PS-I experience**: The PS-I experience was good, and we got to learn lot of new things, which included technical as well as soft skills.

**Learning outcome**: We got to learn new software Tableau, which nowadays has become a trending application to work on, and implemented its user-friendly features in our project. Apart from the technical skills, we also got a glimpse of how the corporate world runs in real life. We got to learn management skills, like how to interact with people above us and how to tackle problems and shortcomings among the team members.

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**Name:  Kashyap Mehta .(2018B4A70655G)**

**Student Write-up**

**Short summary of work done**: The project involved data visualization of a retail company using Tableau and identify retail sales trends.

**PS-I experience**: The project involved the use of Tableau to create visualization of the data in hand and create worksheets and dashboards. The mentor was very helpful in

guiding us and giving us a direction to work on. The major challenge was that the PS-1 was a virtual experience. It took time but things eventually took up pace and it was a great experience to work in a industry, learn how the corporate world works and cater to the deadlines.

**Learning outcome**: 1. Corporate ethics 2. Teamwork 3. Time management.

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## PS-I station: William O Neil - Data Analytics, Bangalore

### Student

**Name:  SHLOK ANAND VORA .(2018A1PS0438G)**

**Student Write-up**

**Short summary of work done**: Our project was to create a database of intraday insider trading and daily buybacks data consisting of both historical data and incremental data. This data would have to be obtained from the corporate filings section of the official NSE website. The data then had to be added to an SQL database.

**PS-I experience**: The past six weeks was an incredible learning experience for all of us. Being able to develop into the practical side of things, getting our hands dirty and being able to get a glimpse of what working in a corporate environment would feel like was a great opportunity that we all made the most of.

**Learning outcome**: Got to learn about web scraping, web automation with Selenium, databases in SQL, about CANSLIM trading strategy and trading chart patterns.

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**Name:  ABHISHEK AGARWAL .(2018A7PS0177P)**

**Student Write-up**

**Short summary of work done**: Web scraping, building of multiple insider trading databases, integration with SQL servers and performing data analytics on them.

**PS-I experience**: Wonderful.

**Learning outcome**: Scraping, DBMS, scaling, data analytics.

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Name:  **ABHISHEK AGARWAL .(2018A7PS0177P)**

**Student Write-up**

**Short summary of work done**: Web scraping, Web automation, Integration with SQL server and further work.

**PS-I experience**: Wonderful.

**Learning outcome**: Web scraping, SQL servers.

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Name:  **PUNIT LOHIA .(2018B3A70766P)**

**Student Write-up**

**Short summary of work done**: Our project was to create historical insider trading, daily buyback database and also to create a script to update the incremental data in the database daily. We used web automation and web scraping to download the data from NSE India website. Then, we used Microsoft SQL server to create SQL database.

**PS-I experience**: Six weeks of my PS-1 duration was a fantastic learning experience for me. It helped me to apply the learnings learnt in classrooms in the practical world. I learnt many technical skills and soft skills during this period.

**Learning outcome**: I learnt about CANSLIM methodology developed by William J O'Neil to predict the future of a stock. I also learnt about insider trading data, how to use insider trading data to generate alphas, web automation using Selenium, web scraping using Beautiful Soup, data analysis and cleaning using Pandas and NumPy, SQL server management using PyODBC. Apart from these technical skills, I also learnt many soft skills required in Industry.

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**Name:  Saandra Nandakumar .(2018B3A70843H)**

**Student Write-up**

**Short summary of work done**: I was in the data analytics team. We worked on building a database for insider trading and daily buybacks. To do so, we had to use web scraping to extract vast amounts of data and put this data into a database.

**PS-I experience**: More than the techincal skills, my main takeaways was understanding the different kinds of people that are present in a workplace and learning how to deal with different people.

**Learning outcome**: I picked up both techincal and soft skills that will help me in my future.

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## PS-I station: William O Neil - General Management, Bangalore

## Student

**Name:  RISHABH BAID .(2018A7PS0189H)**

**Student Write-up**

**Short summary of work done**: We had to do peer analysis of competitor products of company's product, a financial advisory, MarketSmith India. For that, firstly we had to create a detailed inventory of MarketSmith India and all of its peers in which we had to note down all the data and services provided by each of them, what was paid and what was for free etc. Then, we had to do comparison of products based on the inventory created and make a report of all the observations and suggestions. We also had to do the SWOT analysis of all the products and talk to customers of all products and ask them for reviews of their specific products. We also had to ask them about their user experience of the products and what do they preferred and wanted to see in a product.

**PS-I experience**: It was good experience. I learnt various things about stock market, investment in stock market, financial advisories, algorithmic trading, inventory creation, analysis methods etc.

**Learning outcome**: I learnt how to create detailed inventory and about various methods of analysis like Gap and SWOT. I also learnt about many financial terms and basics of investing in stock market like market direction, buying point, selling point, stock evaluation etc. I also enhanced my communication skills, especially formal communication. I also learnt a little about algorithmic trading and how a product is used and viewed by various types of people, from layman to professionals etc.

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## PS-I station: William O Neil - IT, Bangalore

### Student

Name:  AADEESH PATNI .(2018A3PS0556H)

**Student Write-up**

**Short summary of work done**: Doing gap analysis and SWOT analysis of peers of the flagship product of William O'Neil, MarketSmith India.

**PS-I experience**: It was great opportunity to work with people in the industry and learning from them.


**Learning outcome**: Learnt about the finance domain, about trading etc.


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Name:  HRITWIK GOKLANEY .(2018A7PS0238P)


**Student Write-up**

**Short summary of work done**: We were assigned project to create a database of intraday insider trading and daily buybacks data consisting of both historical and incremental data. We had to extract the data from National Stock Exchange website and use data analytics techniques to predict probable prospects and future direction of the
stock.


**PS-I experience**: It was very good learning experience. I got very good exposure to data analytics and the various techniques associated with it. The mentors were very helpful for setting us in the initial week. Overall, it was great learning experience.


**Learning outcome**: Learnt to use pandas library for data analysis, web scraping and web automation using Selenium with python. Also learnt using BeautifulSoup, json, pyodbc and SSMS.


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Name:  PRABHUNE NIMISH MANDAR .(2018B3AA0940H)


**Student Write-up**

**Short summary of work done**: My project was related to peer analysis of William O Neil's product MarketSmith India vis a vis competitor products (viz. StockAxis,

StockEdge, MarketsMojo, Screener). We had to prepare an inventory for each company and compare their product catalog. Following this, we did an in detail comparison of strategies used by each company, features, services offered, financial statements etc. Finally, we undertook SWOT analysis to analyse the position of MarketSmith in the current market.

**PS-I experience**: My PS-1 experience was decent one. Comapny mentors were really helpful and always in touch whenever required. I really liked by GD topics. Overall experience was good.

**Learning outcome**: I learnt about how financial advisories work. I learnt about the CANSLIM method. I learnt more about teamwork and how the corporate world works. My presentation and group discussion skills were improved after PS-1.

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## PS-I station: William O Neil - Sales & Marketing, Bangalore

### Student

**Name:  SINGHWAL SHARNAM .(2018A4PS0067G)**

**Student Write-up**

**Short summary of work done**: My sector for William O'Neil India was sales & marketing and the major job for the company was content development. The internship started with an introduction of the company and it's working. In the subsequent weeks, we had to create content for company's social media platforms such as Quora. In the later part of the weeks, we had to come up with campaigns for the company to increase it's reach. Along with this, we had another task in the background to contact various influencers over the web.

**PS-I experience**: It has been an excellent internship with really helpful and interactive mentors who were there to help us at every point.

**Learning outcome**: Through the course of this internship, we had great knowledge of professional ethics and corporate presentations. It has helped us in developing our soft skills.

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**Name: AAKASH SHANKAR .(2018A4PS0517P)**

**Student Write-up**

**Short summary of work done**: Expanded customer base through content marketing and blog posting. Helped in product promotion through various forms of digital marketing including search engine optimization (SEO). Started product referral programs through associations with prominent influencers in the field of finance and investing. Came up with a new marketing campaign, "Humans of William O'Neil India" and helped implementation of it's first stage.

**PS-I experience**: Unfortunately this time PS-I had to be conducted in online fashion. But it was great experience. Being a non-core project, my project wasn't really affected by the shift to an online platform. I learnt a lot about the stock market in general and marketing as a whole.

**Learning outcome**: I learnt massive amount of know-how on stock market investing. My marketing skills also grew massively.

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**Name: KAUSHIK SATHISH KUMAR .(2018B2A30830H)**

**Student Write-up**

**Short summary of work done**: Having greatly been involved in Influencer marketing, we also focused great deal on the technical side of things. Used Google analytics and SEO (Search Engie Optimization) based softwares like Alexa and Moz to carry out demographic research of our target audience and subsequently narrow it down.

Working with these software platforms also helped us in understanding how we could increase organic traffic to MarketSmith India's website and improve the company's overall online outreach. In addition to this, we also carefully curated content by subjecting them to a comprehensive SEO analysis before posting them on relevant online platforms.

**PS-I experience**: Very enriching experience which introduced me to the completely new concept of digital marketing, which is relatively unexplored and immense potential. Constant guidance by my mentor and being given opportunities regularly to participate in the decision-making process of the organization induced a sense of responsibility in me and I enjoyed being an active stakeholder in this entire process.

**Learning outcome**: We learnt  great detail about William O' Neil's proprietary CANSLIM methodology, chart reading, basic patterns observed on the chart, differences between conventional approach and MarketSmith India's approach, organic marketing and SEO (Search Engine Optimisation). Also, understood and explored various asepcts related to digital marketing.

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**Name:  Lakshya Agarwal .(2018B5A30693P)**

**Student Write-up**

**Short summary of work done**: Created content and worked on digital marketing campaigns to revitalize the brand image. Also, worked on influencer outreach program along with learning about SEO techniques.

**PS-I experience**: Great experience, good corporate side exposure, WFH was conducted smoothly after few initial hiccups

**Learning outcome**: Corporate exposure and a confident individual along with marketing campaigning skills, content creation skills and marketing products to potential influencers.

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# PS-I station: William O Neil - Sectoral study, Bangalore

## Student

**Name:  HRISHIKESH GHADGE .(2018A2PS0034H)**

### Student Write-up

**Short summary of work done**: We had to do sectoral study of the fast moving consumer goods (FMCG) sector. In the mid-semester report and the seminar, we had presented a macro analysis of the sector as a whole. All the data regarding the sector was retrieved from various open-source websites and also through the Bloomberg terminal, the access of which was provided by BITS Pilani's virtual labs. For the final report, we had to do microanalysis of the individual companies within the sector, assigned to us beforehand, and then to combine them all with the macro analysis part. For the microanalysis study, all the necessary data like balance sheet, quarterly earnings transcripts, important financial ratios, etc. were extracted from the Bloomberg terminal and some other data was extracted from various open-source websites.

**PS-I experience**: Being remote PS-1, there were some challenges, however, overall experience was good. It was great opportunity to apply my theoretical knowledge in practice and also learnt various other skills which cannot be taught in classroom. Both the PS-1 faculty and station instructors were highly skilled and supportive.

**Learning outcome**: I was able to learn some basics functioning of the Bloomberg terminal, making of a corporate report and presentation, analyzing various financial statements and ratios, methods to conduct an efficient sectoral study, etc.

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**Name:  SHASHWAT SINGH .(2018A4PS0749P)**

### Student Write-up

**Short summary of work done**: The objective of the project was to get an idea on how the business cycle of that particular company evolved through the last 3 years and estimating how it will perform in the upcoming quarters / years based on the financial statistics from the company's balance sheets and management commentaries. The final project report included macro-analysis of IT-sector, company financial performance and

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its various vertical's performances leading to a scenario analysis based upon the assumptions on the fore-mentioned for the next 2 years.

**PS-I experience**: The experience was nice, initially it picked up a bit slow due to the COVID-19 circumstances, by the end of second week the project paced up, there was lack of industry-mentor interaction due to the hectic nature of the industry-work. Much of the responsibility of work was left upon the students themselves. Getting hands-on experience of Bloomberg terminal, William O'Neil market products such as MarketSmith India, AlgoSmith was a great opportunity. I also built the financial / scenario analysis model on excel for estimating next two years consensus. The model is built for 3 cases – best, base and worst case where the estimates of the values corresponding to each assumption is based on mathematical analysis such as standard deviation, mean and analyst researches. Once a case is selected, the model automatically projects the key financial values for the next 2 years i.e. FY21E and FY22E.

**Learning outcome**: Learnt about the fundamental and technical analysis of stocks and companies. Understanding how to read the financial statements of a company. Understanding various ratios and their importance to analyze the growth of a company. Understanding of how different industry verticals contribute to a company's performance. Learnt advanced-excel and simulations. Interacting with industry experts and new team members. Hands on apps like MarketSmith India. Using MarketSmith India ratings and features to find CAN SLIM stocks. How to analyze the financial and economic overview of the company. Identifying various warning signs in a balance sheet. Understand the difference between good, average and bad balance sheet. Comparing company's business performance for each quarter vs sector trend. Operating Bloomberg terminal and downloading important data regarding the company. Learnt how to conduct equity research for a company and how stocks are selected for investing. Group responsibility and representation skills, presentation skills and group discussion skills.

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**Name: ABHINAV SINGH .(2018B3A30876P)**

**Student Write-up**

**Short summary of work done**: I worked and prepared reports on two projects. The project for the mid-term was Macro analysis of IT sector of India with brief introduction and analysis of Wipro Ltd. And the second project for the end-term was sectoral analysis of Global aerospace and defence  industry where I had to decide three debate

points for the industry and analyse the sector on the basis of these points. Futher, I had to do the Porter's five forces analysis of the Industry.

**PS-I experience**: PS-I was perfect platform for me to gain professional skills, understand and learnt the industrial working under Industry experts. It was perfect platform to gain communication skills. The projects were engaging and interesting. But, the only problem was that, since this time it was remote PS-1, proper industry exposure was missing. But still, over all experience for me was worthy.

**Learning outcome**: The best technical skill that I gained was that I learnt how to use Bloomberg terminal, which was very interesting, helpful and important. Secondly, I learnt cross functional skills by attending various webinars on various important topics. I gained soft skills like communication and interpersonal skills by engaging in group projects and having group discussions and seminars on relevant topics viz. COVID-19 etc. The project was too worth-learning as it made me learn how to prepare official industrial reports and presentation.

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**Name:  MIHIR SHAH .(2018B3A70427G)**

**Student Write-up**

**Short summary of work done**: First, we were allotted in two groups to perform macroeconomic analysis of IT and FMCG sector, respectively. After that, we had to write a report on key debate points of electrical and appliances industry.

**PS-I experience**: I was actually allotted to Wells Fargo PS-1 station which later got changed to William O'Neil India- sectoral study. The work was basically to form a report. It was great learning experience. Since, it was work from home internship, our work was mainly on the sectoral analysis of IT and electronic industry. Also, work load was not much of a concern.

**Learning outcome**: The learning from webinars based on finance and management by various industry experts was immense. Also, got to learn a lot on how sectoral analysis is carried out professionally. Another major learning was regarding the feedback on our reports by the the industry experts.

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**Student Write-up**

**Short summary of work done**: We were given a sectoral project in which we were assigned a sector and required to make a report consisting of sectoral research in which we have to formulate three key debate points or problem statements that affects the sector as a whole supported by relevant statistics.

**PS-I experience**: It was quite a new experience. Although, it was remote PS-1 due to which we couldn't experience it to its full essence. I did learn quite a few new things due to webinars and also from interactions with the industry mentors as well.

**Learning outcome**: My main learning was to get a basic idea about what an equity research actually is which will prove to be a crucial insight for my career.

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