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| Internship Project Title | TCS iON RIO-125: HR Salary Dashboard - Train the Dataset and Predict Salary |
| Name of the Company | TCS iON |
| Name of the Industry Mentor | Debashis Roy |
| Name of the Institute | SDM Institute for Management Development |

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| Start Date | End Date | | Total Effort (hrs.) | | Project Environment | Tools used |
| 01-11-2023 | 05-11-2023 | | 25 | | Posit Cloud | R Studio |
| Milestone # | 1 | Milestone: | | Create dataset, clean dataset, and sanitize dataset | | |

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**ACKNOWLEDGEMENTS**

I am conveying my sincere gratitude towards my industry mentor, Debashis Roy, for helping me throughout this project till now and providing me this wonderful platform to complete this project. I am also thankful for answering my queries at every phase of the project. I also want to thank all my friends who helped me with valuable suggestions during this project.

**OBJECTIVE**

The objective of this project is to build a salary prediction dashboard for human resource management. This dashboard will use machine learning algorithms to predict the salary of job candidates based on factors like their experience, age, and qualifications. This information can help HR managers to make better decisions when hiring candidates for job positions.

**INTRODUCTION**

The human resources department often has a lot of job applicants to process and must choose the best candidates for each job. Candidates often consider salary when deciding whether to accept a job offer, so it's important for HR to offer competitive salaries.

In this project, we will use a dataset that includes information on over 32,000 job candidates, such as their experience and salary. This dataset is good for our analysis because it has a wide range of job profiles and salaries. We will use this data to build a salary prediction dashboard to help HR managers make better decisions about salaries for job candidates.

**INTERNSHIP ACTIVITIES**

* + Watched the welcome kit videos.
  + Done preparations for RIO – pre-assessment.
  + Attended the RIO – pre-assessment test.
  + Went through the day-wise plan.
  + Read the project reference material.
  + Read the industry project material.
  + Watched webinar 1.
  + Watched webinar 2.
  + Gone through all posts in the digital discussion room.
  + Watched lectures and other videos to gain a better understanding of the topic.
  + Created a GitHub account to store and share my project files.
  + Found a suitable data set for the project.
  + Wrote activity reports to document my progress.
  + Verified that the data set had enough data for the project.
  + Read articles and learned how to clean and sanitize the data.
  + Applied data cleaning and sanitization techniques to the data set.
  + Conducted exploratory data analysis to identify patterns and trends in the data.

**APPROACH / METHODOLOGY**

To complete the first milestone of my internship project, I took the following approach:

* I began by understanding the concepts and requirements of the project through reading articles and watching videos.
* I used Google Colab for programming because it allows me to quickly write and execute code.
* I created a GitHub account to publish my code and share it with others.

Overall, this approach allowed me to gain the knowledge and skills necessary to work on the project and make progress towards the first milestone.

**OUTCOME**

After completing the first milestone of this internship project, I have learned about how to clean and prepare a dataset for use in building a model. I removed the unnecessary columns, capital gain and capital loss, as well as the education-num column, during the process of building the model in order to ensure that the dataset was clean and accurate. I removed some of the records from the dataset that contained unnecessary values. These values were identified using exploratory data analysis, and removing them helped to improve the quality and accuracy of the data.

**LINK TO CODE AND EXECUTABLE FILE**

* Link to the code:

<https://posit.cloud/content/6999618>

* Executable file:

<https://github.com/anshitajain1102/TCS-ION-REMOTE-INTERNSHIP-HR-SALARY-PREDICTION-USING-R-PROGRAMMING>