**Internship Report**

**Introduction**

This report is a summary of my Internship at Null Class Private limited, where I have worked as Data Analyst Intern and My Name is Bhavani. The main part of my internship is that I have Analyzed Google Play Store data using Python and Visualized data by Plotly.

**Background**

With Increasing demand of Data Analytics, this internship was an excellent opportunity to apply my academic skills in real world data. As my internship duration was of one month I was able to gain the broad understanding of real world data. By working on Google Play Store Data I gained insights into data preprocessing, visualizing and filtering methods.

**Learning Objectives**

My Main Objectives are –

* To understand data Preprocessing Techniques.
* To Learn how to create graph by Plotly.
* To Improve my Problem-Solving Skills by resolving Errors and to gain meaningful Insights through visualizations.

**Activities and Task**

Through my Internship I was Assigned the followed 3 tasks

**Task 1: Scatter Plot Visualization**

* Analyzed relation between Revenue and Number of Installs only for paid apps.
* To show correlation added a trendline.
* Color-coded the lines based on app Categories.

**Task 2: Interactive Choropleth Map**

* Created an interactive Choropleth map using Plotly to visualize global installs by category.
* Applied filters to show Top 5 Categories.
* Highlighted categories where installs exceeds by 1 Million.
* Excluded categories starting with A, C, G, or S.
* Restricted the graph should only work between 6PM to 8PM IST.

**Task 3: Bubble chart**

* Analyzed the relationship between app size (in MB) and average rating while Bubble size represented the number of installs.
* Applied filters for:
  + Rating > 3.5
  + Categories: Game, Beauty, Business, Comics, Communication, Dating, Entertainment, Social, and Event
  + Reviews > 500
  + Sentiment Subjectivity > 0.5 (merged from another dataset)
  + Installs > 50k
* Restricted Graph should only visible this specific timing 5PM – 7PM IST.

**Skills and Competencies**

During My Internship I have gained and Improved my skills like Technical skills and Problem solving skills particularly Plotly, Data Preprocessing, handling missing data, pandas, python and data visualization. Due to Training I’m able to do the tasks efficiently.

**Feedback and Evidence**

As for feedback I can say it is a wonderful experience because I have worked with real time data and also experienced some difficulty writing the code but because of classes I’m able to complete my tasks effectively and also learned some skills explicitly. As for evidence I have submitted my source code along with datasets.

**Challenges and Solutions**

**Challenge 1**

Issue – I have faced errors due to Installs column in task 1 I faced no issue but in 2nd task I actually faced an issue saying empty framework.

Solution - I decided to define the Installs in other variable. And by removing missing values and null values.

**Challenge 2**

Issue – I don’t know about restricting graphs to specific time period.

Solution – so learned about python’s datetime module and applied it to control timing of visualization display.

**Outcomes and Impact**

* Improved Proficiency in Plotly, Python and in Analyzing data.
* Successfully completed all three tasks and created interactive visualizations.
* Gained Experience in handling real world projects.

**Conclusion**

For me, this Internship was a beneficial and Impactful experience that strengthened my Technical and Analytical Skills. The insights which I gained from Google Play Store data analysis provided a solid foundation for future projects in data analytics. So I am confident that I may contribute my the knowledge and experience to my professional growth as a Data Analyst which I gained from this experience.