NullClass Internship Report

# 1. Introduction

This report summarizes my internship project where I analyzed Google Play Store user reviews and app data to uncover insights through data visualization and dashboard creation.

# 2. Background

The internship focused on handling real-world app review data, applying data filtering, sentiment analysis, and interactive visualization techniques to create a dynamic dashboard for user insights.

# 3. Learning Objectives

* Perform data cleaning and filtering for large datasets.
* Analyze sentiment distribution and app performance across categories.
* Visualize findings through interactive graphs using Plotly.
* Develop a dynamic dashboard integrating all visual outputs.

# 4. Activities and Tasks

- Created a stacked bar chart showing sentiment distribution based on rating groups for top categories.  
- Built a grouped bar chart comparing average ratings and review counts filtered by size, rating, and update time.  
- Designed a mobile-responsive, dark-themed dashboard displaying the visualizations.  
- Implemented time-based control to conditionally display certain plots.

# 5. Skills and Competencies

* Data Cleaning and Preprocessing (Pandas)
* Data Visualization (Plotly Express)
* Web Dashboard Development (HTML, CSS)
* Time Zone Handling (pytz, datetime)
* Problem-solving and debugging

# 6. Feedback and Evidence

Throughout the project, my mentors appreciated the clean structuring of data visualizations, logical filtering approach, and dashboard flexibility. Screenshots and code snippets served as evidence of project milestones and outcomes.

# 7. Challenges and Solutions

- Managing plot size differences: Solved by dynamically adjusting container width and figure sizing.  
- Time-sensitive plot display: Implemented timezone-aware conditional logic.  
- Handling messy data (size formats, date parsing): Addressed with data preprocessing and type conversions.

# 8. Outcomes and Impact

The final dashboard effectively visualized app review sentiments and category performance. It provided actionable insights on user preferences and highlighted app categories with strong engagement. Additionally, this project strengthened my technical, analytical, and dashboard development skills.

# 9. Conclusion

The internship was a rewarding experience that deepened my expertise in data analytics and visualization. It allowed me to apply classroom knowledge to real-world data challenges and build a complete end-to-end project.