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Introduction

The Android App Market on Google Play

Analyzing Google Play Store apps and reviews dataset to gain insights into the Android app market, including app categories, ratings, size, pricing, and user sentiment.

About Me

- **Name**: Biyawala Viral Deven
- **Education**: Indian Institute of Information Technology , Surat - 3rd Year
- **Learning**: Machine Learning Learner from DataCamp
- **Skills For Project**: Language: Python
  Data Analysis and Manipulation(Pandas)
  Data Visualization using Matplotlib, SeaBorn, Plotty
  Data Cleaning and Merging
  Handling Data Datatypes

Project Overview

- **Objective**: Analyze a large Google Play Store dataset to identify key trends, enabling informed decision-making for app developers and marketers in the mobile industry.
- **Components**:
  - Loading and Cleaning the Data
  - Data Type Correction
  - Analyzing App Ratings
  - Examining App Size, Categories and Price
  - Filtering Out Junk Apps
  - Comparing Popularity of Paid and Free Apps
- **Data Source**: Kaggle (Apps and User’s review dataset)

Data Analysis Approach

- Importing Google Play Store app and review datasets.
- Clean the data by removing duplicates and special characters from certain columns.
- Correct the data types of certain columns, such as converting 'Installs' and 'Price' to float.
- Explore app categories by analyzing the distribution of apps across different categories.
- Analyze the distribution of app ratings to understand the average rating and the skewness of ratings.

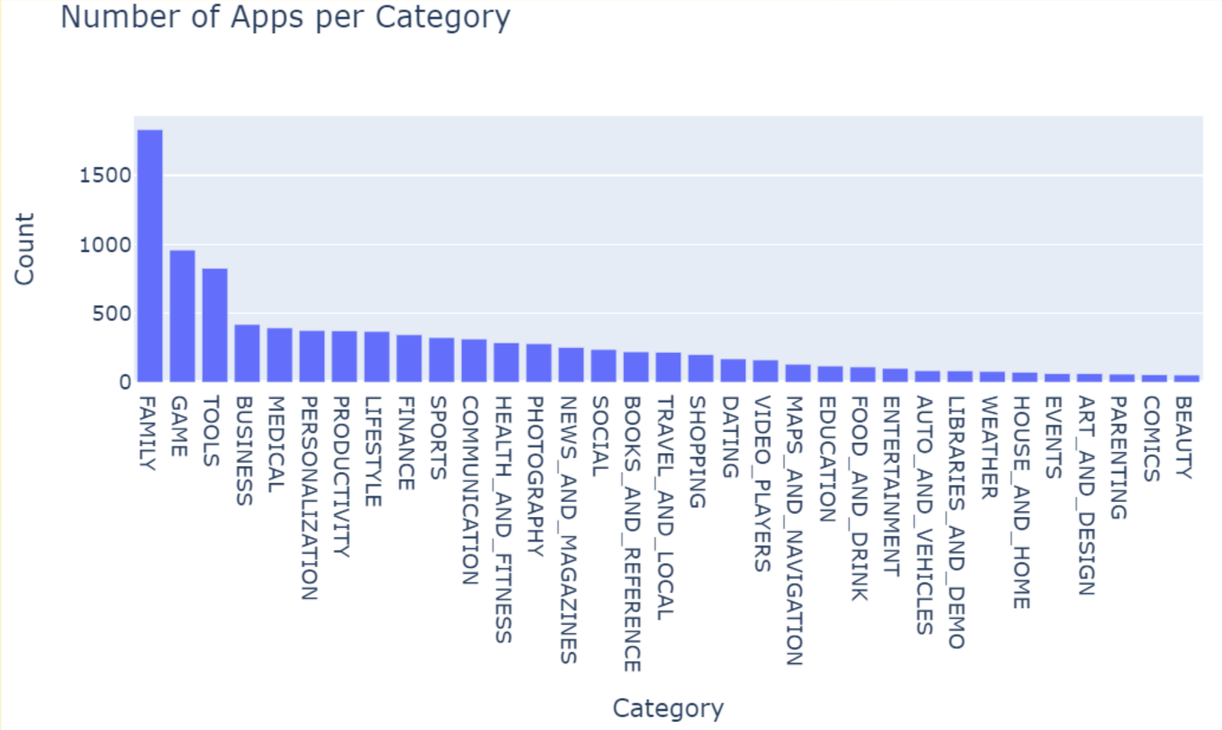
Data Analysis Approach

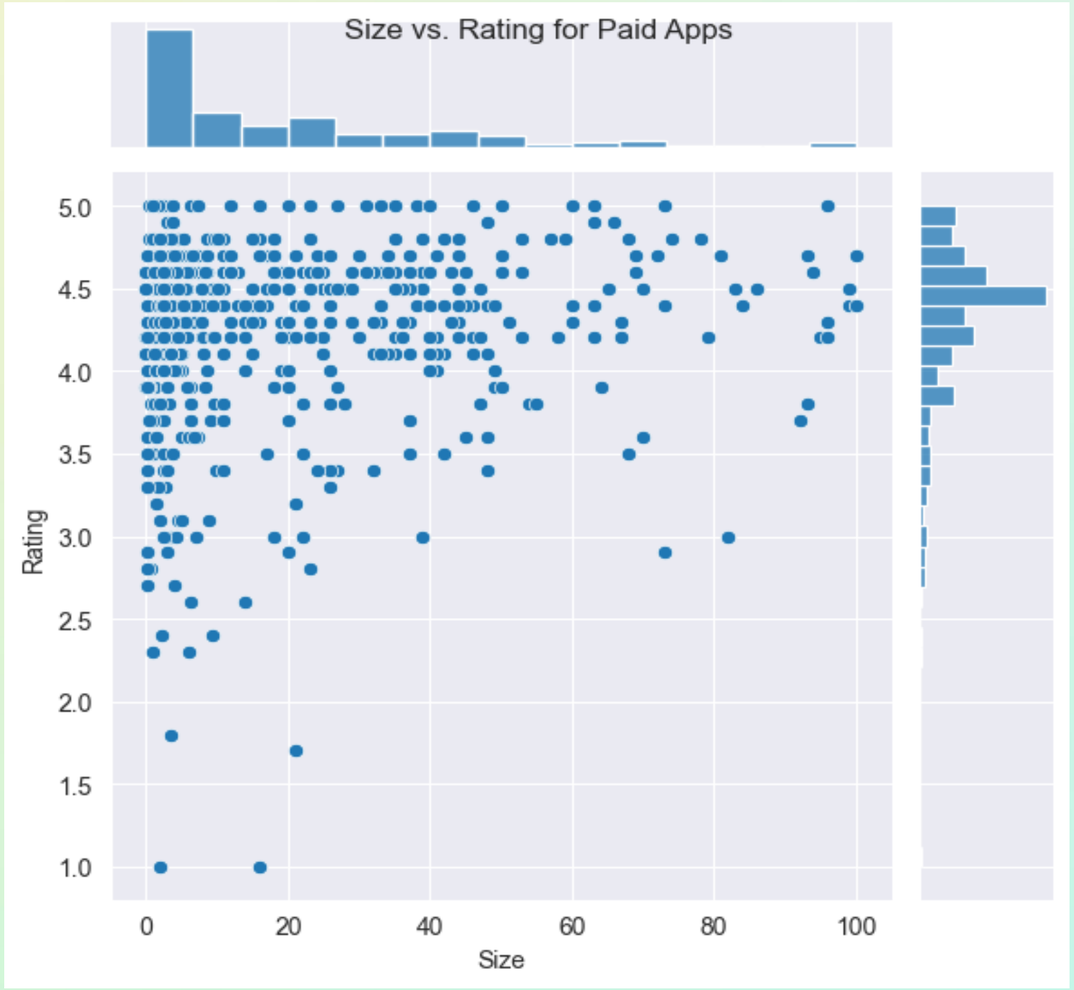
- Analyze the relationship between app size, price, and ratings to identify any trends or patterns.
- Investigate the relationship between app category and app price to understand the pricing strategies across different categories.
- Filter out "junk" apps or apps with no clear purpose to focus on authentic apps.
- Compare the popularity of paid apps versus free apps to understand the user preferences and adoption rates.

Results and Finding

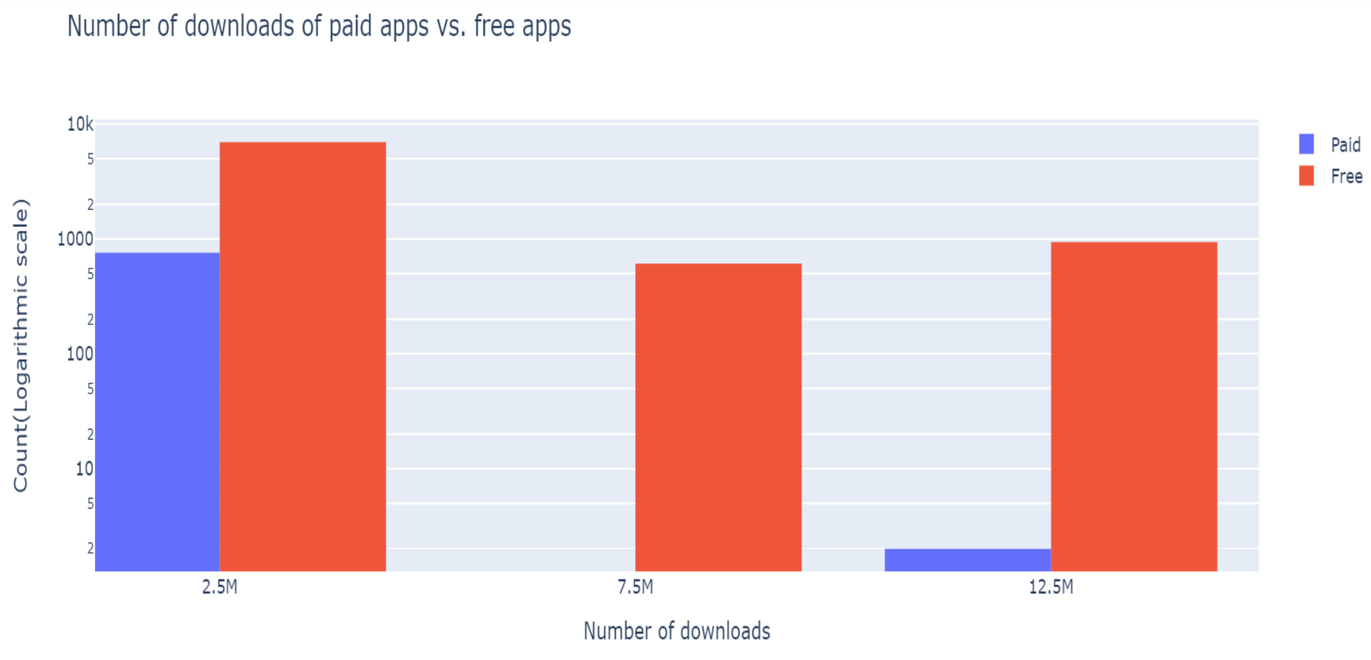
- Dataset: 10,000 apps with reviews categorized by sentiment.
- Data cleaning: Special characters removed from "Installs" and "Price" columns.
- Data types: "Installs" and "Price" converted to float.
- App categories: 33 unique categories, with "Family" and "Game" dominating. "Tools," "Business," and "Medical" also prominent.
- App ratings: Average rating is 4.17, mostly high ratings.
- App size and price: Top-rated apps (rating > 4) range from 2 MB to 20 MB. Majority priced under $10.
- Category-price relation: Medical and Family apps tend to have higher prices. Game apps reasonably priced (<$20).

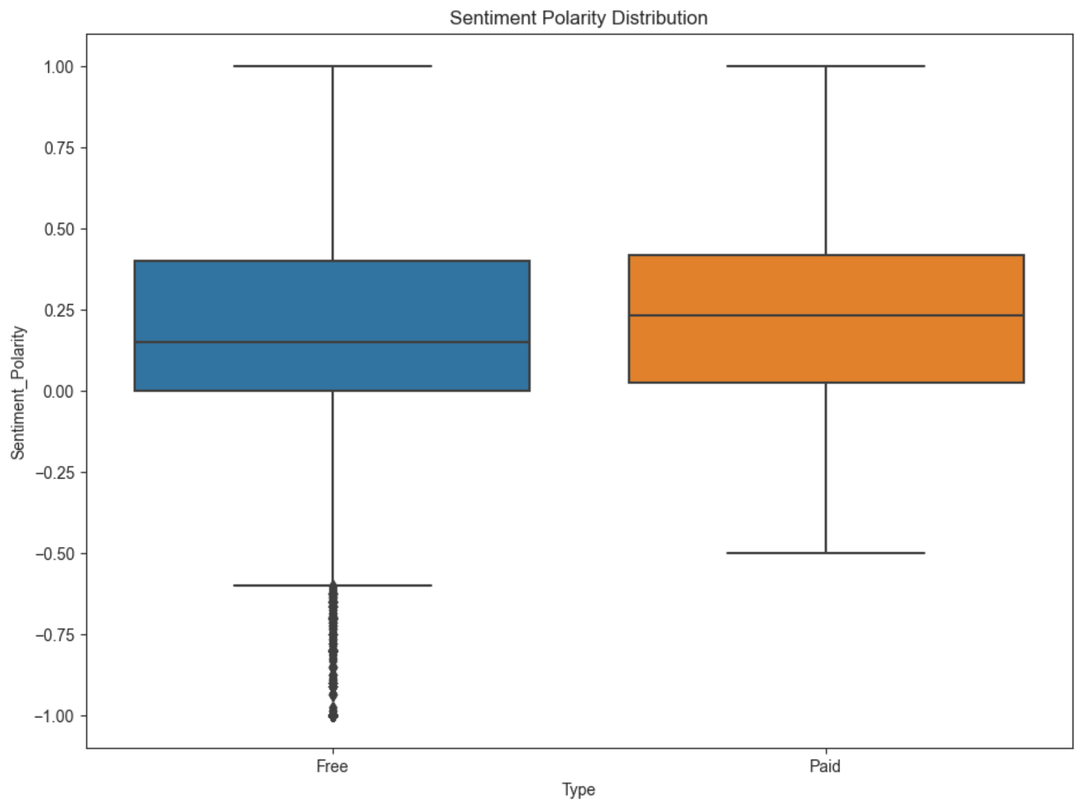
Visual Evidence





Visual Evidence





Conclusion

- The "Family" and "Game" categories dominate the market in terms of app
- The average app rating across all categories is 4.17, indicating that most apps are highly rated.
- App size and price play crucial roles in user preferences, User are attracted by smaller size and lesser Price.
- Some expensive apps are considered "junk" apps and may not provide substantial value to users. Filtering them out reveals a different pricing trend across categories.
- Free apps are more popular than paid apps, although paid apps still have a significant number of installations.
- Although the Free apps are install more but customer satisfaction are provided by the Paid app more then of Free app.

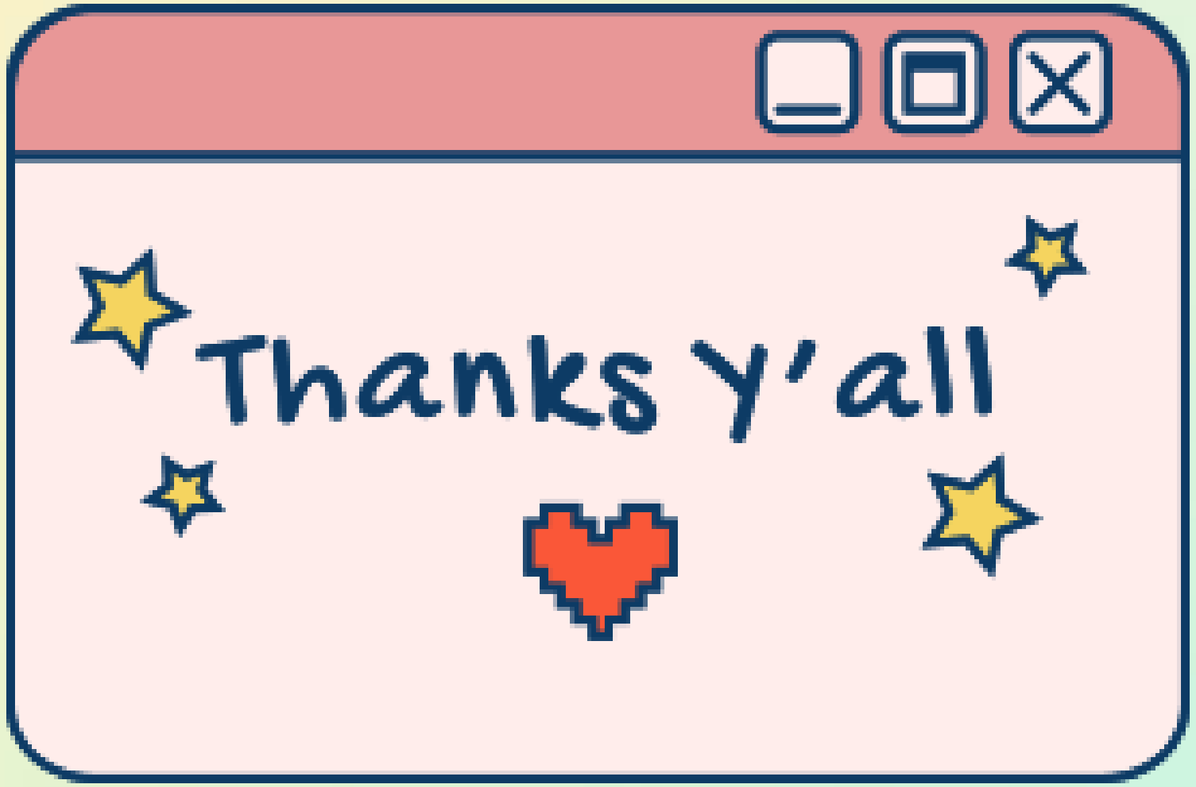
Acknowledgments and Project Link

- **Acknowledgment to DataCamp**: I would like to express my gratitude to DataCamp for providing valuable courses and resources that have contributed to my learning journey and the completion of this project.
- **Acknowledgment to Kaggle**: I would like to acknowledge Kaggle for providing the dataset used in this project. The dataset from Kaggle has been instrumental in conducting the analysis and deriving meaningful insights.

To access the code and detailed documentation for this project, please visit the my GitHub repository by Clicking Here

Future Scope

- Implement app recommendation algorithms based on user reviews and sentiments to enhance user experience and drive app downloads.
- Develop a pricing optimization model to maximize revenue while considering factors such as app category, competition, and user preferences.
- Implement an in-app advertising strategy to generate additional revenue for free apps while maintaining a positive user experience.
- Expand the analysis to include more app metadata and user engagement metrics to gain deeper insights into app performance and user behavior.
- Explore the possibility of integrating machine learning models to predict app success and provide personalized recommendations to users.


Thanks y'all