

GOOGLE PLAY STORE DASHBOARD ANALYSIS REPORT

Introduction

The Google Play Store, home to millions of apps, plays a critical role in the mobile app ecosystem. As an essential marketplace, understanding app performance, user engagement, and market dynamics is crucial for developers and platform owners alike. This report provides an in-depth analysis of the Google Play Store dataset, aiming to generate actionable insights that will guide developers and executives in making data-driven decisions to improve app performance, enhance user engagement, and maximize revenue generation.

Tools

- **Python:** For exploratory data analysis.
- **Power BI:** For the dashboard.

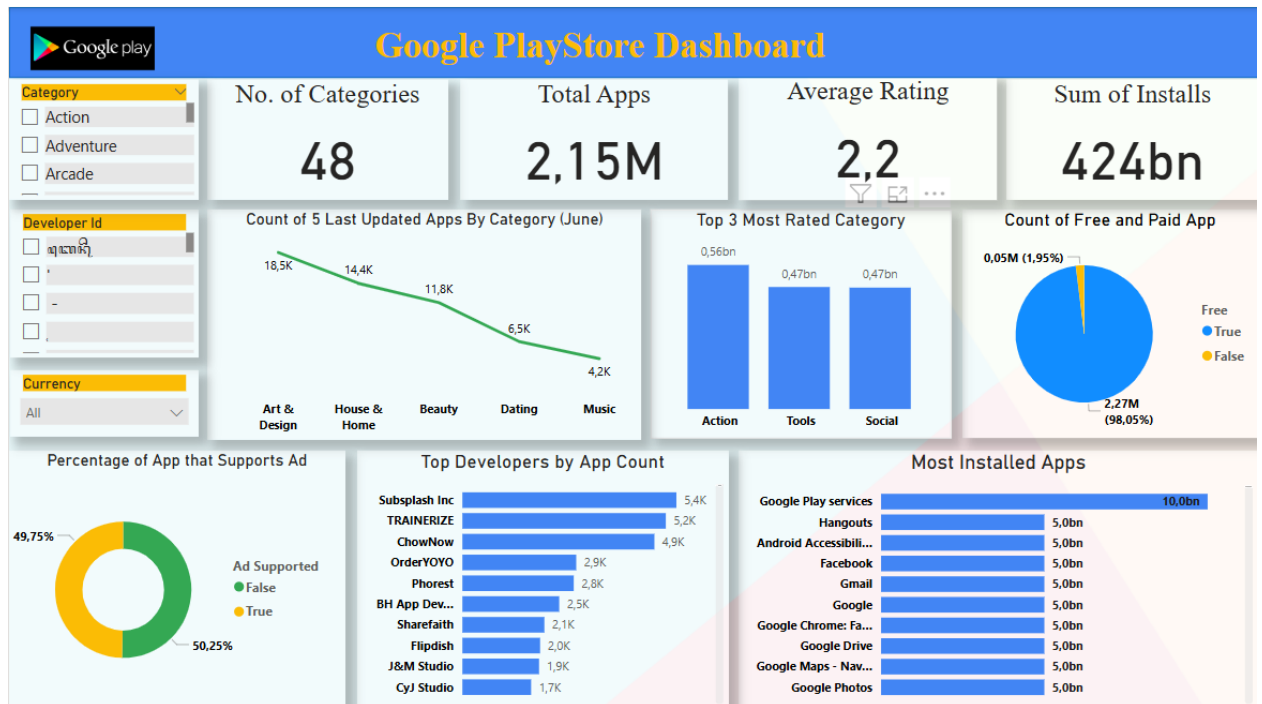
Data Exploration & Cleaning

The dataset initially contained 2,312,944 rows and 24 columns, which underwent extensive data cleaning and transformation before being imported into Power BI for visualization.

The following steps were taken to clean and prepare the data:

- Removed duplicate entries (none found).
- Handled missing values by filling with mode, median, or 'Unknown' where appropriate.
- Converted Size column values into megabytes and changed data type to float.
- Converted Released, Last Updated, and Scraped Time columns into datetime format.
- Cleaned Ratings and Installs columns by standardizing formats and replacing missing values.
- Dropped non-essential columns such as Developer Website, Developer Email, and Privacy Policy.
- Saved and imported the cleaned dataset into Power BI for visualization.

Dashboard



Key Performance Indicators (KPIs)

- Number of Categories** - 48 app categories are available.
- Total Number of Apps** - 2.15 million apps are listed.
- Average Rating** - 2.2, indicating user satisfaction levels.
- Total Installations** - 424 billion downloads.
- Count of Free and Paid Apps** - 98.05% of apps are free, while 1.95% are paid.
- Percentage of Apps that Support Ads** – 49.75% of apps include ads.
- Top 3 Most Rated Categories** - Action, Tools, and Social apps have the highest ratings.
- Top Developers by App Count** - Subsplash Inc, TRAINERIZE, and ChowNow have the most published apps.
- Most Installed Apps** - Google Play Services, Hangouts, Android Accessibility, Facebook, Gmail, and Google Maps lead with the highest downloads.
- Last Updated Apps by Category** - Art & Design, House & Home, and Beauty have the highest number of recently updated apps.

Insights

- ❖ **Dominance of Free Apps:** The overwhelming majority of apps (98.05%) are free, meaning revenue generation relies heavily on ads and in-app purchases.
- ❖ **Low Average Rating (2.2):** The overall rating suggests user dissatisfaction, indicating a need for quality improvements.
- ❖ **Google Services Dominate Installations:** Google's own apps account for most of the top installed applications, showing their dominance in the Play Store ecosystem.
- ❖ **Ad-Supported Apps Split Almost Equally:** With 49.75% of apps containing ads, monetization through advertising remains a key strategy.
- ❖ **Action, Tools, and Social Apps Are the Most Rated:** This indicates high user engagement with these app categories.
- ❖ **Developer Trends:** Some developers publish a significantly higher number of apps, suggesting a competitive market where large-scale developers have an advantage.
- ❖ **Regular Updates in Certain Categories:** Art & Design, House & Home, and Beauty categories have more frequently updated apps, which could suggest a high level of competition or rapid changes in user needs.

Conclusion

The Google Play Store remains a highly competitive marketplace with a strong presence of free apps and ad-supported revenue models. User engagement varies across categories, and maintaining frequent updates is essential to staying relevant. Google's dominance in the most-installed apps reinforces its central role in the Play Store ecosystem.

Recommendations

- **Improve App Quality:** Developers should focus on enhancing user experience and addressing negative feedback to improve the average rating.
- **Explore Alternative Monetization Strategies:** Since free apps dominate, developers should consider in-app purchases or premium versions to generate revenue.
- **Leverage High-Rating Categories:** Investing in Action, Tools, and Social app categories could yield higher engagement and visibility.
- **Target Advertising Opportunities:** With a nearly 50/50 split in ad-supported apps, developers should optimize ad placements to balance monetization and user experience.