

# Findings

## Google Play Store Data Analysis: App Categories, User Trends, and Engagement

### 1. The Data I Worked With

- **Dataset Source:** The analysis is based on the Google Play Store dataset, containing data for apps including:
  - Categories, installs, user ratings, reviews, pricing, app sizes, and more.
- **Scope:**
  - Rows: Multiple app entries spanning different categories.
  - Columns: Key metrics like **Installs**, **Rating**, **Reviews**, **Price**, and **Category**.
- **Cleaning Steps:**
  - Removed invalid entries, such as non-numeric values in **Installs** (e.g., commas, "+" symbols, etc.).
  - Filtered rows with missing or anomalous data to ensure accuracy in analysis.

### 2. The Question or Problem You Set Out to Solve

- **Key Questions:**
  1. *Which app categories are most popular based on total installs?*
  2. *What trends can be observed in user ratings and reviews across these categories?*
  3. *Do higher app ratings or reviews correlate with higher installs?*
- **Objective:**
  1. To uncover actionable insights for app developers, businesses, and marketers seeking strategies to optimize app engagement and user satisfaction.

### 3. Key Findings and Takeaways

- **App Popularity:**
  - Categories like **Games**, **Social**, and **Communication** dominate installs, reflecting their widespread engagement among users.
  - The total installs highlight trends in user preferences toward entertainment and interaction-based apps.
- **Ratings Distribution:**
  - Ratings are heavily clustered in the range of **4.0–5.0**, showcasing high user satisfaction with most apps.

- A small proportion of apps received lower ratings, which could point to issues with app functionality or user experience.
- **Correlation Between Reviews and Installs:**
  - A positive correlation exists: apps with higher reviews tend to have larger numbers of installs.
  - Logarithmic trends in scatterplots show how some apps dominate the engagement landscape more significantly than others.