



# Google Playstore Data Analysis

By Hamzat Abdulrahman



# Project Description:

- *To better understand the categorical popularity of apps, pricing, user reviews and identifying trends and patterns*
- *This will help us to:*
  - *Identify for which category of apps users are more interested in and should be developed.*
  - *Know the stats of free and paid apps on playstore.*
  - *Understand the impact of app size and price on users downloads and installs.*



## Key questions:

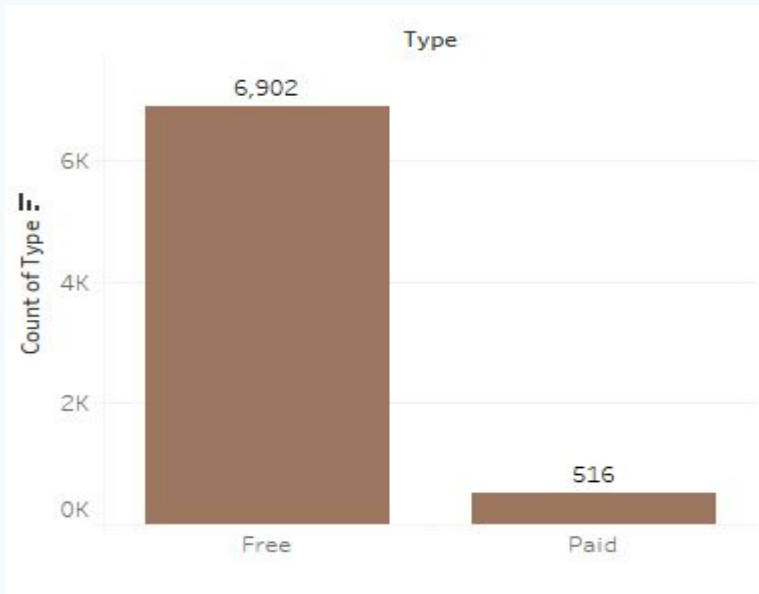
1. What is the count of free and paid apps, and how do installation frequencies vary between them?
2. (a) What are the most popular app categories?  
(b) Specifically, how do the app categories vary between free and paid apps based on popularity?  
(c ) And what could be the cause of variation?
3. What is the impact of app size and price on users downloads and installs?
4. What is the average number of reviews across all the available app categories?



# Findings & Insights



# 1. What is the count of free and paid apps, and how do installation frequencies vary between them?



## Total users downloads for free and paid categories

Type	
Free	141,917,545,766
Paid	59,345,521

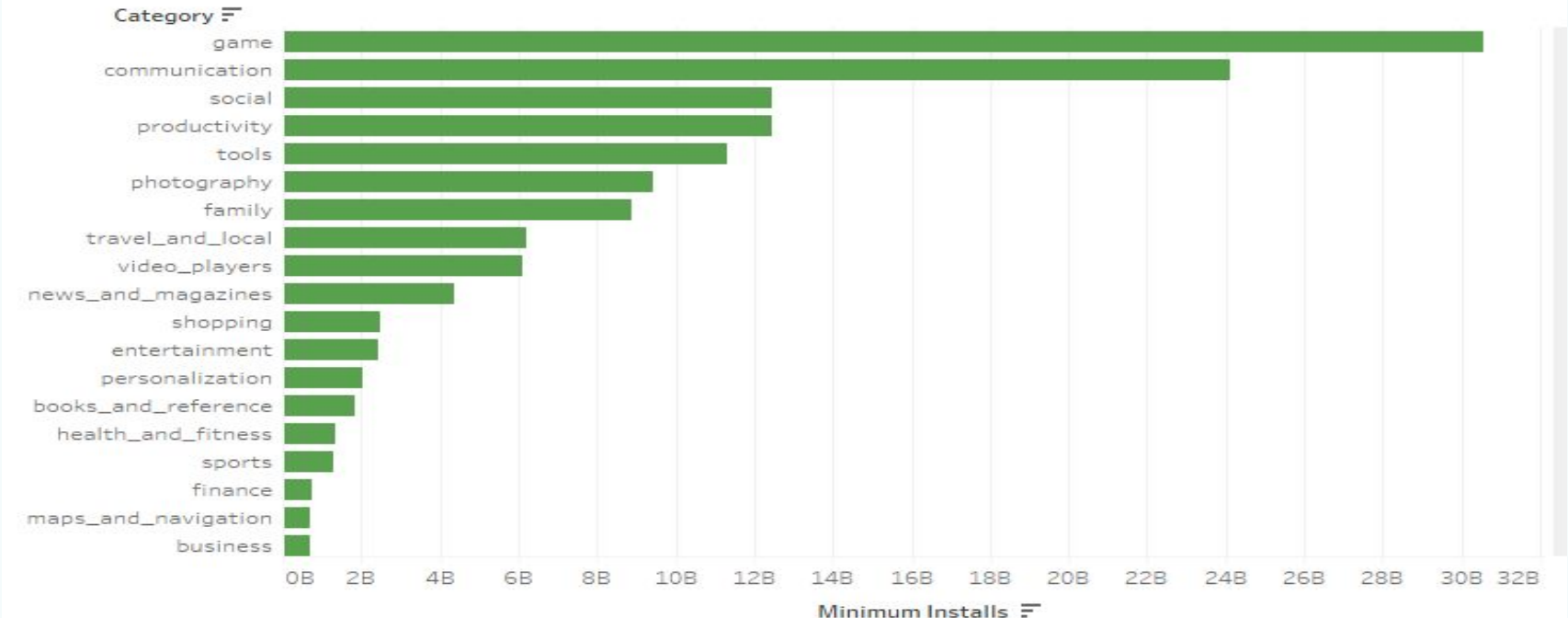
About 93.04% of the apps in the dataset are free, while the remaining 6.96% are paid. Also, there are a total of about 141 billion + users installs for free apps, while its just 59 million+ for paid apps.



## 2. (a) What are the most popular app categories?

Fig 2a: General distribution of app categories based on user installs (popularity).

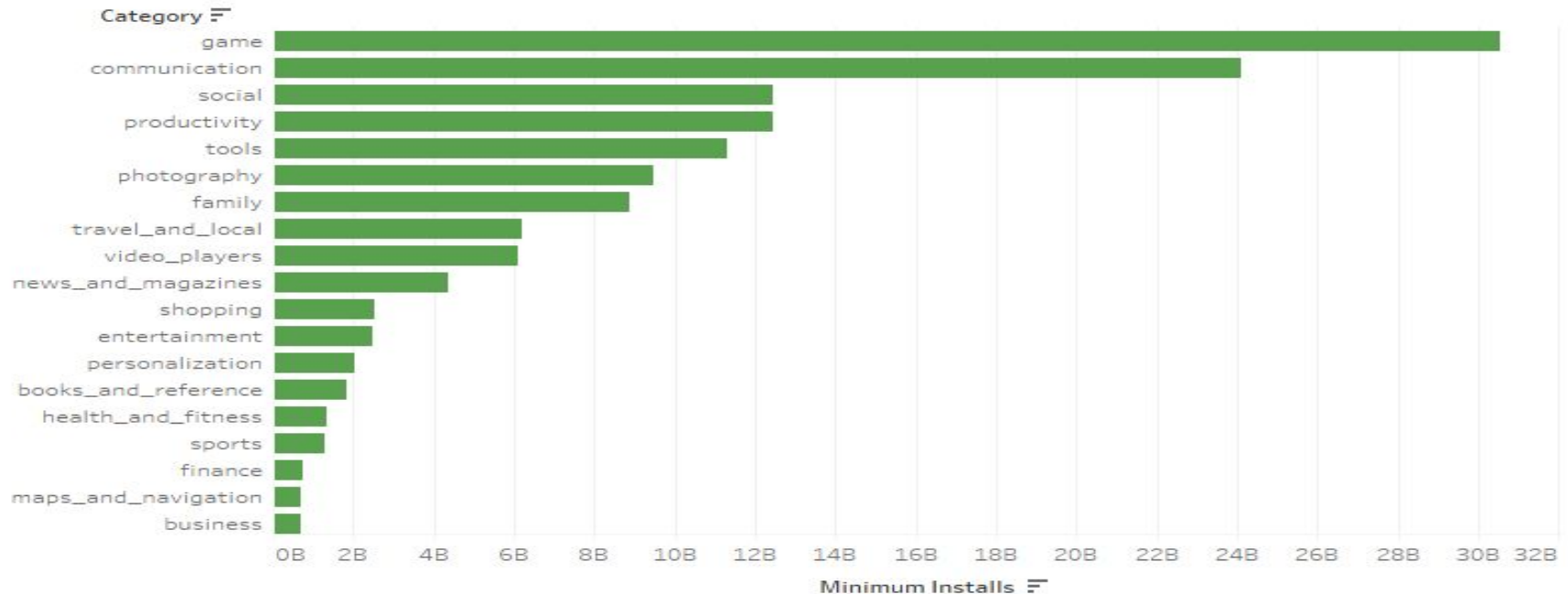
Distribution of app categories based on user installs





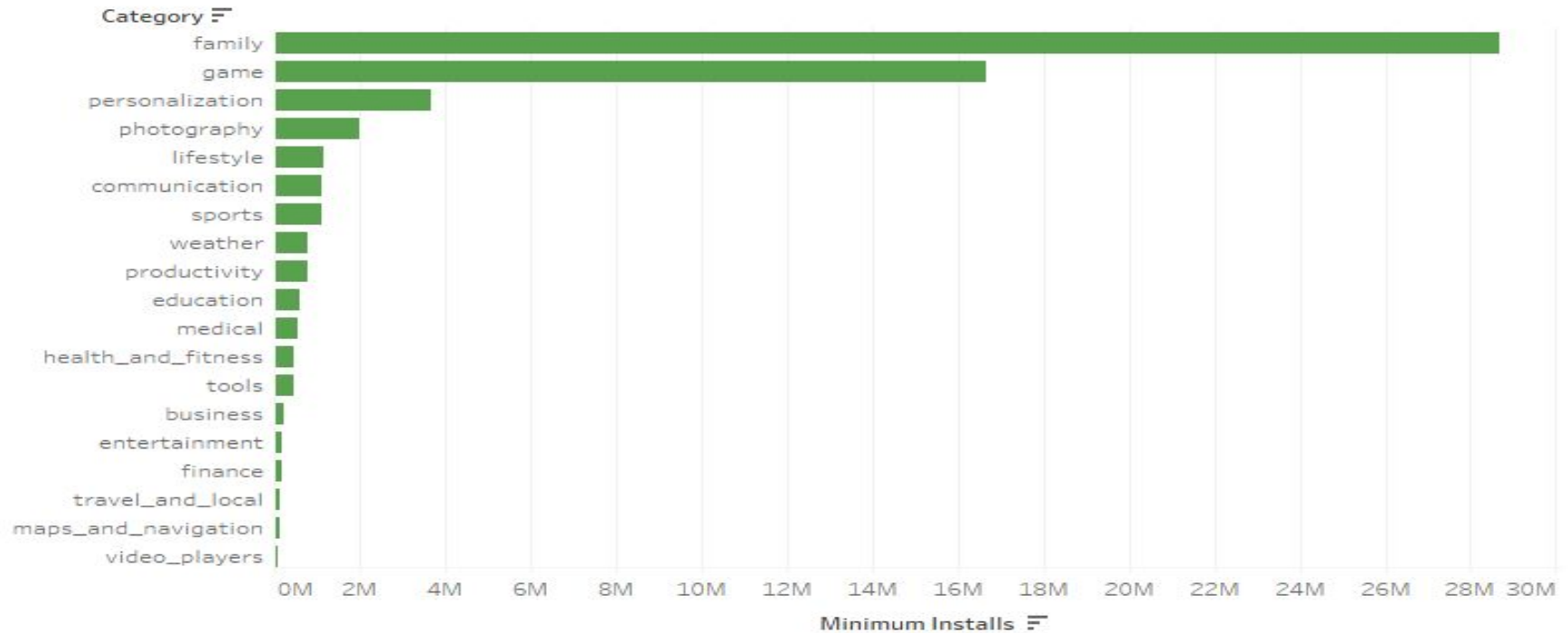
## 2. (b) Specifically, how do the app categories vary between the free and paid apps based on popularity?

Fig 2b i: Distribution of **free app** categories based on their popularity





*Fig 2b ii: Distribution of **paid app** categories based on their popularity*







## 2.(c ) And what could be the cause of variation?

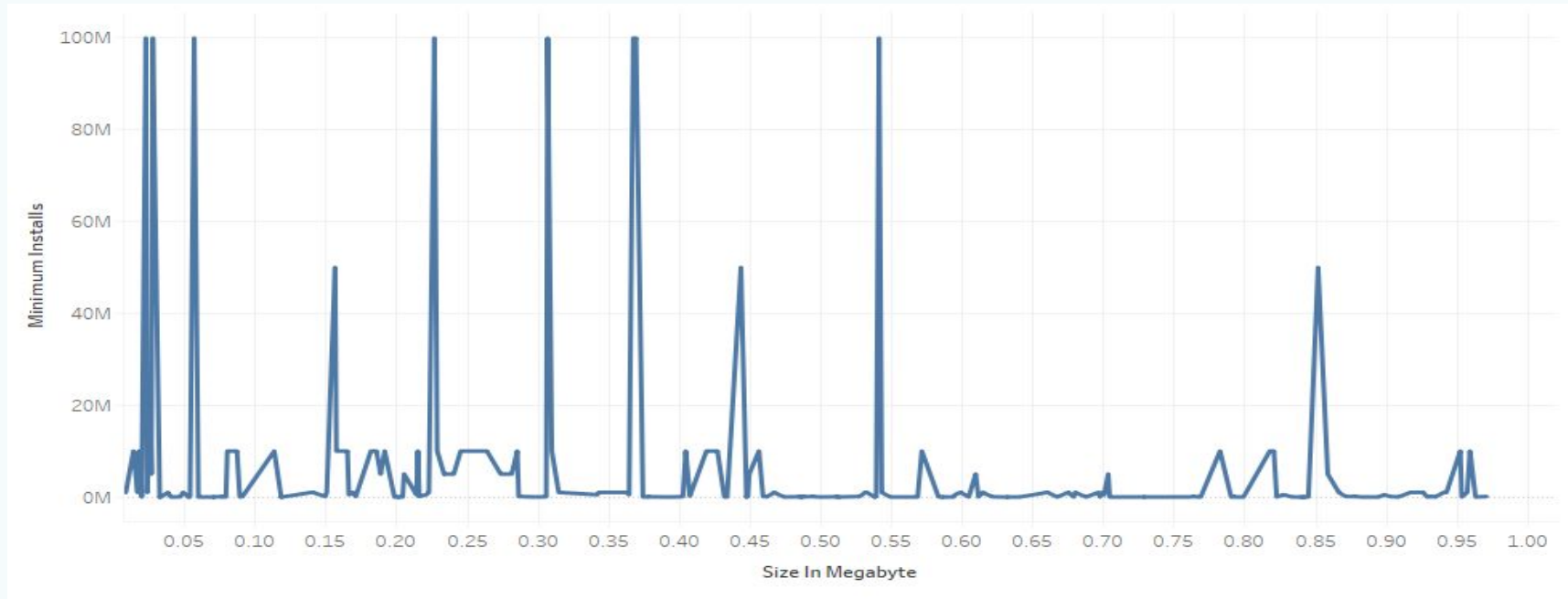
1	AVERAGE of rating	type	
2	category	Free	Paid
3	education	4.36	4.75
4	personalization	4.34	4.46
5	game	4.29	4.37
6	family	4.20	4.30
7	tools	4.04	4.26
8	sports	4.21	4.25
9	lifestyle	4.07	4.25
10	communication	4.17	4.16
11	productivity	4.20	4.11
12	photography	4.25	4.00

*From among the selected top ten paid app categories, 7 out of 10 had an average user rating higher than that of the free paid apps within the same category. This implies that there is a better user satisfaction for the paid apps, which could be the possible cause of variation in app popularity.*



### 3. What is the impact of app size and price on users downloads and installs?

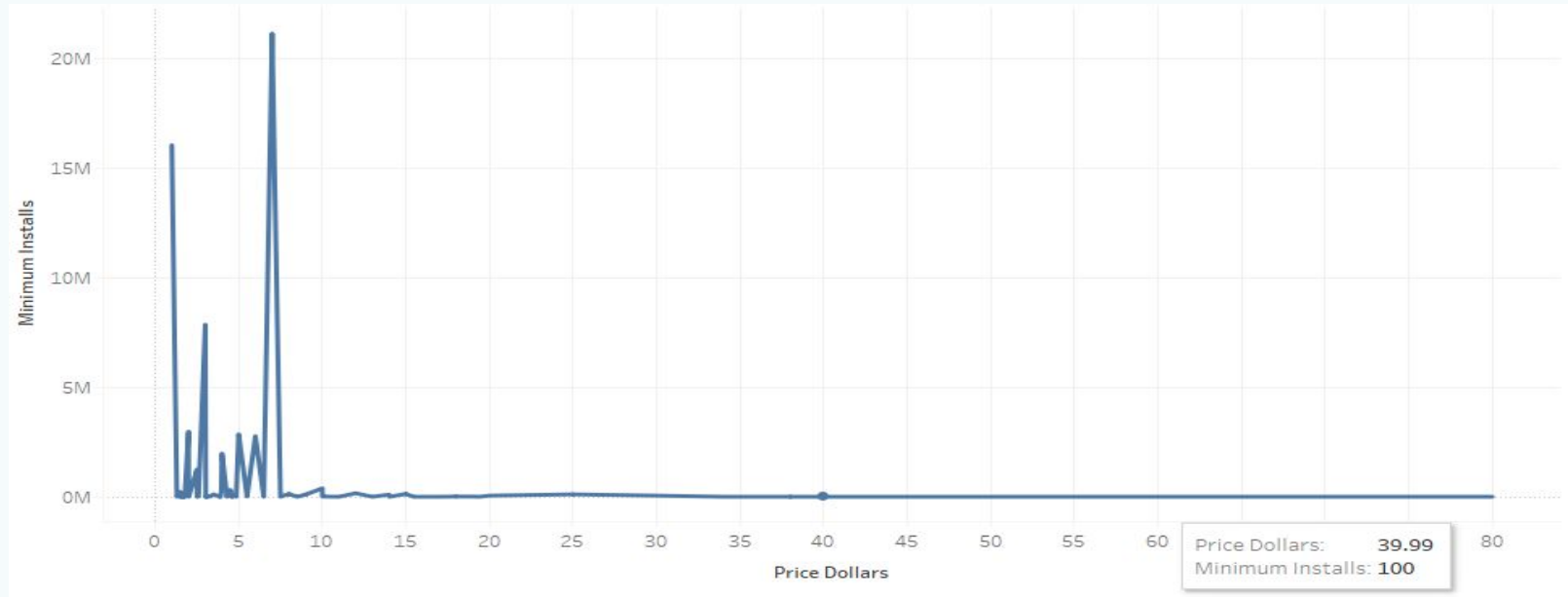
Fig 3a: app size versus user installs



*There are greater user downloads/installs for apps that are very light in size.*



Fig 3b: app price versus user installs

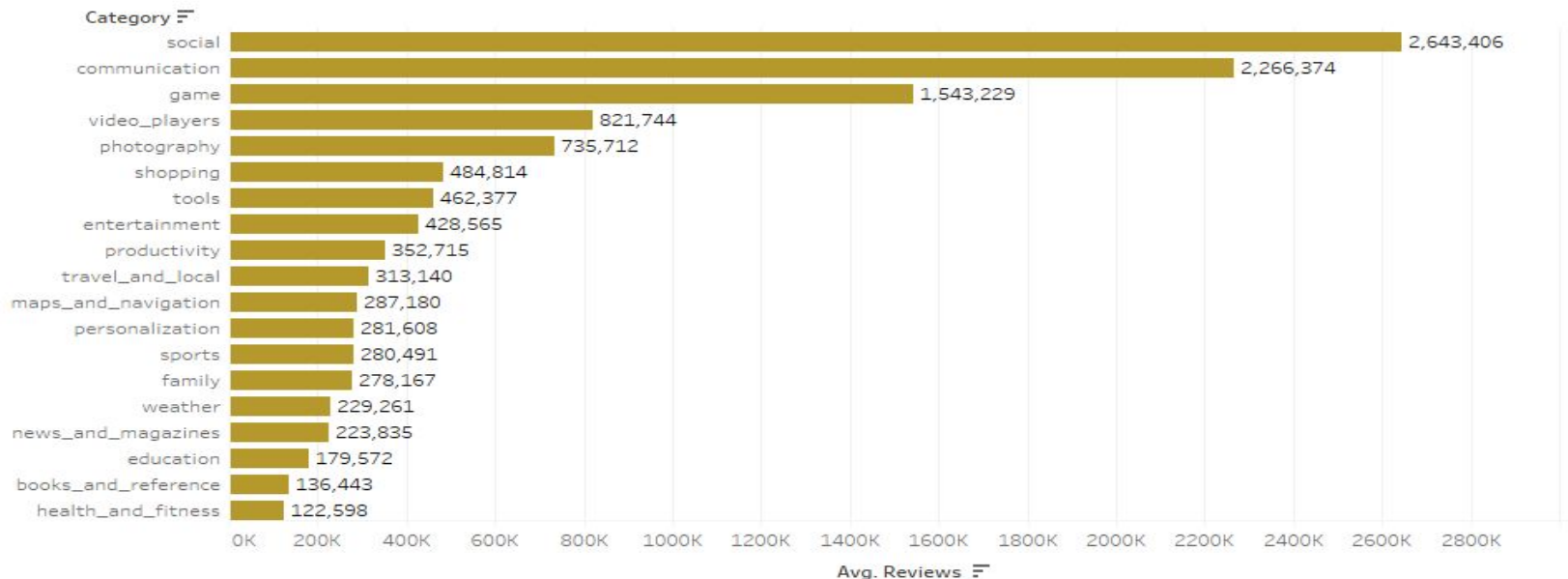


*Price of apps have impact on the rate of installations from potential users.*



## 4. What is the average number of reviews across all the available app categories?

Distribution of app categories based on average user reviews



The top ten app categories here with the highest reviews are very similar to the ten most popular categories earlier, with the exception of app categories such as **family**, **entertainment**, **shopping** that fall in the top ten reviews but not the top ten installs/downloads.



# Summary



# Summary of findings:

- **Free vs paid apps:**

- About 93.04% of the apps in the dataset are free, while the remaining 6.96% are paid. In addition, about 99.96% of total user downloads are for the free apps, while the remaining 0.04% are for paid apps.

- **Popular app categories:**

- The top 10 popular app categories are game, communication, social, productivity, tools, family, photography, travel and local, and video players.
- While there exist some common most popular categories for both free and paid types, the top ten list for both types is a bit different even in ranks. This variation could be attributed to the higher average rating scores associated with the paid apps.

- **App size; price vs user installs:**

- There are greater number of downloads for apps that are lighter in size, and the lower the price of apps the larger the sum of downloads.

- **App reviews:**

- The data tells that the most popular apps usually have the highest reviews from their users.



# **Actions & Recommendations**



## Recommended actions:

### **Product recommendations:**

- *App developers should consider making their app paid only if it has great extra features beyond what the majority of free apps in the same category can offer.*
- *Developed apps should be light in size as possible, and should not be too costly for the targeted category of users.*

### **Marketing recommendations:**

- *More marketing and advertising campaigns should be created for apps that fall in the least popular categories such as medical, auto and vehicle, libraries and demo etc.*





# Thank you!