

# CAPSTONE PROJECT 1

## Playstore App Review Analysis



By - Wasim Ahmad

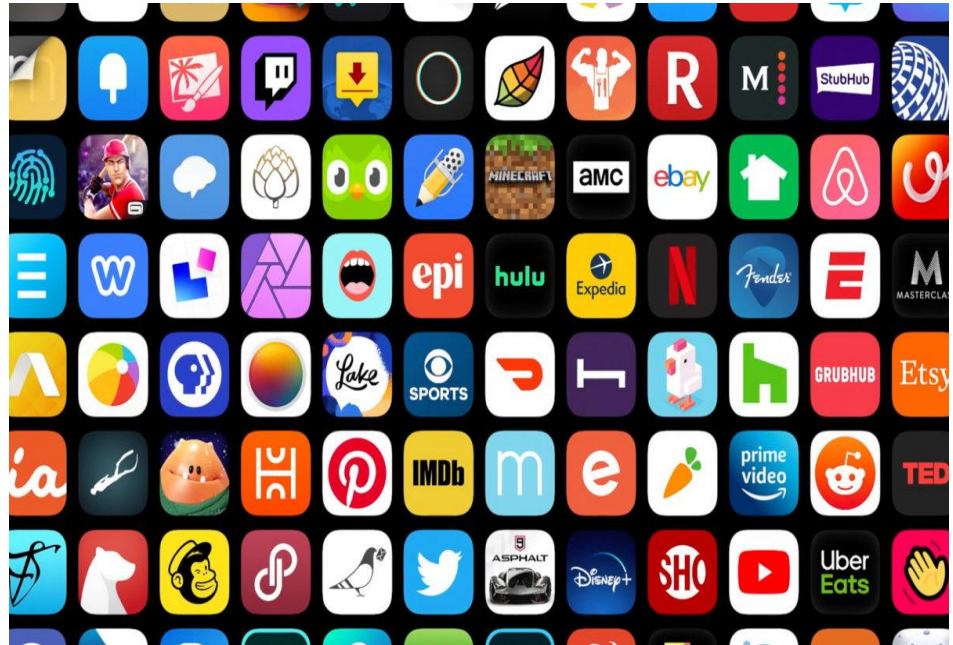
# Let's Play With Play Store

- Introduction
- Defining Problem Statement
- Data Summary
- Data Exploration
- Data Cleaning
- Data Visualization
- Conclusion and Inference



# Introduction

- Play Store App
- Importance
- Necessity
- Demand
- Opportunities
- Challenges



# Defining Problem Statement

- In Today's competitive world, for any product to be in trend continuously or to exist continuously in the market, it needs to continuously update its features and properties from users' feedback, end users' demand and current market trend etc.



# Continued....

- The challenge is to create such an app, in the current competitive environment, and leverage from existing data.
- Our aim is to discover the factors/features on which the success of an app depends on.

# Data Summary

## PLAY STORE DATA

**App-** The name of application

**Category-** Categorical label, It describes which broad category the app belongs to like Tools, Education, Family etc.

**Rating-** Continuous variable with a range from 0.0 to 5.0, which describes the average rating the app has received from the users.

**Reviews-** Continuous variable describing the number of reviews that the app received.



# Data Summary Continued....

**Size-** The space taken by the app in mobile or tablet.

M - Megabytes

K - Kilobyte

**Installs-** Label that describes the number of installs.

**Type-** Categorical label that indicates whether the app is free or paid

**Price-** The price value for the paid apps.

# Data Summary Continued....

**Content Rating** - Categorical rating that indicates the age group for which the app is suitable for like Teens, Adults or Everyone etc.

**Genre**- Genres to which the app belongs like Art and design, books, wheather etc

**Last Update**- The date the app was last updated.

**Current Version**- The current version of the app as specified by the developers.

**Android Version**- The Android operating system the app is compatible with



# Data Summary Continued....

## USER REVIEW DATA

**App-** The name of application

**Translated review** - The User's experience written for app

**Sentiment** - Positive , Negative or Neutral

**Sentiment Polarity** - Lies between -1 to 1

**Sentiment Subjectivity** - Float data lies between 0 to 1

# Data Exploration

It is a **key aspect of data analysis**.  
Without spending significant time  
on understanding the data and its  
patterns one cannot expect to see  
useful insight build efficient  
predictive model

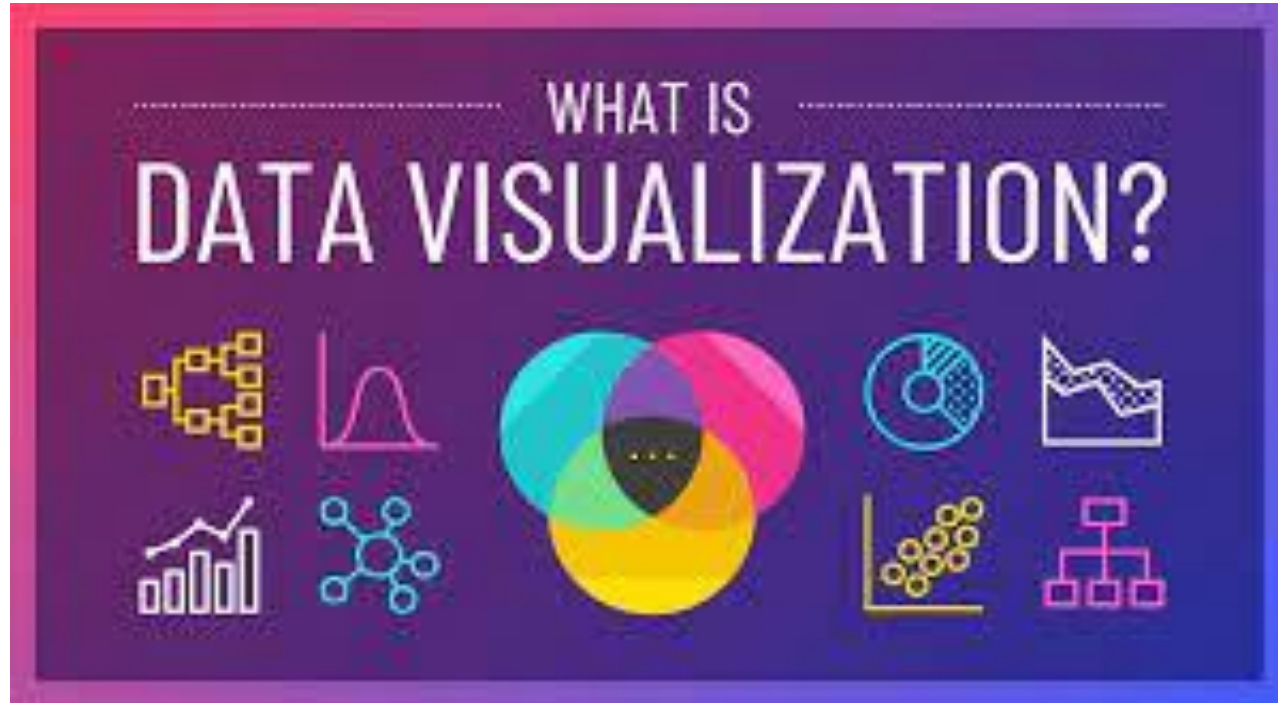


# Data Cleaning

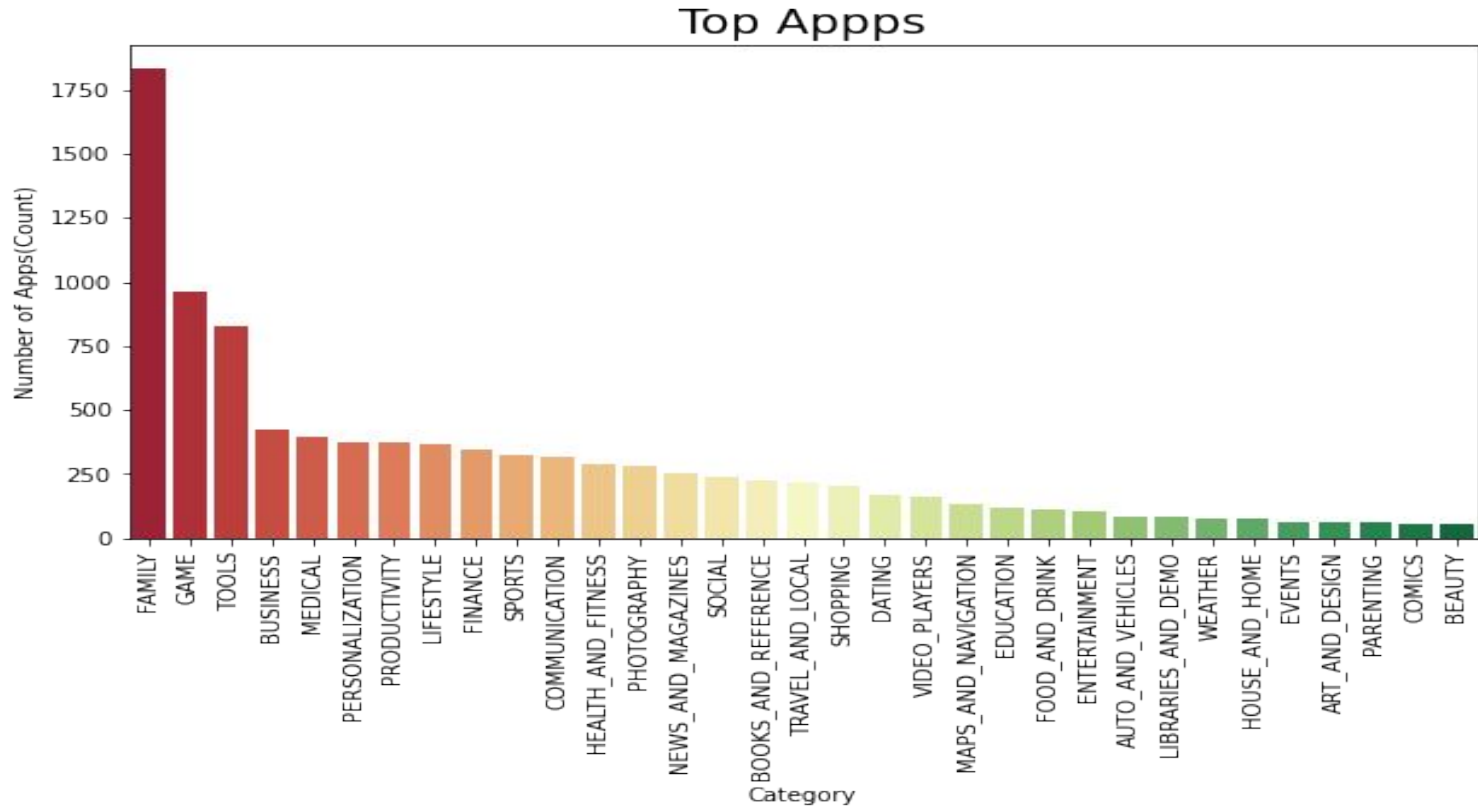
Data cleaning is the process of fixing or removing incorrect, corrupted, incorrectly formatted, duplicate, or incomplete data within a dataset. When combining multiple data sources, there are many opportunities for data to be duplicated or mislabeled.



# Data Visualisation

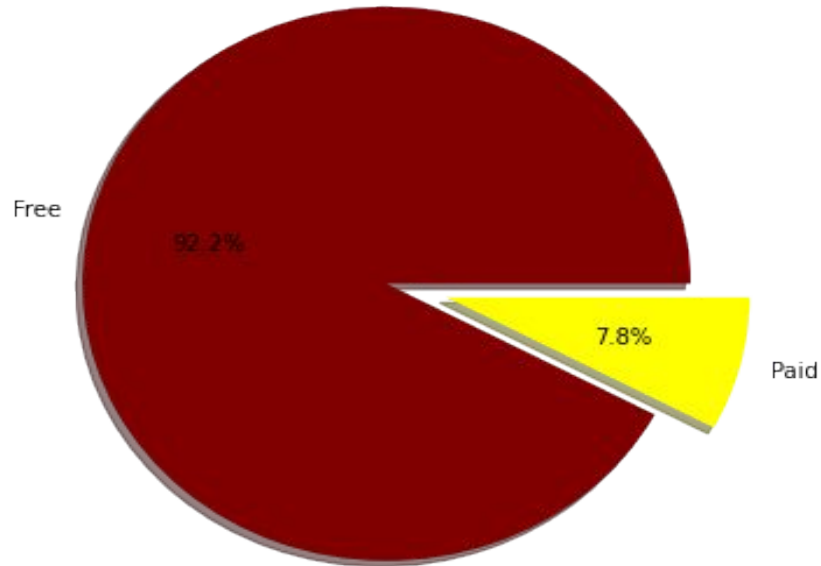


**In Category section Family, Games' and Tools winning the race. So this Data shows the current trend of users demand**

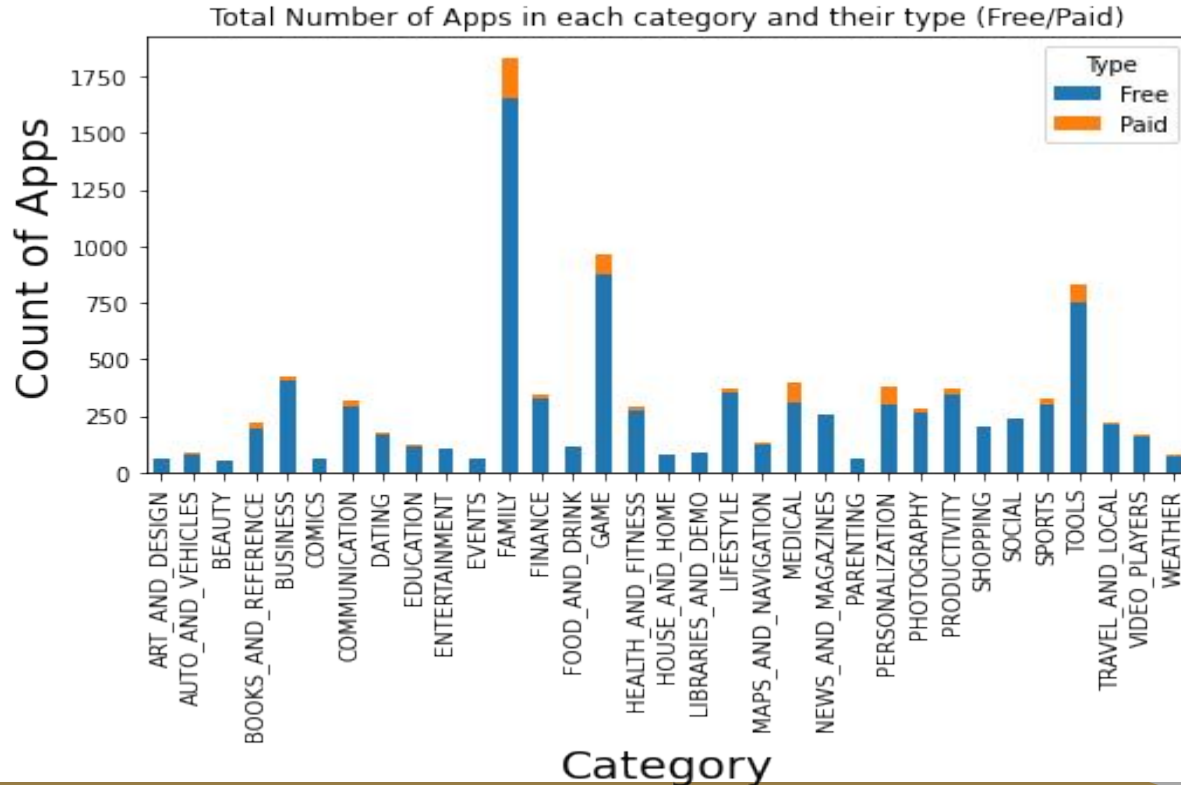


**Pie chart we can clearly see that majority (92.2%) of apps are free and 7.8% are paid**

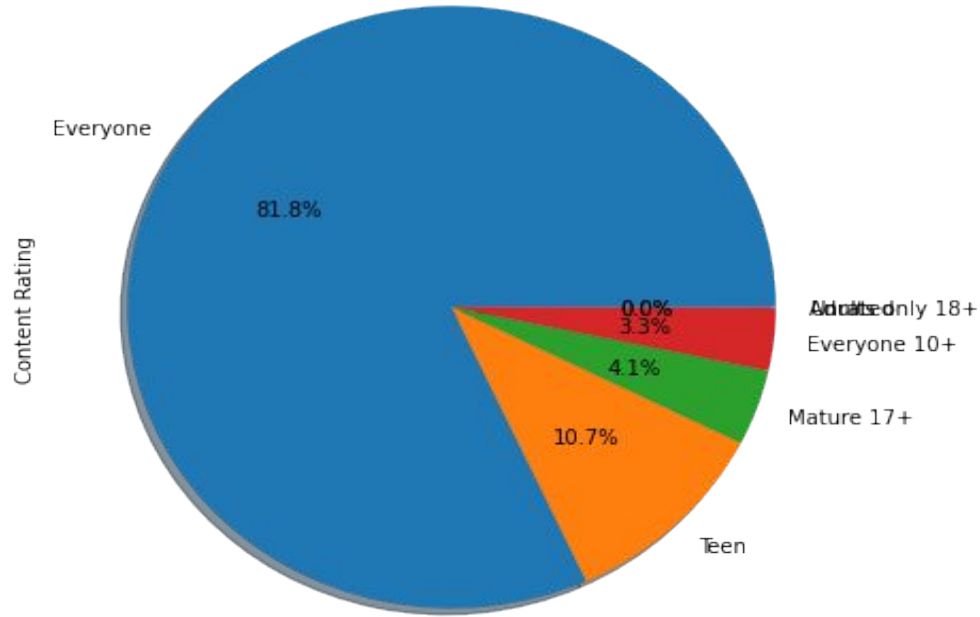
Percentage of free and paid Apps



**This bar plot shows clearly that majority of categories contains free app for download. The most paid apps available for download are in Family, Game, Tools and Medical category**

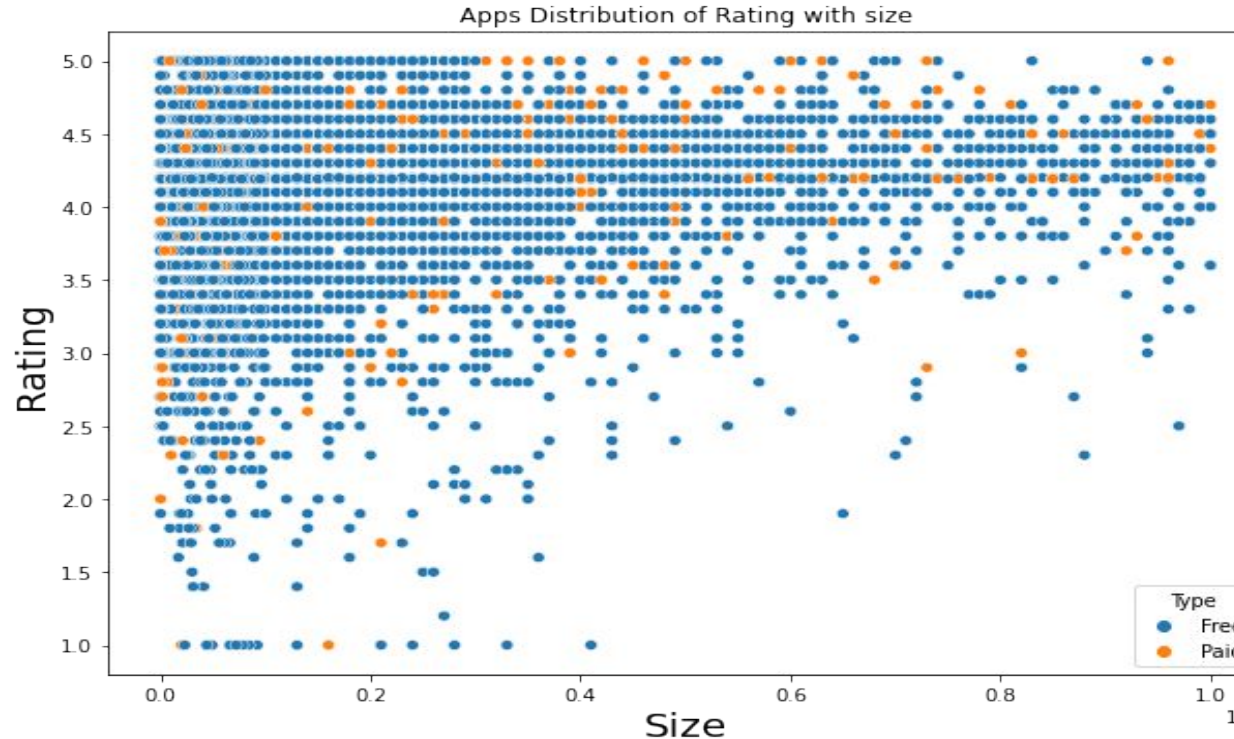


The Majority of Apps on Playstore have Contents for everyone. Thus, This creates a user-friendly environment on Play store

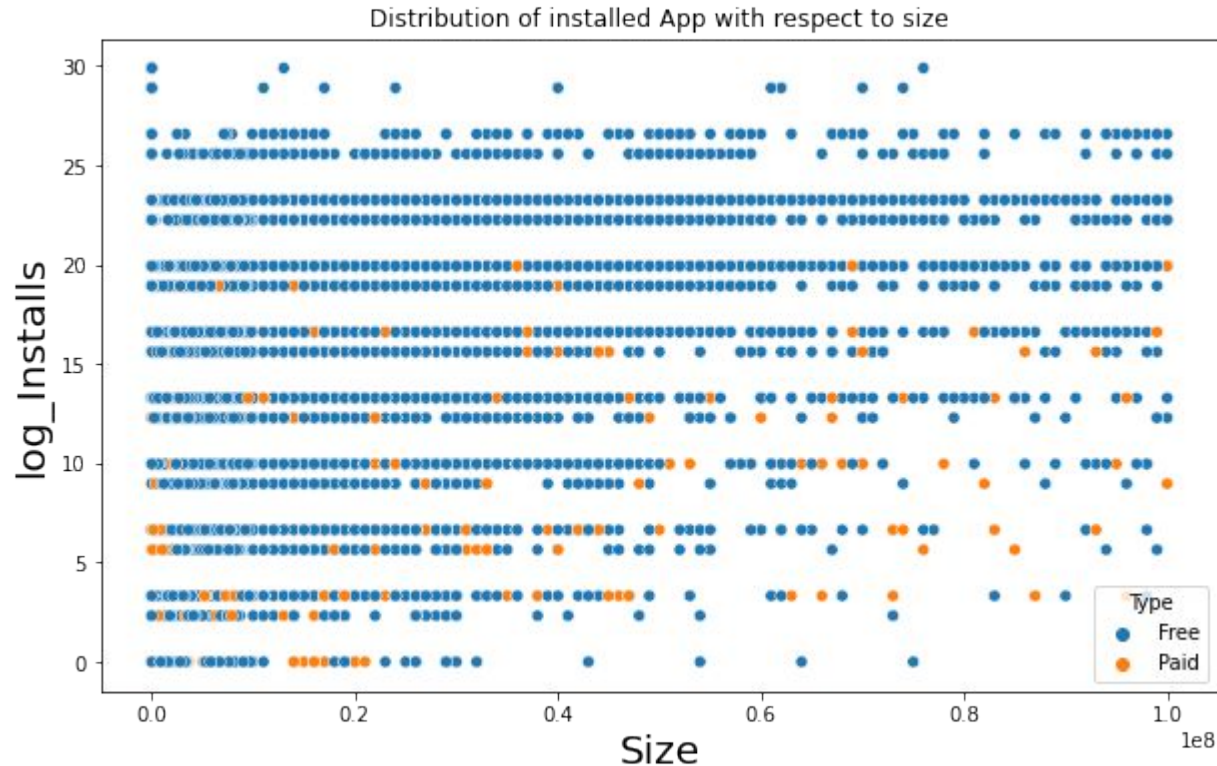




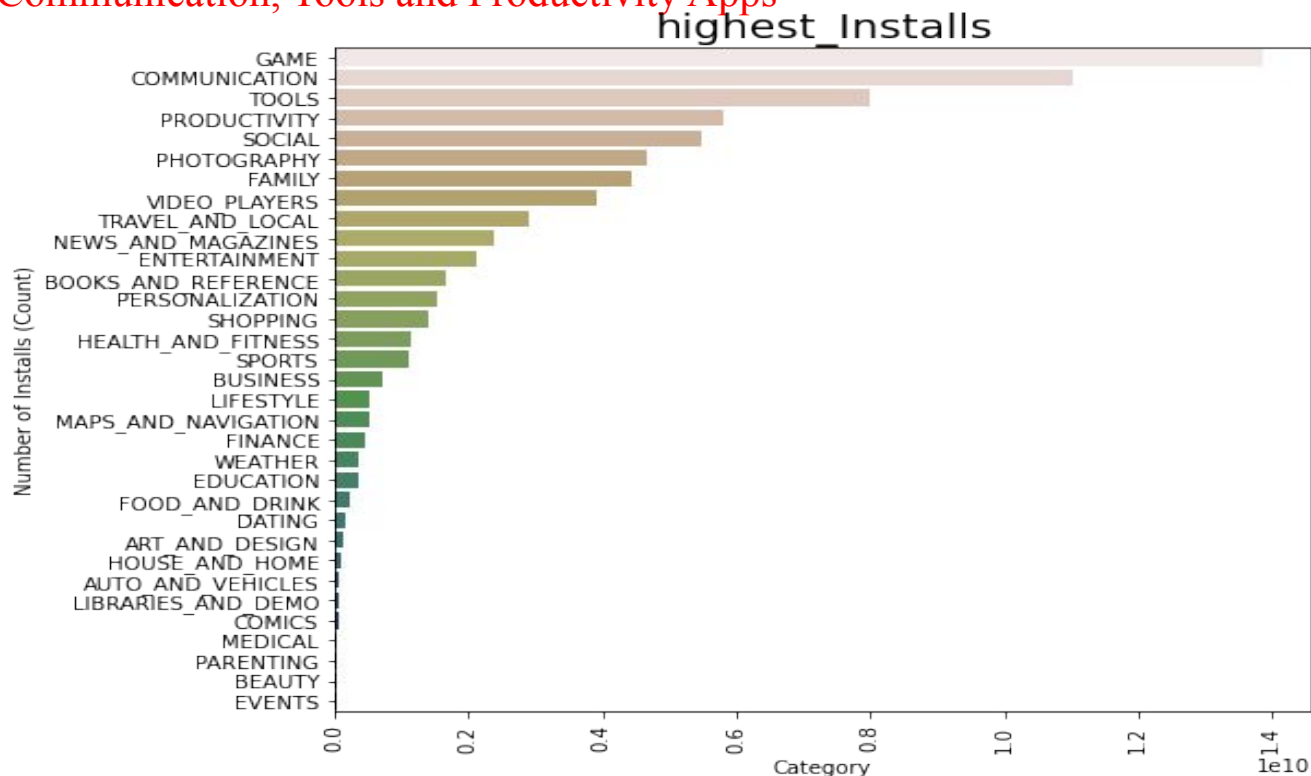
Majority of free apps are small in size and having high rating. While paid apps have quite equal distribution in terms of size and rating



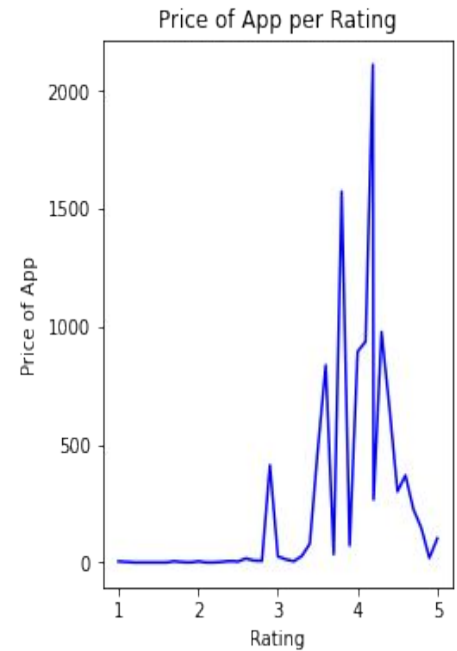
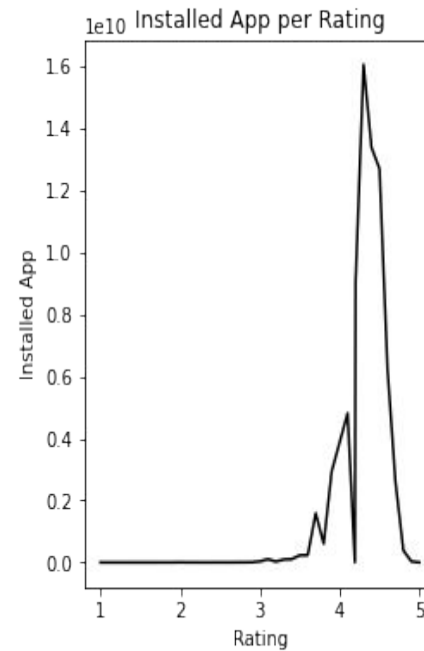
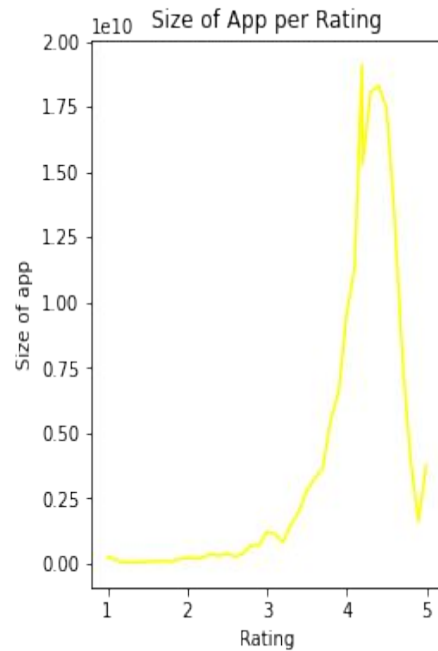
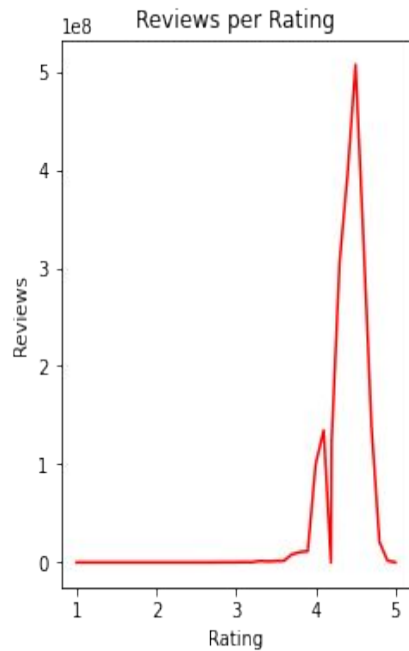
The apps bigger in size are less downloaded by user. Size of the apps creates an impact on users' and rating of the Apps



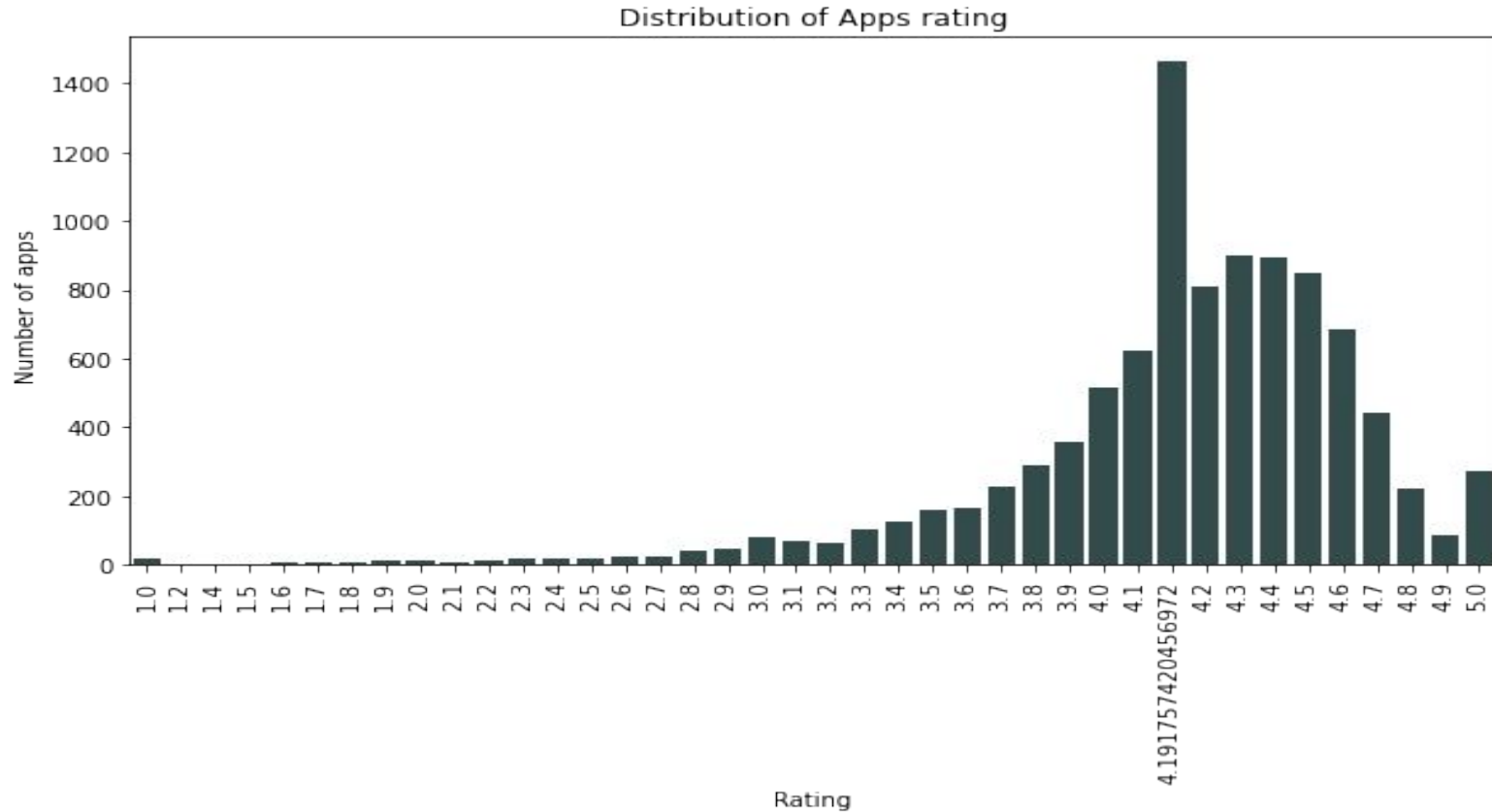
It shows the maximum number of user love Gaming Apps as it has maximum number of installs while availability of Family category App is higher on Play store. After Gaming Apps users like Communication, Tools and Productivity Apps



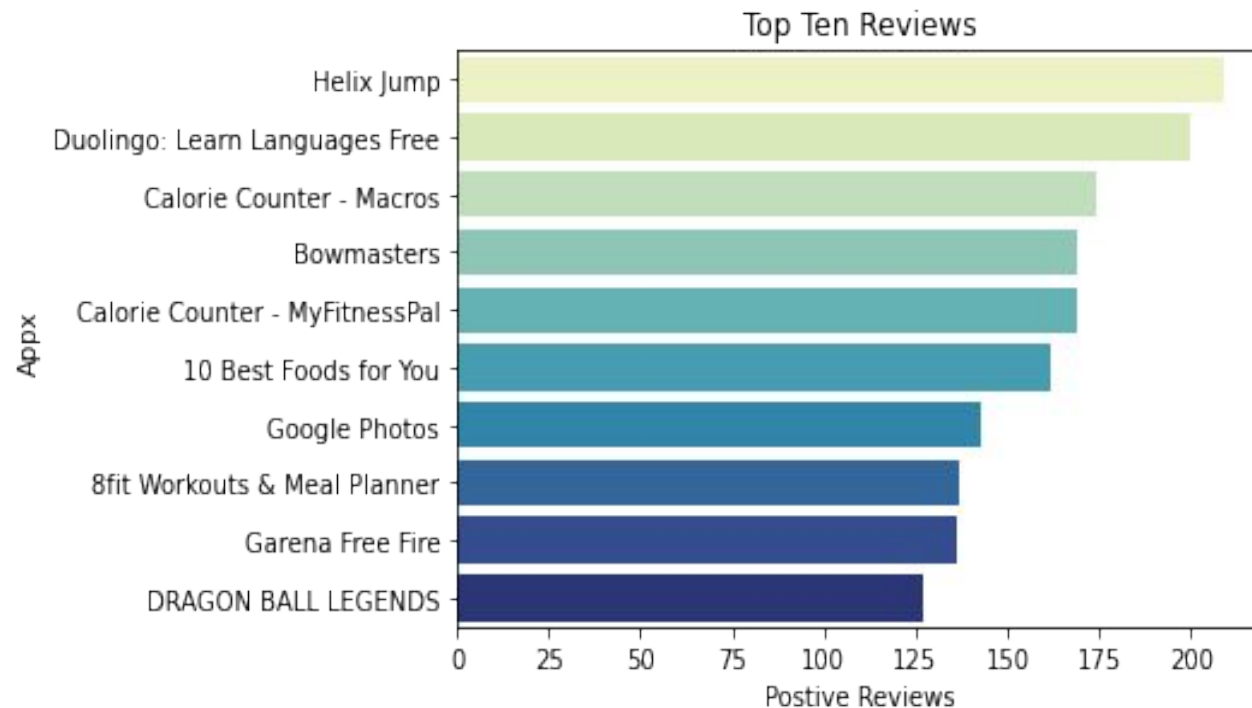
From the this plotting, we can say that most the apps with higher rating range of 4-4.7 are having high amount of reviews, size, and installs. In terms of price, it doesn't reflect a direct relationship with rating, as we see a fluctuation even at the range of high rating



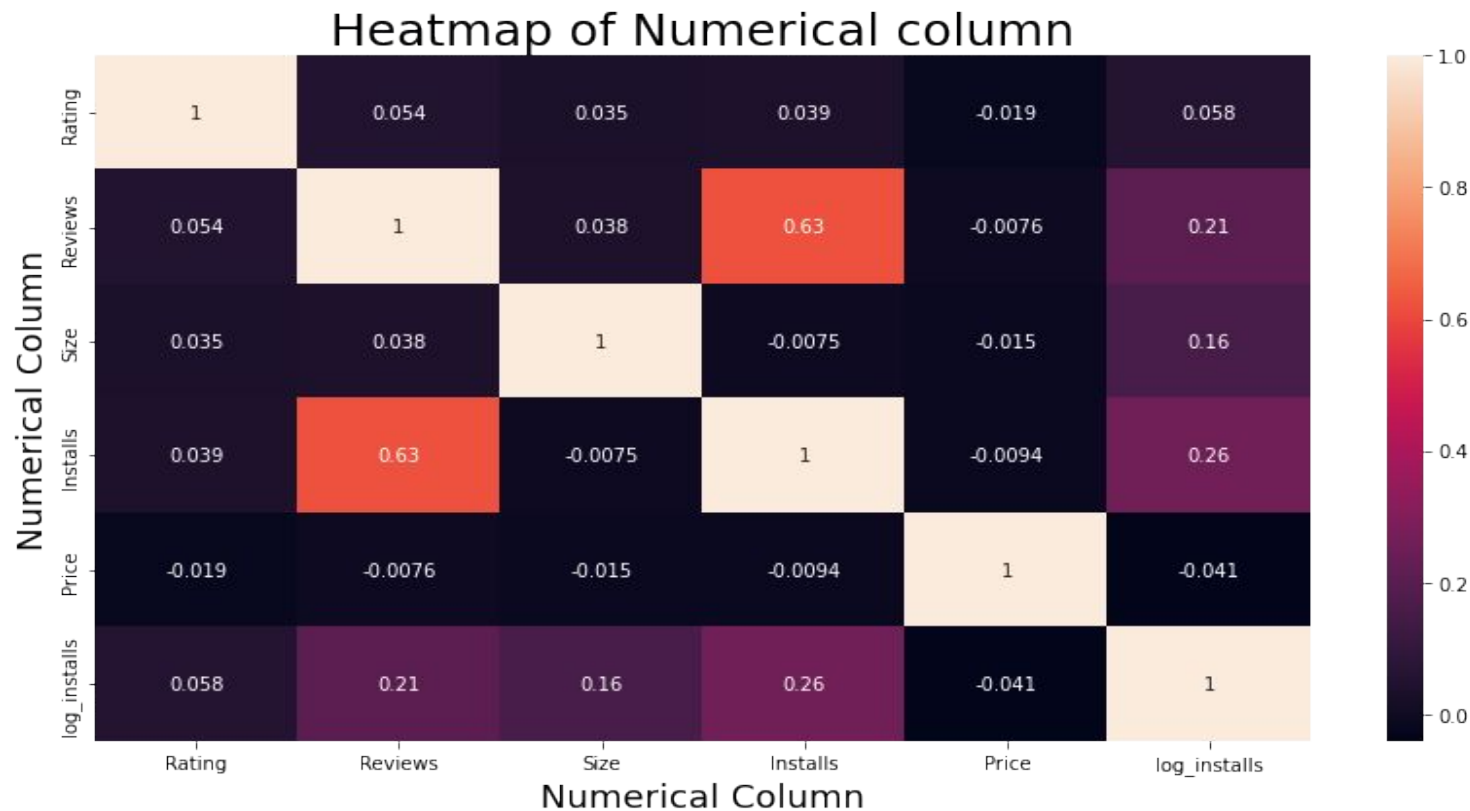
An honest user must review and appreciates the developers' effort. Some users' had taken that fact seriously as most of the apps are rated above 4



# Top ten reviewed apps



The `corr()` method calculates the relationship between each column in the data set. From this heat map we can clearly say that Installs and Reviews are correlated.



# Word Cloud





# Conclusion and Inference

- Most of the trending apps using by users' belongs to categories like Game, Communication and Tools while There are most number of apps available on play store belonging to category of Family.
- The trending of these apps are most probably due to these Apps available free for user and their nature of being able to entertain the user and also the Developers of these apps focusing on developing quality apps instead of quantity of the apps.
- There are least number of apps belonging to category Beauty, Comics and Parenting etc.
- In Business Category Apps File Commander and OfficeSuite have maximum Number of Installed so it is probably uses by professionals.
- Most of the App having good ratings of above 4.0 are mostly confirmed to have high users' installs and reviews.

# Conclusion and Inference

- **There are maximum number of Apps available free for user. There are very few Apps for which user have to pay.**
- **Most expensive apps are from categories of Finance and Lifestyle**
- **Most of Apps content are for all age group and available free on play store for users'.**
- **This flexibility of play store makes user much friendly environment for users on playstore.**
- **Free apps from the categories like Game, Social, Communication, and Tool of having highest amount of installs, reviews and rating are showing the current trend on Play store. They are far away from most expensive categories apps.**
- **Finally We learnt that apps belongs to categories which either assisting in communicating or entertaining the users', are currently in trend on play store.**



Q & A



**Thank You**