Top 5 Android Apps You Should Download Today

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BACKGROUND

❑ The number of available apps in the Google Play Store is currently estimated at 2.67 million (Statista.com, 2023)

❑ Two datasets are provided, one with **basic information** and another with **user reviews** for the respective app.

❑ The objectives is to provide Android App recommendations based on several criteria

Criteria :

❑ **Popularity** : many users have installed this application

❑ **Usability:** the majority of its users like to use this application

❑ **Novelty** : the app should not be overly popular (i.e. *Facebook, WhatsApp)* so in most cases, it will be something new for my readers to try out

❑ **Unique strength** : explore unique aspects from this application based on what existing users are saying or anything you could find from the datasets

DATA PREPROCESSING

Import Libraries

NumPy, Pandas, Seaborn and Matplotlib

Loading the datasets

googleplaystore.csv and googleplaystore_users_ reviews.csv

Data Cleaning

Handling missing value (removing/imputing) and removing duplicate value

Changing datatype

Conversion of price, installs, size, reviews into numerical values.

Exploratory Data Analysis

Analyzing the datasets to summarize their characteristics using statistical graphics and data visualizations method
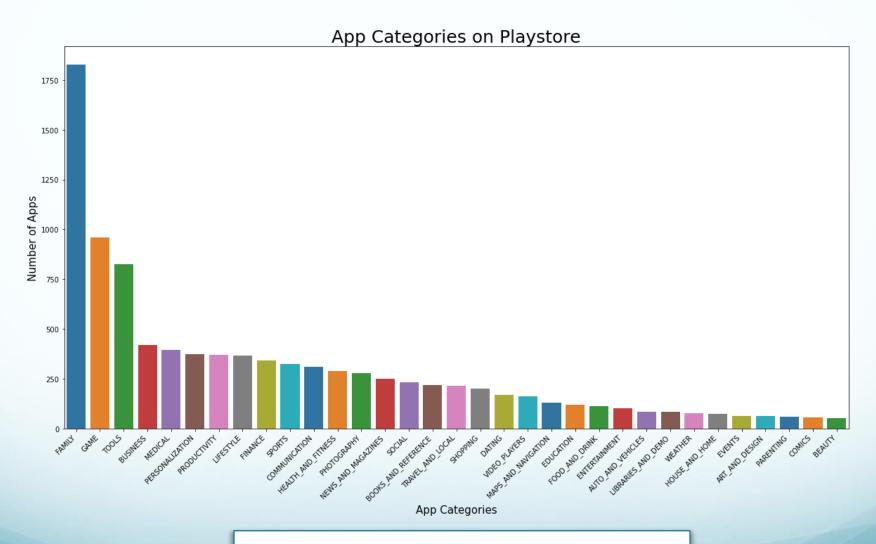
OVERVIEW DATASET

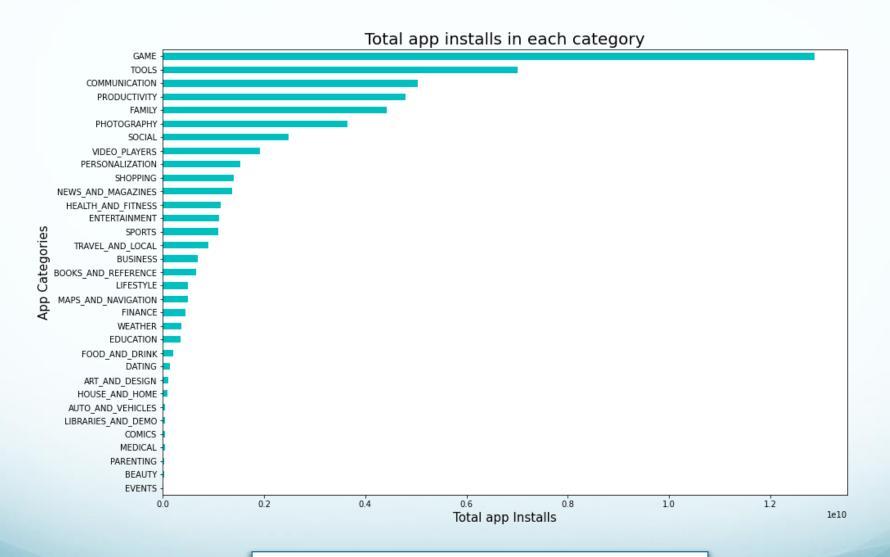| Total number of App	Total Categories	Total Genres
9614	33	118

Average Rating	Total Installations
4.19	±55 billion

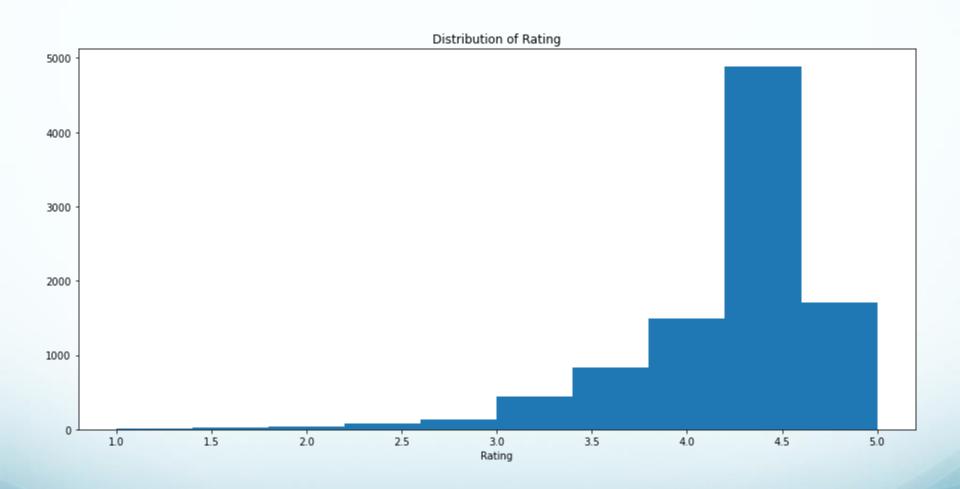# NUMBER OF APPS IN EACH CATEGORY

App Categories on Playstore

in playstore, most of the apps are under **Game** and **Family** category and least are of and **Beauty** category **Comics**
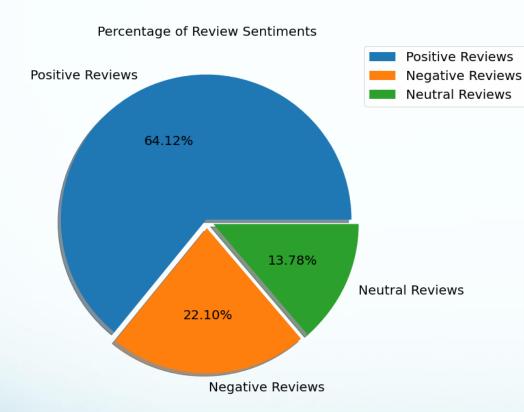
TOTAL APPS INSTALLED BASED ON CATEGORY

Total app installs in each category

The **Game**, **Tools**, and **Communication** categories has the highest number of installs compared to other categories of apps.
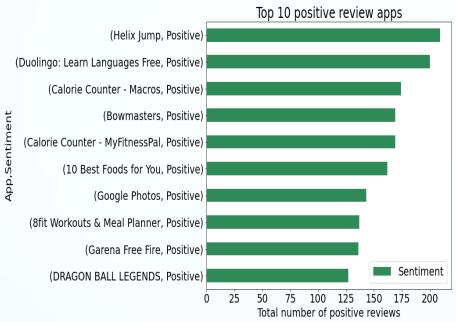
RATING DISTRIBUTION

Distribution of Rating

Based on distribution of the **Rating**, it is show that the most rating is in 4-5 range.
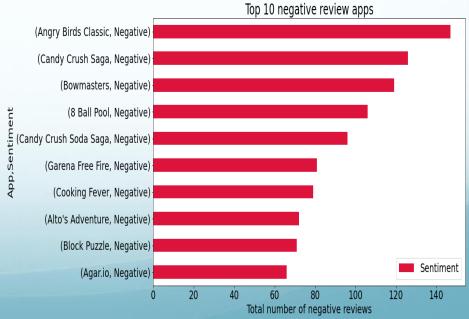
PERCENTAGE OF REVIEW SENTIMENT

Percentage of Review Sentiments

From Sentiment column, **64%** are **Positive, 22%** are **Negative** and **14%** are **Neutral** values.

POSITIVE AND NEGATIVE REVIEWS

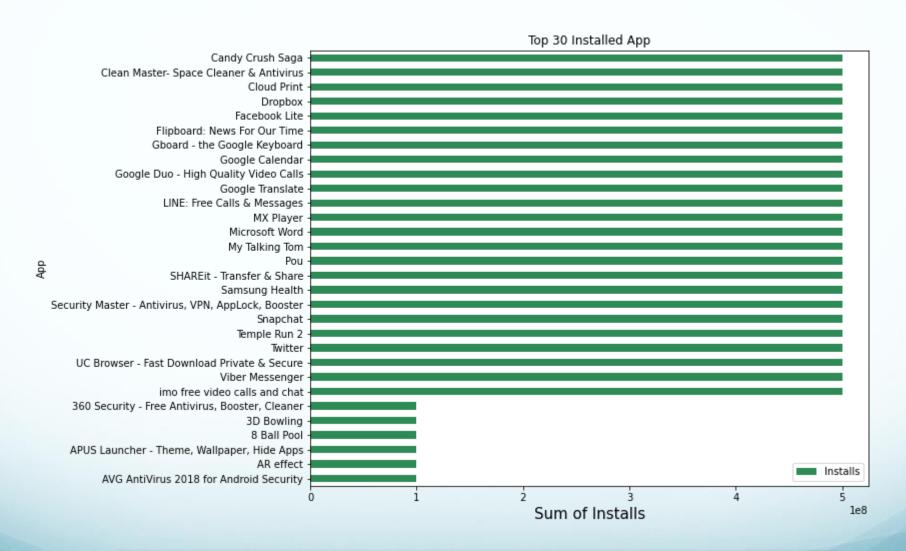## Top 10 positive review apps

Helix Jump is an App that has highest **Positive** sentiment count

Angry Birds Classic is an App that has highest **Negative** sentiment count

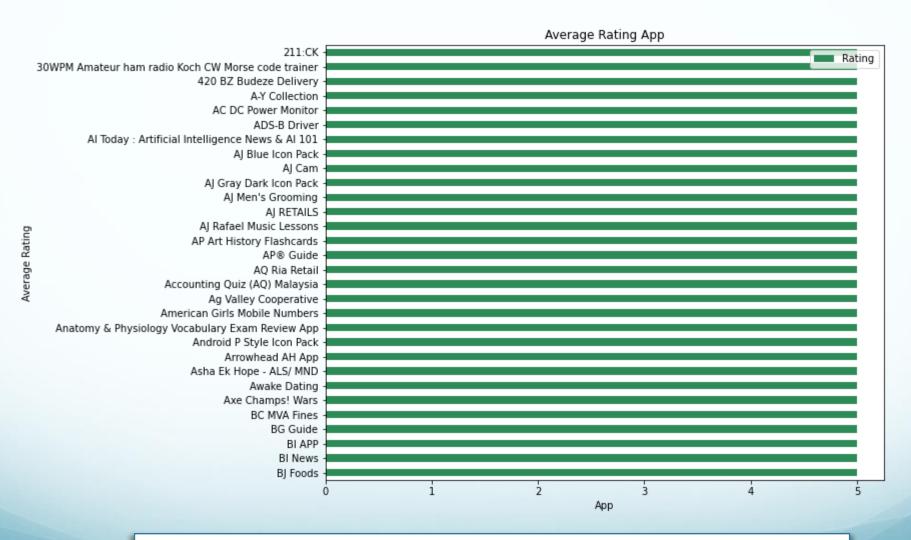## Top 10 negative review apps

TOP APPS BASED ON NUMBER OF INSTALLATIONS

Top 30 Installed App

There are 25 apps that have the highest number of installations (500 million). Therefore, it can be challenging to determine the top installed apps.

TOP APPS BASED ON AVERAGE RATING

Average Rating App

There are many apps that have the highest rating (5 stars), specifically, there are 271 apps. Therefore, it can be challenging to determine the top app based solely on the rating

THE TOP 5 APPS RECOMMENDATION

Google Duo

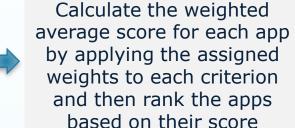Google Translate

Google Board

Dropbox

Flipboard

Using a weighted average approach, we assign weights to each criterion based on their relative importance
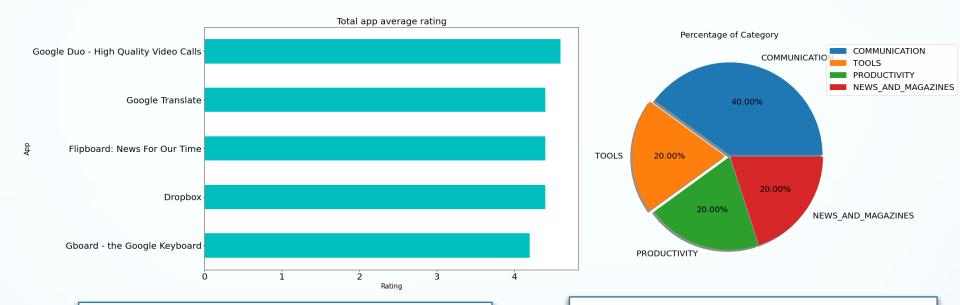
Popularity : 40%
Usability : 30%
Novelty : 20%
Unique Strength : 10%

*adjust the weights based on our preference or the specific need of our analysis

Calculate the weighted average score for each app by applying the assigned weights to each criterion and then rank the apps based on their score

- popularity is calculated based on the total number of installations
- usability is calculated based on the average rating
- for novelty, we exclude the overly popular apps with 1 billion installations
- for unique strength, we use the sentiment polarity and also consider the user review
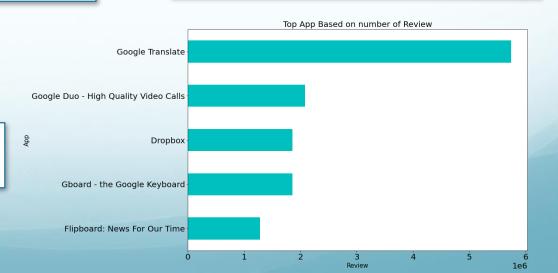
OVERVIEW THE TOP 5 APPS

Total app average rating

Percentage of Category

Google Duo has the highest rating among the Top 5 Apps

The Top 5 Apps belong to different categories, except for **Tools**

Google Translate has the most reviews among the Top 5 Apps

Top App Based on number of Review

GOOGLE DUO

- Rating : 4,6
- Review : 2 million
- Install : 500 million
- Type : Free App

Sentiment positive: Better, Great, Video, recommend, Update, calling

GOOGLE TRANSLATE

- Rating : 4,4
- Review : 5,7 million
- Install : 500 million
- Type : Free App

Sentiment positive: English, idiom, nice, translation, translate, word, tool

GOOGLE KEYBOARD

- Rating : 4,2
- Review : 1,8 million
- Install : 500 million
- Type : Free App

Sentiment positive:
Simplified, keyboard,
voice, typing,
working, suggestions

DROPBOX

- Rating : 4,4
- Review : 1,8 million
- Install : 500 million
- Type : Free App

Sentiment positive: Good, free, great, Dropbox, Better, fast, storage, Nice

FLIPBOARD

- Rating : 4,4
- Review : 1,2 million
- Install : 500 million
- Type : Free App

Sentiment positive: Love, Great, news, article, quick, recommendable, suggest, informative

CONCLUSION AND RECOMMENDATION

- The Top 5 Apps were calculated using average weighted formula to determine the overall score, and the results are : Google Duo, Google Translate, Google Keyboard, Dropbox, Flipboard

- These top apps come from different categories, such as Tools, communication, news and magazine, and productivity

- The overall Top 5 App have a high rating of above 4 and have many reviews

- Providing the Top 5 Apps in general without any limitation is challenging because there are numerous apps available. If you wish to offer specific recommendations to your audience based on their interests (such as entertainment, productivity, social networking, etc.), it may be useful to group the apps by category and recommend the top app in each category.