Capstone Project
Playstore App Analysis- EDA
by

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Points for discussion:

- ◆ Introduction
- ◆ Category wise play store apps installs
- ◆ Category wise most popular apps
- ◆ Top 10 apps in play store considering all the parameters
- ◆ Average installs, category wise
- ◆ Most installed apps in communication category
- ◆ Average sizes of apps in each category
- ◆ Category wise percentage of paid apps
- ◆ Category wise top installed paid apps
- ◆ Average rating of paid apps
- ◆ Correlation between Rating ,Installs and Price
- ◆ Category wise installed apps with content rating
- ◆Top 30 Genres
- ◆Percentage reviews sentiment distribution

Introduction:

• Playstore and user reviews dataset contains details of different applications and reviews from different users.

•Our intension is to analyse the data and draw some insights through Python (Pandas) chart analysis , which can prove very beneficial to any Android app development company ,to understand what market demands and what kind or category/genre of apps they can go for as there product .

Category Wise Play Store Apps Installs

Category wise number of installs(base10) with respect to Reviews & Ratings

Category Wise Play Store Apps Installs

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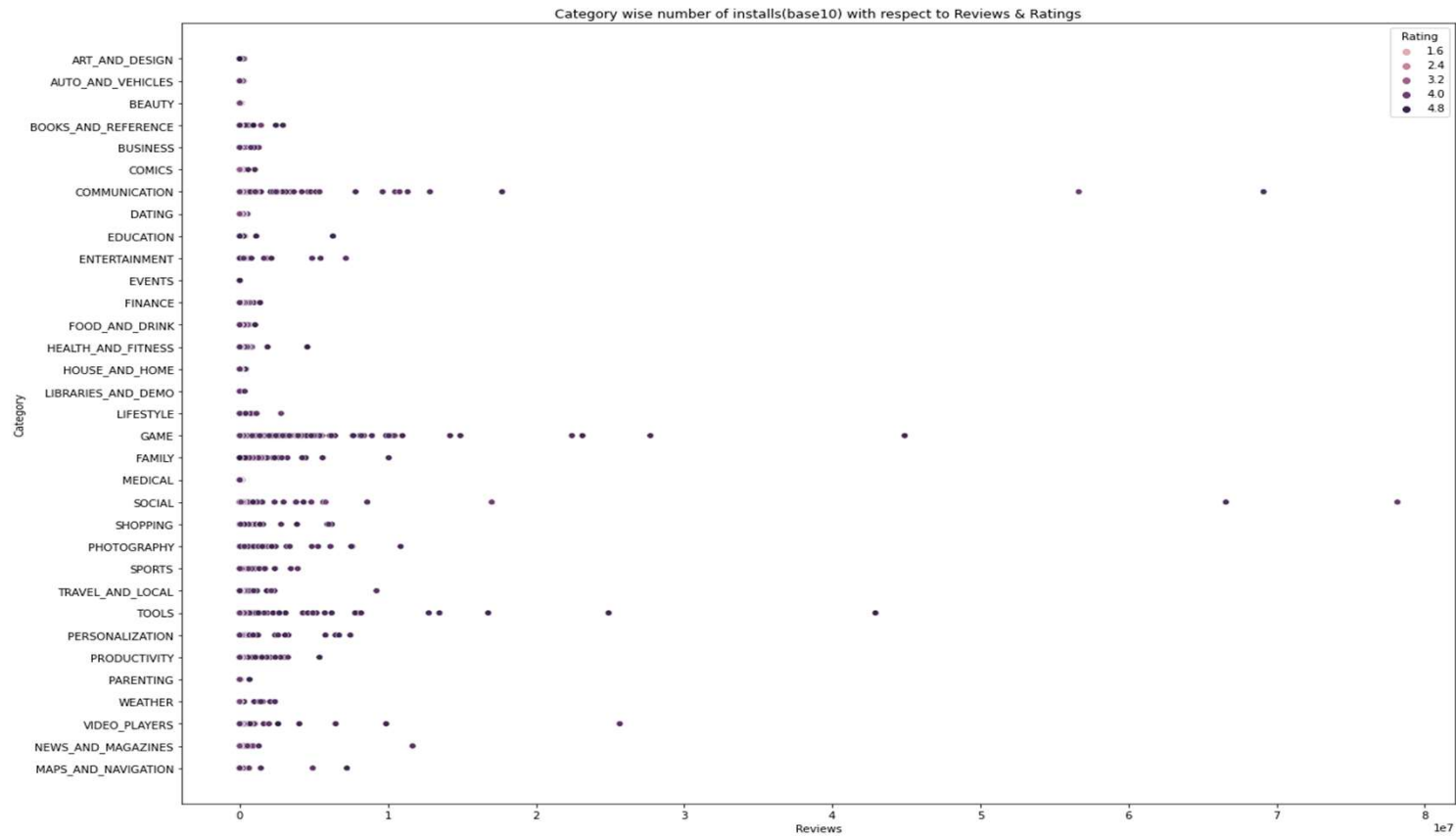
- Findings : There are more reviews and ratings for a growing number of apps in the Play Store.

    1)Communications, 2) Gaming, 3)Family, 4) Tools

- Recommendations:

    i) Investors in app development might choose from the aforementioned categories for high marketing returns.

    ii) Since they have become a need for every Android smartphone user, entrepreneurs and software solution providers may target these APP categories for marketing and contracting.

Category Wise Most Popular Apps

Category Wise Most Popular Apps
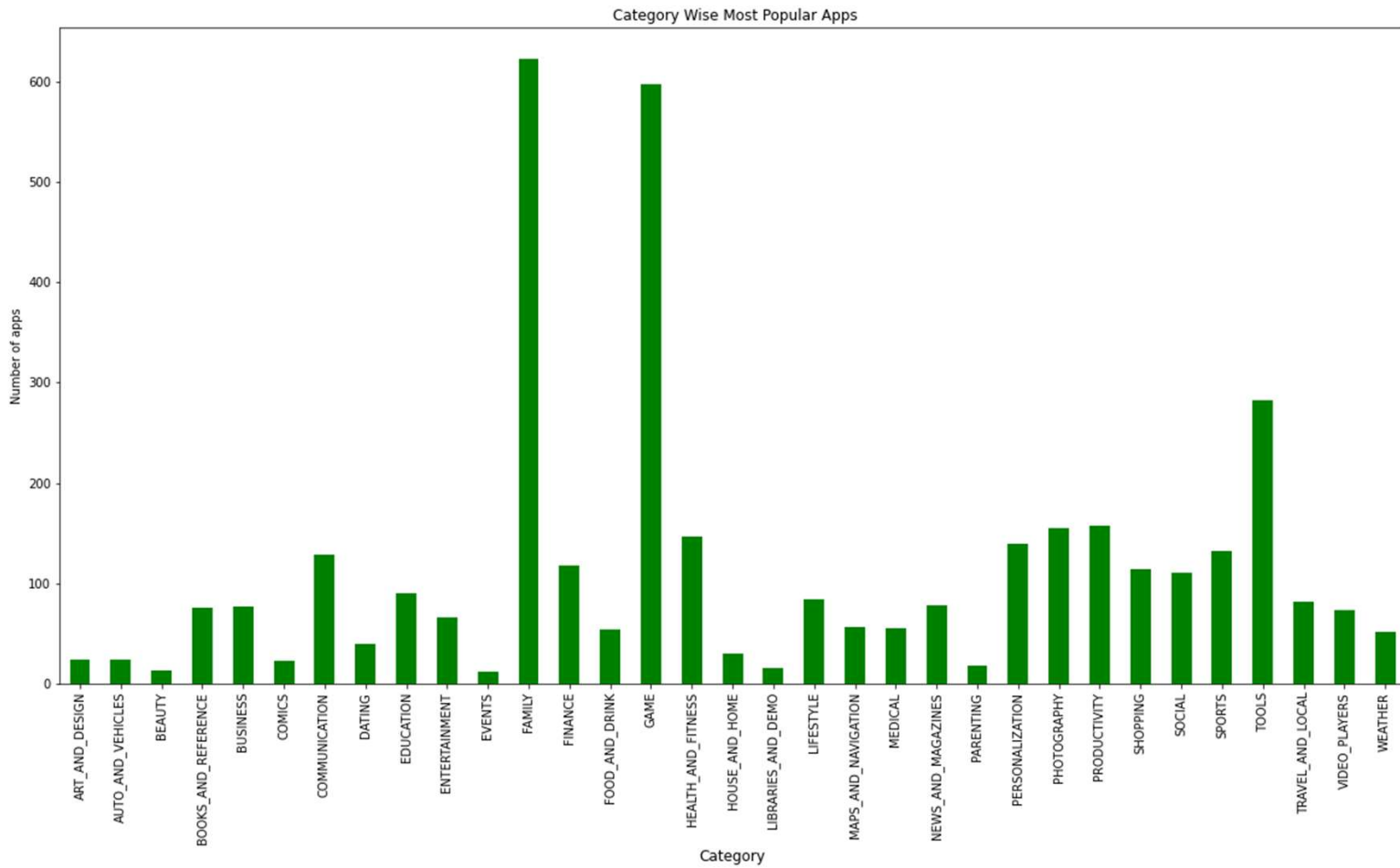
# Category Wise Most Popular Apps

Findings : From the above bar Chart we filtered negligible count of Reviews (considered only which having more than 1000 reviews) and Ratings (Which rated more than 4). So that we can infer the most popular App Category.

1) Family, 2) Gaming

Recommendations:

       i) Investors in app development might choose from the aforementioned categories for high marketing returns.

       ii) Since they have become a need for every Android smartphone user, entrepreneurs and software solution providers may target these APP categories for marketing and contracting.
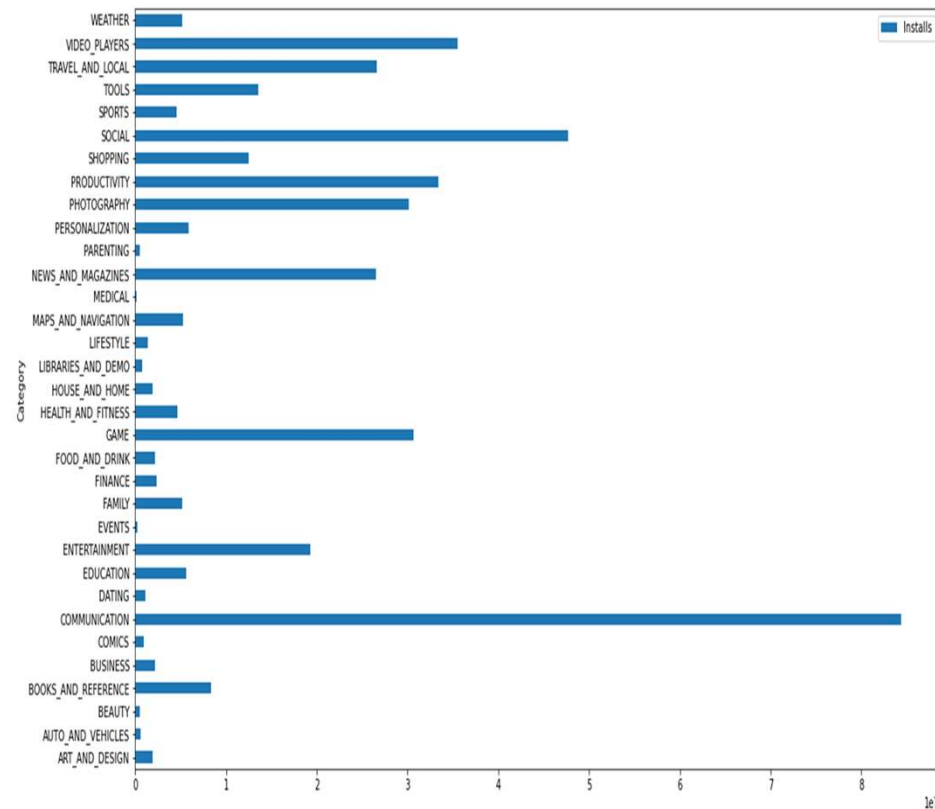
Top 10 best Apps in the Play Store considering all the parameters

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Top 10 Apps with highest no of installs
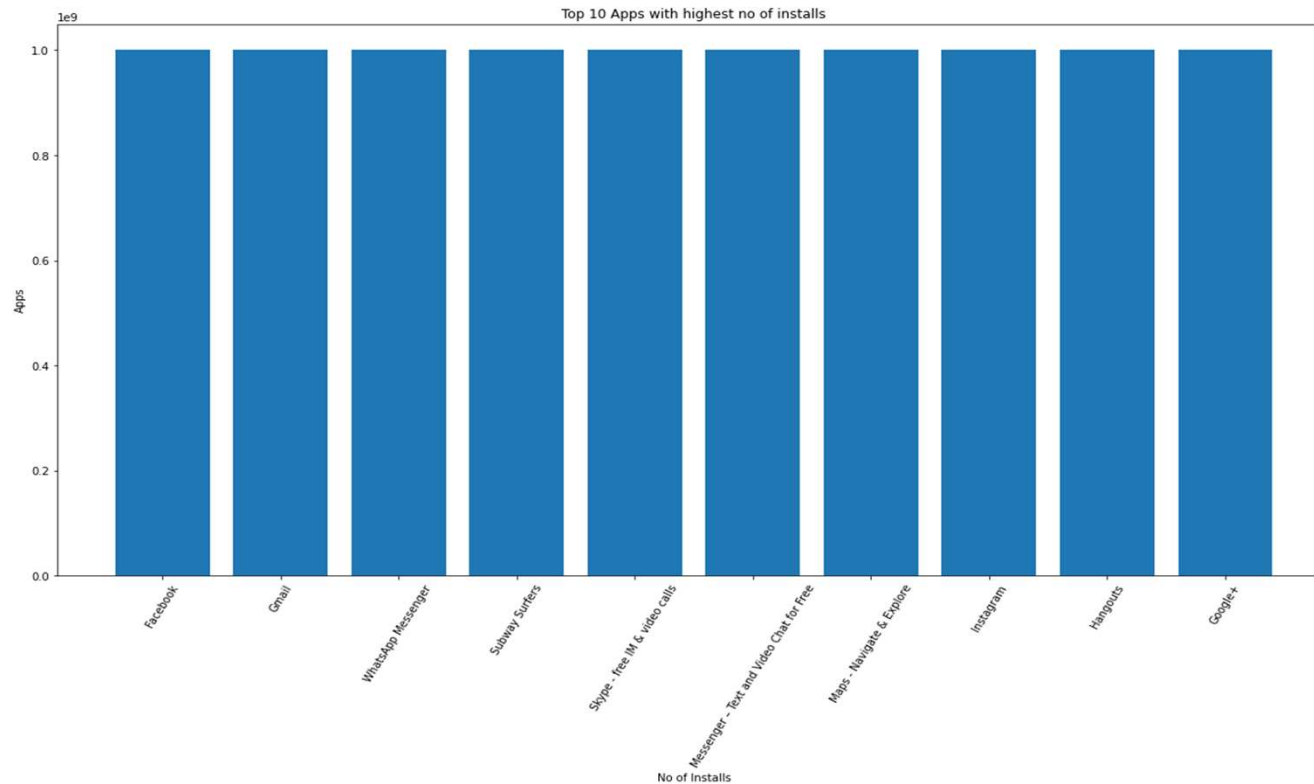
Barh Graph showing average installs ,Category Wise
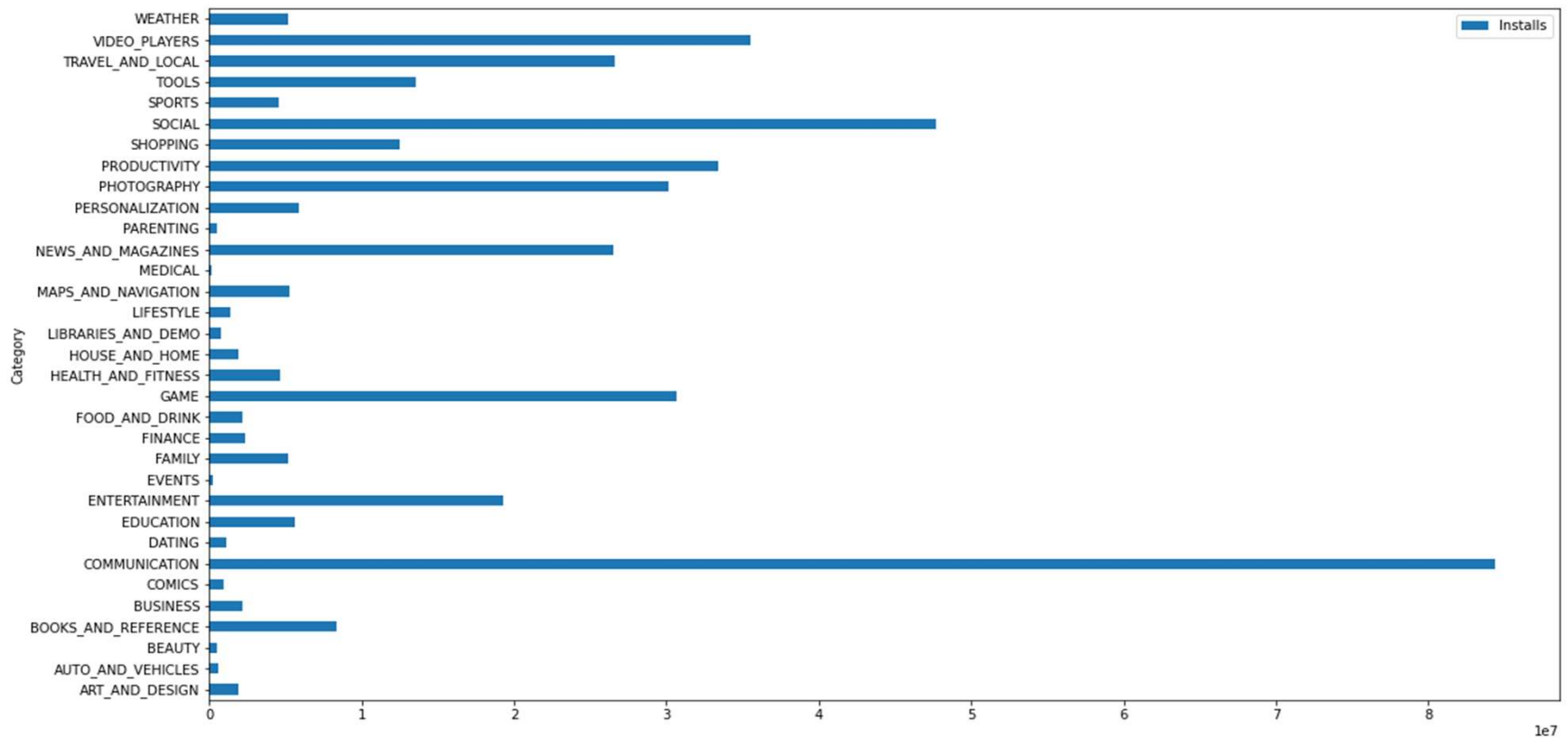
Barh Graph showing average installs ,Category Wise

•<u>Findings & Recommendations</u>
We recommend to develop an app in top 3 max installed categories of apps.
   1) Communication or
   2) Social or
   3)Online Video Players

•We find Parenting , Medicals ,Events, Auto & Vehicles category are least installed so we don't recommend to develop such apps .

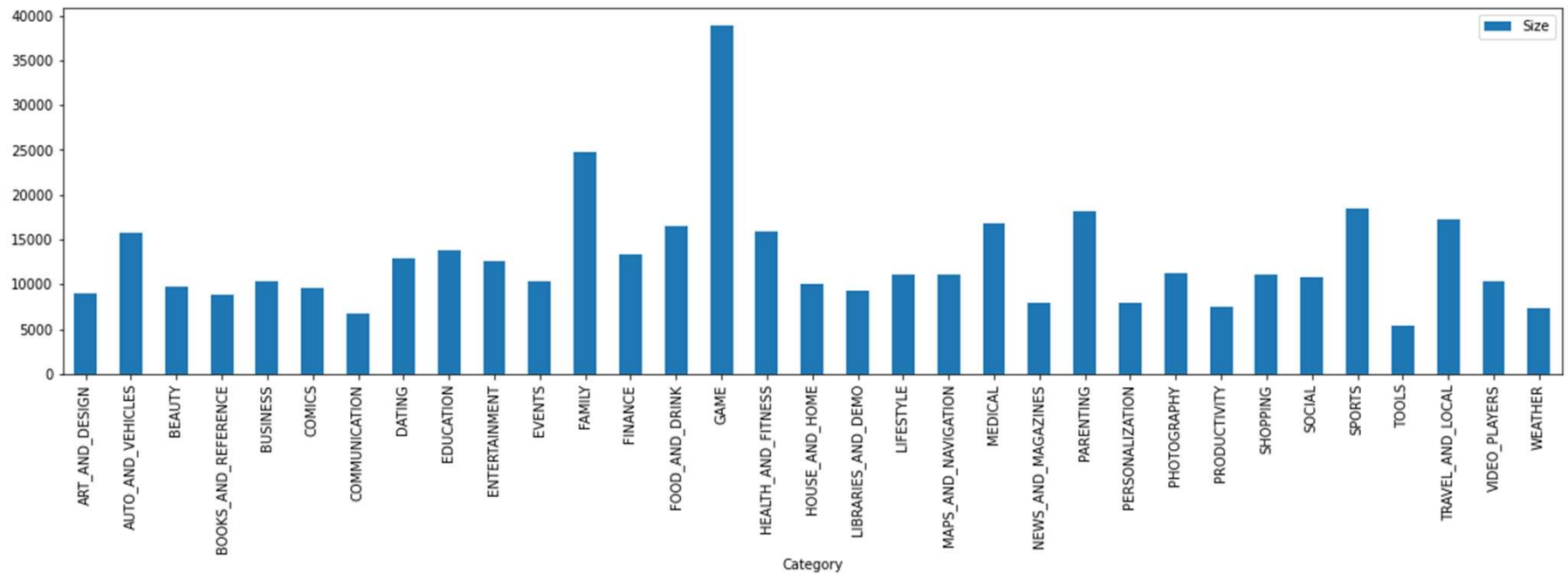# Most installed apps in Communication Category

Findings & Recommendations
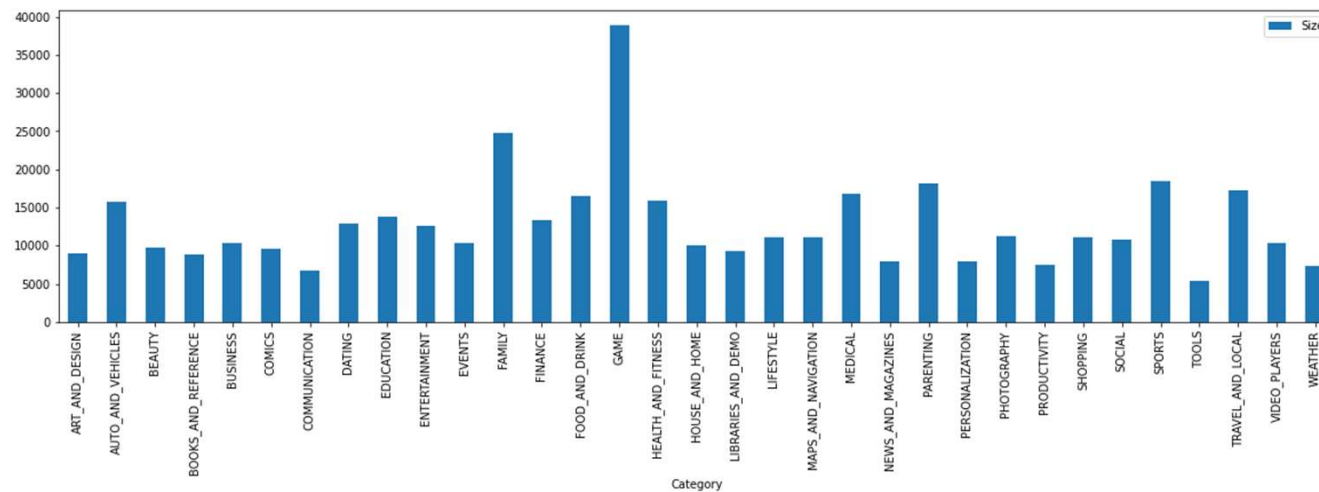
We recommend to build app related to ..

- Better free video calls experience

- Apps which can make browsing experience better

- Improved Mail experience
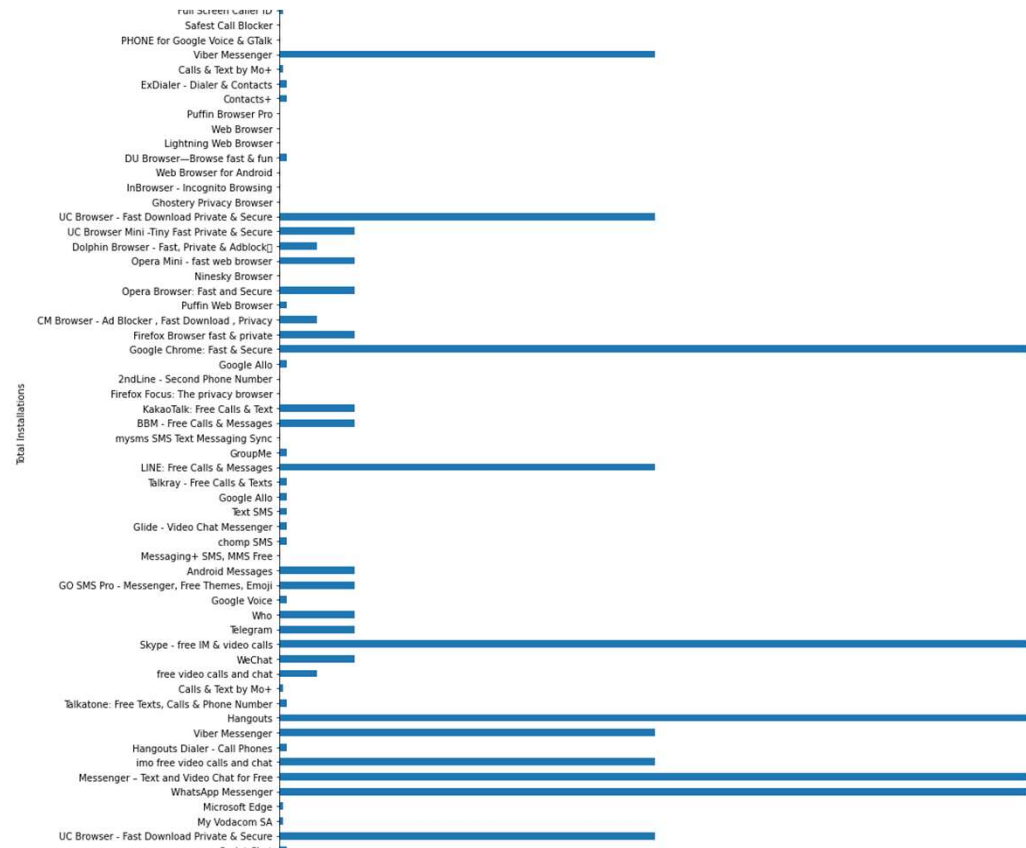
Showing Average sizes of apps in each category

Showing Average sizes of apps in each category

•Findings & Recommendations
•Our Study shows avg sizes of all Highly installed categories of apps are below or around 12 MB, not very big in size .
•We recommend to target your apps max size ithin 14 MB.

Category wise percentage of paid apps

After filtering only paid apps from the data set, we can observe that more than 50% of the apps that are not free were concentrated in the Family,Medical and Game Category

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Top 10 Paid apps Category Wise
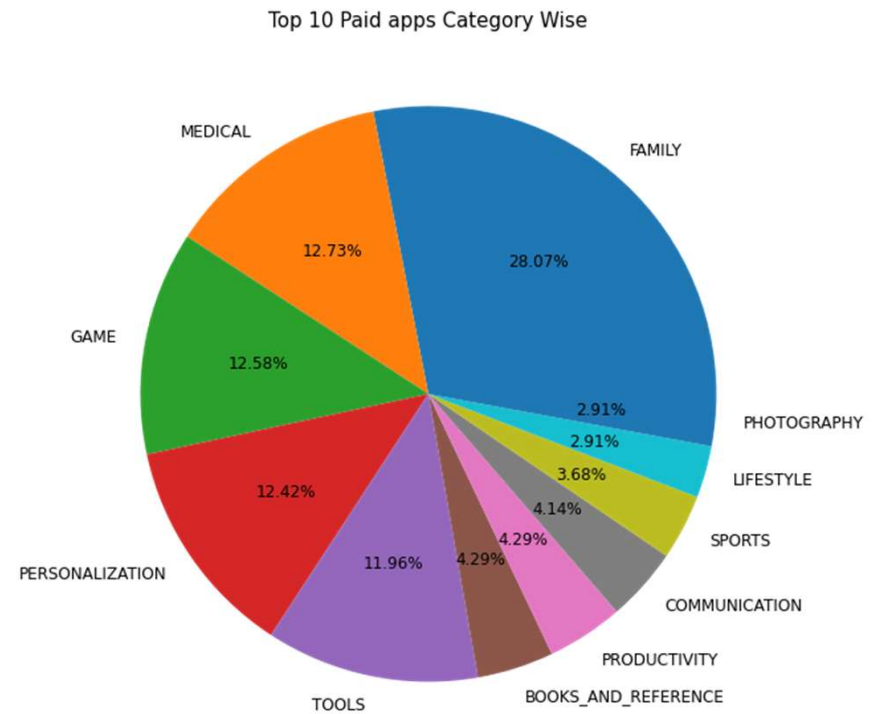
Category wise top installed Paid apps

In this graph we can observe that,most of the users had installed apps in the the Game and Tools category even though they were paid.So, app development business holders have scope to develop apps in these categories with the paid criteria.


Installation of Paid apps Category wise
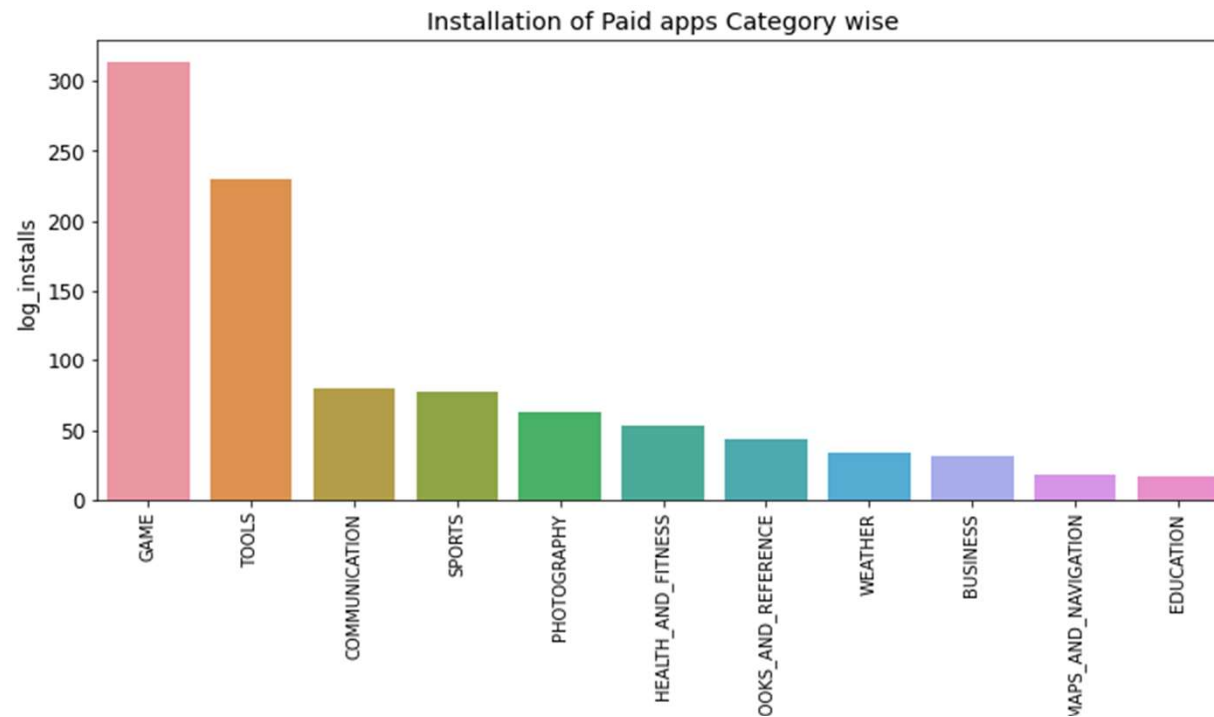
Average Rating of Paid Apps

Again in the paid type, on an average News&Magazines,Education have high ratings. More concentartion can be given to the lowest rating apps for futher modifications and updations to get inserted into the market
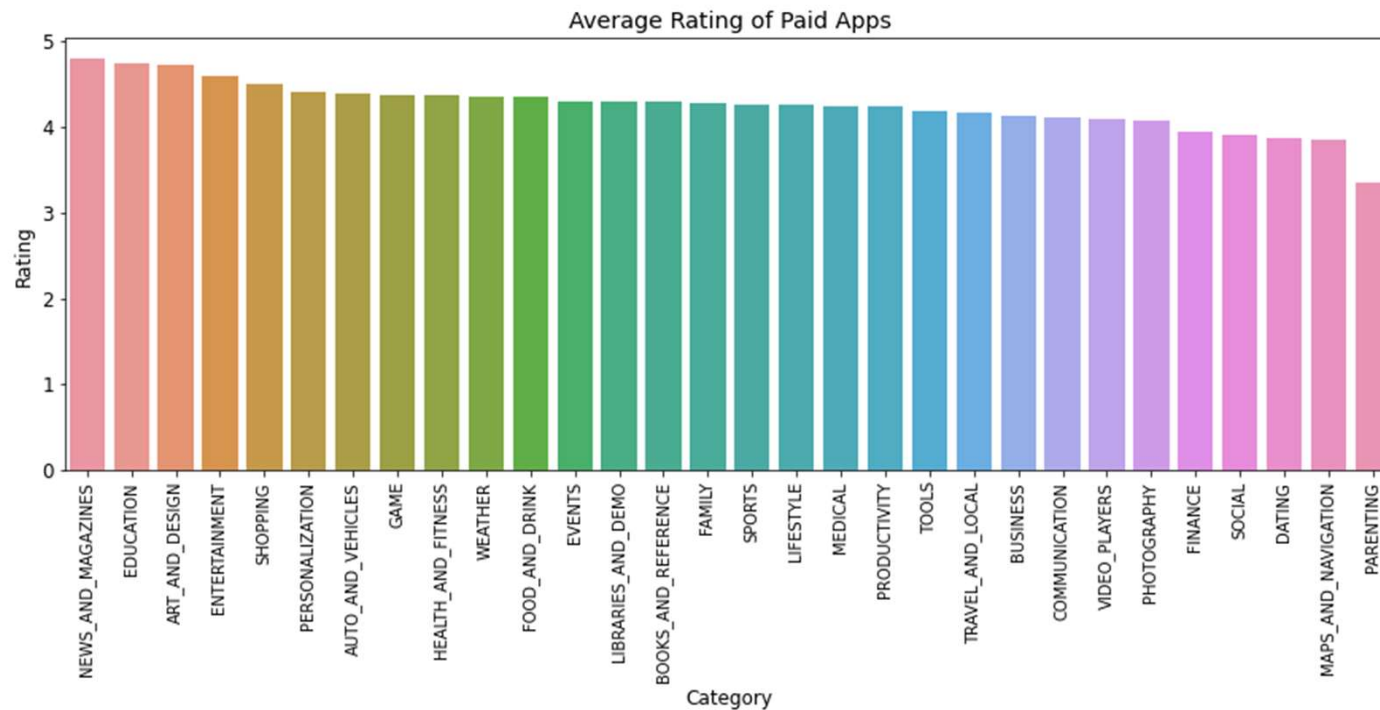
Correlation between Ratings,installs and Price

•Here we can interpret that price and installation of apps are negatively correlated to each other which means for incresease in the prices there are slight decrease of installations
•And there is a slight positive correlation between Ratings and Installations
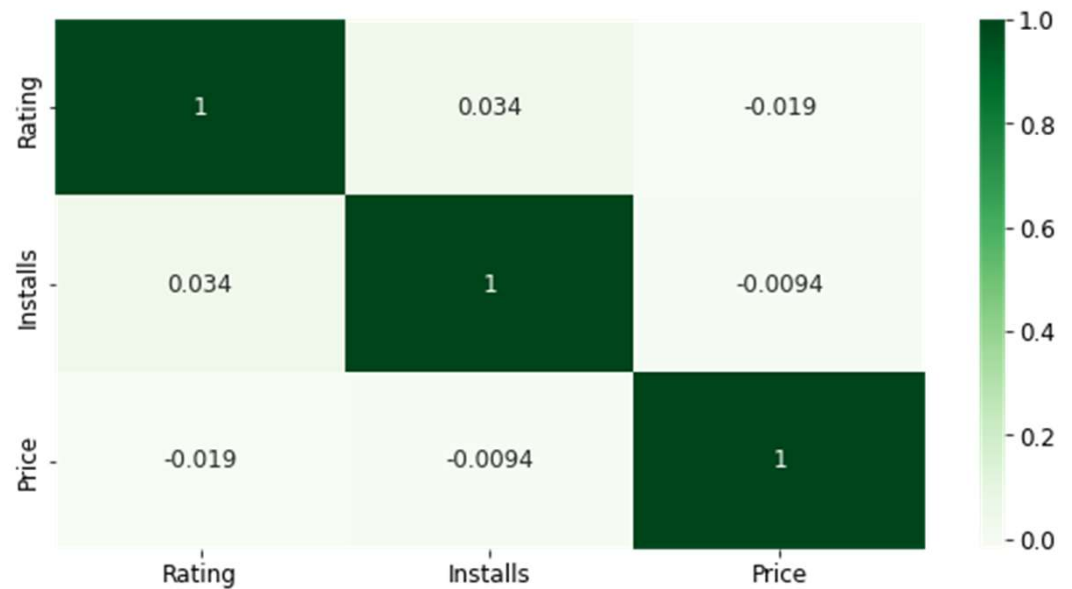
Category wise Installed Apps with Content Rating Everyone and Teens

Here we can observe that installed apps in the Social,Games category
are high with the content rating Teens.
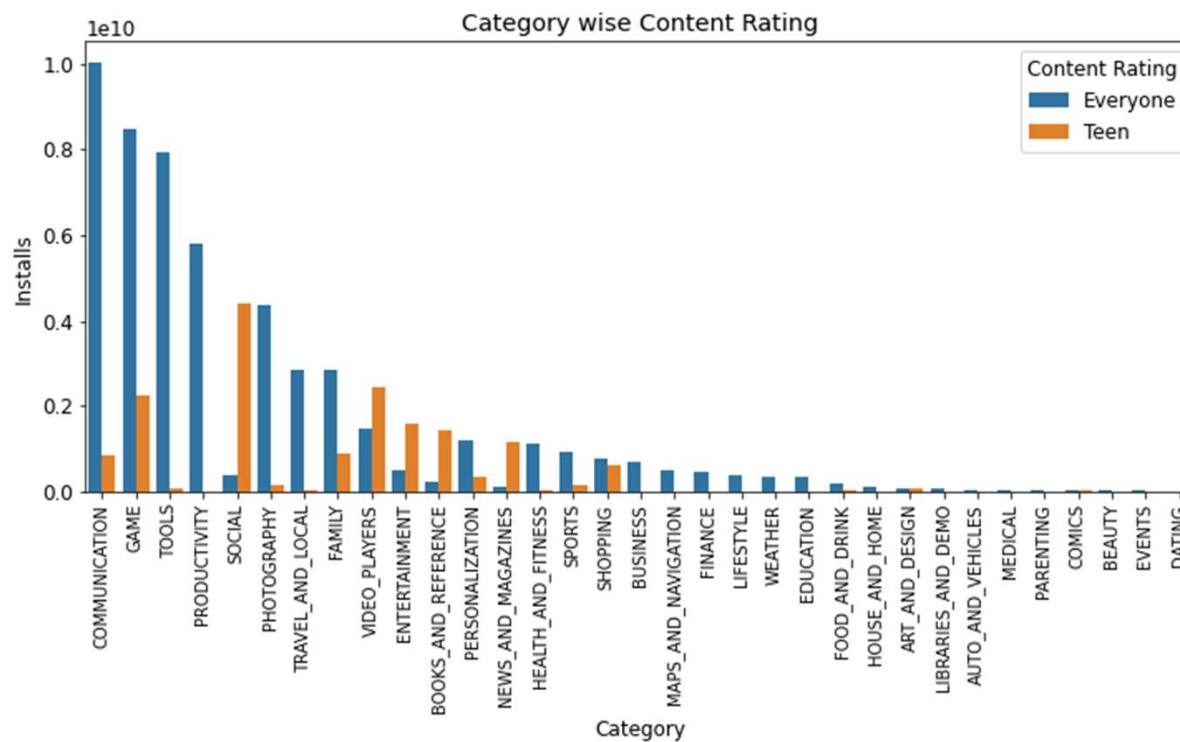
- Content rating provides based on age variation.
- Any developer put their applications on play store content which varies with users.
- They put on basis of age categories system to show that what type of users are able to see this and avoid unappropriated harmness.
- For eg. Wattsapp is simple message based service which not deliver any content so its suited for all categories while facebook has such news feed which not related 12–, children so it noted with 12+

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From here we can seen that maximum no of apps are targeted for everyone

Content Rating
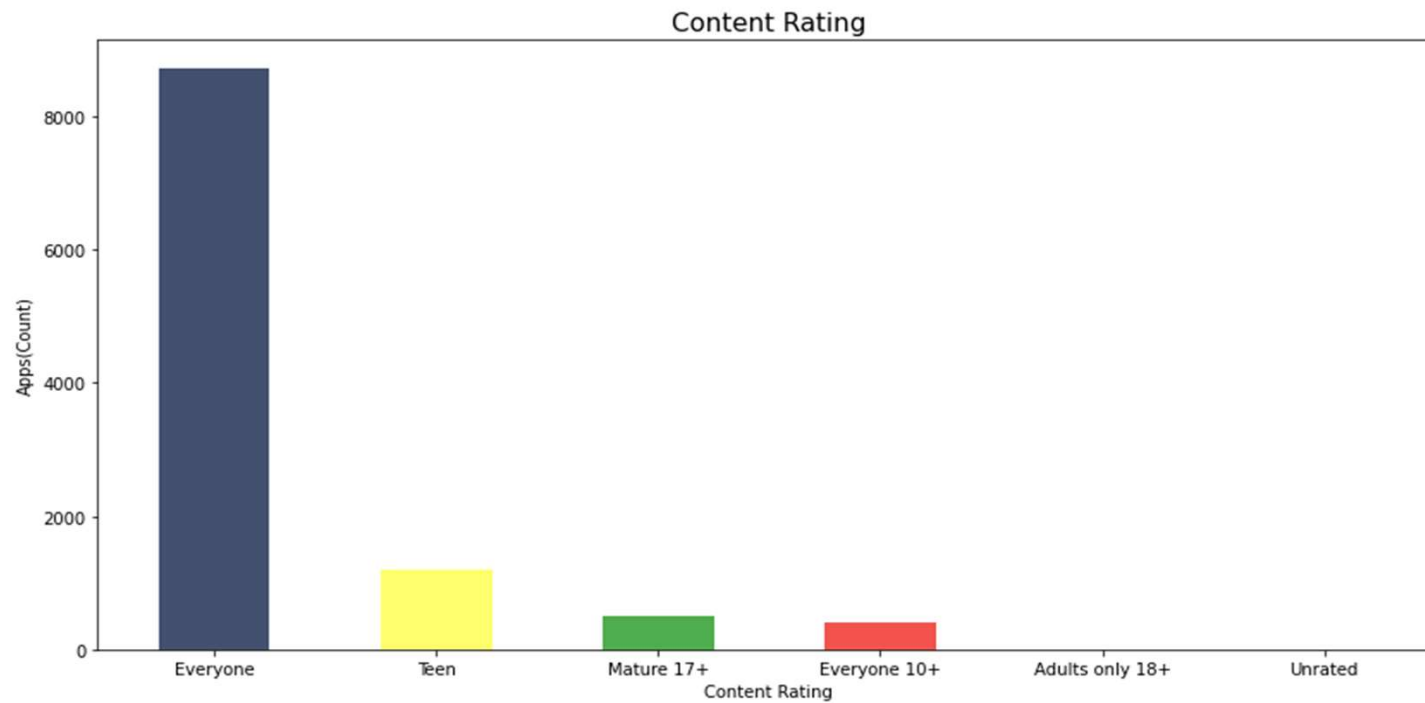
Top 30 Genres

Here we can conclude from graph that tools genres have more number of downloads followed by entertainment


Top 30 Genres
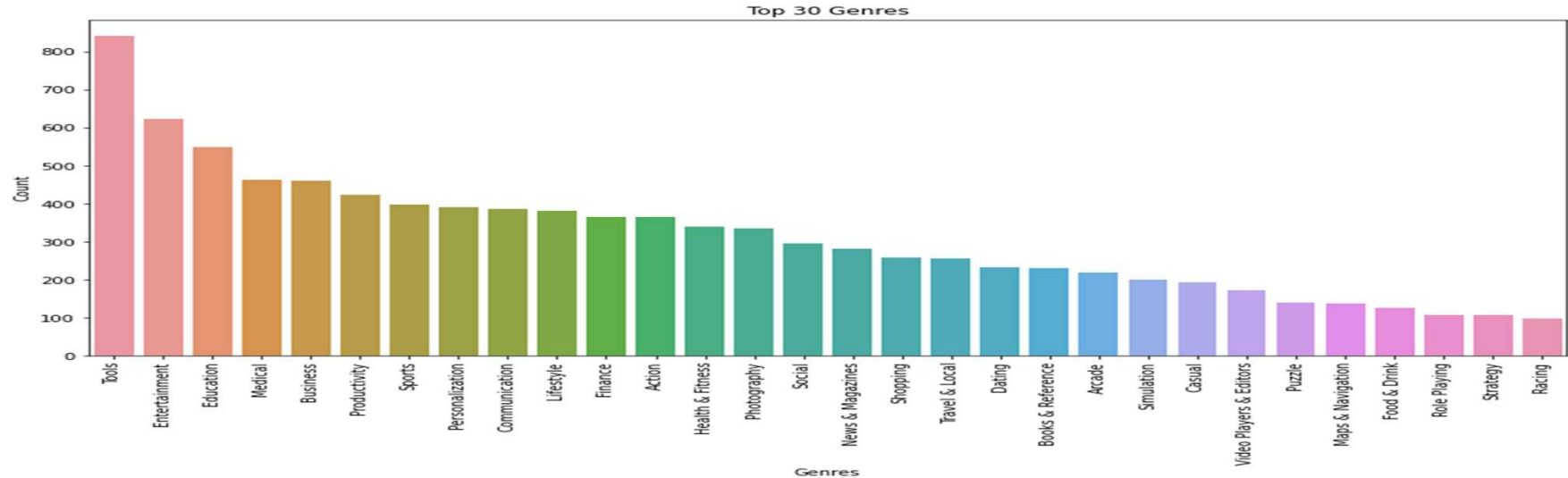
- Users can choose categories which helps to search and discover most relevant apps in play store and tag to respected apps.
- From Genres we know that trend of users for search and discover.
- You should choose tags that are most obviously relevant to your app.

Percentage reviews sentiment distribution

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A Pie Chart Representing Percentage of Review Sentiments
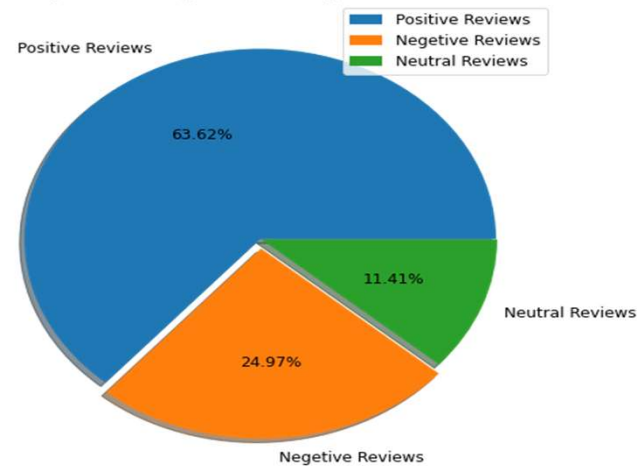
From the below pie chart, it can easily be understood that there is around 65% of user reviews sentiment is positive, around 22% of reviews sentiment is negative and the remaining around 14% of reviews sentiment is neutral.

•So, need to keep an eye-tracking on the review sentiment it is what decides whether the app is going to feature on google play store. By featuring I mean visibility of apps when someone searches for a category. If the app is not visible in the top 10 or 12 apps range then there are fewer chances of the app being installed.

•If some apps have a higher percentage of positive reviews sentiments, then it is sure that the app is performing its intended work, and people are enjoying it, they may share the app with somebody thus increases the number of installations.

Conclusions:

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Based on the above EDA research, we can conclude that ,

• App development business companies can be suggested to develop the applications with **paid criteria** in the categories like **game, tools, communication**. Developing in these can give them a better place in the market.

• Average sizes of all 3 most installed categories of apps are well below 12 Mb size only .So,the app development company to target and limit the size of their app well below max 14 Mb .

• Customers' essential needs, such as a few categories of apps, drive a large number of installations. These Apps stand in top 10 of the Google Play store
1) Facebook
2) Gmail
3) Whatsapp Messenger

• Negative Correlation between Price and Installations & slightly positive correlation between Ratings and Installations

• Number of installation according to content rating Everyone are in communicarion and gaming categories. Whereas Social category apps like Facebook, linkdin, instagram are more confined to teen category.

• Regarding sentiment reviews,65% of them are positive, around 22% of user reviews are and the remaining 14% of the reviews are neutral.

• App seems to be which is updating more versions have more number of users.

•Since most of the apps are in communication category it is recommended to build apps related to better free video calls experience apps which can make browsing experience better ,Improved Mail experience

•Customers' essential needs, such as a few categories of apps, drive a large number of installations. These Apps stand in top 10 of the Google Play store
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Q&A