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Analysis of Google Play Store Application

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Abstract: ***The main primary aspect of the analysis is to identify various category and their respective application available on the google play store. While creating an application there are certain factor needs to be considered. From the analysis it will find factor required and their respective needs. The current market trend is also displayed. According to this factor we can summarized the market and it will help to create application according to latest trend.***

I. INTRODUCTION

In android world there are n number application available on the android market. The android market also known as google store contain multiple application. This multiple application is used for various purpose and for some it is also use for daily purpose, like whatsapp, Facebook etc.

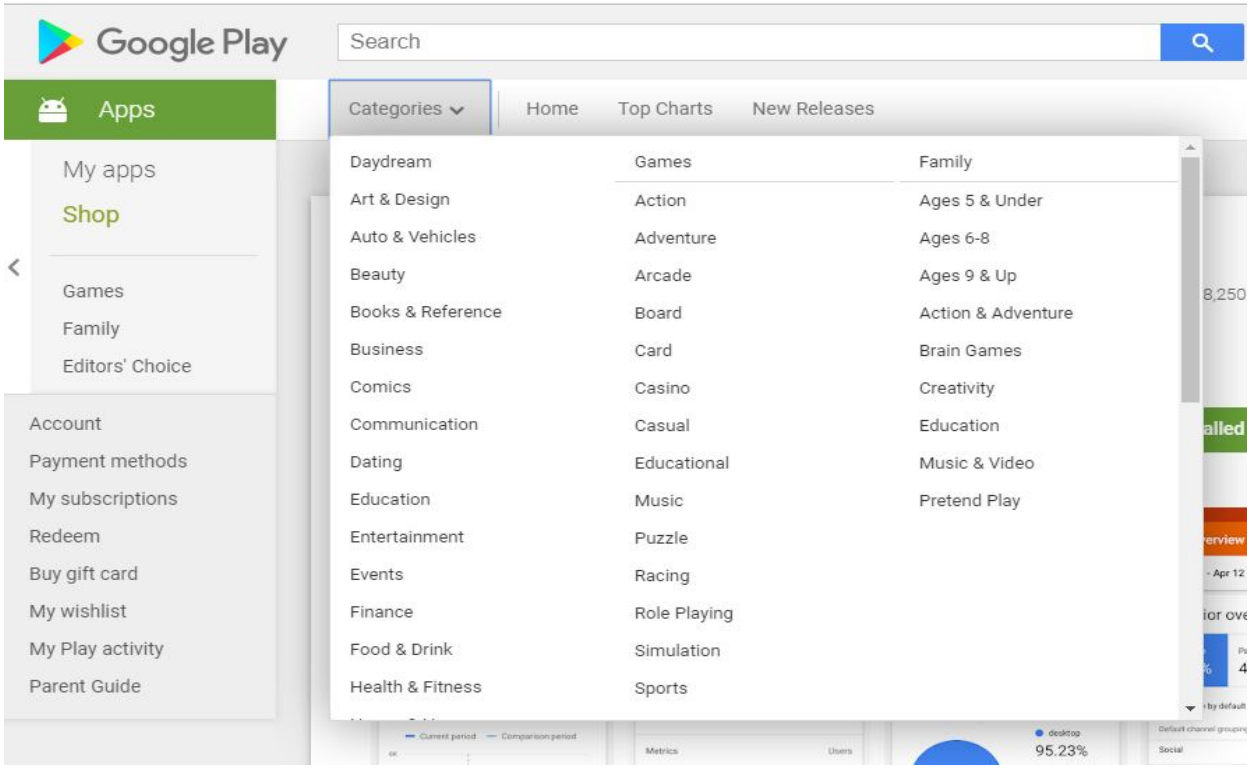
Android is the dominant mobile operating system today with most of all mobile devices running Google's OS. The Google Play Store is the largest and most popular Android app store. The aim of our project was to gather and analyse detailed information on apps in the Google Play Store in order to provide details on app features and the current state of the Android app market.

The purpose of analysis is to find out which apps dominates the most and what are the important factor to create an application. For developer to create such apps needs data that can be gathered in this analysis.

II. DATA STRUCTURE

For the project data the kaggle data is used and it is most reliable data. For comparing the categories the following method is used. The dataset model used for this project is downloaded from [1] https://www.kaggle.com/lava18/google-play-store-apps

For this project I used google play store app for gathering applications data. The application are categorized by their practical use. As per that 33 main categories are available. In categories various sub-category are available Refer [4]



For analysis of these dataset Tableau Public 2019.2 software is used. It is open source version which can use publicly. It has various methods and tools provided to do certain operation on these dataset.

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A. Data Structure

After analyzing dataset, there are various application is used. The tool which used to perform the operation is Tableau. It is an open source application which used for business intelligence for analyzing and creating data visualization for scrapped data.[1][3][4]

From dataset the following details is provided:

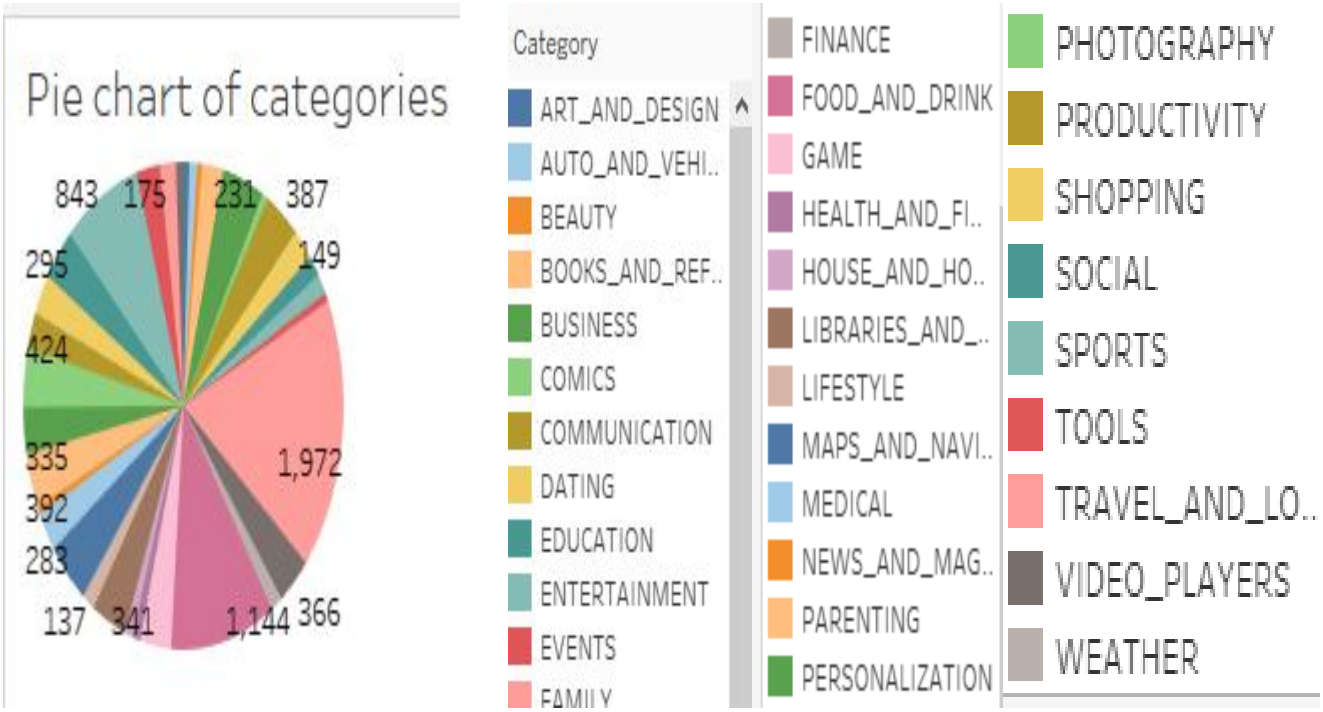
1) App Name
2) App Category
3) App Rating
4) No of Reviews
5) App Size
6) Number Of installation
7) App Type
8) App Price
9) Content Type
10) Genres
11) Last Updated
12) Current Version available
13) Supported android version(minimum)

III.ANALYSIS

The analysis done in the following factor which are described in Data structure From dataset the following details is provided:

A. Category

1) There are various categories in which application can be categorized.
2) The dataset contain following types of categories and their respective application available.



As per pie chart reports

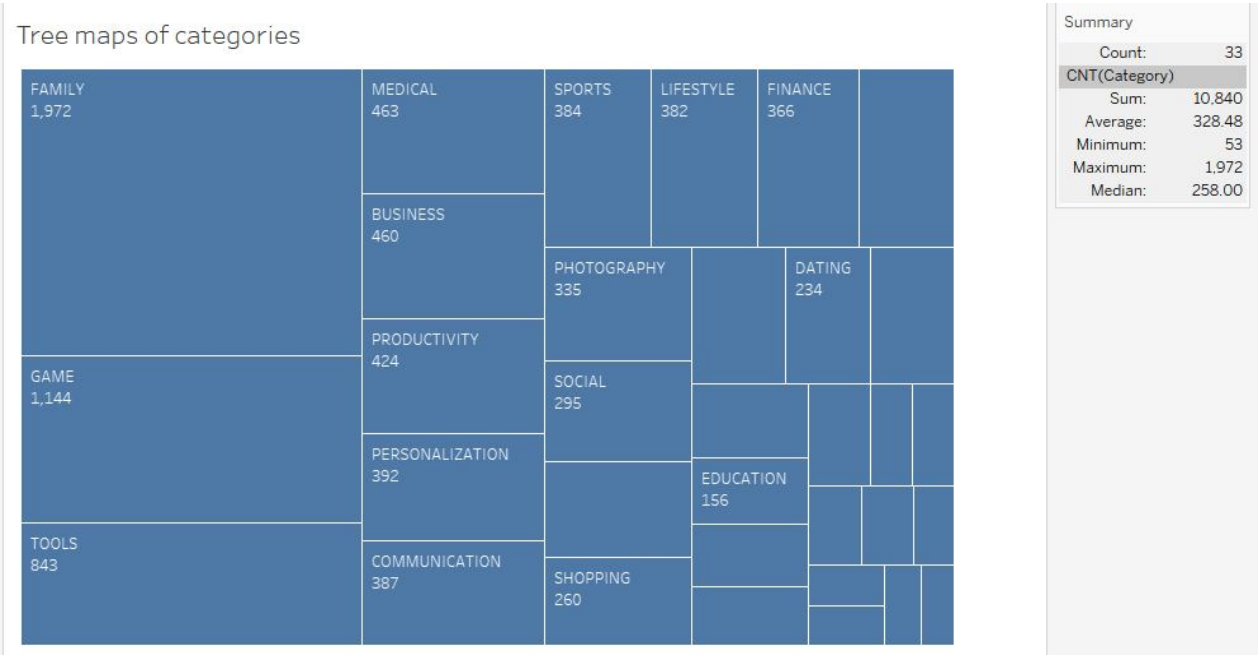
3) Family and Game apps have captured most of the market
4) Food, health apps are also increasing.

As per counts Family apps have highest counts which is 1972. And minimum is having parenting which is 60.

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By Looking below tree maps we can see that the top 3 which dominate the market is Family, Game followed by Tools.



B. Rating

The rating of an app is given by user. The rating is having range In between 0.0 to 5.0.

1) *Is rating affect application reputation and no of installs?* Rating is crucial part of application. The rating are given by user after using the application. If rating is low then it will conclude that app does not meet expectation and it has poor quality or it has more bugs that does not resolve.

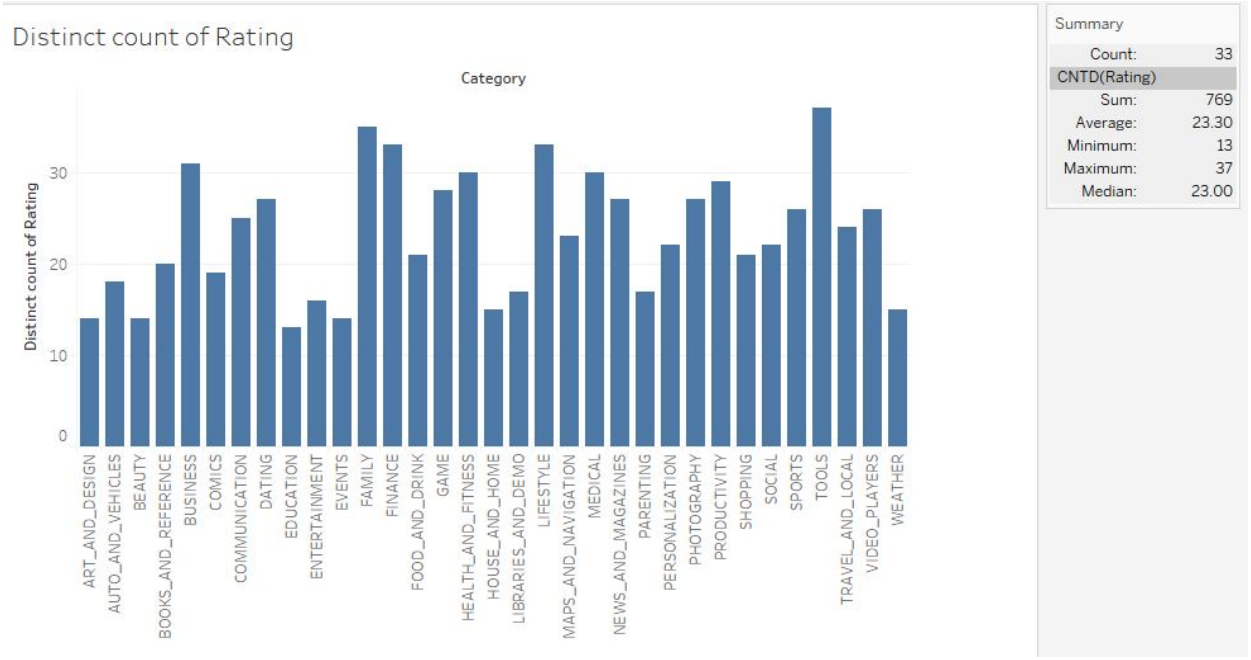
For e.g. before installing application the user checks rating and reviews and no of downloads. These three factors insures that app is most trusted and used by most of people.



As you can 274 apps were given 5 rating. By looking bubbles diagram we can see that most of apps having 4.3, 4.4, 4.5 rating which is most relevant.

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2) Rating According to Category

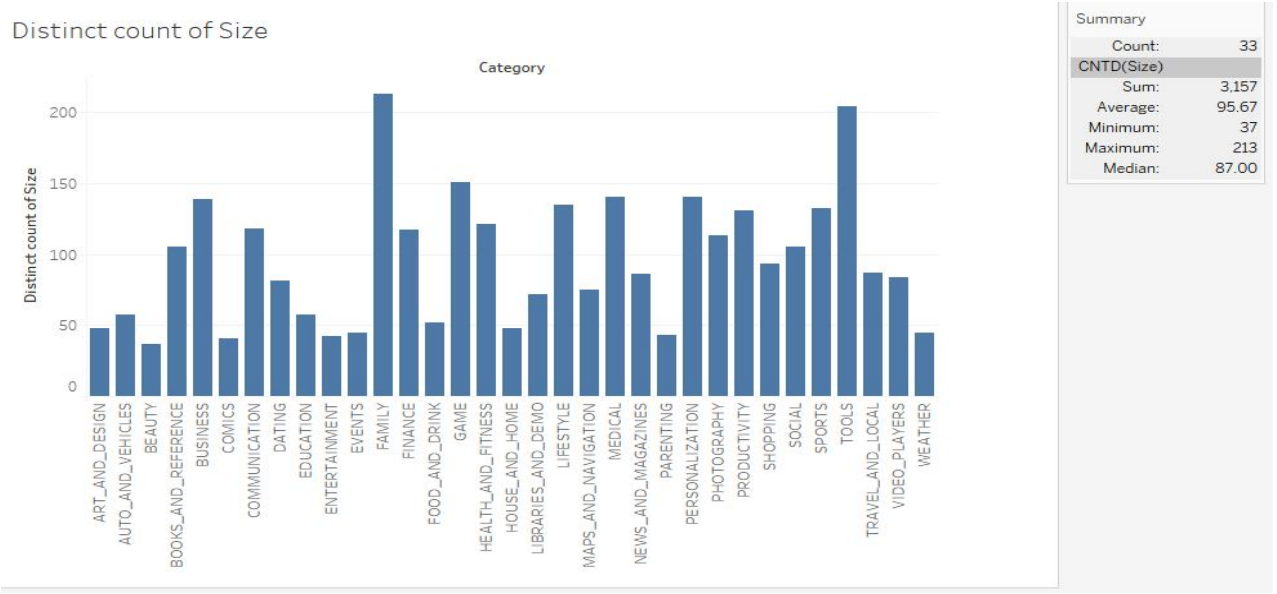


a) Tools have most distinct rating while education has less rating.
b) Family, business apps must have increase in rating since it is used by most of population on daily basis

C. Size

Each app have different sizes some of apps have more size since it more functionality or some apps have more size because of packages handled by apps is big and sometime apps have more animation, look etc.

By observing the dataset it is clarify that according to categories some apps sizes may vary and such category apps contains much more space than other categories. Hence by calculating their count and sizes the following graph concludes all**.**

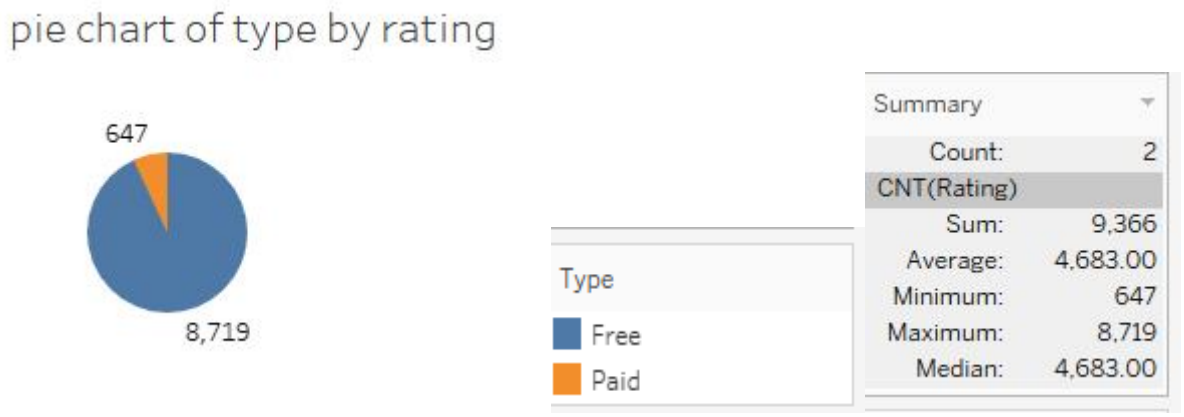


1) Graph Representation Of Size According To Category
a) Family and tools category apps contain much more space than other
b) Most of apps range are form 50 to 150 MB

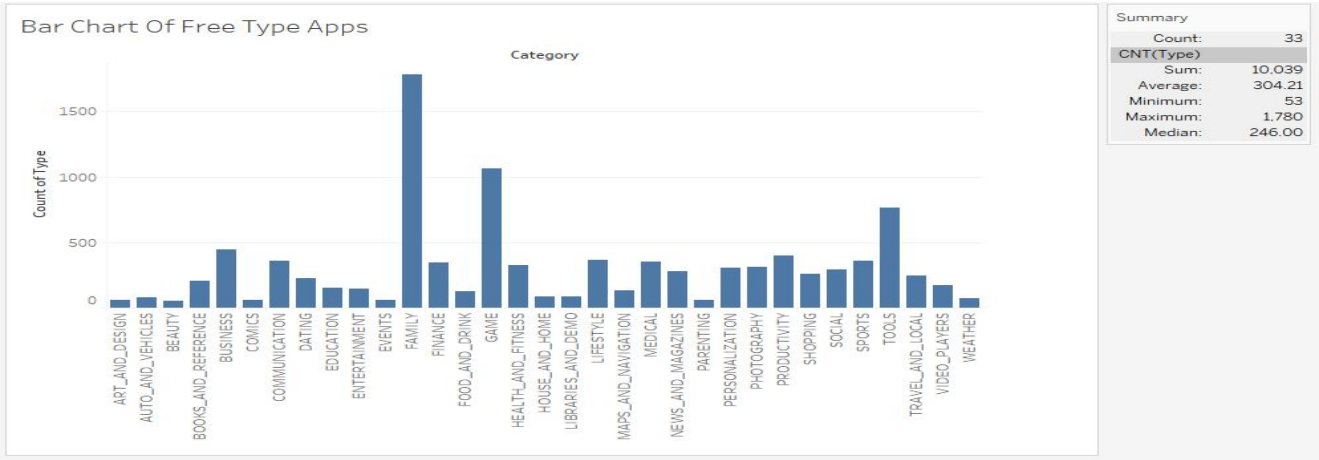
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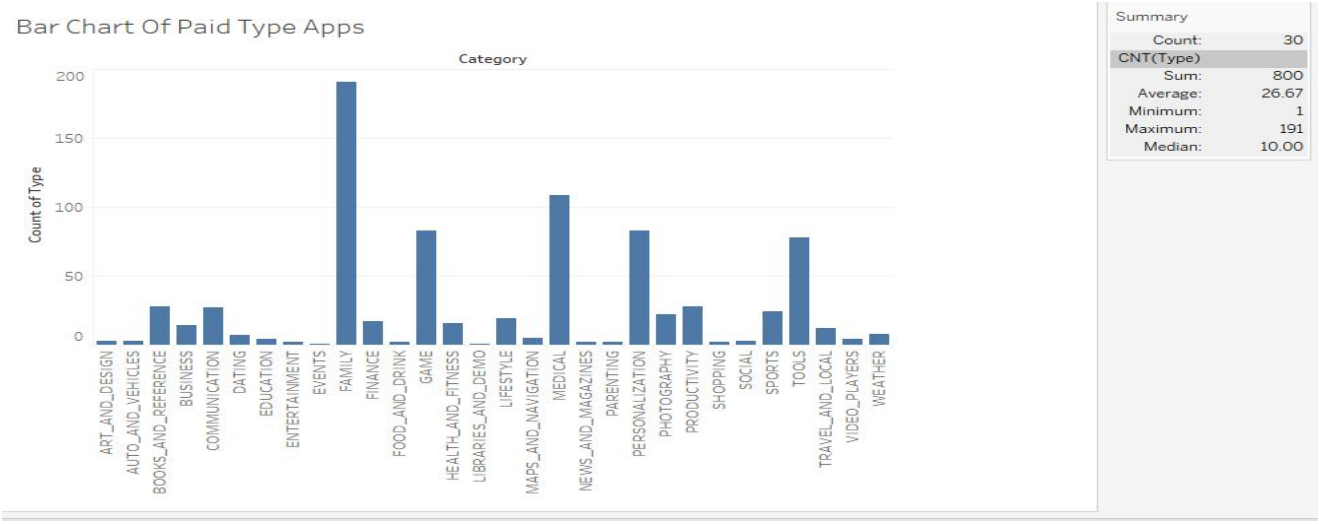
D. Type

Since most of apps are available free or payable. The dataset contains some free as well as paid apps so by analysis the following graph is been made.



1) Category wise Type of App Analysis





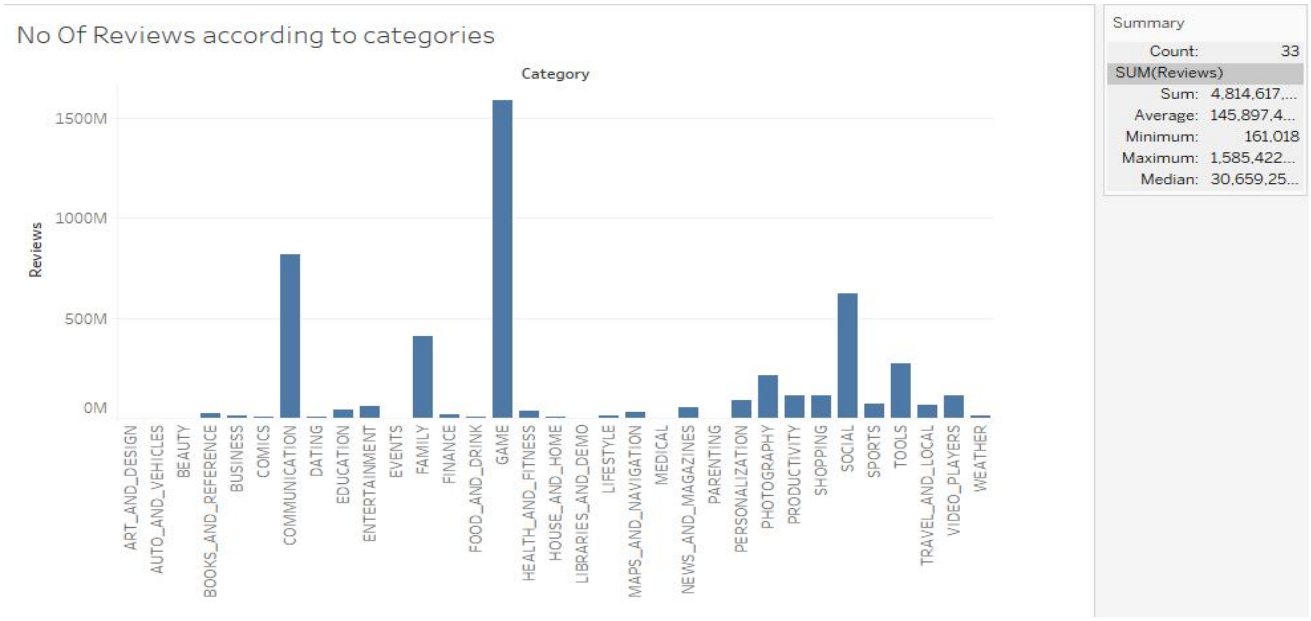
2) By analyzing these graph result most of the apps available in market is free.

3) Since most of the free apps contain paid services along with free services.

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E. Reviews

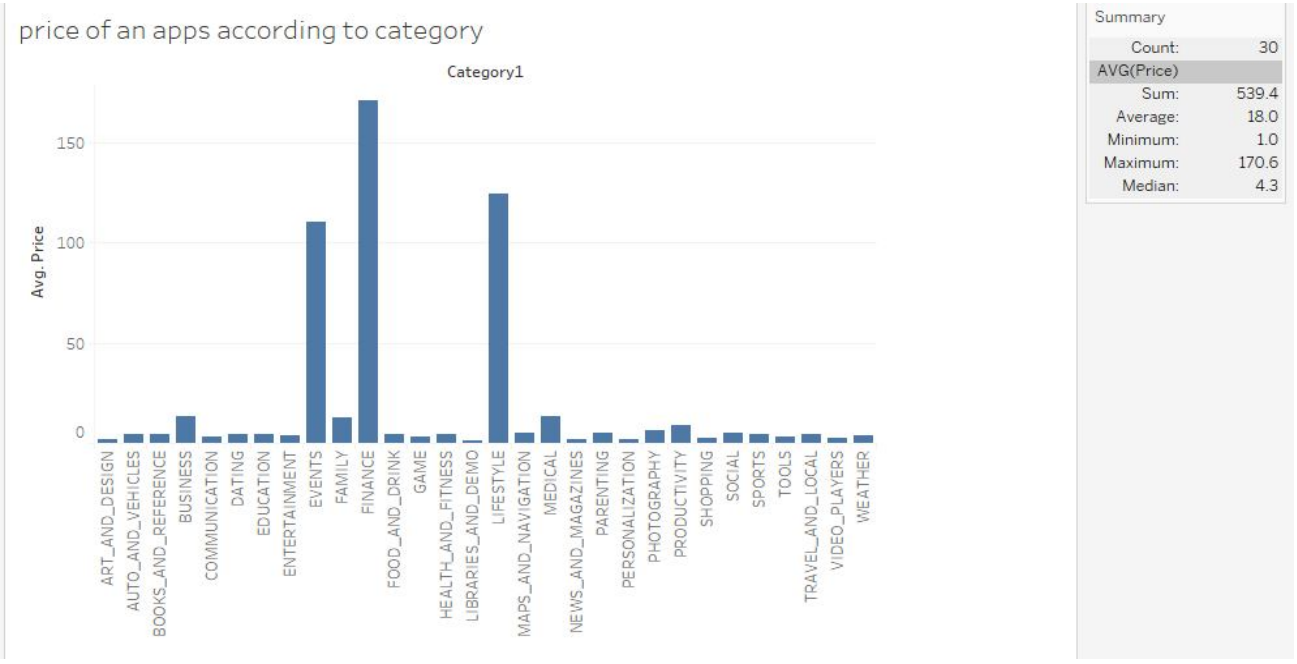
Reviews is most important factor in application. A user review is used encourage the company as well as to ensure that the user are happy. A good review makes application more efficient. Review also help to identify application drawback that help to resolve sooner to new version.



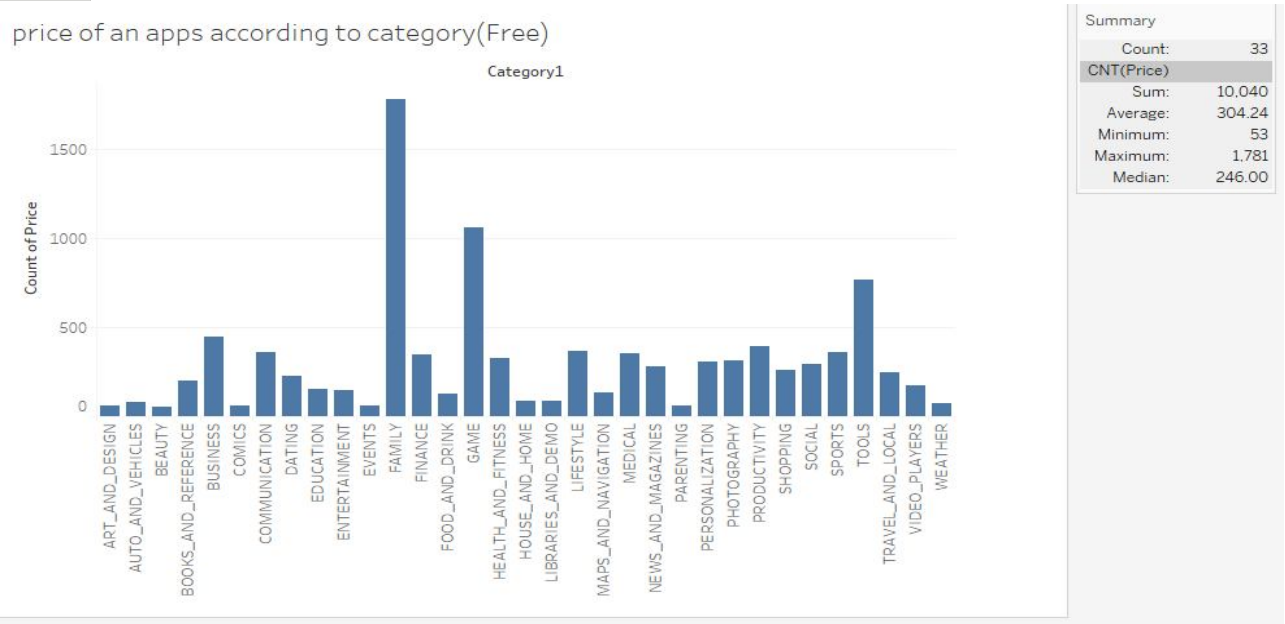
1) As per graph games have more reviews, since games categories always require have run time input and output, hence there are always updates during same amount of time.
2) Game requires significant amount of feedback to have changes, improvise game quality and to solve the bugs.
3) On second place comes with communication since it always rely on network protocols and their strength. These reviews help to solve more bugs and keep the communication secure.

F. Price

Are paid apps downloaded as much as free apps?



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1) Free apps are more installed on phone. But in some apps most of the feature you have to paid to use it. For e.g. in player unknown battleground game the guns skins and player clothes you have to buy even if game is free to play.
2) Hence, sometimes apps are free to use, but some feature has to buy to use it
3) While in other hands paid apps are provide features of the apps unless you buy it.
4) While comparing with free apps paid apps needs to be more secure than free apps since it may contain sensitive data.

G. Key Insight

1) Paid apps need to be lightweight having size around 5 to 100 mb. It need to secure and update simultaneously having less bugs.
2) While free apps needs to be more user friendly, much secure and having data protection.
3) In Games there are more reviews since most of the review are related to bug and version compatibility.
4) The highest paid apps is I'm Rich - Trump Edition in the dataset which is $400.
5) The average price of each categories is around $1 to $80.
6) The most apps installed on the system because it has more reviews and better rating.

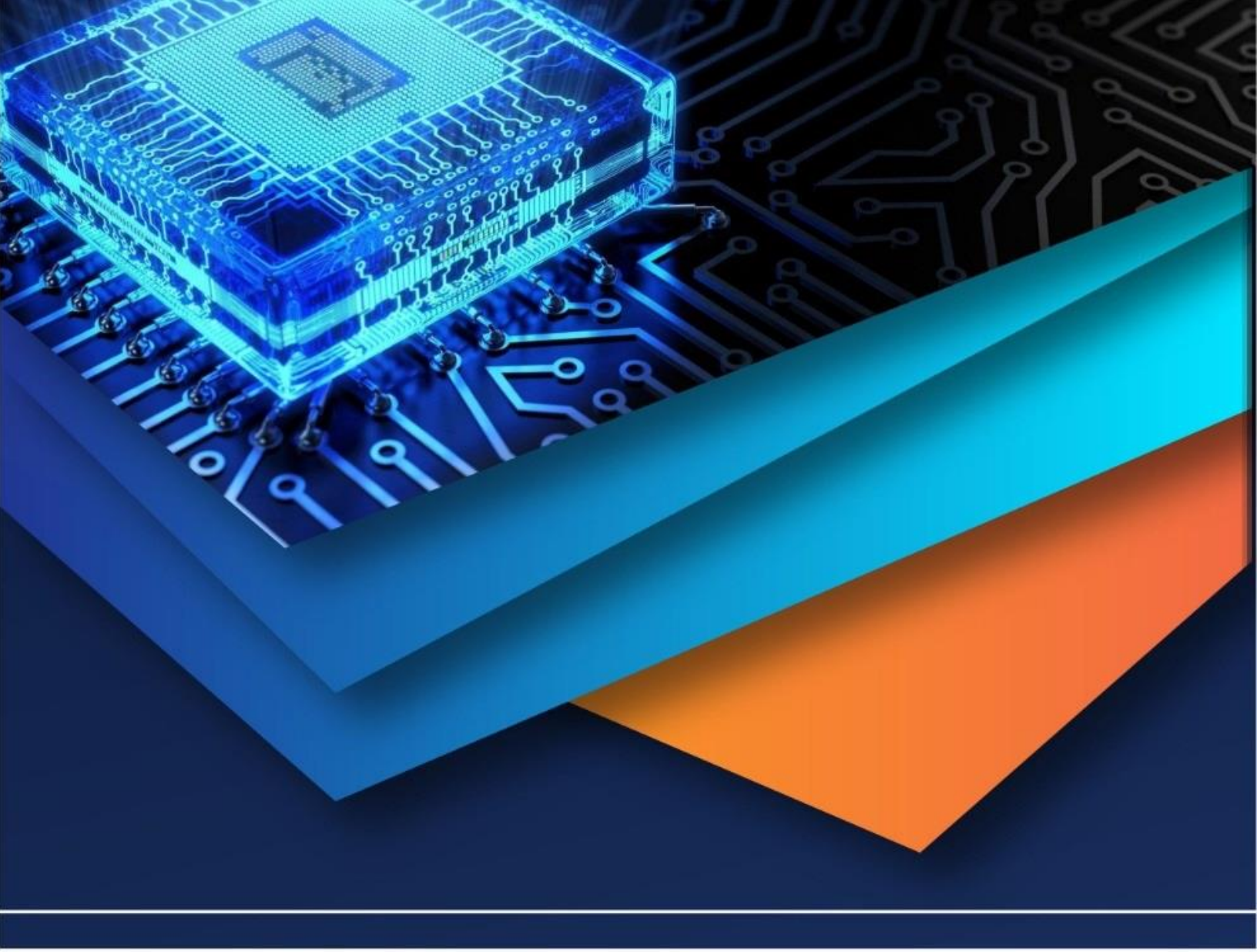
IV. CONCLUSIONS

The analysis of Google Play Store application aided to build most reliable and more interactive applications. This would be very useful for app developer to build an application focussed on certain discussed category in this analysis. This analysis will definitely help in building the application with precise and accurate objectives.

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