Google Play Store Apps Data Analysis Report

Exploratory Data Analysis:

Exploratory data analysis (EDA) is used to analyze and investigate data sets and summarize their main characteristics, often employing data visualization methods. It helps determine how best to manipulate data sources to get the answers we need, making it easier for data scientists to discover patterns, spot anomalies, test a hypothesis, or check assumptions.

→ Here we are using the Google Play Store dataset, which contains details about the Apps in play store, there are more than 10,00,000+ Apps in the play store. The size of the dataset is 645 MB.

→ The main objective of this project is to deliver insights to understand customer demands better and thus help developers to popularize the product.

→ The dataset we are using is taken from the Kaggle, the link of the dataset is given below

https://www.kaggle.com/datasets/gauthamp10/google-playstore-apps

Question: What are the top 10 Categories that are installed from the Google Play Store?

Top-10 Installed Categories
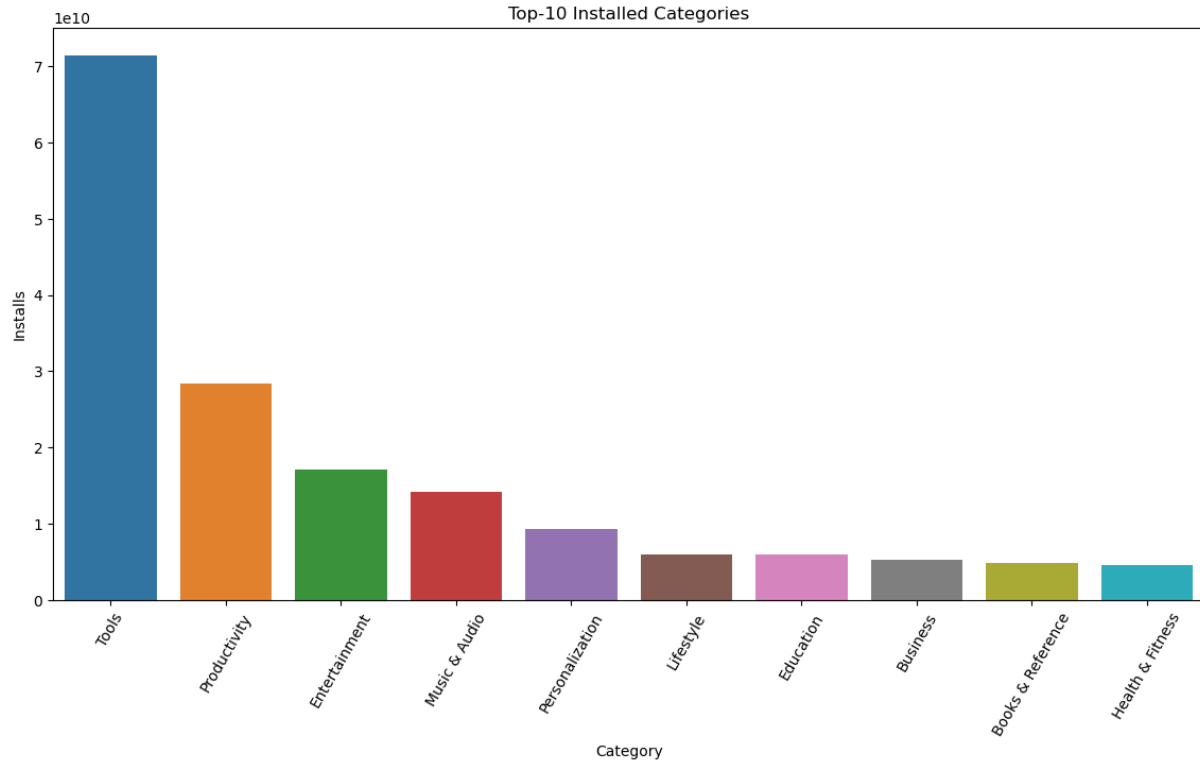
Question: Which are the Categories that are getting installed the most in top 10 Categories?


Top-10 Categories
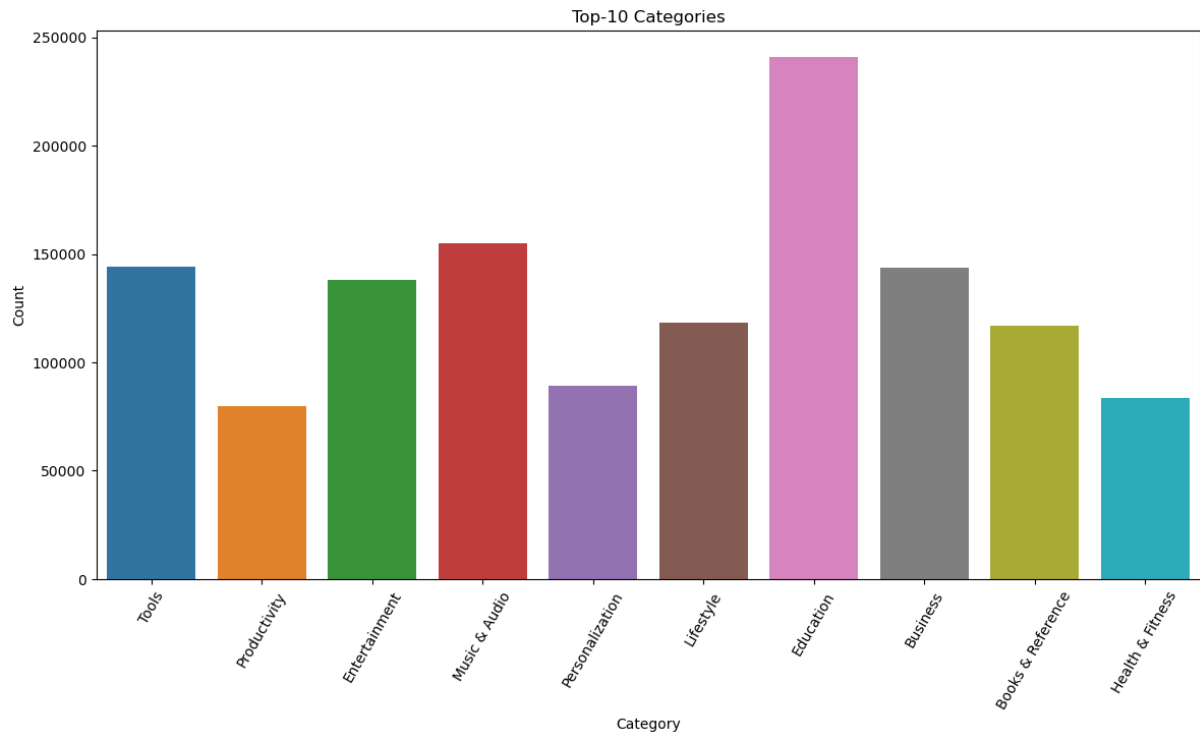
Answer: Education, Music & Audio, Tools, Business, Entertainment, Lifestyle, Books & Reference, Personalization, Health & Fitness, Productivity.
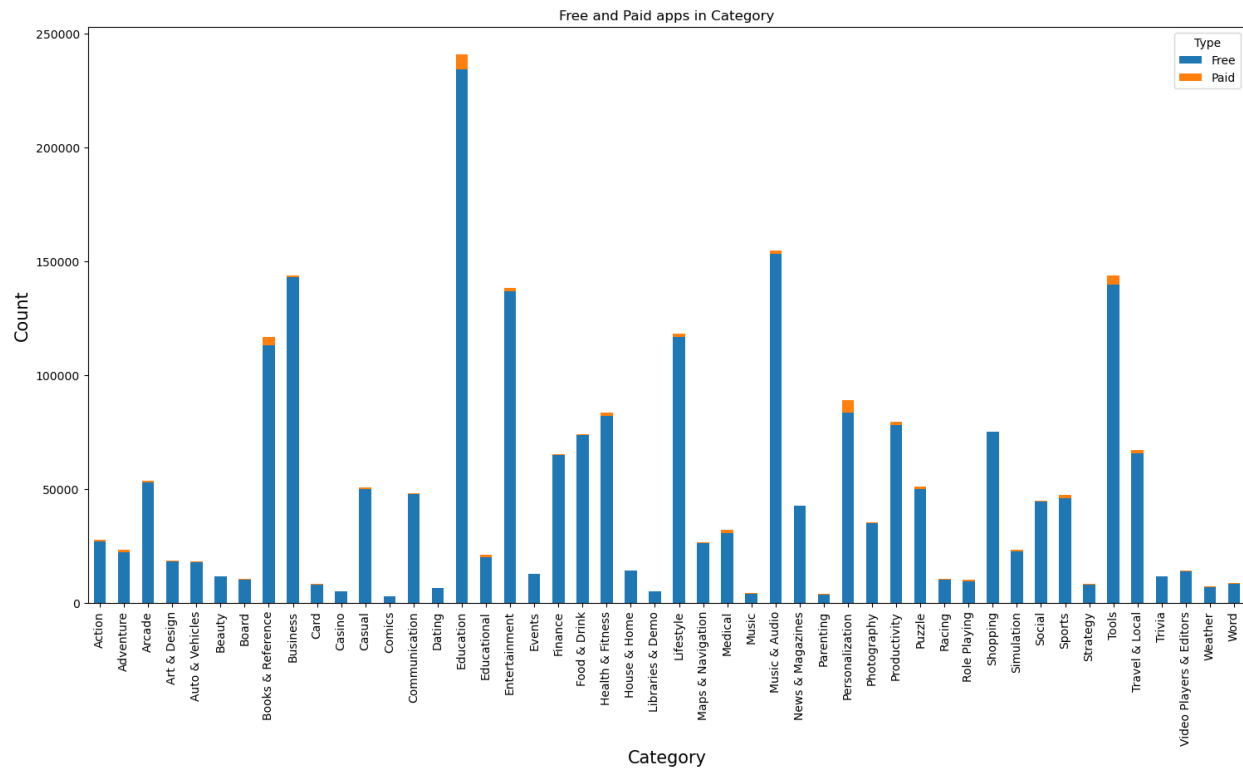
Observation:

As we can see from the above two plots: Maximum number of apps present in google play store comes under **Education, Tools**, **Business** and **Entertainment** etc., Categories but as per the installation scenario it is different. Maximum installed apps come under **Tools**, **Productivity**, **Entertainment**, **Music & Audio** etc.

Question: What is the highest rated Category?

All Categories Rating
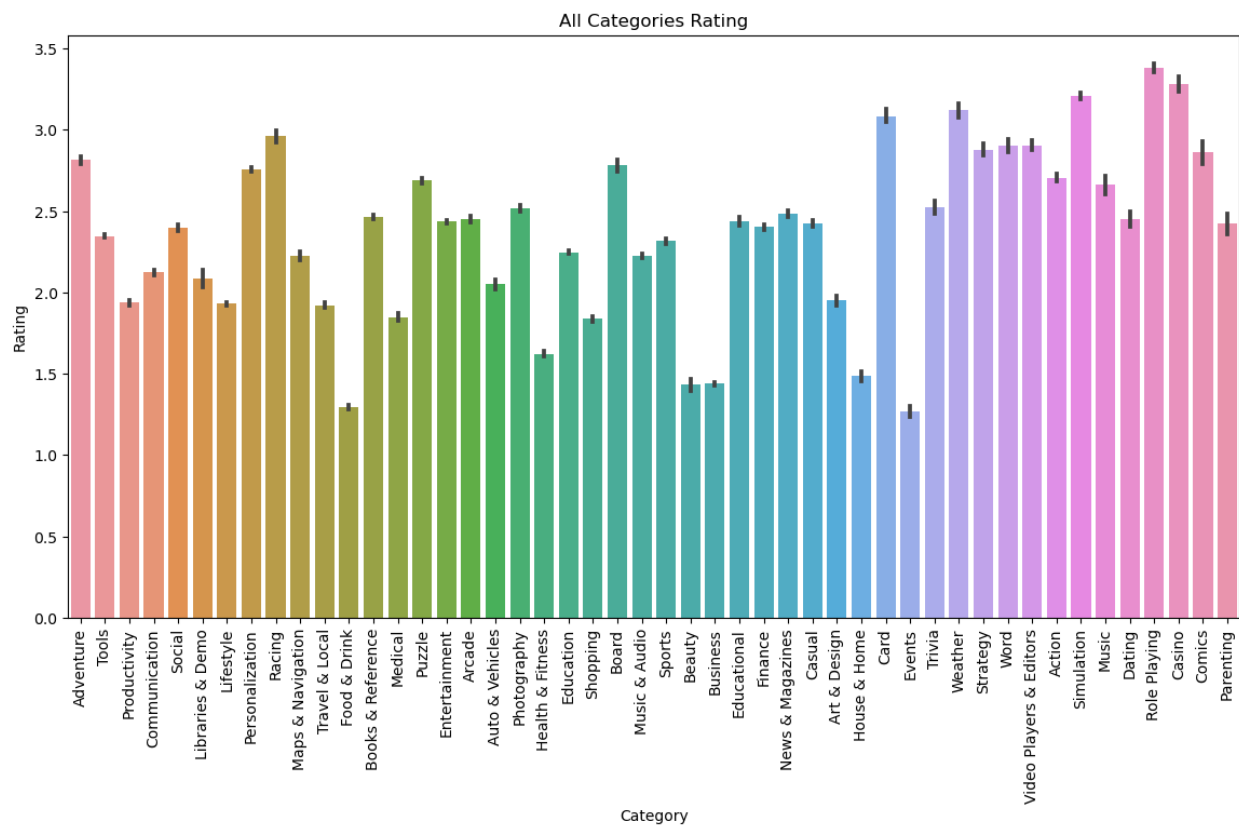
Answer From the above plot we can see that **Role Playing** (4th from the right side) is the highest Rated Category.

**Question:** Which Category has the highest Paid and Free apps?

Free and Paid apps in Category

Answer: Education Category is the highest in paid apps list

Observation:

It looks like certain app categories have more free apps available for download than others. In our dataset, the majority of apps in **Business**, **Education**, **Music & Audio**, **Tools** as well as **Social** categories were free to install. At the same time **Books & References**, **Education**, **Tools** and **Personalization** categories had the biggest number of paid apps available for Installation.

Question: How does the size of the Application impacts the Installation?
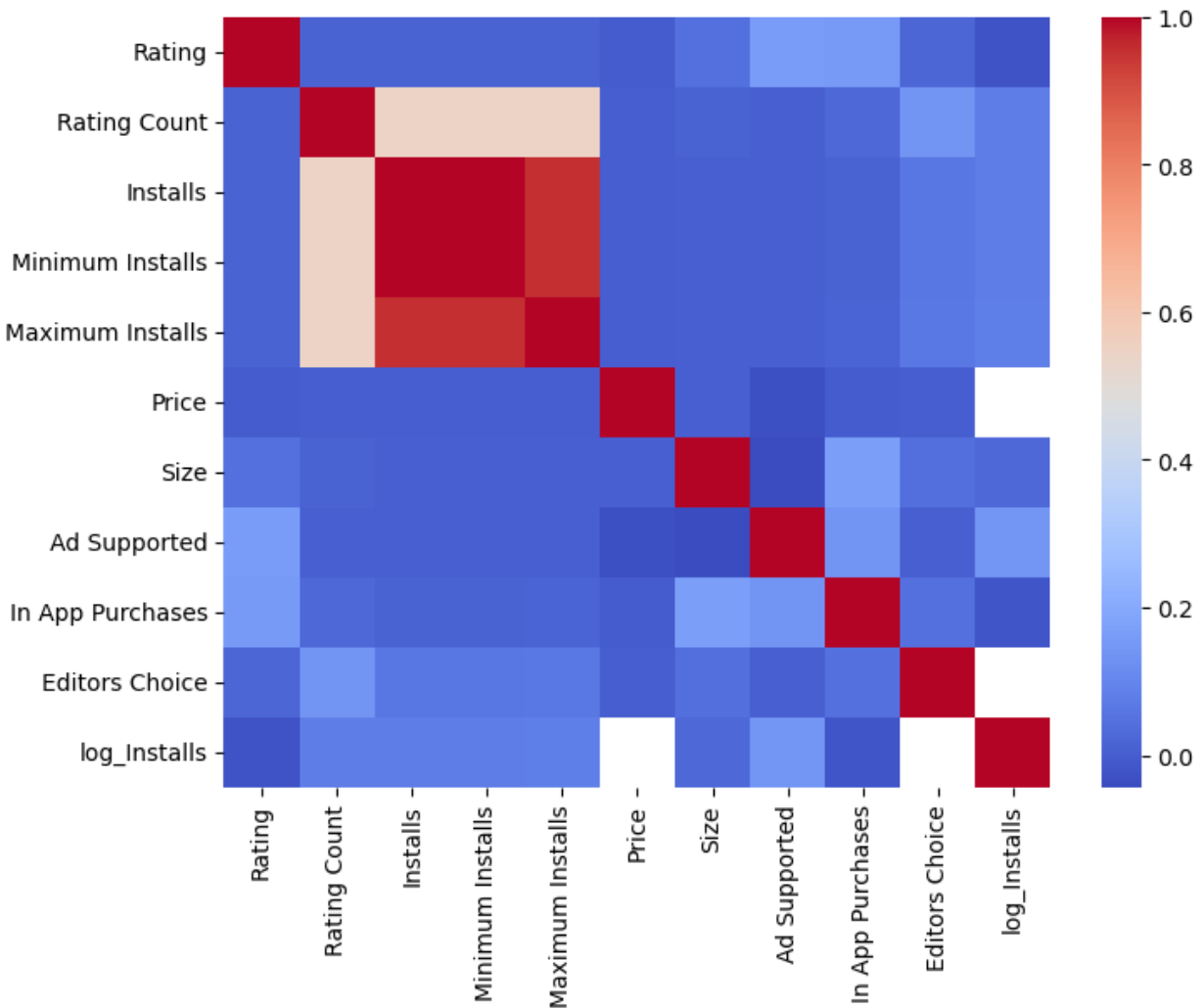
Observation:

Factors like **Ad-Support** and **In App Purchases** are correlated to app rating. So, we can say that if the app provides customer support and have subscription plans, we can engage more customers. We can also see from the same graph that the **Editor's choice** plays an important role as well. With high **Editor choice** we can see high **ratings** count and high **installs**.
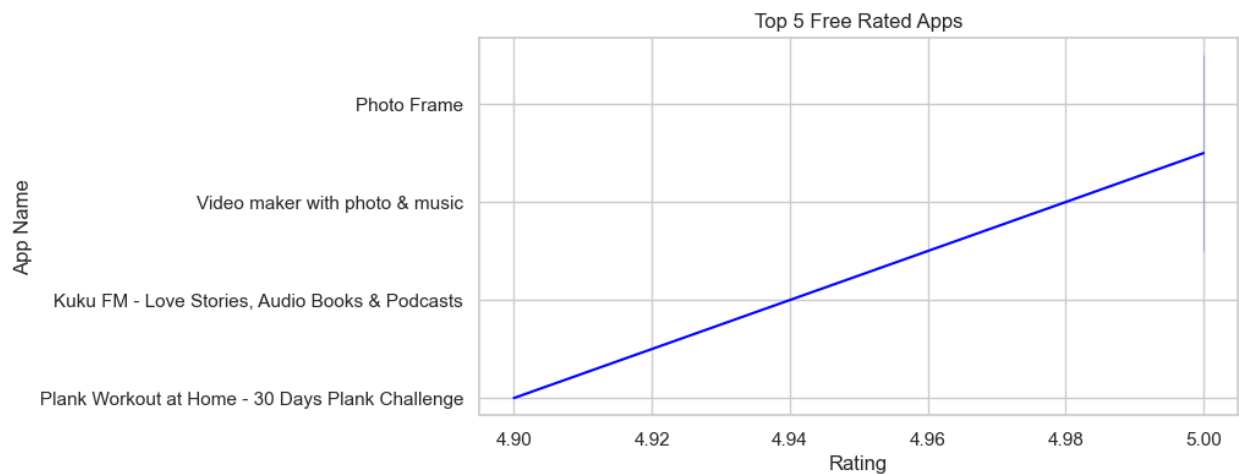
Question: What are the Top 5 Free Apps based with highest ratings and installs?

Top 5 Paid Rated Apps
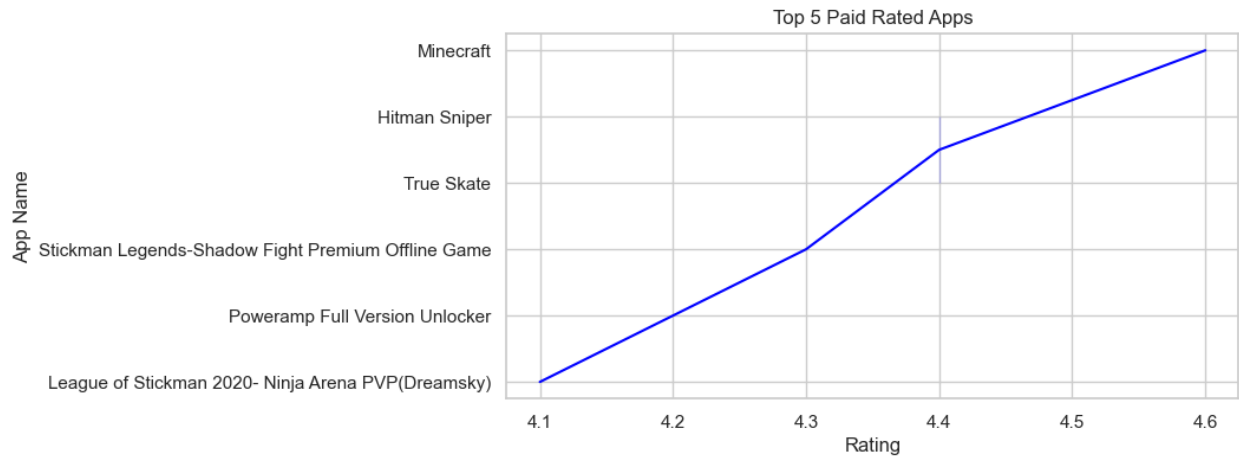
Answer:

1. MineCraft
2. Hitman Sniper
3. True Skate
4. Stickman Legends-Shadow Fllight Premium Offline game
5. Poweramp Full Version Unlocker

Question: What are the Top 5 Free Apps based with highest ratings and installs?
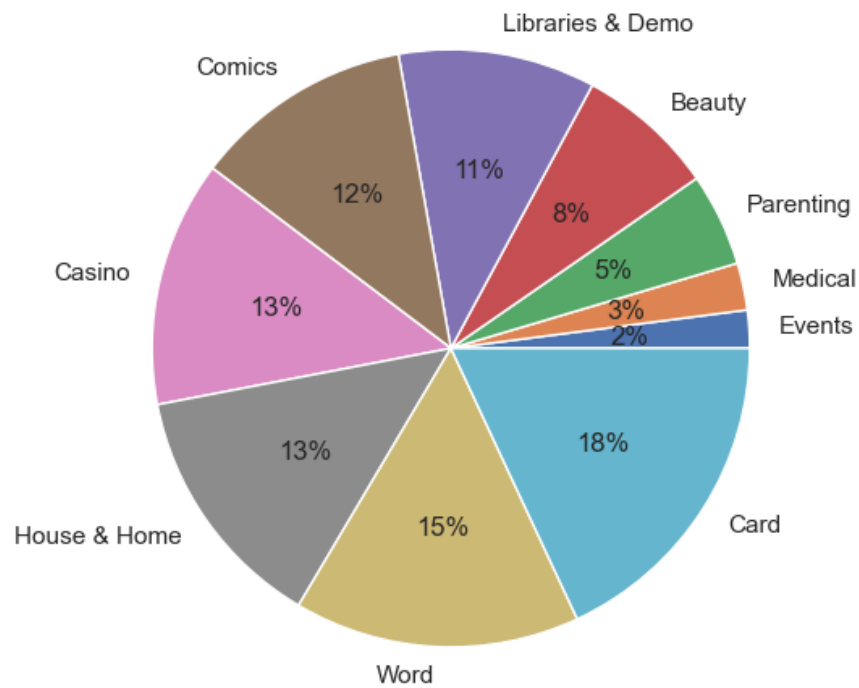

Top 5 Free Rated Apps

Answer:

1. Photo Frame
2. Video Maker with photo and music
3. Kuku Fm - Love Stories, audio Books & Podcasts
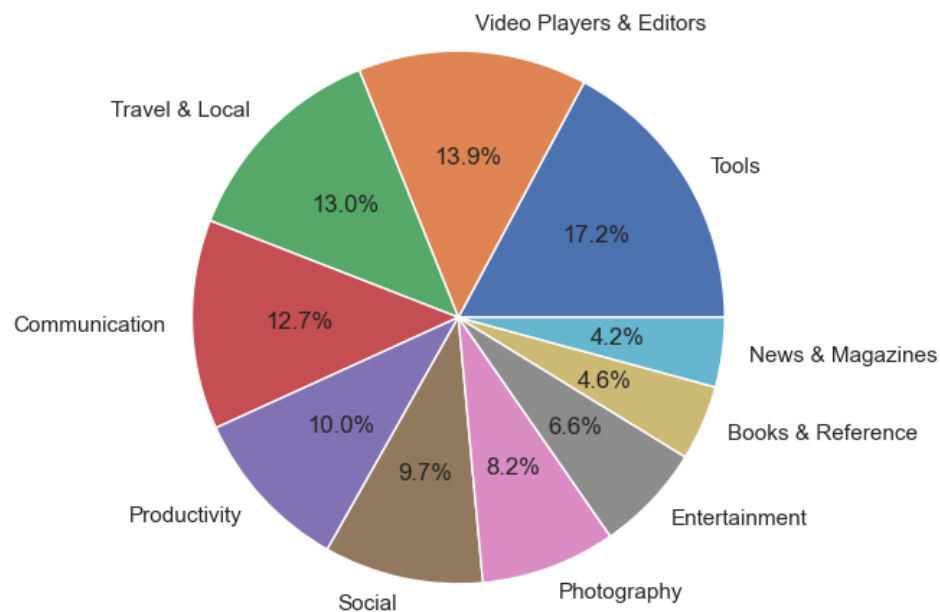4. Plank Workout at home - 30 Days plank Challenge

Let's Check top 10 **categories** with **maximum installations**

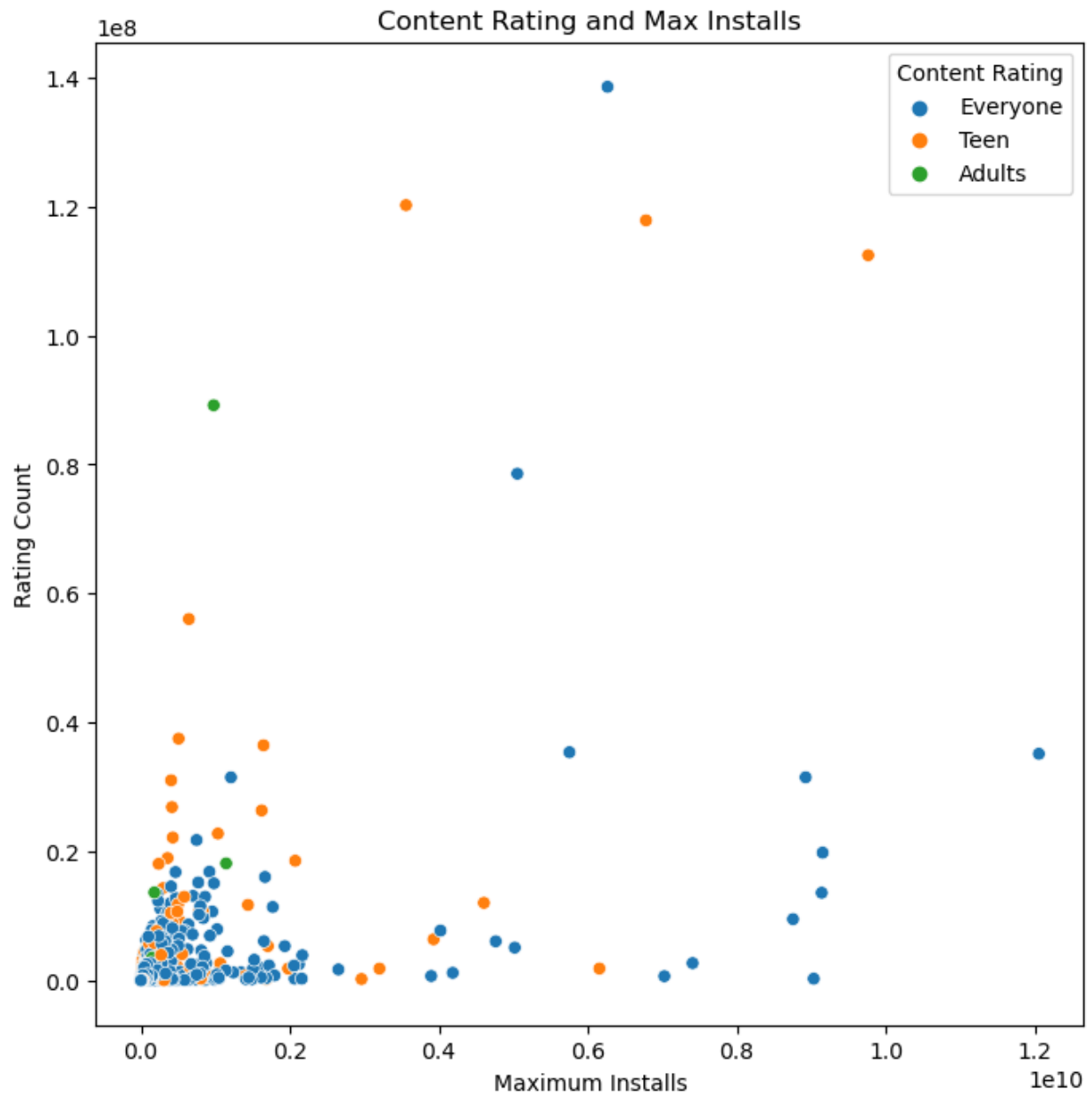Top 10 Max installations Category wise

Let's have a look on top 10 apps **categories installed** by **Adults**

Adults installing apps in terms of Category

Let's check the **audience engagement** rate by **Content Rating** and **Age** groups we have (Teens, Adults and Everyone)

Observation

This Scatter Plot shows us that: If we exclude "**Everyone**"" from the plot and when focus on **'Teen'** and **'Adults'** we can see that teens have much engagement in terms of download and rating count.

Summary and Conclusion:

- People are more interested to install the gaming Apps, the top Rating is given to the gaming apps.

- InAppPurchases are correlated to App rating. So, we can say that if the app provides customer support and have subscription plans it will help to engage customers.

- Most people do not give rating, but most of the times people who are given rating are tend to give 4+ rating.

- Most of the Adults installed the Social and communication Apps.

- Most of the installations are done by the teens and the most are Video Players and Editors. Video Players and Editors has more in demand.

- Size of the Application varies the installations.

- People are more likely to download the free apps as the installation of the free apps is high and the availability of the free apps also is very high.

Suggestions:

- Companies and individuals should invest in Gaming (Role Playing), Education, Music & Audio, Tools, Adventure and Entertainments app categories if they want to earn high revenues as these categories have the highest number of installs and ratings as well.

- Make sure to target their audience age group more wisely, as we know teens group have a higher engagement rate as compare to other to it will be great to develop an app for them that must should be "Free" for higher number of installs.

My Intro:

Name: Muhammad Rizwan Aslam

Role: Data Analyst

Education: Bachelors of Computer Science

Certification: Google Data Analytics Professional certificate and a few others IBM and Google certificate related to data analytics and visualization.

Skills: Python for Data Analysis, R for data Visualization, SQL and Power BI for building dashboards.