



GET IT ON
Google Play

Google Play Store App Rating Models & Predictions

Jan 4, 2024



GOKNUR KAYA

Data Scientist

Background in Psychology



GoknurK



goknurkaya@gmail.com



goknurk

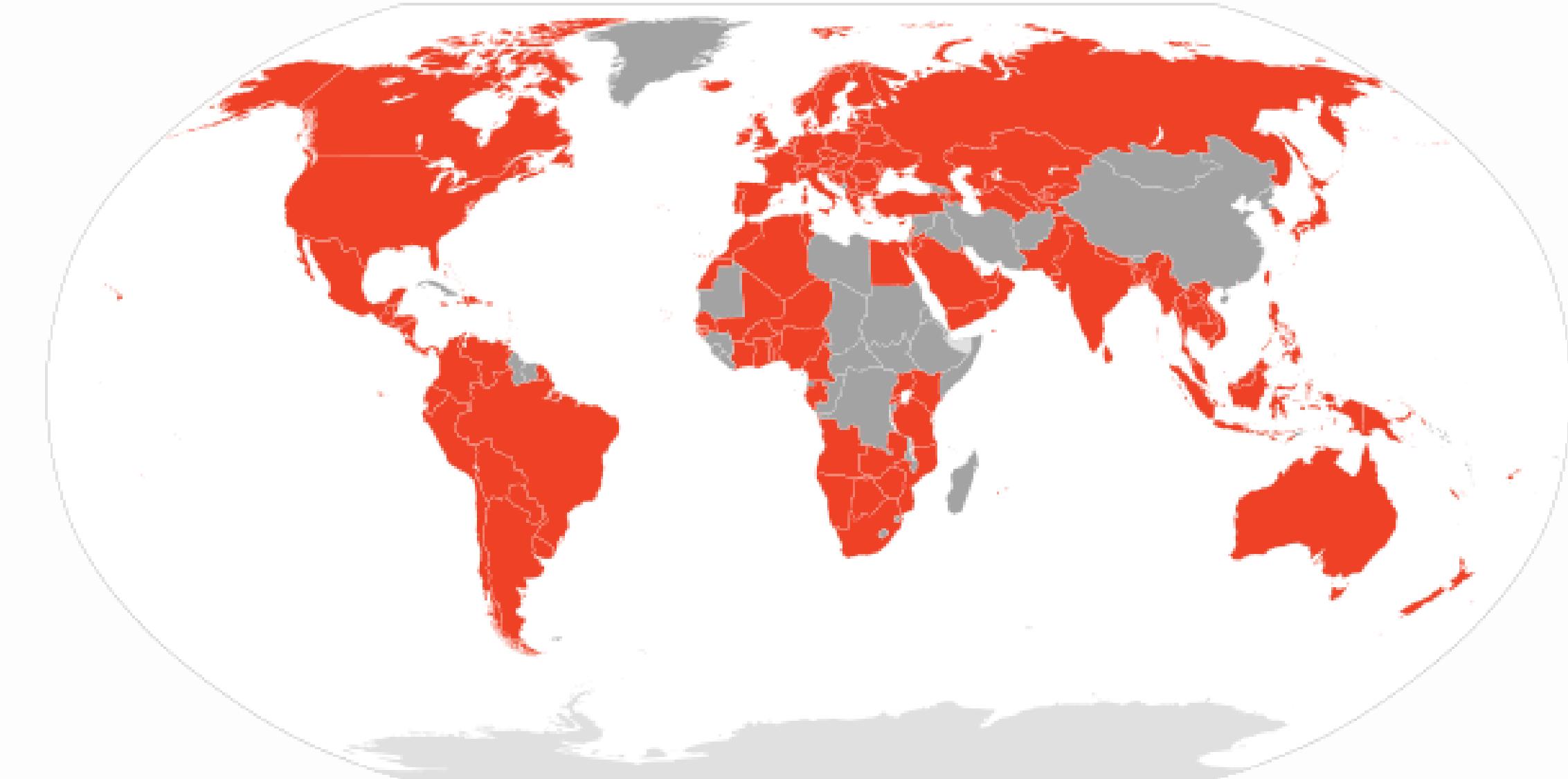
AGENDA



- 1 Business Problem
- 2 Data Overview
- 3 Analysis & Modeling
- 4 Recommendations
- 5 Future Steps

Google Playstore

- Google is one of the most trusted platforms.
- Originally launched as the Android Market in 2008.
- As of the first quarter of 2021, the Google Play Store hosted a substantial 3.5 million apps.



Global availability of Google Play

BOTTOM LINE

The best model performed 56% accuracy and 98% recall on high rating.

Category, Downloads , Ads and App name are the one of the most important features in terms of impact on ratings

1

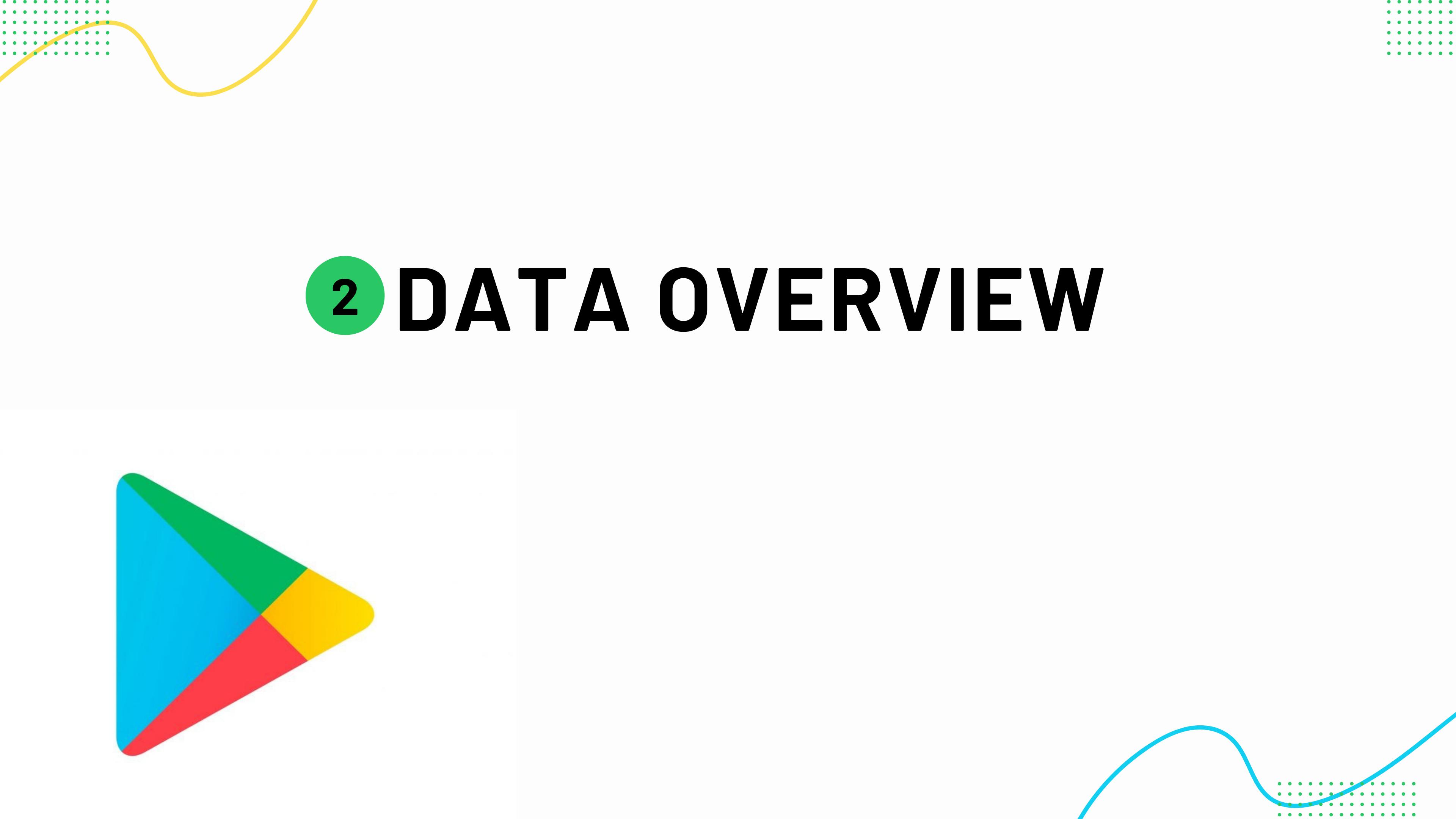
BUSINESS PROBLEM



BUSINESS PROBLEM



01. Analyze the relationship between user ratings and intrinsic factors
02. Find a suitable predictive model to determine user ratings based on Google Play Store app data
03. Introduce rating ranges Low, Medium and High and investigate inter-range differences



2

DATA OVERVIEW



DATA OVERVIEW

Data

- Kaggle,
- 2010-2021

Data points

- 15k

Filters

- Cleansing of apps with ratings of zero

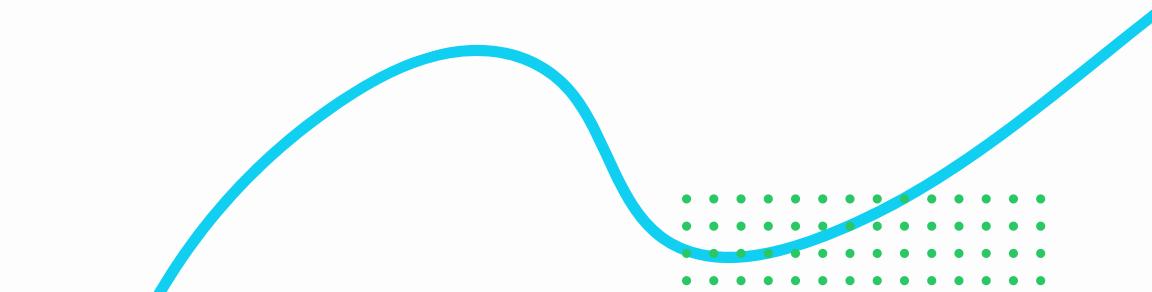
Limitations

- Lack of app prices and in-purchase prices.
 - Ad display durations.
 - imbalanced ratings.
- Unclear app rating authenticity.

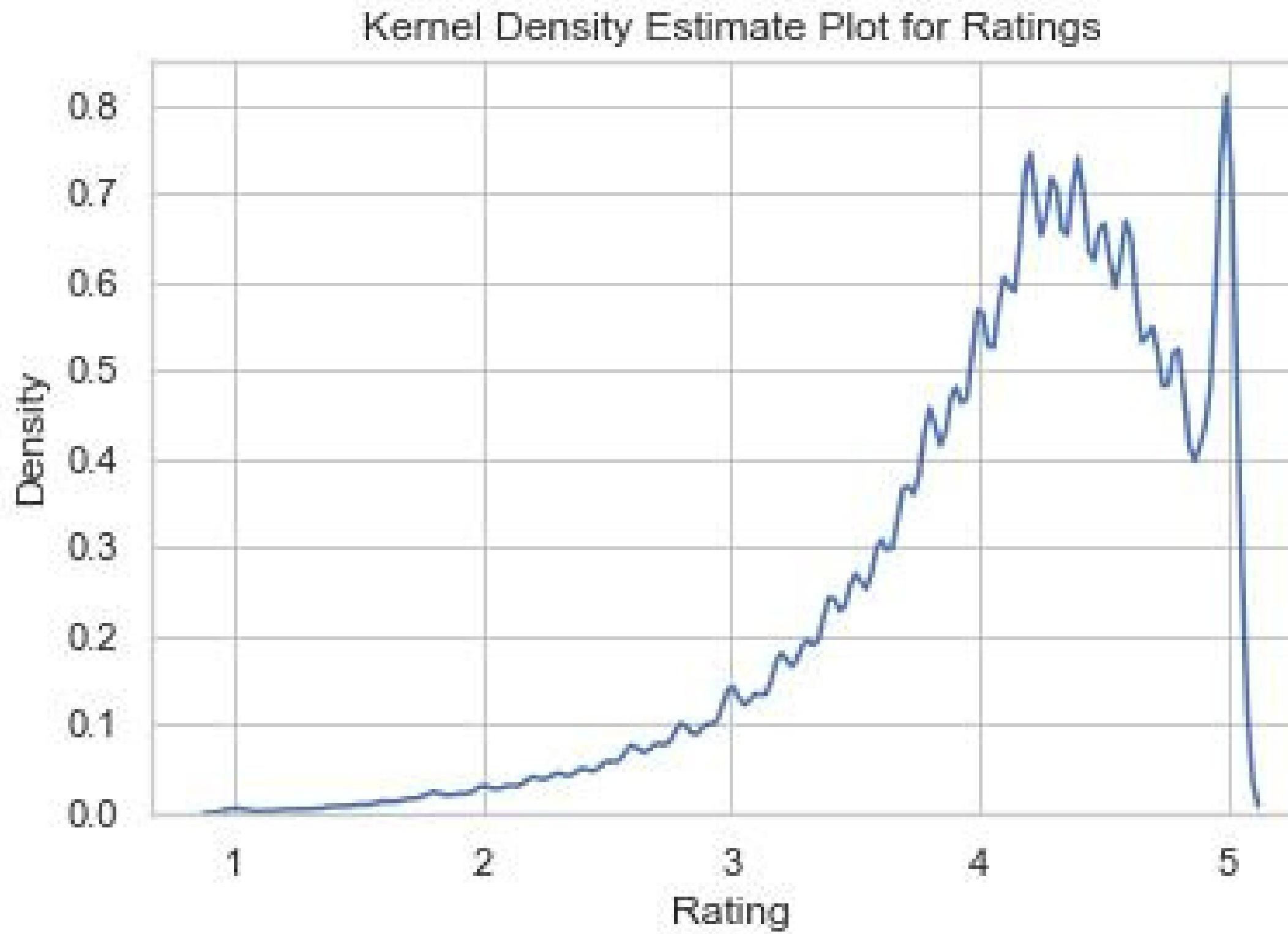


3

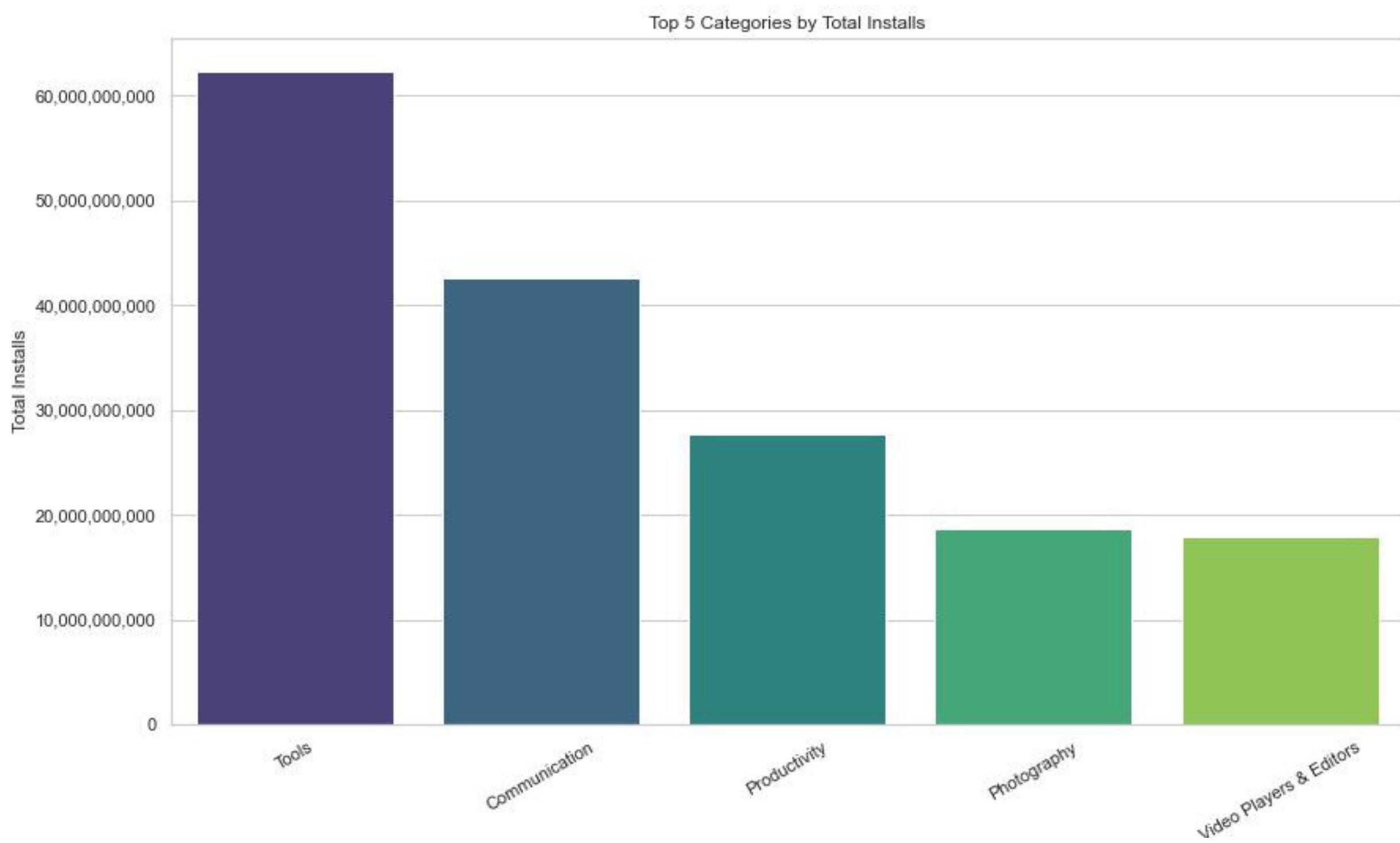
ANALYSIS & MODELING



Most ratings fall within the higher segment

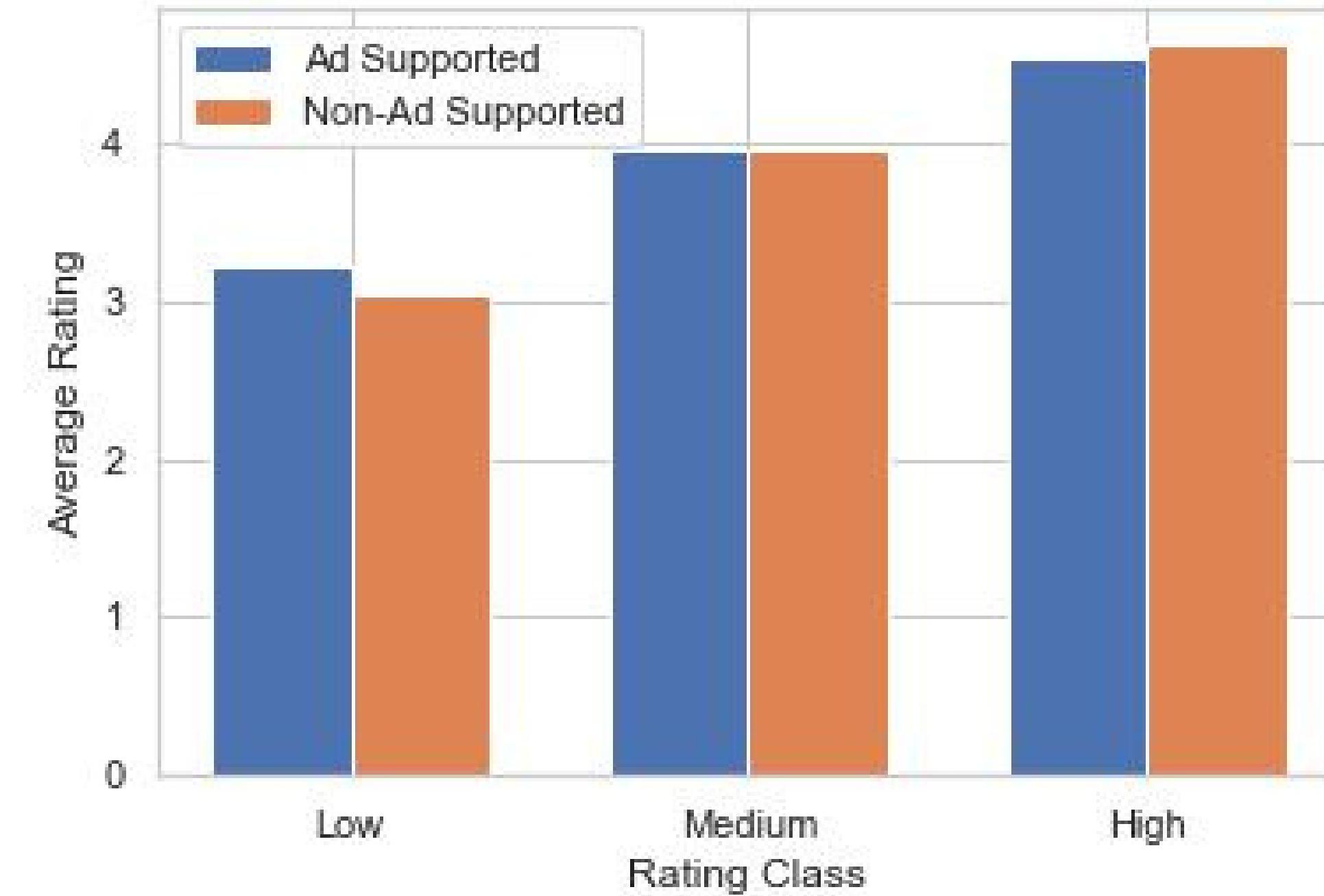


Total Installs by Category

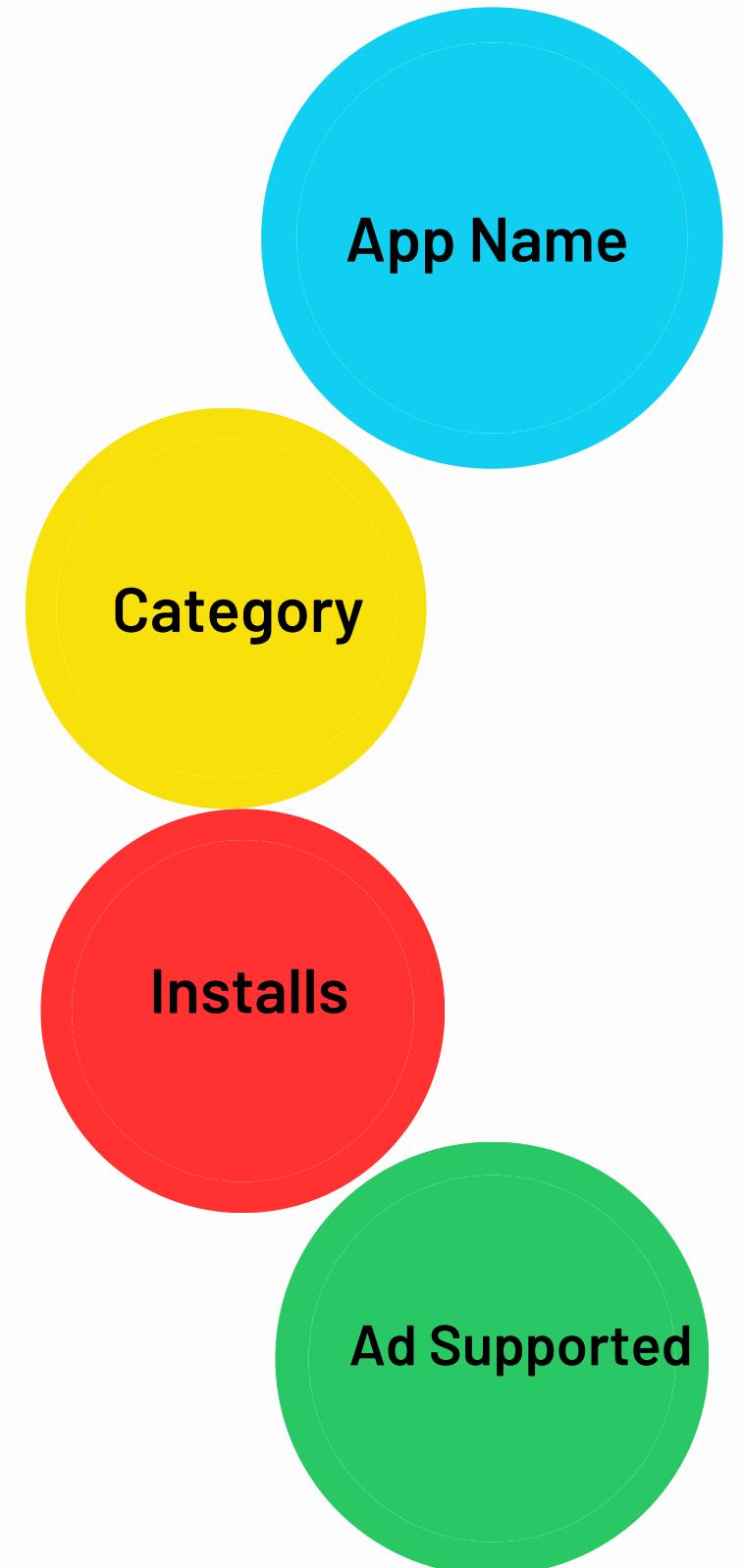


Ad- & non-ad-supported apps tend to receive comparable ratings

Average Rating for Ad Supported vs Non-Ad Supported Apps by Rating Class



MODELING

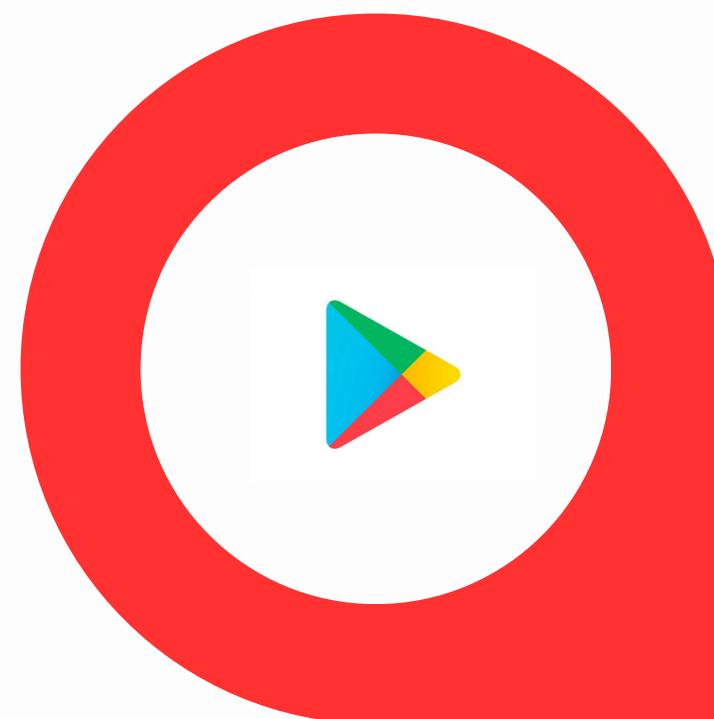


- High Rating 4.2-5
- Medium Rating 3.8-4.2
- Low Rating 1-3.8
- Accuracy 56%
- Recall on High Rating 98%

5 RECOMMENDATIONS

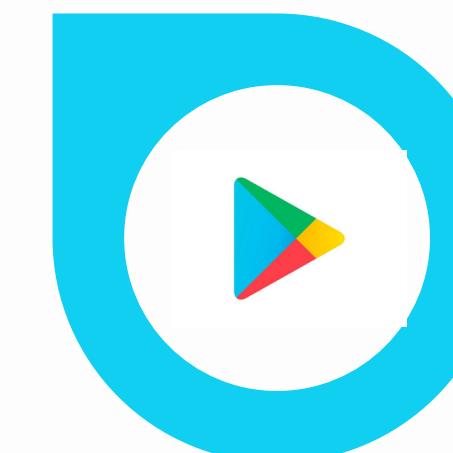
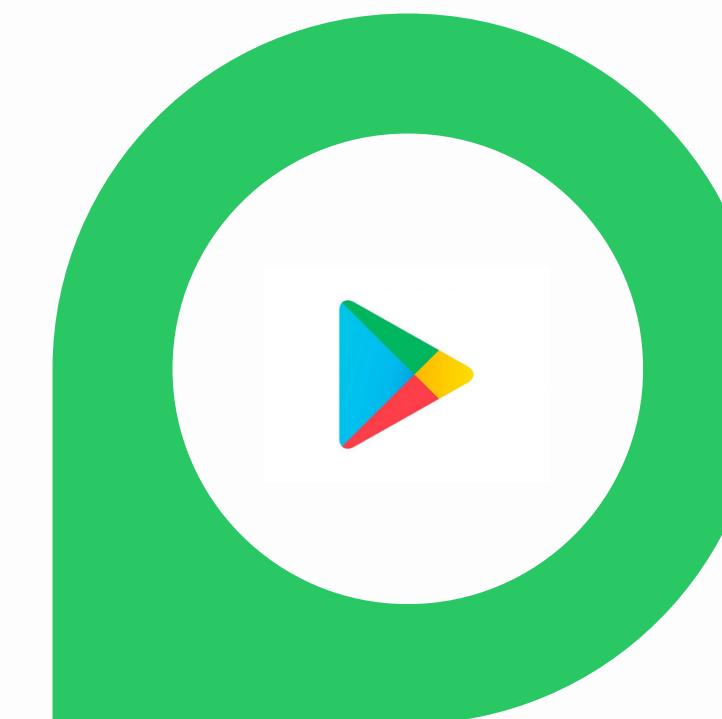
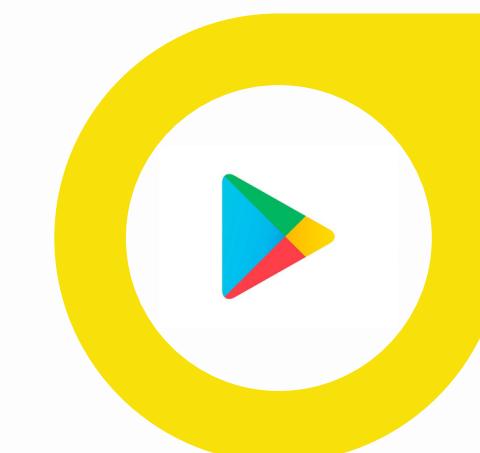
Pick App Name wisely

Ensure the app name is both search-friendly and memorable



Category plays an important role

Tailor your app to meet the preferences of users within a specific category.



Installs :

more installs is more likely to increase the higher ratings.

Ad Supported

could be a good source of revenue that doesn't significantly affect ratings

FUTURE INSIGHTS

1 App Prices

Analyze how different pricing tiers may impact user acquisition and overall revenue.

2 In-App Purchases

Consider how the availability of in-app purchases influences user engagement and monetization

3 User Behavior and Spending Patterns

The objective is to launch new products or services on existing markets



THANK YOU!



GOKNUR KAYA

Data Scientist

Background in Psychology



GoknurK



goknurkaya@gmail.com

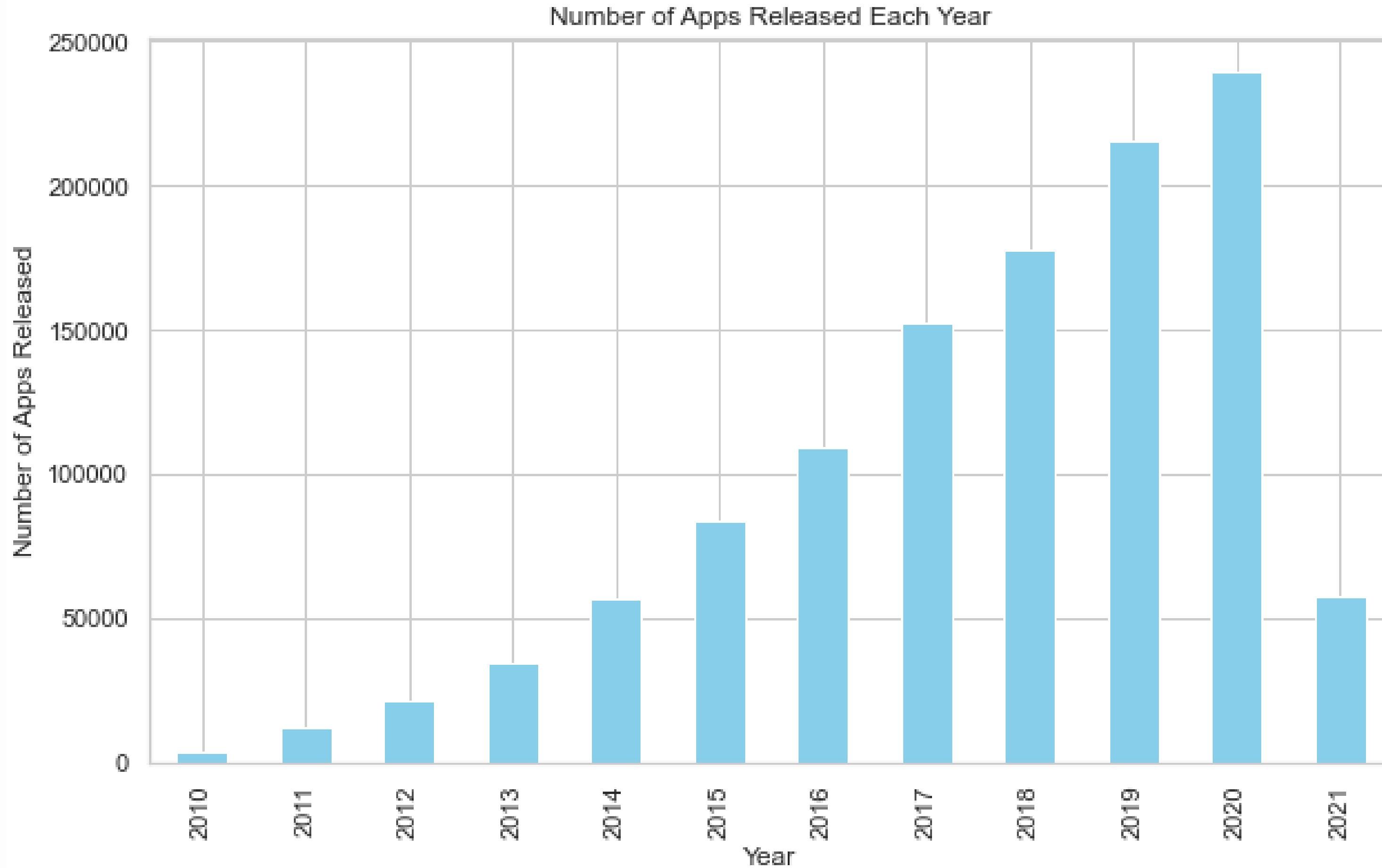


goknurk

APPENDIX

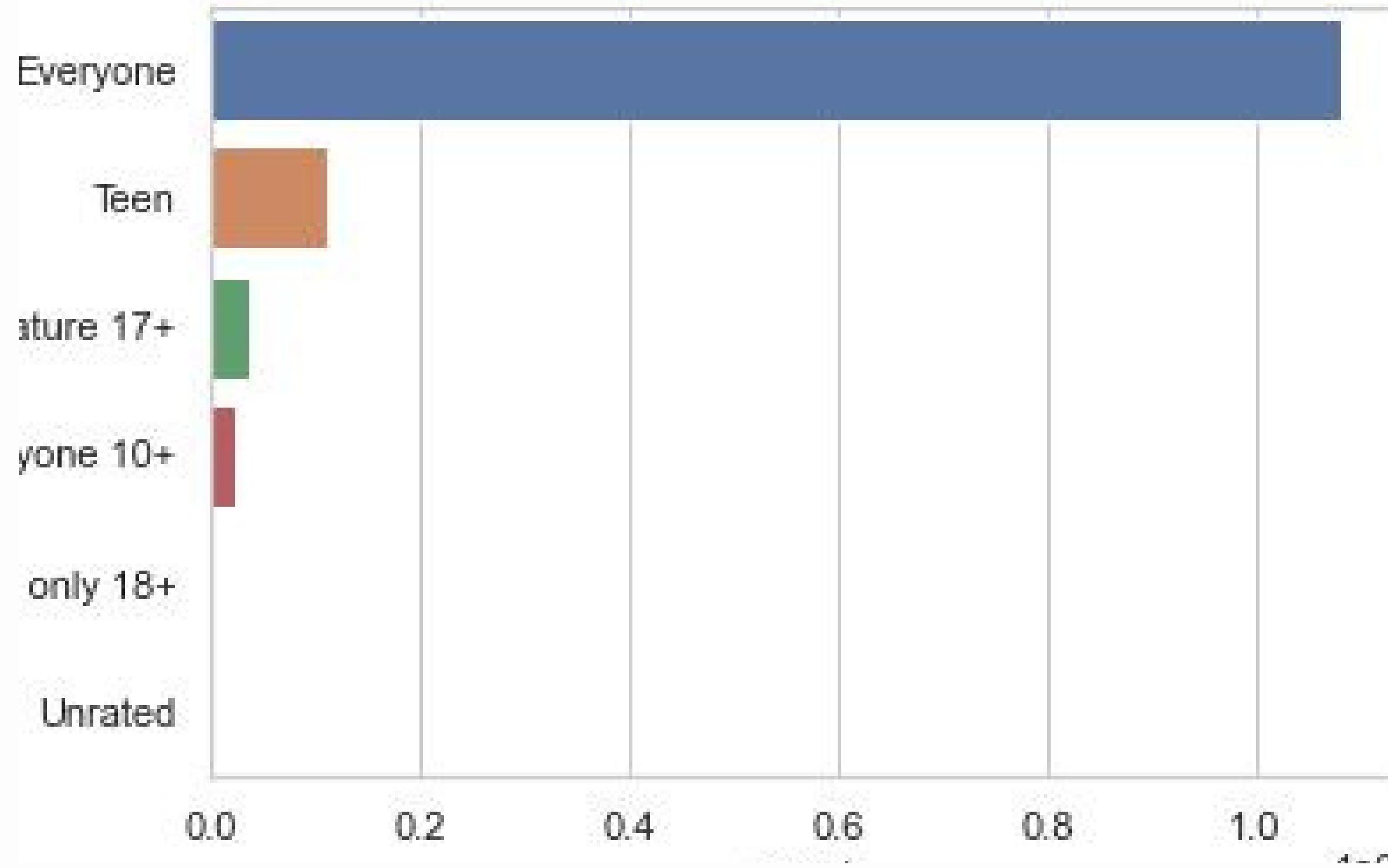


Number of apps released each year



Content Rating

Content rating with their counts



Free App Ratings

