Analyzing Key Indicators of Positive Reviews for iOS Apps

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Apple

- First company to reach 1 trillion valuation

- iOS app store is carefully curated

- About 2 million apps available

The Dataset

- Sourced from Kaggle.com
- 7197 entries
- 16 columns containing app information

Attribute	Description	Attribute	Description
ID	App identification number	User_rating_ver	Rating (out of five) for app at current version
track_name	App name	Ver	Version number of the app
size_bytes	Size of app	Cont_rating	The applications acceptable audience (4+, 9+, etc)
Currency	System of money for payment	Prime_genre	Primary genre for the app
Price	Cost of app	Sup_devices.num	Number of devices the app supports
Rating_count_tot	Number of ratings for app	ipadSc_urls.num	Number of screenshots shown
Rating_count_ver	Number of ratings for current version of app	lang.num	Number of languages supported
User_rating	Rating (out of five) for app	vpp_lic	Whether or not Vpp device based licensing enabled

Problem

- Can highly rated apps be predicted (> 4/5)?
- Can we pick out trends that result in highly rated applications?
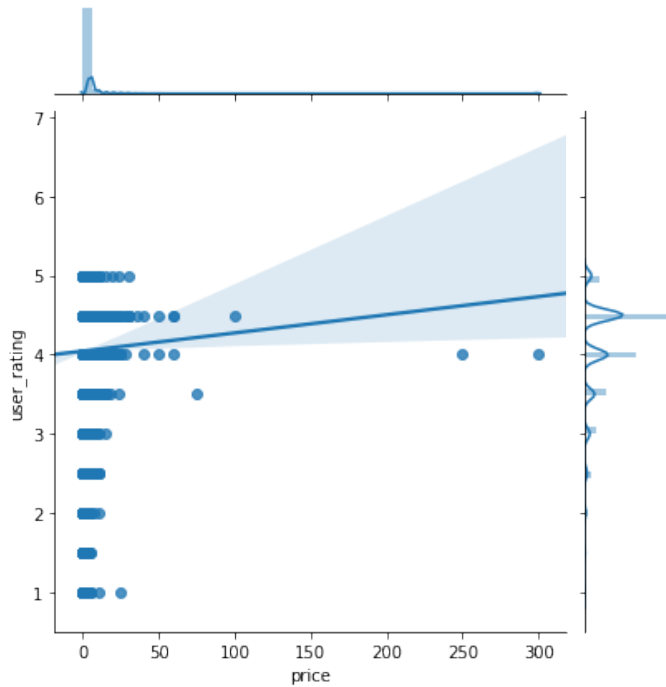- What are these trends?
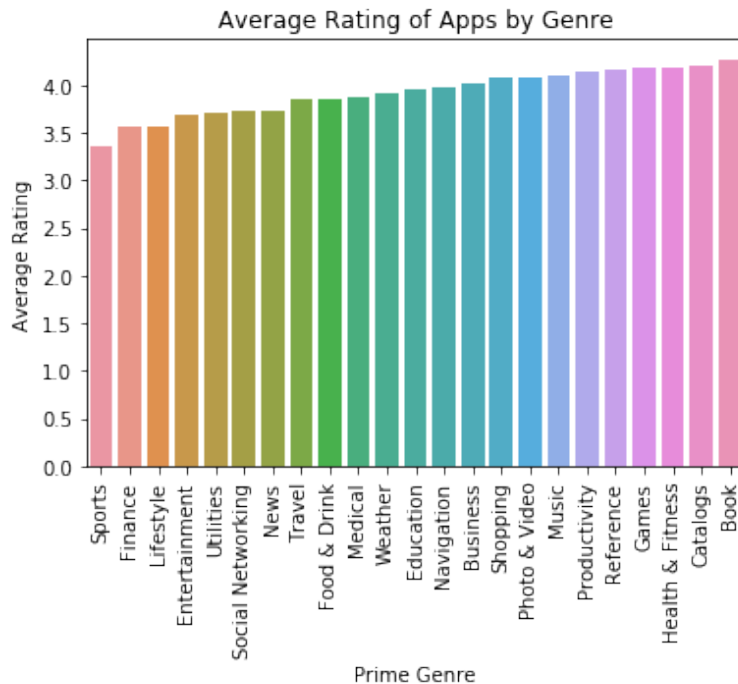
Data Cleaning / Feature Engineering

- Checked for NA values (none)
- Created dummy variable for high ratings
- Dropped unnecessary/unhelpful columns
- Label encoded categorical variables

  - cont_rating (the age rating given to the app)
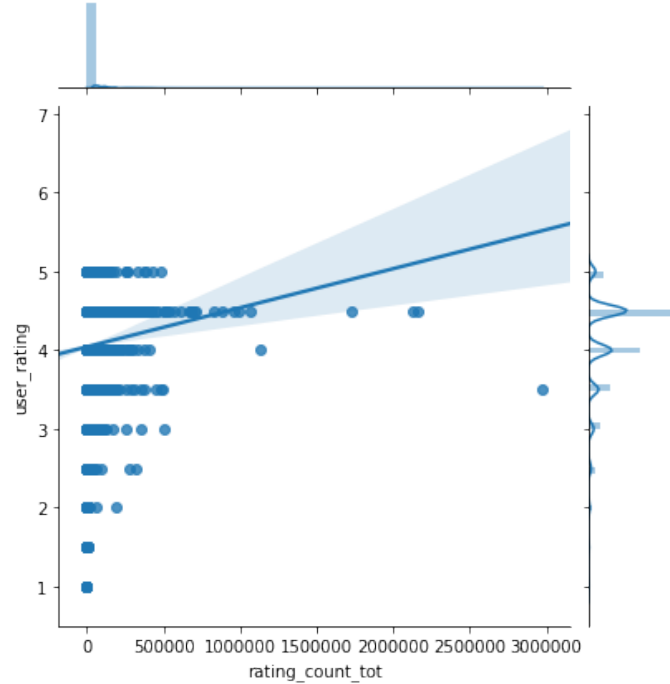
  - prime_genre (the main genre of the app)

Do expensive apps receive high ratings?

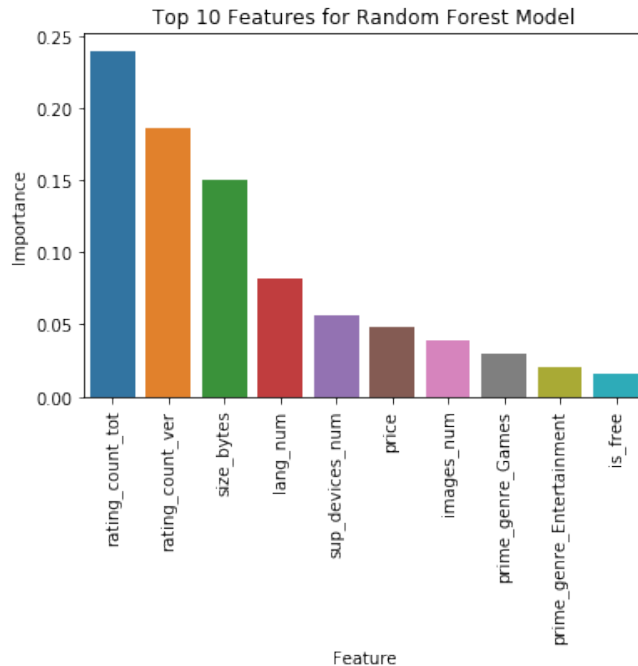# What genre has the highest percentage of highly rated apps?

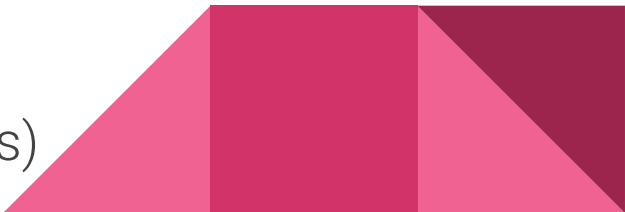# Do apps with more reviews receive higher ratings?

Random Forest Model

- Target is highly rated (>=4/5) apps
- Grid Search for optimization
- 5 Fold Cross Validation

Top 10 Features for Random Forest Model

Results

- ~67% AUC with optimized Random Forest
- Most important indicators

    - rating_count_tot (number of reviews)

    - rating_count_ver (reviews for current version of app)
- Other features of note

    - size_bytes (size of app in bytes)

    - lang_num (number of supported languages)

Thank You!