The App Project

Data driven App Store Selection

Overview of the project

Comparing Google Play and Apple App Store App ratings

Business problem and Tasks

- Client - A company designing operating systems
- Goal - Integrating major apps store in their user interface
- Decision - Choose between Google Play and Apple App Store
- Main Question - Do Google Play apps have higher average reviews than Apple Store apps?

The Task and Stages

- Sourcing and Loading data
- Data Cleaning and Transformation
- Visualizing and Modeling Data
- Evaluating and Conclusions

What we have:

- Two data sets: Apple Store and Google Play
- Focus: analyze relevant columns

Data Sourcing and Loading

1. Data sourcing
    - Data downloaded from Kaggle
    - Loaded using pd.read_csv() pandas method
2. Exploring the data
    - Using head(3) method in order to observe first three entries of the data sets
3. Column Selection
    - Identifying relevant columns for analysis
    - Selected necessary columns for the next stage
    - For Google Data Set - picked columns “Category”, “Rating”, “Reviews” and “Price”
    - For Apple Data Set - Picked columns “prime_genre”, “user_rating”, “rating_count_tot”, and “price”

Data Cleaning and Transformation

- Data Examination: Checking for missing values, inconsistencies and data types
- Data cleaning: Checking for missing values, NaN etc.
- Work with Columns: Renaming picked columns, “Platform” column was added, preparation for join of two data sets.

Modeling

Hypothesis Formulation:

- Null Hypothesis - Observing difference in the mean ratings
- Alternate Hypothesis - Observing difference in the average ratings

Distribution of Data:

- Not normally distributed data confirmed on histogram
- We choose Non-parametric test due to not normally distribution

Permutation Test Results:

- Permutation difference - Formed around 0
- Observation of the results

Conclusions

Key findings and recommendations

In our analysis we set to determine if there is significant difference in users ratings Between two platforms.

- Average Rating Difference: On average, Apple Apps have rating that is approximately 14% higher than Google Play apps based on observed difference in mean ratings.

- Observed difference is significantly different from the permutation differences suggesting that the real difference is not due to random choice but it is likely a real difference between Apple and Google apps.

Recommendations: Given the analysis our recommendation is to prioritize the Apple platform due to its higher average ratings.