Did Apple Store apps receive better reviews than Google Play apps?

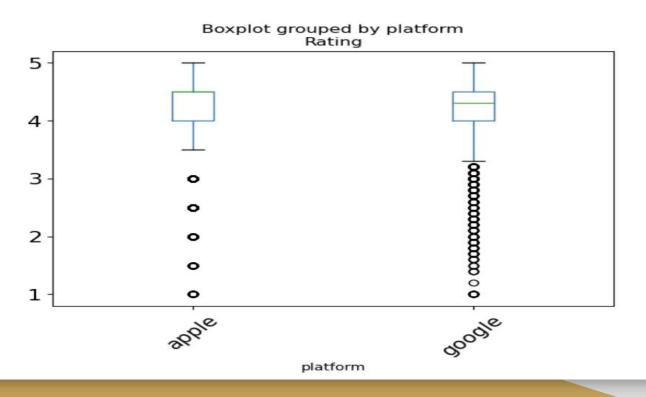
The marketing consultancy I work for wants to know whether Google Play apps have higher reviews on average than Apple Store apps (or vice versa), as they're intending to strike a deal with just one of these companies.

Cleaning/Transforming

We began by cleaning the data set by correcting the data types of two columns. We also added a new column called "Platform, and then made the column names in both the Google and Apple data sets the same. Finally we merged the two data sets and then removed all rows with NaN values.

Visualizing

Once the data was cleaned we were able to use our new "Platforms" column to create some visualizations showing mean ratings for each platform.



Modeling

Hypothesis Formulation

Our Null hypothesis is just: The observed difference in the mean rating of Apple Store and Google Play apps is due to chance (and thus not due to the platform).

The more interesting hypothesis is called the Alternate hypothesis:

Alternative hypothesis: The observed difference in the average ratings of apple and google users is not due to chance (and is actually due to platform).

We're also going to pick a significance level of 0.05.

Findings

We conducted a permutation test with 10,000 permutations (or shuffles) of the ratings. That revealed that the platform does impact on ratings.

Specifically, we advise our client to integrate **only Google Play** into their operating system interface.