

# Picking a Partner

Recommending an app store for operating system integration



# Reining in the Ratings

Align with Apple or go with Google? Answering this question involved asking another - which platform's applications have higher ratings? Enter two sets of data.

Before merging data into one set for comparative analysis, erroneous entries were removed.

At right, a sample of prices from Google's data shows at least one app is listed with the price as 'Everyone'. Such apps were removed before merging.

After establishing consistent naming conventions and merging the cleaned data, irrelevant entries were removed.

At right, a sample of the merged data shows some apps from each platform are listed as having no reviews. These apps were removed before calculating aggregates.

**Google\_df -  
displaying values for 'Price':**

**Price - ([ $\$3.04$ ,  $\$4.29$ ,  $\$2.60$ ,  $\$3.28$ ,  
 $394.99$ ,  $\$1.26$ , Everyone,  $\$1.20$ , ...],  
dtype=object)**

ID	Category	Rating	Reviews	Price	Platform
9673	FAMILY	4.3	151374	0.00	google
9370	FINANCE	-	0	0.00	google
4301	FAMILY	4.7	21	5.99	google
15368	Games	4.5	50	0.99	apple
16978	Games	0.0	0	0.00	apple

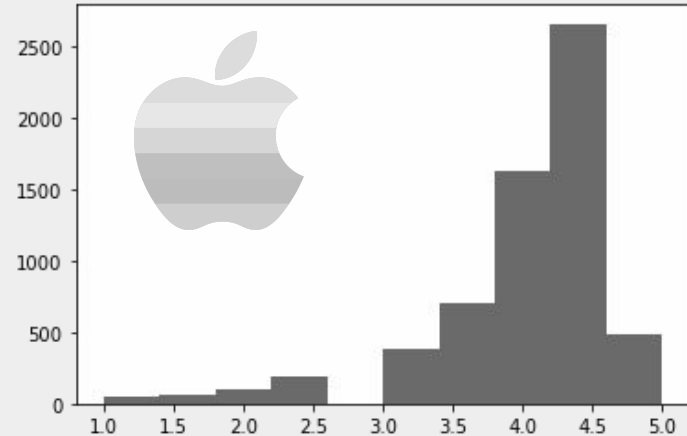
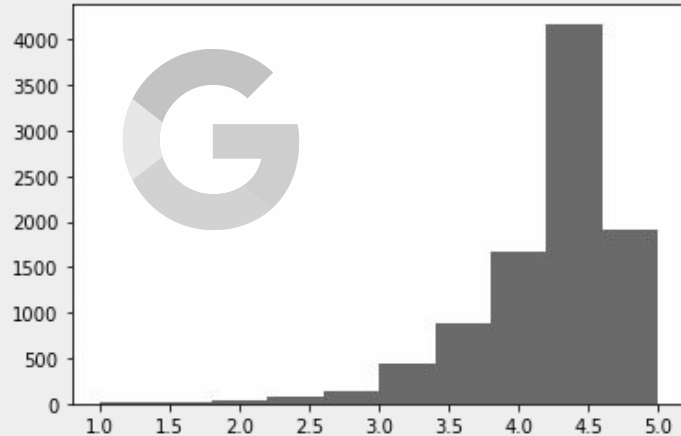
# Seeing the Stats

After cleaning and combining our data, average ratings were calculated for each platform. From this data, Google's average ratings are around 0.14 points higher than Apple's.

Given the observed difference of 0.14206 points, Google Plays average rating is around 2.8% better than Apples. At right, a table summarizes the data.

Below, histograms of each platform's subset are visually consistent with these findings.

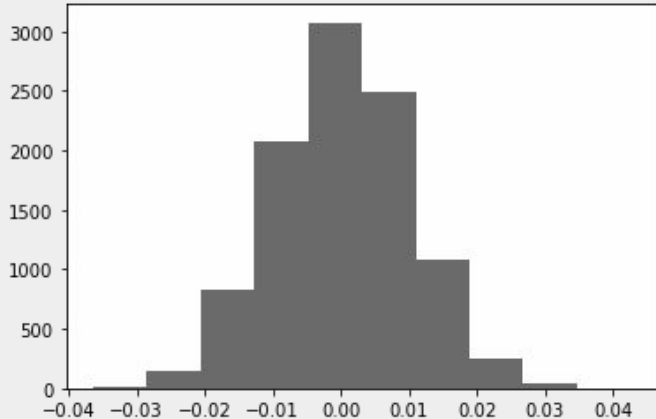
Platform	Count	Average Rating
Apple	6268	4.05
Google	9366	4.19



# Making a Model

## Is the observed difference significant?

Answering this question involved resampling the data many times. Each time, the ratings were divided at random into two new groups. The average ratings for these groups were calculated and compared. To qualify as significant, no more than 5% of the absolute values of these resampled differences can be equal to or greater than the magnitude of our observed difference.



For each pair of randomly selected groups, the difference in average ratings was recorded.

At left, a histogram plots these differences after resampling the original data 10,000 times. Our observed difference of roughly 0.142 points is greater than all resampled differences. It is clearly significant.

# Go with Google

The observed difference in Apple's and Google's average app ratings is significant and straightforward. The applications available on Google Play have, on average, higher ratings than applications available on Apple's App Store.

When picking a partner based on this single criterion, it's easy to recommend going with Google.

