Google Store Means

## User would like to know how far from the overall mean is each categories price

February 2021 – Brian Burbank

## Introduction

Figure out the overall mean price for all apps in each category. Then figure out the price for each category.

Compare each category’s mean to the over all mean. In this report I will discuss, method used, analysis, and overall results.

### Data

In this report I used the data frame Google Play Store contained in the file, googleplaystoremaster.csv. The data contained 10,841 rows and 13 columns about the Google Play Store statistics. There are 10,841 apps with the information per app contained within the data.

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The data in the Columns are as follows: 'ART\_AND\_DESIGN', ‘AUTO\_AND\_VEHICLES', 'BEAUTY', 'BOOKS\_AND\_REFERENCE', 'BUSINESS', 'COMICS', 'COMMUNICATION', 'DATING', 'EDUCATION', 'ENTERTAINMENT', 'EVENTS', 'FINANCE', 'FOOD\_AND\_DRINK', 'HEALTH\_AND\_FITNESS', 'HOUSE\_AND\_HOME', 'LIBRARIES\_AND\_DEMO', 'LIFESTYLE', 'GAME', 'FAMILY', 'MEDICAL', 'SOCIAL', 'SHOPPING', 'PHOTOGRAPHY', 'SPORTS', 'TRAVEL\_AND\_LOCAL', 'TOOLS', 'PERSONALIZATION', 'PRODUCTIVITY', 'PARENTING', 'WEATHER', 'VIDEO\_PLAYERS', 'NEWS\_AND\_MAGAZINES', 'MAPS\_AND\_NAVIGATION', '1.9'.

My first step was to filter out the columns I didn’t need, for the purpose of this project, I only needed the ‘Category’ and ‘Price’ column.

Then I started cleaning up the data, In the Category column I removed the ‘$’ and remove ‘Everyone’ from the index. Then I changed it from an object to a float.

## Method

The first thing I did was filter the two columns ‘Category’ and ‘Price’. Next, I remove the $ sign from the Price and I used astype to change the column from a object to a float. Then I drop the 1.9 column and the dropped the ‘Everyone’ in the column for they would not be useful.

# Analysis & Results

I decided to run a t test to show the comparison between the overall mean to the mean of each ‘App’. So first I used the get dummies function to turn the Category column into an int. Then I computed the overall mean using the t test.

# Conclusion

The task at hand was to compare the overall price mean to the app price mean. The index in the category finance Price mean is 7.55, which is greater than all the other mean. But the overall mean is 9360 which is greater than the finance mean We can look at the charts below to comparisons to all the mean.

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