Rice University – Project 1

1. Project Title:

* Deeper dive and analysis of Starbucks (SB) locations

1. Team Members:
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2. Project Description/Outline:
   1. SB per state
   2. Number of stores per population
   3. Relationship between # of SB stores and avg income of the state
3. Research Questions to Answer:
   1. What state has the most locations?
   2. What states has more population per SB location?
   3. Correlate stores to state income level.
4. Datasets to Be Used:
   1. Kaggle.com - Starbucks Locations Worldwide
   2. Kaggle.com - US Census Demographic Data
   3. Google API
5. Rough Breakdown of Tasks:
   1. Understanding of the data
   2. Clean data (if applicable)
   3. Manipulating data
   4. Loading the data into pandas
   5. Creating charts matplotlib library
   6. Summary write up of conclusion
6. Target audience
   1. Starbucks HQ
   2. Competitors
   3. Public

Other questions:

1. What is your ultimate goal in trying to Correlate stores to state income level?
   1. The ultimate goal is to try to identify if more population correlates to more stores.
   2. The ultimate goal is to determine if the income increases correlates to more stores.
2. Will you be able to add more data to your mix here, so that you have more variables to study than just population and income level?
   1. Yes, we will focus on different aspect of the population in a particular county (i.e., poverty rate, work from home%, and unemployment)
   2. We are still searching for financial revenue per store.
3. What statistical analysis do you plan to do?
   1. Bar Chart showing the number of stores per state.
   2. Bar Chart showing the number of population per state.
   3. Scatter Plots showing the number of stores vs unemployment rate
   4. Scatter Plots showing the number of stores vs working from home% in a state
   5. Gender Pie chart- with no of stores. \*\*\*
   6. Correlation chart: Stores vs income per state
   7. Correlation chart: Stores vs population per state
   8. Correlation chart: Top 10 states with most stores and poverty
4. Visualization:
   1. Heat map – what states have more stores in the US?

To do list

* Power Point Presentation
* Data analysis
  + Clean and manipulate data
  + Load data into pandas
  + Create charts
    - Bar charts
    - Scatter plots
    - Correlation charts
    - Gender pie chart
    - Heat map
* Answer the overall questions
* Summary conclusions