UDACITY

PROJECT SPECIFICATION

Communicate Data Findings

Code Quality

CRITERIA	MEETS SPECIFICATIONS
Does the code work?	All code is functional (i.e. no errors are thrown by the code). Warnings are okay, as long as they are not a result of poor coding practices.
Does the project follow good coding practices?	The project uses functions and loops where possible to reduce repetitive code. Comments and docstrings are used as needed to document code functionality.

Exploratory Data Analysis

CRITERIA	MEETS SPECIFICATIONS
Is the data explored systematically?	The project (Parts I alone) contains at least 15 visualizations distributed over univariate, bivariate, and multivariate plots to explore many relationships in the data set. Reasoning is used to justify the flow of the exploration.

CRITERIA	MEETS SPECIFICATIONS
Are questions and observations documented in the report?	Questions and observations are placed regularly throughout the report, after **each** plot or set of related plots. **Tip**: Use the ""Question-Visualization-Observations"" framework throughout the exploration. **Tip**: For the Part I notebook, use *File > Download as... > HTML or PDF* menu option to generate the HTML/PDF.
Is the data visualized using appropriate plot types, encodings, and parameter choices?	"Visualizations made in the project depict the data in an appropriate manner that allows plots to be readily interpreted. This includes choice of appropriate plot type, data encodings, transformations, and formatting (title, axis-labels) as needed. **Tip**: Do not overplot or incorrectly plot ordinal data."

Explanatory Data Analysis

CRITERIA	MEETS SPECIFICATIONS

CRITERIA	MEETS SPECIFICATIONS
Have the main findings from the exploration been documented?	The README.md must include a summary of main findings that reflects on the steps taken during the data exploration. It should also describes the key insights that are conveyed by the explanatory presentation. **Tip**: The README.md summary is based on the exploration report (Part I notebook) and will guide your explanatory slide deck (Part II notebook) .

CRITERIA	MEETS SPECIFICATIONS
Does the presentation clearly convey key insights?	• A slideshow (HTML file) is provided, with at least 3 visualizations, to convey key insights. Only selective plots are added to the slideshow from the exploratory analysis. • The total number of visualizations in the slideshow is less than 50% of the number of visualizations in the exploratory analysis. For example, if the exploratory analysis (Part I) has 18 visualizations, the slideshow can have (3 - 8) visualizations. • The key insights in the slideshow match those documented in the README.md summary. • Each visualization in the slideshow is associated with comments that accurately depict their purpose and observation. **Tip**: For Part II notebook, use the `jupyter nbconvert` command to generate the HTML slide show.

CRITERIA	MEETS SPECIFICATIONS
Are the plots polished?	All plots in the slideshow are appropriate, meaning the plot type, encodings, and transformations are suitable to the underlying data. All plots in the slideshow are polished, meaning all plots have a title with labeled axes and legends. Labels include units as needed. In other words, each plot must have - chart title, x/y axis label (with units), x/y ticks, and legend.

Suggestions to Make Your Project Stand Out!

- During the exploration, use a variety of plot types to explore different relationships in the dataset. Be willing to investigate unexpected relationships and don't be afraid of finding a dead-end in your exploration.
- As part of your exploration, document your thought processes to justify the steps you take.
- When you select key insights for your explanatory presentation, focus on one or two paths that tell a compelling story.
- When planning your explanation's flow, document design decisions that make your visualizations information-rich but still easy to read.
- Gather feedback from others to get a different perspective on your explanatory presentation. Document that feedback and note any changes in your designs based on that feedback.