UDACITY

PROJECT SPECIFICATION

Investigate a Dataset

Code Functionality

CRITERIA	MEETS SPECIFICATIONS
Does the code work?	All code is functional and produces no errors when run. The code given is sufficient to reproduce the results described.
Does the project use NumPy and Pandas appropriately?	The project uses NumPy arrays and Pandas Series and DataFrames where appropriate rather than Python lists and dictionaries. Where possible, vectorized operations and built-in functions are used instead of loops.
Does the project use good coding practices?	The code makes use of functions to avoid repetitive code. The code contains good comments and variable names, making it easy to read.

Quality of Analysis

CRITERIA	MEETS SPECIFICATIONS

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Is a question clearly posed?	The project clearly states one or more questions, then addresses those questions in the rest of the analysis.

Data Wrangling Phase

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Is the data cleaning well documented?	The project documents any changes that were made to clean the data, such as merging multiple files, handling missing values, etc.

Exploration Phase

CRITERIA	MEETS SPECIFICATIONS
Is the data explored in many ways?	The project investigates the stated question(s) from multiple angles. At least three variables are investigated using both single-variable (1d) and multiple-variable (2d) explorations.

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Are there a variety of relevant visualizations and statistical summaries?	The project's visualizations are varied and show multiple comparisons and trends. Relevant statistics are computed throughout the analysis when an inference is made about the data. At least two kinds of plots should be created as part of the explorations.

Conclusions Phase

CRITERIA	MEETS SPECIFICATIONS
Has the student correctly communicated tentativeness of findings?	The results of the analysis are presented such that any limitations are clear. The analysis does not state or imply that one change causes another based solely on a correlation.

Communication

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Is the flow of the analysis easy to follow?	Reasoning is provided for each analysis decision, plot, and statistical summary. Use Comments within your code to document the flow of analysis. The code file is organized into sections: Introduction; Data Wrangling; Exploratory Data Analysis; Conclusions Data wrangling: Includes steps for data analysis should be clearly specified Exploratory Data Analysis: The section communicates how the analysis addresses the research question Conclusions: The section articulates how the analysis findings justify the results and summary.
Is the data visualized using appropriate plots and parameter choices?	Visualizations made in the project depict the data in an appropriate manner that allows plots to be readily interpreted.

Suggestions to Make Your Project Stand Out!

- Use Markdown cells to report your findings.
- Utilize NumPy or Pandas functionality that goes beyond what was covered in the course.

- Use statistical tests to draw rigorous conclusions where appropriate.