**PROJECT SPECIFICATION**

**Investigate a Dataset**

Code Functionality

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| 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

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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

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| 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. |
| 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

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| 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

| CRITERIA | MEETS SPECIFICATIONS |
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| Is the flow of the analysis easy to follow? | Reasoning is provided for each analysis decision, plot, and statistical  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.