**Final Project Grading Rubric (Total: 100 points)**

*Note*: Only Python code will be accepted and graded. No credit will be given for code written in other programming languages.

**1. Project Planning and Data Preparation (15 points)**

**Project Objective & Dataset Selection**

* **Excellent (15)**
  + Clear project objectives, appropriate dataset selection, thorough variable description
* **Good (12)**
  + Relatively clear objectives, suitable dataset, complete basic variable description
* **Fair (9)**
  + Basic objectives defined, usable dataset
* **Needs Improvement (6)**
  + Vague objectives, inappropriate dataset

**2. Data Processing and Analysis (40 points)**

**Data Cleaning & Analysis**

* **Excellent (40)**
  + Proficient completion of required data cleaning steps, clear process
  + Appropriate analysis methods, clear process, reasonable interpretation
* **Good (32)**
  + Good handling of major data issues
  + Correct analysis methods, clear results
* **Fair (24)**
  + Basic data cleaning completed
  + Basic analysis completed
* **Needs Improvement (16)**
  + Incomplete data processing
  + Inappropriate analysis methods

**3. Data Visualization (25 points)**

**Visualization Quality & Diversity**

* **Excellent (25)**
  + Appropriate chart selection, complete setup, clear display of data features and trends
  + Multiple charts used, showing analysis from different angles, supporting conclusions
* **Good (20)**
  + Suitable charts, good data feature display
  + 2-3 types of charts used
* **Fair (15)**
  + Basic data information display
  + 1-2 basic charts used
* **Needs Improvement (10)**
  + Inappropriate chart usage
  + Single or inappropriate charts

**4. Project Documentation and Presentation (20 points)**

**Documentation Completeness**

* **Excellent (20)**
  + Complete structure, clear result summary, in-depth interpretation
* **Good (16)**
  + Complete structure, clear summary and interpretation
* **Fair (12)**
  + Basic structure complete, simple summary
* **Needs Improvement (8)**
  + Incomplete structure, unclear summary