ENSF 692 P24 Project Rubric (100 marks, 30% of overall grade)

Your code must successfully compile and run to be graded. For compiled code, partial marks may be given for each criterion listed below.
You must pass the project to pass the course.

RUBRIC	100%	> 90%	> 80%	> 70%	> 50%	0
Data Handling (20%)	At least three separate datasets are merged into a large set with a minimum of ten columns and 200 rows. Program does not not modify the Excel files directly. No information is hard-coded/copy-pasted except for the Excel column names. Data is stored as a multi-indexed DataFrame. Two merge/join operations are used and all duplicated columns/rows are deleted. Data is sorted according to the indices.	At least three separate datasets are merged into a large set with a minimum of ten columns and 200 rows. Program does not not modify the Excel files directly. No information is hard-coded/copy-pasted except for the Excel column names. Data is stored as a multi-indexed DataFrame. Two merge/join operations are used. Data is sorted according to the indices.	At least two separate datasets are merged into a large set with a minimum of ten columns and 200 rows. Program does not not modify the Excel files directly. No information is hard-coded/copy-pasted except for the Excel column names. Data is stored as a multi-indexed DataFrame. A merge/join operation is used. Data is sorted according to the indices.	At least two separate datasets are merged into a large set with a minimum of ten columns and 200 rows. Program does not not modify the Excel files directly. Data is stored as a multi-indexed DataFrame. A merge/join operation is used. Data is sorted according to the indices.	At least two separate datasets are merged. Program does not not modify the Excel files directly. Data is stored as a DataFrame. A merge/join operation is used.	Fails to meet minimum specs.

Code Implementation (25%)	Program solution uses the describe method to print aggregate stats for the entire dataset. At least two columns are added to the combined dataset. An aggregation computation is used for a subset of the data. A masking operation, groupby operation, and pivot table are all used correctly. The code structure includes at least two user-defined functions or a class that contains two methods. No global variables are used.	Program solution uses the describe method to print aggregate stats for the entire dataset. At least two columns are added to the combined dataset. An aggregation computation is used for a subset of the data. At least two masking operation or groupby operation or pivot table are all used correctly. The code structure includes at least two user-defined functions or a class that contains two methods.	Program solution uses the describe method to print aggregate stats for the entire dataset. At least two columns are added to the combined dataset. An aggregation computation is used for a subset of the data. At least two masking operation or groupby operation or pivot table are all used correctly.	Program solution uses the describe method to print aggregate stats for the entire dataset. At least two columns are added to the combined dataset. An aggregation computation is used for a subset of the data. At least one masking operation or groupby operation or pivot table are all used correctly.	Program solution uses the describe method to print aggregate stats for the entire dataset. At least two columns are added to the combined dataset. An aggregation computation is used for a subset of the data.	Fails to meet minimum specs.

User Interface and Execution (25%)	User is given clear guidance on how to enter the two required input values. If invalid input is provided, an exception is used to prompt for re-entry without terminating the program. Clear headers are used to separate all output and data is presented in the correctly sorted order. Screenshots show the expected execution, including handling of incorrect input. An exported Excel sheet shows the entire indexed dataset and a plot is shown that correctly depicts an aspect of the data.	User is given clear guidance on how to enter the two required input values. If invalid input is provided, an exception is used to prompt for re-entry without terminating the program. Clear headers are used to separate all output and data is presented in the correctly sorted order. Screenshots show the expected execution, including handling of incorrect input. An exported Excel sheet shows the entire indexed dataset.	User is given clear guidance on how to enter the two required input values. If invalid input is provided, an exception is used to prompt for re-entry without terminating the program. Clear headers are used to separate all output and data is presented in the correctly sorted order. Screenshots show the majority of the expected execution.	User is given clear guidance on how to enter the two required input values. Data is presented in the correctly sorted order. Screenshots show the majority of the expected execution.	User is given clear guidance on how to enter the two required input values. Screenshots show partial execution.	Fails to meet minimum specs.

Commenting and Syntax (10%)	All team members' names and group number are included on all submitted files. Comments are included throughout the code to explain the functionality. All classes, methods, and functions are fully documented using docstrings (including summary, parameters, and return values). All variables and functions have clear and useful names that use lowercase words separated by an underscore, all classes have CamelCase names. Code is clearly indented and spaces are included between variables and operators.	Comments are included throughout the code to explain the functionality. All classes, methods, and functions are fully documented using docstrings (including summary, parameters, and return values). Less than 5 formatting or naming convention errors.	The majority of classes, methods, and functions include meaningful descriptions about the use of the code, as well as comments throughout to explain the functionality. Less than 10 formatting or naming convention errors.	At least 50% of classes, methods, and functions include meaningful descriptions about the use of the code, as well as comments throughout to explain the functionality. Less than 15 formatting or naming convention errors.	At least 50% of the code contains comments throughout to explain the functionality. Frequent formatting or naming convention errors.	Fails to meet minimum specs.

Report (10%)	Report briefly describes the chosen dataset, summarizes the user interface input/output, and explains how the solution meets the given specifications. Minimal spelling or grammatical errors. An IEEE-style citation is provided for the chosen dataset.	Report summarizes the user interface input/output, and explains how the solution meets the given specifications. Minimal spelling or grammatical errors. A citation is provided for the chosen dataset.	Report summarizes the user interface input/output, and explains how the solution meets the given specifications. Several spelling or grammatical errors. A citation is provided for the chosen dataset.	Report summarizes the user interface input/output, and mentions how the solution meets the given specifications. Many spelling or grammatical errors. Simple web URLs are provided for the chosen dataset.	Report outlines how the solution meets the given specifications. Many spelling or grammatical errors. Simple web URLs are provided for the chosen dataset.	Fails to meet minimum specs.
Presentation (10%)	Demonstration clearly explains how the solution meets the requirements including the user input/output. The dataset analysis is explained and the plot result is shown. Speakers are clear and audible. All team members participate in the demonstration and duration is less than 5 minutes. All members are able to answer questions about the program.	Demonstration shows all required functionality including the user input/output. The dataset analysis is explained and the plot result is shown. Speakers are clear and audible. All team members participate and are able to answer questions about the program.	Demonstration shows all achieved functionality including the user input/output. The dataset analysis is presented. Speakers are clear and audible. All team members are present.	Demonstration shows acheived functionality including the user input/output. Speakers are clear and audible.	Demonstration shows acheived functionality. Speakers are clear and audible.	Fails to meet minimum specs.