

## 02 EA - Exploratory Data Analysis

Grading criteria (22 points)

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### Exercises 1 (2 points)

Exercises 1 will be graded out of 2 points. You will earn 2 points for a well-written answer that is mostly correct, 1 point if there is some significant error in the writing or calculation, and 0 points if the problem is largely incomplete.

### Exercise 2-3 (4 points)

Exercises 2-3 will be graded out of 2 points. You will earn 2 points for a well-written answer with correct code outputs, 1 point if there is some significant error in the writing or in the code, and 0 points if the problem is largely incomplete.

### Exercise 4 (2 points)

Exercises 4 will be graded out of 2 points. You will earn 2 points for a correct figure with more than two of the following three things checked.

- appropriately chosen bandwidth
- well-named labels for x- and y- axes
- well-named title

You will get 1 point if the figure was incorrect OR one or fewer checkpoints were met. You will get 0 points if the problem is largely incomplete.

### Exercise 5 (2 point)

You will earn 2 points if the code outputs correctly, 1 point if the code misses more than two ( $\geq 2$ ) summary statistics, and 0 points if the code contains significant error.

### Exercise 6 (2 points)

Exercises 6 will be graded out of 2 points. You will earn 2 points for a well-written answer that is mostly correct, 1 point if there is some significant error in the writing or calculation, and 0 points if the problem is largely incomplete.

### Exercise 7 (2 points)

Exercises 7 will be graded out of 2 points. You will earn 2 points for a correct figure with more than one of the following three things checked.

- well-named labels for x- and y- axes

- well-named tilte

You will get 1 point if the figure was incorrect OR no checkpoints were met. You will get 0 points if the problem is largely incomplete.

### Exercise 8 (3 points)

You will earn 3 points for a perfect answer: solution is both correct and well-written.

- The summary statistics was chosen correctly
- The code outputs are correct
- The writing is clear and in complete sentences
- The organization of the answer is clear and easy-to-read.

You will earn 2 points if the coding was correct but picked the wrong summary statistics. Or the summary statistics is correct, but the coding/writing/organization has small flaws.

You will earn 1 point if your solution has some more serious flaws, such as a conceptual error. OR The coding/writing has more serious flaws (for example code outputs errors, or your solution is not written in sentences).

You will earn 0 point if your solution is largely incomplete, or more seriously flawed in both writing and correctness.

### Exercise 9 (3 points)

**Part I: scatter plot** You will earn 2 points for a correct figure with more than one ( $\geq 1$ ) of the following two things checked.

- well-named labels for x- and y- axes
- well-named tilte

You will get 1 point if the figure was incorrect OR the figure was correct but no checkpoints were met. You will get 0 points if the problem is largely incomplete.

**Part II: correlltion** You will earn 1 point for a well-written answer that is mostly correct, and 0 point if there is some significant error in the writing, or the problem is largely incomplete.

### Peer evaluation (2 points)

You will be asked to fill out a survey where you rate the contribution and teamwork of each team member out of 10 points. Your grade in this section will be an average of the scores you got from your peers. You will additionally report a contribution percentage for each team member. Filling out the survey is a prerequisite for getting credit on the team member evaluation. If you are suggesting that an individual did less than 15% of the work, please provide some explanation. If any individual gets an average peer score indicating that they did less than 15% of the work, this person will receive half the grade of the rest of the group.

### Extra Credit (max 4 points)

Each exercise in the extra credit seciton will be graded out of 2 points. You will earn 2 points for a perfect answer: solution is both correct and well-written.

- The code outputs are correct

- The plot is correct, appropriately labeled and named.
- The writing is clear and in complete sentences
- The organization of the answer is clear and easy-to-read.

You will earn 1 point if there are some minor errors, and 0 points if there are some major issues.