

## 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 2 points. 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.