431 Assignment 6 Grading Rubric

431 Staff

Assignment was due at noon 2017-12-04

We are grading questions 2, 3, 4, and 5 for a total of 70 possible points.

Question 1 (Yes or No)

If the student did what was asked, or got very close to a correct and complete response, give a Yes, otherwise, mark as No. A substantial effort that is largely successful is required for a Yes.

Question 2 (30 points)

Find an example of a visualization designed to support a linear regression analysis in a published work (online or not) for which you can find the complete sourcing information, and which was built no earlier than January 1, 2014. Provide the complete reference and a copy of the image itself (including any captions or titles) and surrounding material for the visualization, and provide a brief essay (likely to run 150-250 words) which accomplishes each of the following tasks:

- *Task A: Describe the linear regression model behind the visualization. Explain its context and why it is important. Specify the research question that this regression model answers.*
- *Task B: Describe the visualization and explain what you believe it is trying to do. Specify why it is or is not effective, in your view.*
- *Task C: Provide your best suggestion as to how the visualization might be improved, and explain why your change would be an improvement.*

Students got 26-30 points if

- their essay was clear,
- they addressed the specified tasks (A, B and C above) in an easy-to-follow manner,
- they didn't make serious grammar or spelling mistakes, and
- they responded in at least 150 words.

If some, but not all of those things were true, they scored 21-25 points.

Question 3 (15 points)

This question requires:

a. A statement as to whether a transformation is necessary, and justification for the choice. (3 points)
b. An assessment of collinearity. (2 points)
c. A statement about how predictors were chosen, specifically the model selection algorithm, and correct application of that algorithm (10 points)

In each part, award full credit for successful completion of the task, most of the credit (2/3 for a, 1/2 for b or 8/10 for c, respectively) for a reasonable effort with a minor problem, and meaningfully fewer points if a key step is completely missing.

Question 4 (15 points)

This question requires:

a. A clear presentation of the model with a short recap of the steps taken to produce it. (5 points)
b. Summaries based on R^2 and significance testing (5 points)
c. Demonstration that the model passed assumption checks (5 points)

For each of the three parts, award 3 points for a reasonable effort, and 5 points for a reasonable effort that produces a correct and logical response.

Question 5 (10 points)

Students receive 10 points on this question for a correct and logical response (if their answer differs from mine but is correct given their work in Questions 3 and 4, award full credit here), 9 points for a minor error (perhaps a spelling mistake), and 6-8 points out of ten for a reasonable effort but at least one substantial problem or a substantial grammar issue.

Question 6 (Yes or No)

If the student did what was asked or got very close to a correct response, give a Yes, otherwise, mark as No.

Class Roster Elements

The roster is available now in the same folder as the other rosters.

Column	Explanation
Name, ID, etc.	Student Identifying Information
`HW6-Q1`	Question 1 attempt (Yes/No)
`HW6-Q2`	Question 2 results (0-30 points)
`HW6-Top Q2 Essays`	Identify the top 6-10 Essays in Q2
`HW6-Q3`	Question 3 results (0-15 points)
`HW6-Q4`	Question 4 results (0-15 points)
`HW6-Q5`	Question 5 results (0-10 points)
`HW6-Q6`	Question 6 attempt (Yes/No)
`HW6`	Total Score on Assignment 6 (0-70 points)
`HW6-Notes`	Notes from TAs to Students

Yes grades on Q1 and Q6 will be taken into account separately by Dr. Love. The score on the assignment is based solely on Questions 2-5.