

# Project 1

## *Rubric*

Name:

Category	# Points Earned
Proposal	15
Degree of Difficulty	25
Execution	25
Code Quality	10
Website Presentation & Discussion	15
Interactive Grading	10
TOTAL	100

**Proposal (15 points)**

- \_\_\_\_\_ (2 points) Problem is placed in context and the overview is concisely stated.
- \_\_\_\_\_ (3 points) The claim poses a problem that can be answered with computation. “I will rank all senators” is not a claim.
- \_\_\_\_\_ (1 point) The data source is specified.
- \_\_\_\_\_ (2 points) There is a good description of what the original data looks like.
- \_\_\_\_\_ (5 points) The steps of the analysis are clear, specific, and manageable. “I will import the data and cluster according to votes” is not clear. “I will import all the data for all 2,012 congressional meetings” is not manageable.
- \_\_\_\_\_ (2 points) There are some roadblocks listed, and no obvious roadblocks are missed. Obvious roadblocks are things like “I have never seen this type of data format before” or “I want to perform a particular statistical test, but I don’t know how to write that formula.”
- \_\_\_\_\_ Total

**Degree of Difficulty (25 points)**

- \_\_\_\_\_ ( $\leq 25$  points) Lower bound, determined from proposal.
- \_\_\_\_\_ (10 points) Additional data formatting and error handling is addressed.
- \_\_\_\_\_ (10 points) Additional intermediate steps (including new formulas) are required to produce the result.
- \_\_\_\_\_ (5 points) The spreadsheet is interactive in some way - users can modify a cell and view a changed result.
- \_\_\_\_\_ Total ( $\leq 25$  points)

**Execution (25 points)**

A *bug* is a problem with the code, whereas an *error* might be an issue with the data.

- \_\_\_\_\_ 25 points to start.
- \_\_\_\_\_ ( $\times$  -1 point each) There is a minor bug that doesn't drastically affect the solution.
- \_\_\_\_\_ ( $\times$  -5 points each) There is a major bug that drastically affects the solution.
- \_\_\_\_\_ Total ( $\geq 0$  points)

**Code Quality (10 points)**

- \_\_\_\_\_ (2 points) The initially-opened sheet contains some explanation of what the other sheets contain. Sheets have informative names.
- \_\_\_\_\_ (2 points) The general layout of the spreadsheets is understandable (that is, there isn't one huge table with a complicated function).
- \_\_\_\_\_ (2 points) All cells except raw data use formulas (or have legitimate explanations for exception).
- \_\_\_\_\_ (2 points) Each cell is clearly labeled by a row and/or column name or with a comment/text box.
- \_\_\_\_\_ (2 points) Cells of interest are formatted nicely (they are colored, they don't allow bad inputs, etc.). These include both input cells and the final "result" cells.
- \_\_\_\_\_ Total

**Website Presentation & Discussion (15 points)**

- \_\_\_\_\_ (2 points) The website is nicely-organized (there are multiple pages, each with different content, etc.).
- \_\_\_\_\_ (3 points) The problem description and methods are clearly presented.
- \_\_\_\_\_ (3 points) The results are presented in a useful way (as a table from Excel, as a plot, as a screenshot, etc.).
- \_\_\_\_\_ (5 points) There is a discussion of the findings. Both expected and unexpected trends are addressed.
- \_\_\_\_\_ (2 points) There is a reflection on the project (what went well, what was problematic).
- \_\_\_\_\_ Total

**Interactive Grading (10 points)**

- \_\_\_\_\_ (2 points) The student can clearly answer questions about the big picture of the project, the analysis, and the results.
- \_\_\_\_\_ (2 points) The student can explain what a randomly-chosen formula in the spreadsheet does
- \_\_\_\_\_ (2 points) The student can predict what will happen when a formula is slightly modified
- \_\_\_\_\_ (4 points) The student can repair errors pointed out during grading. Full credit if no errors are present.
- \_\_\_\_\_ Total