

CS 322 Final Project Instructions

This project consists of a presentation and written deliverables. The presentation is worth 20 points, and the written deliverables are worth 80 points.

1. Group Work

- You may work individually or in a group of no more than two people.
- Only one submission per group is required.
- List both team members' names on the first slide of your presentation and at the beginning of your report.

2. Submission Format

- Place all files in a single folder named exactly as your name appears in NEIU/PORT/D2L (e.g., Jessica_Fatima).
- Zip the folder before uploading.
- Deadline: **December 10, 2025 at noon (prompt)**. There is no grace period.

3. Project Requirements

- Choose your own dataset (or use one from the data sets shared with you).
- Ask an interesting statistical question and answer it using regression and hypothesis testing.
- Before running regression, perform preliminary analysis: compute sample means, covariances/correlations, and create visualizations such as a correlation heatmap.
- Use this analysis to understand variable relationships before fitting your model.
- Choose a topic that genuinely interests you; Kaggle is a good source.

4. Presentation (20 points)

You are expected to present with a set of slides. This roughly 7-minute presentation covering:

1. Motivation for your research (what and why).
2. How you answered your research question.
3. Your conclusion.

If working in a pair, each member must present their own part. Please upload your presentation slides to the dedicated Google Drive folder. You then can use my laptop to present your work.

5. Written Deliverables Uploaded to the designated D2L folder (80 points)

A. Report (max 2 pages)

- Written in academic English and fully self-contained.
- Begin with a brief explanation of why your question is interesting, citing reputable sources when appropriate.

- Include explanations, diagrams, and all relevant content from your slides rewritten in prose.
- Do not include code snippets; focus on analysis.

B. Supporting Documents

- Include all code files used in your analysis.
- Include the dataset if it is $\leq 1\text{MB}$; otherwise provide a link.
- These materials should allow verification of your results.