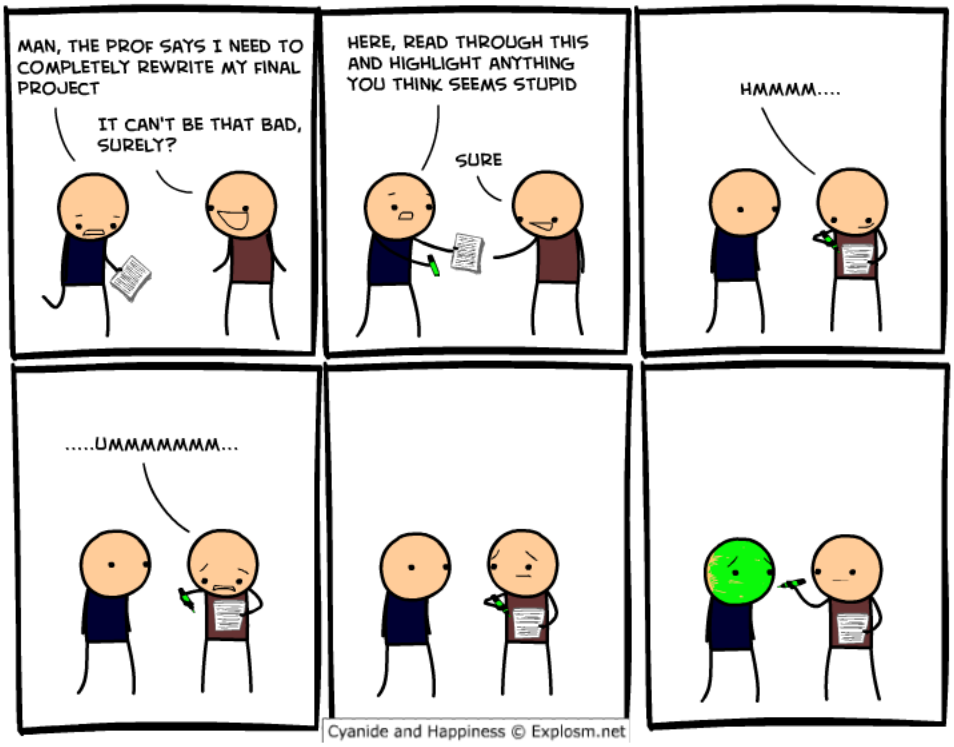
CS62 - Final Project
Fall 2026



http://www.explosm.net/comics/2083/

Overview

In this class we have looked at a number of data structures and talked about the pros and cons of using these different structures.. The purpose of the final project is to examine a data-driven, real-world problem and apply your knowledge of data structures.

The project should meet the following guidelines:

- You must examine/utilize a dataset (let's put the "data" in data structures!). This may be a pre-existing dataset or a dataset that you collect (e.g., via an API or from scraping a website). If you plan to collect your own dataset, you need to get the data collected ASAP.

- Your project must include a number of "features", i.e., different components to the system.
- Your project must include some "user interface" that allows a user to use the tool in different ways. On one end of the spectrum would be an actual GUI (graphical user interface), like we saw with Wordle. On the other end, would be a simple command-line interface where the user can call your program, passing in relevant information.
- Your project should be in a group of 2-4 people. If you'd like to do it solo, please come talk to me.
- Your project will be put in a *public* github repo that will include an informative README along with examples on how to run it.

Schedule

date	description
11/20 @ noon	Proposal
11/25 @ noon	Status report 1
12/4 @ noon	Status report 2
12/13 @ 11:59pm	Writeup and code
12/13 @ 11:59pm	Self and peer feedback

Project proposal write-up [10 points]

Your project proposal should be a 1-2 page write-up with clear section headings containing the following information:

- **Team:** Members of the team.
- **Summary:** A short (less than a page) description of your project including:
  - What you plan do to for the project. Be as specific as possible!
  - What dataset you will use and how you will obtain it. Be as specific as possible about the dataset.
  - The datastructure(s) you plan to use and why you chose those.

Status reports [10 points each]

Each status report *must* include the following (make explicit headings):

- **Members:** Names of team members
- **Summary:** A short (1-3 paragraph) summary of what was accomplished so far. The summary should include a bulleted list of specific things accomplished (e.g., features completed).

- **Problems:** Any problems/issues that have arisen that might keep you from finishing your project.
- **Hours:** The number of hours each person put into the project since the last check-in. This should include dates/times of when each member of the team worked. Note, I do not expect that you all work at the same time.
- **Code:** A snapshot of your current code-base, submitted as a link to your github repo.

This is not meant to take you a long time, but please do spend a little bit of effort putting this together.

Writeup and code [80 points]

Code: Your code should be submitted as a public, github repo (you can include a link in your writeup). The repo should have the following:

– A README that gives an overview of the application and includes:

- A one paragraph summary of the project and how to run the code, including example calls to the code.
- A link to the html JavaDoc automatically generated from your JavaDoc code documentation. The simplest is just to include the JavaDoc in your repo and then you can add a link in the README.
- Examples of how you can call/run your code.

Read the following guide on how to make a README file. You might also find this Markdown Cheat Sheet helpful.

Writeup: Submit (on Gradescope) a short PDF writeup that includes the following information (make the explicit headings):

– **Overview:** Your project?s title, group members, a general paragraph introducing your project (it can be the same as the one on your Github README), and a link to the public Github repository

– **Project Development:** A paragraphs on the results of your project brainstorming and interviewing:

- What was your initial idea?
- What were the takeaways you learned from your interviews? How did these takeaways influence what project you ended up making?

– **Dataset:** A description of your dataset, including, some discussion of it's size and how you obtained the data.

– **Data Structures:** A short written justification on how you chose your data structure(s) for this project.

– **Results:** A "results" section showing screenshots of your code execution (e.g., print outs in main()) that demonstrate each and or your features.

– **Analysis:** An ?analysis? section. For each of your features:

  - What pre-conditions are necessary for this feature to run? Are there any obvious edge cases?
  - What is the big-O time complexity? Why?

– **Affordance:** Include a general "affordance analysis" of your software project.

  - Who benefits most from this software project? Who (if anyone) is left behind?
  - How does your software reinforce or challenge norms or power structures?
  - What ways (if any) may your software be used maliciously–i.e., what actions does your software afford?
  - Any other ethical reflections you would like to mention

– **Reflection:**

  - How long did this project take the group, overall? Did it align with your expectations?
  - How was this process? Did you stick with your original idea and proposed data structures, or did you make changes along the way? If you made changes, why?
  - Any feedback on the final project assignment itself?

Self and Peer Feedback

Each individual should submit (on Gradescope) a PDF with the following information:

- Name
- What did you contribute to the project? Be as specific as possible.
- What did you learn from this project?
- Compared to everyone else in the group, do you feel like you contributed an equal amount?
- Compared to everyone else in the group, how much do you feel like you were cooperative and willing to participate?
- Any other comments on the project?

Grading

- Project proposal - Meets specifications above.
- Status reports - Meets specifications above. How much work was accomplished during the time period? This is your work for the last part of the class and I expect you to be putting in regular time on the project. **Don't procrastinate!**.
- Project and paper
  - Meets all requirements specified above.
  - Includes at least three working "features".
  - Valid dataset of at least 1,000 entries.
  - Utilized at least one data structure appropriately.
  - Style/comments and Javadoc
  - The scope/difficulty of your project.
  - The quality of your write-up and correctness of your analysis.