



CSCI 2270 – Data Structures

Guidelines for final project

PROJECT TIME!

Students are welcome to form groups of 2 or 3. However, groups of 3 are strongly encouraged. **Feel free to form a group with students from other recitations, but make sure to inform your TA in this scenario.**

Assume hiccups will occur and start off early. Since we have very limited time, there will be no extensions in any of the project evaluations.

Project Evaluation and Stages:

Your evaluation for the project is divided into 4 stages. If you don't complete any of the stages, you wouldn't be eligible to receive grades for the subsequent ones. **Example:** To receive grades for the 3rd stage, you should have completed both 1st and the 2nd stage.

For students who have formed a team with a student from different recitation section, you need to complete the following stages with only one TA (i.e for your entire project grading).

Stage 1: Project Proposal (to be submitted by April 4th on Moodle)

20% of the overall project grade

The project proposal must contain about 1-2 pages that talks about the story, the problem you are going to solve, design and the type of the data structure you will be using.

Proposal Presentation

All groups have to give a short (2min) presentation on their proposal on April 2nd/ April 4th (according to your respective recitation timing in this week) in your respective recitation classes. You can choose to make a set of slides for the presentation or use the same proposal document you submitted on Moodle. You will be evaluated by 2 TAs during the recitation.

If you want, you can create flow charts using - <https://lucidchart.com>



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Stage 2: Interview Grading (Floating deadline: April 15th - April 19th)

25% of the overall project grade

Interview grading slots will be released on Moodle. You need to set up an appointment with your TA for the same.

This will be a midpoint progress check on your work.

You should have submitted the project proposal on Moodle to be considered for this evaluation. Change of project topics unless notified is not permitted.

Expectations:

We expect you to have a clear picture of where you are going with the project and a very basic prototype of what you are building should be ready by now:

- You should have a working code for at least one of the core functionalities using the data structure/structures you mentioned in the proposal.
- You can continue working on the project, and add more features later. Other aspects such as HTML/User interface functionality can also be done later.

We will also need a detailed description of the contribution of each of the team members. We will be releasing a peer feedback form for the same where each of you will rate your peer (team members) on a scale of 5!

Stage 3. Project submission(to be submitted by April 22nd on Moodle)

25% of the overall project grade

You are required to upload everything as a zipped folder as a submission on Moodle.

Turn in:

1. Your entire project including all the codes, header files, and any other additional files you've used.
2. A short report (max 2 pages)
 - Data Structure used: why and how did you use the data structures. We would request you to add references if you used any.
 - Methodology: you can include some pictorial representations to explain the flow or design of your project. (Use <https://lucidchart.com> to create flow diagrams)



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- Results: add some of the final outputs which you achieved through your project.

We would assign some portion of the grades for following the coding standards: indentation, space, new lines, meaningful variables and method names. It is recommended to use Github for your project (although it's not mandatory). Make sure you have your code backed up regularly since last moment laptop problem excuses will not be granted.

Stage 4. Final Presentation (April 23rd & April 25th at DLC)

30% of the overall project grade

Students have to give their final demo and presentation at DLC. You would lose out on 30% of your project grades if you do not present for this. You can prepare a poster or a slideshow for your project and showcase your project on that day. An example poster will be posted soon on Piazza. Exact (room) location and time information will be released shortly.

Project Expectation:

You are expected to go beyond the level of assignment for the project. You can use some advanced data structure or the basic ones to solve an advanced problem. Try to focus more on the applications part of the data structure, instead of **recreating** the existing core data structures. We will be giving out a list of cool projects done by students before on Piazza!