COSC 480 – Full-Stack Development
Major Project
Fall 2019

Overview

In teams of 3-4, propose, design, and execute a full-stack, database-backed, web application project. You have your choice of tech stack, language, and tools - there are no restrictions on what libraries or ready-made resources that you and your team may use. The only restriction is that it must run in one of the big 3 web browsers (Chrome, Edge, Firefox). I encourage you to think big for your projects, projects that may have commercial or consumer application are welcome.

This project is built on steps, detailed below.

Project Proposals and Pitches

On October 11th, you and your group will do a 5-minute maximum pitch to the class of your project. The class (and I) will get to ask you various questions and I will give you guidance on things that should change for the project proposal due a week later. The pitch is not graded but should include information on the viability as a commercial product, as well as details about the target audience. You should also identify if there are any similar products already on the market and how your project will be distinctive. Feel free to use whatever audio-visual resources available to you in the classroom but be sure to test your presentation in the classroom before the pitch date.

From the information gathered during the pitch, develop a full written project proposal. You will also need to identify the team spokesperson, who is the person in charge of communicating with me and the other teams. Questions outside of class regarding support, development, authorization, or other issues must come from the team spokesperson. The proposal should be at least 750 words long, not including any header information (title, authors, date, etc.) and include the following:

- Overview of the project and identification of the team spokesperson
- Target audience and market analysis
- Feature list
- Development component list, identifying which pieces are back-end and which are front-end
- Tech stack chosen (note that this is not a permanent choice, you should feel free to change as needed during the development of your webapp) and justification

Rubric for project proposal (100 points):
15 pts per each component noted above
25 pts for grammar, spelling, and punctuation
-15 pts for not hitting the 750-word requirement

GitHub Usage

As you get ready to do your development, you are required to store your source files in a GitHub repository. We will discuss GitHub during one of the early lecture sections. I use GitHub to track team contributions and as a secondary check to what I receive during the team evaluations noted later. Your datastore does not need to be

stored on GitHub.

Update Presentations

Several weeks during the development phase of the class, you and your team will present on the progress that you have made since the last update. These update presentations will count as a homework grade and be graded out of 10 points. They are to be 5 minutes long and should show distinct progress and identify any issues you are running into during development.

Rubric for the update presentations (10 points):
-2 going excessively over or short (+/- 1 minute)
up to -5 not showing distinct progress

Milestone 1

Milestone 1 represents your first major milestone for the project development phase of the class. This milestone should represent a fully mocked up front end, and limited back end components. Components will obviously not work, but I must see how the interface of your webapp will look at this stage for every feature that you have proposed.

You and your team will make a 10-minute presentation walking through the front end components of your project, linking them back to the feature list you proposed. Note specifically any places where you had to make compromises due to the tech stack or changes to the tech stack that were necessary.

Rubric for the milestone 1 presentations (100 points)
-20 going excessively over or short (+/- 2 minutes)
-10 missing or unfinished components, per each

Milestone 2

Milestone 2 represents the back end milestone for this project. These components do not need to link up to the front end (though by this point you should have some the linking done), but they do need to be developed and tested by this point. In addition, a database plan consisting of the design of the database entries and how data will be acquired and stored should be included.

You and your team will make another 10-minute presentation walking through significant and interesting portions of your back end components (your choice on what significant and interesting means to your project), as well as your database plan. Again, note specifically where compromises or changes were necessary because of the tech stack.

Rubric for the milestone 2 presentations (100 points)
-20 going excessively over or short (+/- 2 minutes)
-10 missing or unfinished back end component or database plan

Final Deliverables and Presentation

Finally, as you get ready to complete your project you will ready your deliverables. I will be cloning your GitHub repository by 5pm the day of the final and you are required to send me the live webapp link by that time as well.

Team evaluations are via a rubric posted to the course website. You are required to fill out both pages of the evaluation (not evaluating yourself) and send to me via email the night before (December 16th at 11:59pm).

The final presentation will be on December 17th at 7pm in the classroom. You are to prepare a 15-minute presentation and live demonstration of your webapp. In addition to your live demonstration, you should include information on challenges that you encountered, changes that were made due to tech stack restrictions, and any features that were cut from your original proposal. Also include your estimation on the commercial viability of your application. Required dress is business casual. Failure to attend the presentations will result in a 0 for the project.

Be sure to properly practice your presentation in the classroom before the final. Test your presentation hardware and make sure to work out any bugs and color issues!

Rubric for the final presentation will be posted to the course website.

Rubric for final project:
40pts – execution of the proposed project, polished, functionally complete, with few bugs
15pts – full database integration
35pts - team review and GitHub usage
10pts - team review completed and submitted on time
-10 deduction for not following team spokesperson rule

Full Schedule:

10/11 – Project pitches
10/18 – Project written proposals and specifications due
10/25 – Update presentations
11/1 – Milestone 1 presentations
11/8 – Update presentations
11/15 – Update presentations
11/22 – Milestone 2 presentations
12/6 – Update presentations
12/16 – Team evaluations due at 11:59pm via email, see rubric posted on website
12/17 – Final presentations & deliverables due. Clone of repositories at 5pm.
    Live webapp link due at 5pm via email.