University Course Registration System

CSE 2102, Fall 2023, Storrs

The University needs to create a new system for course registration. This new system will allow the University to create courses with optional pre-requisites and assign professors. Students will register for courses. Instructors will be able to see their teaching schedule. According to the University's administrative contact, the system "should have all the features that one expects from a course registration system."

A secure login will be created that considers the type of user that is accessing the system.

The system should be able handle a large amount of user activity during the annual student registration process and experience no downtime. The system should be designed to withstand infrastructure failures and be implemented in the Amazon Cloud.

In order for the University to remain on track with the new course registration system rollout, your team must deliver the completed project on or before Sunday, December 3rd.

Project Logistics

- Teams will be comprised of 4 students
- You may not work with or discuss the project with any other teams
- "Sprints" will be one week in length. They begin and end on Wednesdays.
- Meeting Cadence:

Meeting Type	Freq	Where	Description
Sprint Planning	Weekly	Your choice, outside of class	Meet with your team virtually, in-person or even asynchronously over Discord to agree on tasks for the upcoming sprint. (Team only, no TA.)
Sprint Retro	Weekly	Your choice, outside of class	Discuss what worked and what did not work in the previous sprint. (You can combine this with Sprint Planning meeting.) (Team only, no TA.)
Sprint Review, Demo, "Weekly Standup"	Weekly	During lab (5-10 min)	Present weekly status report to TA and discuss progress & obstacles

Final Presentation	End of Semester	3-5 min video	Create a summary video (3-5 min) of your working project.

- Weekly Status Report – Each team will prepare a single, typed team summary of the progress and present to their TA (electronically or printed) during the weekly stand-up meeting. The report will contain:
    - List of sources for any code written and names of non-team members consulted
    - Progress made since last report, by team member
    - Plans for upcoming sprint
    - Applicable links to Trello, Figma, GitHub, AWS, etc
- Create a single instance of your team Trello board and Github repo. Give access to both your professor and all TAs. (See Discord for email addresses and github usernames for the professor and TAs.)
- You may select one team member's AWS Learner Lab Account as the "team" account. Let your TA know which account you are using.
- Your TA is the "business customer" and is in charge of determining what they want your team to build. Direct all requirements-based questions to them either verbally or using the group-project channel on Discord.
- Extra points will be given to those teams that use software design patterns and document their use in their weekly project status.
- Each team project will be graded in isolation, but some consideration will be given to how your team project compares to other teams.
- The technical project requirements are as follows:
    - Each team must use a Trello Board, Github repo, and implement their solution on the AWS Cloud.
    - Your web application should be written in VueJS.
    - Your backend should be written in Python3 and utilize a REST API with a microservice design.
- The following chart shows the tentative schedule for project deliverables.

Tentative Schedule

Week	Date (Wed)	Group Deliverable
1	30-Aug	(none)
2	6-Sep	(none)
3	13-Sep	Requirements, Trello board
4	20-Sep	Stories, scenarios
5	27-Sep	Design Artifacts (e.g., HLD, Sequence, State, Flow, ...)
6	4-Oct	Git repo, Figma clickable prototype
7	11-Oct	Show progress: UI, DB, API
8	18-Oct	* Show progress: UI, DB, API * Stubs for all services
9	25-Oct	* Show progress: UI, DB, API * Swagger
10	1-Nov	Show progress: UI, DB, API
11	8-Nov	Show progress: OAuth login, Observability dashboard, Automated tests
12	15-Nov	Show progress: OAuth login, Observability dashboard, Automated tests
	Thanksgiving Week	N/A
13	29-Nov	Final check-in with TA
14		Final Project Due = Sun 12/3

The schedule above is subject to change.