

M2: Project Description and Requirements

Project Description:

OpenEdu is a web e-learning platform

OpenEdu aims to be a central location with all the tools a teacher/professor would need to host a class online. There are a plethora of features such as online submissions of documents, the ability to take quizzes written by the teacher, and the ability to communicate between students and teachers/instructors.

User Requirements:

- Signin/Login to ensure security
- Users should be able to easily navigate through the site.
 - Switching between courses
 - Finding assignments
 - Looking at grades
- The system should offer classes
 - Instructors should be able to have full control of these classes
 - Students can join courses or be added to them
- Instructors can add assignments and quizzes that students can complete
 - Instructors can grade these and add feedback
- Students and Instructors need to be able to set up online video calls
- Students and Instructors need to be able to message each other
 - In private
 - And as a class
- Instructors need to be able to upload course related materials.
- All users need to be able to update information about themselves
- Instructors need to be able to make announcements to share important information with the class

Functional Requirements:

As an e-learning platform, OpenEdu will be able to offer the following to users:

Security

- Create an account
- A system to login to an account

Navigation

- Student and instructors can switch between the courses that they are enrolled in
- Switch between relevant tabs in each course
 - Assignments
 - Quizzes
 - Meetings
 - Chat/Discussions

Courses

- Student can browse the currently active courses
- Students should be able to request to join courses
- Instructors can Accept/Decline join requests
- Instructors can manually add users to courses
- Instructors can create new courses
- Everyone can view the people that are currently enrolled in the course
- Instructors can make announcements to the class

Assignments/Quizzes

- Instructors can create assignments and quizzes
- Students can take quizzes
- Quizzes can consist of question that are:
 - Multiple choice
 - Short answer
 - Long answer
- Assignments can be automatically or manually graded
- Students and Instructors can add comments to the assignments and quizzes

Meetings

- Has an instructor editable list of upcoming meetings
- Meetings can be joined using a link

Chat/Discussions

- Students can direct message the professor or other students
- Students can discuss class topics or ask questions on a discussion board (similar to piazza)

Files

- Instructors can upload course related files that students will be able to read
 - PDF file viewing
 - MP4 videos
 - Embedded YouTube videos

Administration

- Professors can customize their course page
- All users need to update information about themselves
 - Passwords
 - Name

- Profile pictures

Optional (May not get to this)

- Implement a flashcard feature similar to Quizlet
 - Create flashcards
 - Modify flashcards

Non-functional Requirements:

OpenEdu should be:

- Make the UI visually appealing and more clean.
 - i.e Avoid the need to include unnecessary clutter
- Finished by the deadline of Apr 12
- Secure (courses should be only accessible by those accepted by the given professor)
- All website related data is stored in a MySQL database.
- Client written in HTML, CSS, and JavaScript
- Server written with JSP
- Variables must use camelCase.
- Proper git usage.

User Stories:

Student:

- As a student, I want to be able to make an account, so that I can view available courses.
- As a student, I want to be able to view currently available courses, so that I can register for courses I'm interested in.
- As a student, I want to be able to log in to my account, so that I can view my courses.
- As a student, I want to be able to take quizzes with instant grading, so that I can assess my learning.
- As a student, I want to see the list of students currently enrolled, so that I can message them about the course.
- As a student, I want to be able to view deadlines for assignments, so that I can submit assignments on time.
- As a student, I want to be able to create flashcards, so that I can study the course content.

- As a student, I want to be able to access zoom from the e-learning platform, so that I can easily view lectures.
- As a student, I want to be able to message my professor, so that I can clarify questions I have.
- As a student, I want to be able to edit/update my profile, so that other users can view it.

Professor:

-As a professor, I want to be able to upload files and assignments so my students can view the material needed for the class

-As a professor, I want to be able to create quizzes/tests on the platform that can be marked manually or automatically so grading can be done swiftly.

-As a professor, I want to release grades on the site so students can access their feedback and grades.

-As a professor, I want to be able to send announcements out to an entire class so I can communicate effectively without writing numerous emails.

-As a professor, I want to private message students so I can message them without the need to email from a separate client

- As a professor, I want to be able to make announcements, so that students see important class information

Case Diagram:

