Milestone 1

This document aims to cover the deliverables for the SWE 573 course project. Within the scope of this project, a web application will be designed and developed which allows a community online learning platform.

As a Milestone document, there are 3 parts in the document to cover the deliverables:
1. Requirements: Requirement specifications for the web application
2. Design: Completed design documents such as frontend designs as mock-ups and some UML diagrams.
3. Plan: Project plan for design and development processes.

1. Requirements

1)   learnsWE should be compatible with the following or higher versions of browser list:
- Google Chrome: 96
- Mozilla Firefox: 94
- Microsoft Edge: 95
- Safari: 14

2)   learnsWE shall use JSON data interchange format to communicate with the server.

3)   The application shall use PostgreSQL database to manage the application data.

4)   The web application shall use Django v3 framework.

5)   The web application includes a login page with a username and password fields and a login button.

6)   When the "login" button is clicked without filling the username or password fields, the web application shall display a "Required field" warning under empty fields.

7)   When the username and password fields are filled and login button is pressed, the module shall send these credentials to the server for authentication.

8)   The web application shall display "Username or password is not correct" message if the authentication server responds with "Error" message to the authentication request.

9)   The web application shall display "Unable to connect to the server. Please try again." Message if the module has not received any response from the authentication server.

10) If the server responds with a "Success" message to a login request, then the navigator application shall display "Successful Login" message.

11) learnsWE shall display ENROLLMENTS as the homepage for the authorized users after Successful Login message displayed.

12) While the homepage is displayed, the up bar shall display a collapsable navigation menu.

13) While the navigation menu is clicked and expanded, the menu shall display Ask Question, My Questions, Enrollments, User Settings buttons.

14) While the User Settings page is displayed, the application shall make the user's personal information editable without its username and password.

15) While the navigation menu is displayed, when the My Questions button is clicked, the My Questions page should be displayed.

16) In the My Questions page the list of previously created question by the authorized user should be displayed in a data table.

17) In the My Questions page, the newest (as the creation date) 20 Questions should be displayed.

18) While the My Questions page is displayed, when a question record is clicked from the list, the Question Post is displayed.

19) In any Question Post page, the related Question Post will be displayed with its title and body.

20) In any Question Post page, Answers given to the Question will be listed under the Question in the order of create time.

21) In any Question Post page, at the end of the page Post Answer button will be displayed.

22) When Post Answer button is clicked New Post Form Field will be displayed.

23) In the New Post Form Field, two buttons Cancel and Post Answer buttons will be displayed.

24) After any text is written in New Post Form Field area and Post Answer button is clicked, create Post request with the authorized user and current time will be sent to the Controller service.

25) In the My Question page, on the top of the data table, a search area should be displayed to make user be able to search for questions.

26) While the navigation menu is displayed, when the Ask Question button is clicked, the Ask New Question To Community page should be displayed.

27) After "Ask New Question" button is clicked a blank form page shall be displayed with empty fields.

28) In the New Question Form two text fields should be displayed for title and body of the question.

29) In the New Question Form two rounded buttons should be displayed as "Cancel" and "Post Question".

30) In the New Question Form, when "Post Question" button is clicked the module shall send a create question request to the Controller service.

31) While the navigation menu is displayed, when the Logout button is clicked, the application shall send logout request to the server and display the login page.
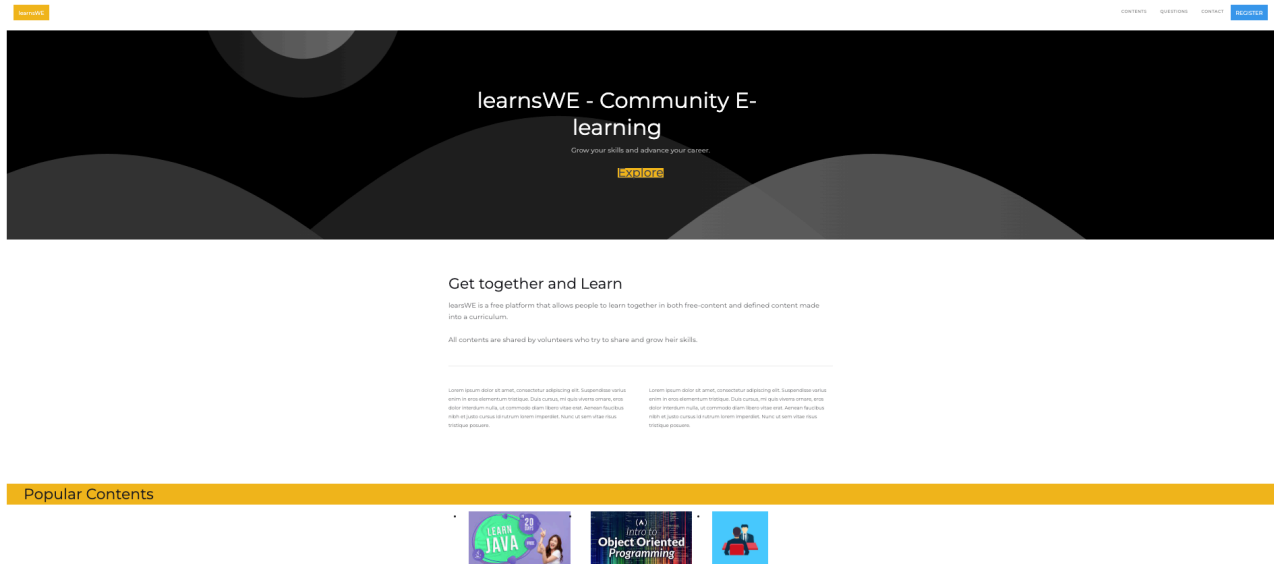
2. Design

Figure 1 - Landing Page

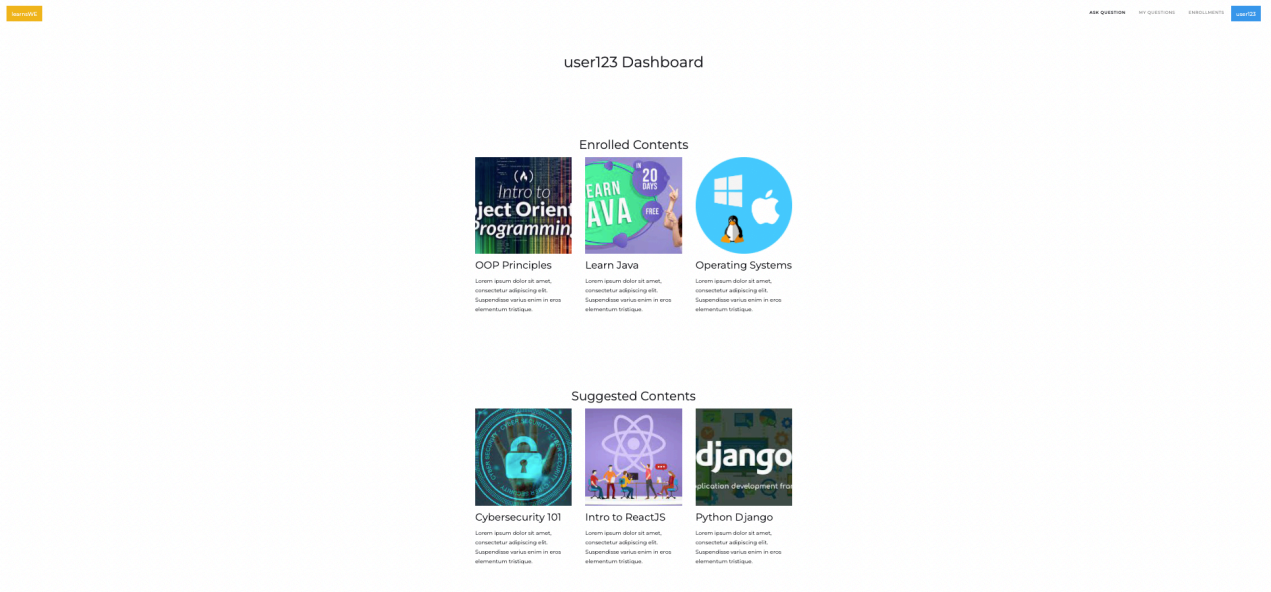Figure 2 - Homepage
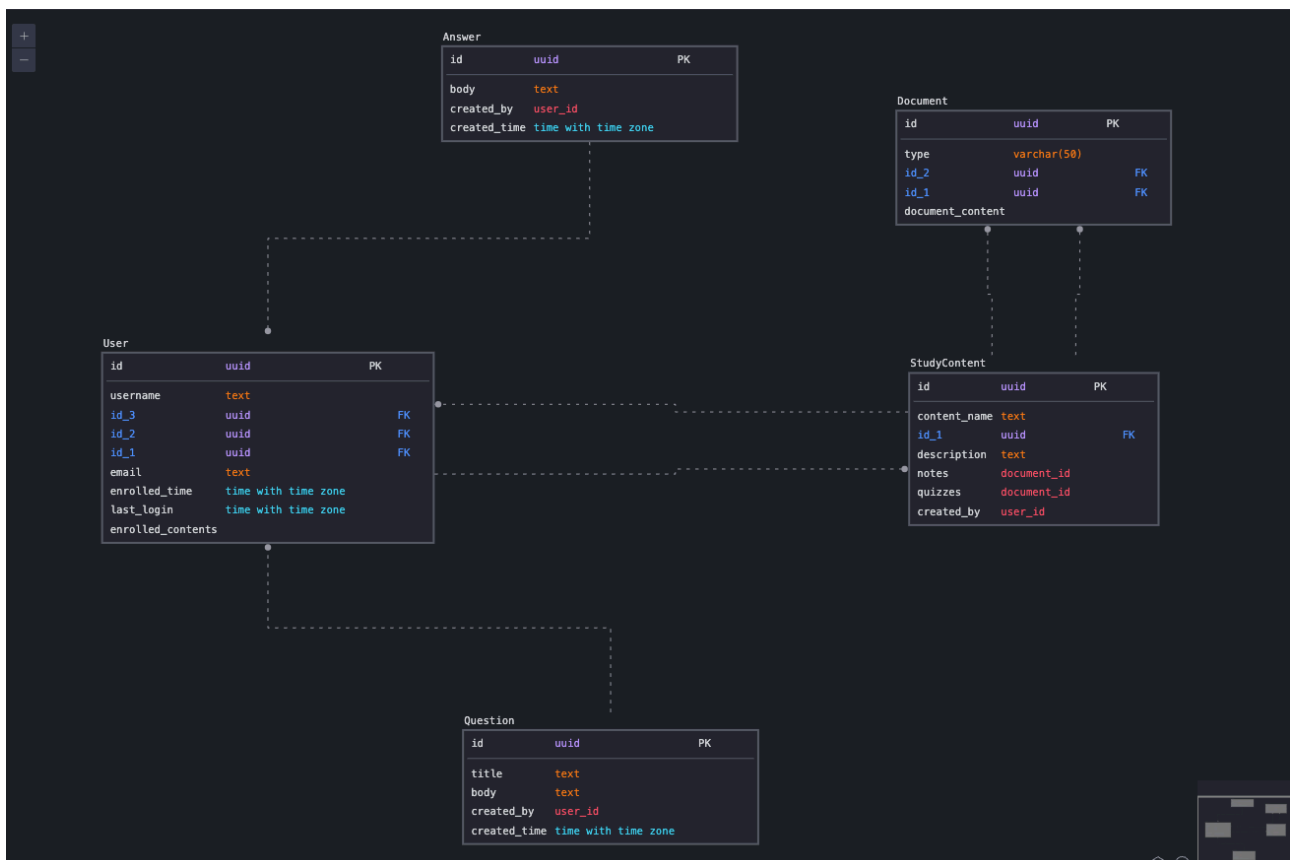
Figure 3 - Enrollments Page

Figure 4 - Class Diagram

3. Plan

Project design and development process will be done in subworks.

Subwork 1:
Design basic class diagram and Django models.

Subwork 2:
Design Question-and-Answer Module.

Subwork 3:
Develop Question-and-Answer Module.

Subwork 4:
Design Content Creation and Enrollment Module.

Subwork 5:
Develop Content Creation and Enrollment Module.

Subwork 6:
Frontend Enhancements and Wrapping Modules.