Project Requirements

for a Course Rating Platform for SCU

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1. Project Overview

The goal of this project is to design and implement a course rating platform for the students at Santa Clara University. The project will focus on building a better and reliable platform to help the students.

By using the platform, the student can make better decisions in picking their course work. The platform will organize courses as units, integrating ratings and reviews of professors, and allow students to leave new ratings and reviews for courses. Additionally, the platform will strive to provide more detailed information such as syllabus, to help students build a comprehensive understanding of the course, and assist them in making informed course selections.

2. Functional Requirements

The functional requirements of this project would be:

- The platform should let users sign up and login to use the website through their email and password.
- The platform should be accessible only to users with SCU email.
- The platform should display course-related information, such as course name, department, course number, credit, instructor, and average rating, alongside the reviews.
- Users should be able to find courses of their interest by selecting the department and the course code.
- Once the user finds the course of their interest, users should be able to view reviews posted by others.

- Users should be able to post their own review on the course.
- Users should be able to rate the course on a scale of 1 to 5, and the platform should calculate and display the average rating for each course based on these user ratings.
- The platform should allow users to edit their previously submitted reviews.
- The platform should prevent users from submitting multiple reviews for the same course to ensure the authenticity and reliability of the reviews.

3. Non-Functional Requirements

The non-functional requirements of this project should be:
- The platform should maintain user sessions for at least 24 hours, allowing users to continue browsing without needing to log in again during that period.
- The platform should offer an intuitive filtering interface that allows users to quickly and easily find courses based on department and course code without the need for complex navigation.
- The average course rating should be prominently displayed alongside the course information so that users can quickly gauge the overall satisfaction of previous students.
- Users should be able to add their grades and indicate the perceived difficulty of the course in their reviews.
- Users should be able to download a syllabus copy of the course, which is uploaded by the maintenance team after acquiring it from a reliable source.
- The platform should provide informative and user-friendly error messages in case of invalid user input or failed operations, guiding users to correct their actions and continue using the platform seamlessly.

4. User Interface (UI) Requirements

- Easy to use and navigate User Interface for signing in and registration for the user to use. Rough design of the page is as the following image of Fig 1.

Fig 1: Sign In/Up

- Easy to use User Interface for selecting department and course for filtering the courses. This is mocked in Fig 2.

Fig 2: Find courses

- Easy to Navigate and view the reviews of the selected course by the user. This is mocked in Fig 3

Rate my course @SCU

Review

1

| Course Name | Course Code | Credits |

| Avg Rating | Instructor |

Review | Rating | Difficulty | Grade

Review | Rating | Difficulty | Grade

:

2

| Course Name | Course Code | Credits |

| Avg Rating | Instructor |

Review | Rating | Difficulty | Grade

Review | Rating | Difficulty | Grade

:

Fig 3: Review List Page

● Easy to use Interface to add reviews. This is mocked in Fig 4

Rate my course @SCU

Add Review

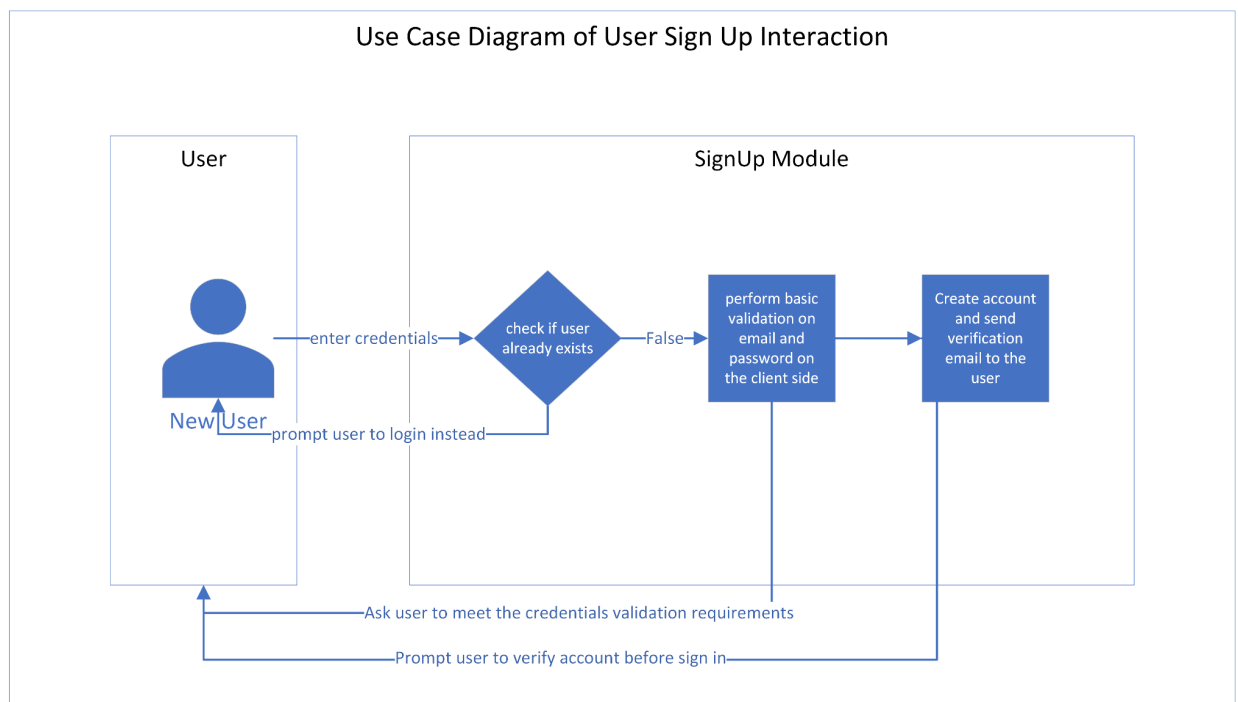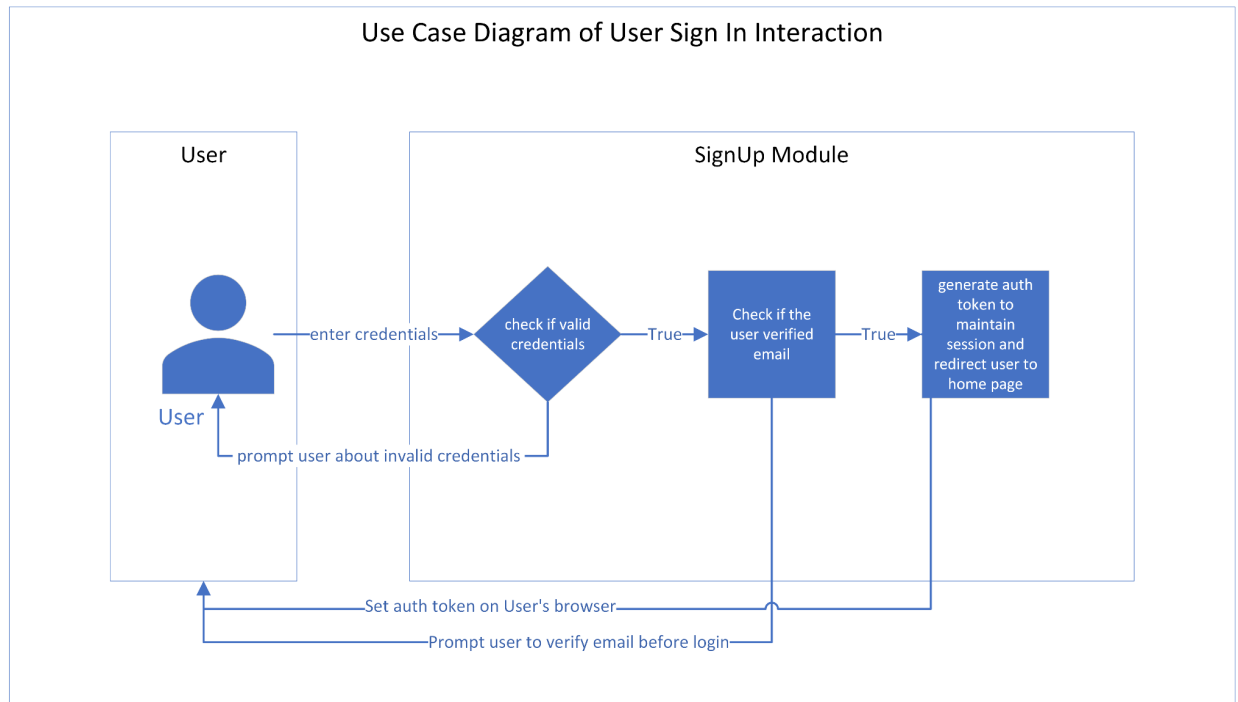| Course Name | Course Code | Instructor |

Review

Review Text

| Rating | Difficulty | Grade |

Submit

Fig 4: Add Review

5. Use case Diagrams

● User and Sign up page interaction

Use Case Diagram of User Sign Up Interaction

User

SignUp Module

New User

enter credentials

check if user already exists

False

perform basic validation on email and password on the client side

Create account and send verification email to the user

prompt user to login instead

Ask user to meet the credentials validation requirements

Prompt user to verify account before sign in

- ## User and Sign In page interaction

Use Case Diagram of User Sign In Interaction

User	SignUp Module

User

—enter credentials→ check if valid credentials —True→ Check if the user verified email —True→ generate auth token to maintain session and redirect user to home page

←prompt user about invalid credentials—

—Set auth token on User's browser—

—Prompt user to verify email before login—

- ## User and find course page Interaction

User	Find Course Page

User

—User opens find course page→ user selects department from drop down list → user selects course from the drop down list → user confirms their selection

—User is taken to the reviews list page—
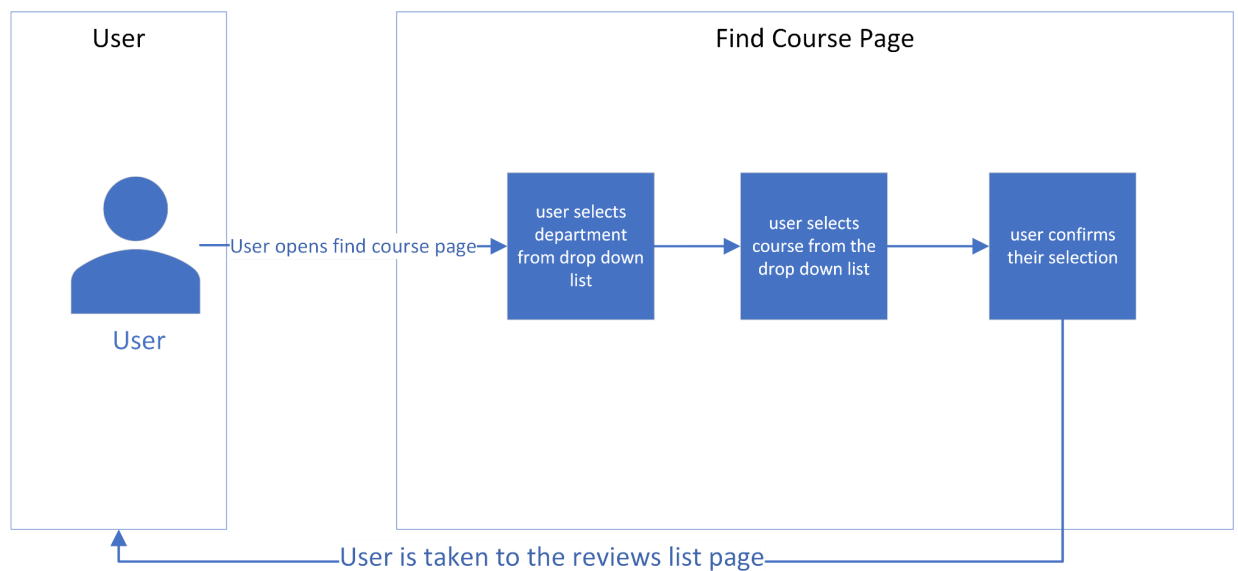
- **User viewing review list page**
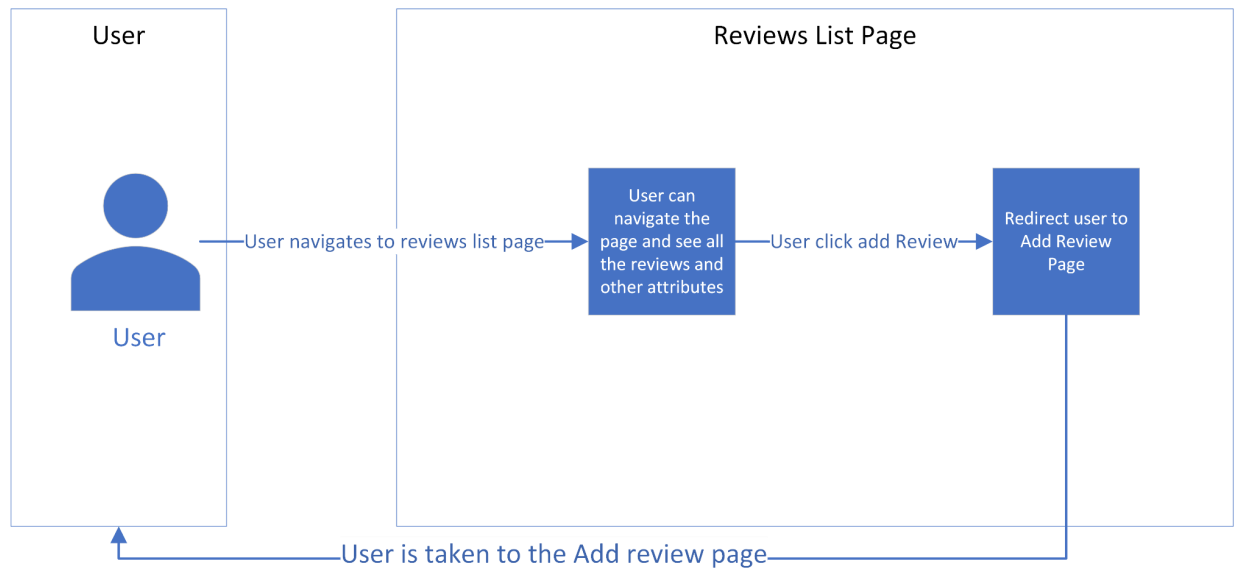
- **User adding/editing review**
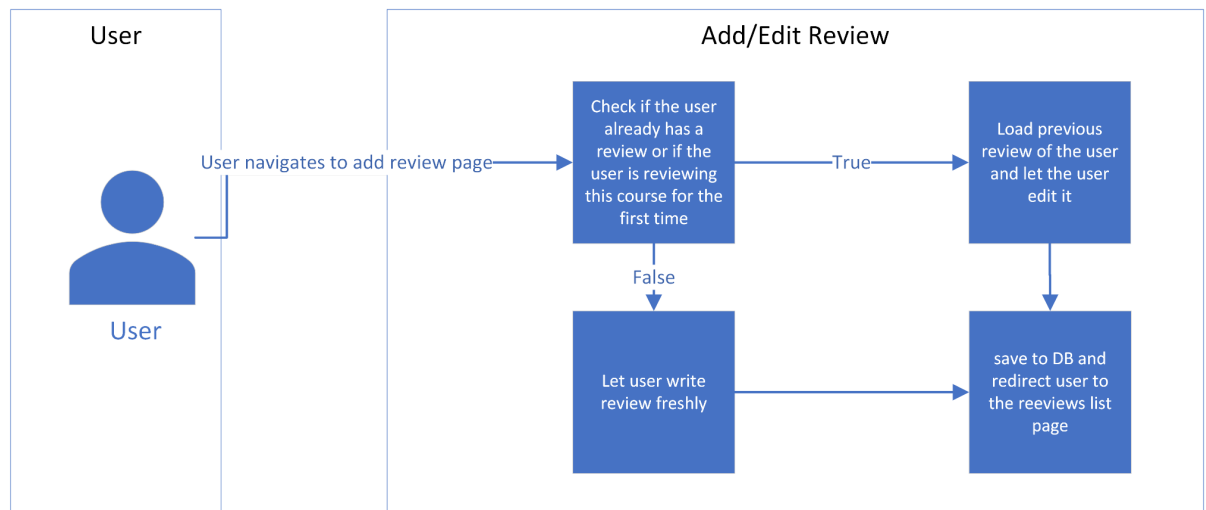
6. Constraints

Based on the project's scope and requirements, we anticipate encountering several constraints during the development and implementation of our Course Review platform:

- Time Constraint: A tight deadline might lead to rushed development, which could result in a bare minimum product which has a huge room for improvement such as:
  - Accessibility: The platform should be designed to be accessible to users with disabilities, following web accessibility guidelines and best practices. This is a bit hard to achieve considering the time frame we have to finish the project.
  - User Experience: Balancing the need for a feature-rich platform with a simple, intuitive user interface can be a challenge. Striking the right balance between functionality and ease of use is crucial for user satisfaction and adoption.
- Funding Constraint: Due to no funding and the project being driven by donations it will be difficult to perform maintenance and scalability rightfully.