

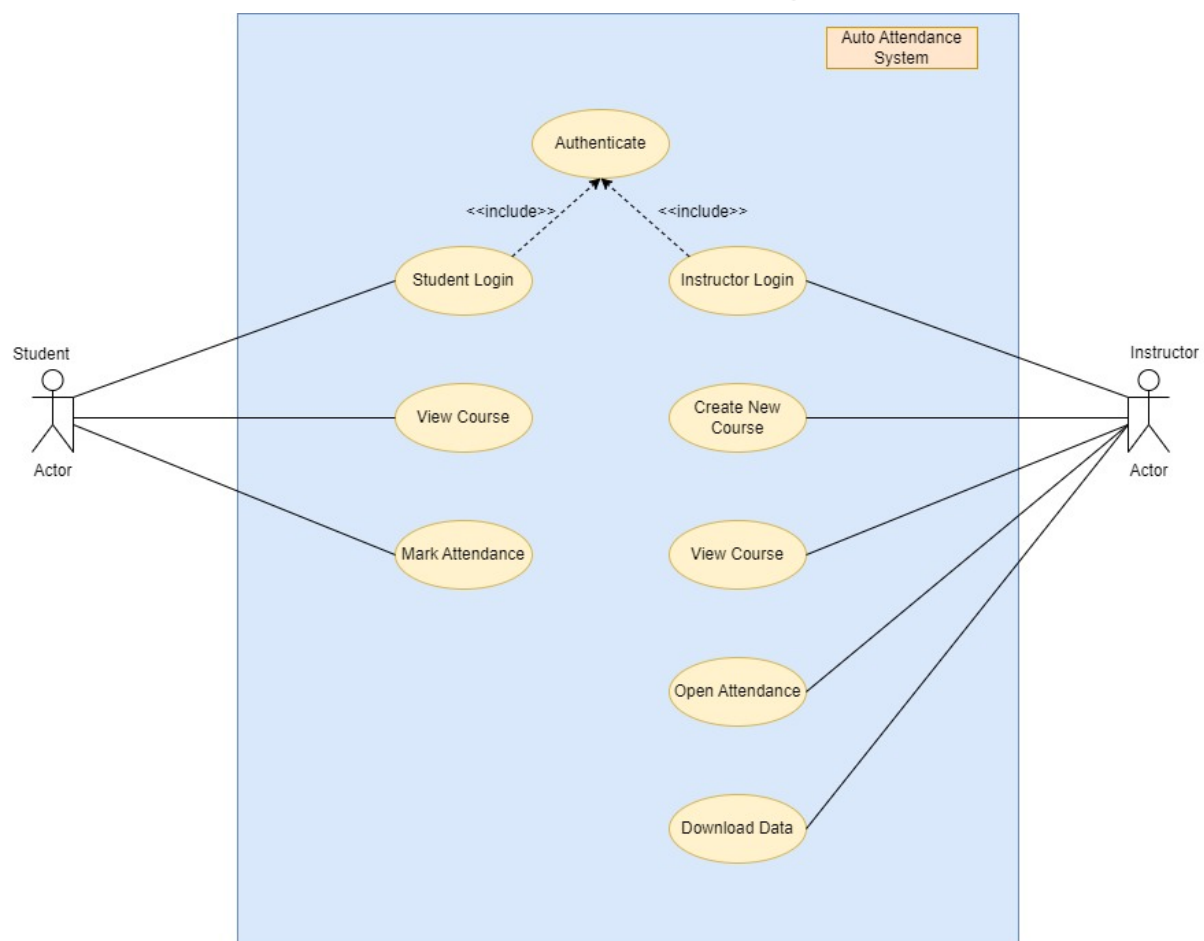
AUTO ATTENDANCE

IT 314

SOFTWARE ENGINEERING

GROUP 6

1. Use Case Diagram



2. Use Case textual description

1. Use Case: Student Login

Use Case Id: UC_1

Goal: This describes how a student logs into the Attendance system.

Actors: Student

Pre condition: User has to have a valid account.

Description:

1. AAS asks for valid credentials.
2. User enters the credentials.
3. AAS authenticates and allows the user to log in.

Post condition: AAS displays relevant homepage.

Exception:

- 3.a. Authentication fails.
 - 3.a.1 AAS displays the error message.
 - 3.a.2. AAS again returns back to the login page.

2. Use Case: View course

Use Case Id: UC_2

Goal: This shows how to view the course.

Actors: Student

Pre condition: Students should be successfully logged in the system by performing UC_1.

Description:

1. AAS shows the list of all the courses that the student has enrolled.
2. Students click on the particular course that he/she wants to inspect.
3. AAS shows the valid course page which consists of attendance statistics.

Post condition: AAS displays course page.

Exception:

None.

3. Use Case: Mark Attendance

Use Case ID: UC_3

Goal: To mark 'Present' for the student in particular course.

Actors: Student

Pre-condition:

1. Students should be successfully logged in to the website using UC_1 and he should be able to view the courses using UC_2.
2. Students should be notified about the attendance in a particular course.

Description:

1. Students will go to the list of courses and select a particular ongoing course-lecture.
2. AAS will validate the course-lecture if the attendance-marking portal is active.
3. Students will click on 'Mark my attendance'.

Post-condition:

Students will get a confirmation status about attendance of that course-lecture.

Exception:

- 2.a. The attendance portal expired.
 - 2.a.1 AAS shows an error message.

4. Use Case: Instructor Login

Use Case Id: UC_4

Goal: This describes how an instructor logs into the attendance system.

Actors: Instructor

Pre condition: Instructor needs to have a valid account.

Description:

1. AAS asks for valid credentials.
2. Instructor enters the credentials.
3. AAS authenticates and allows the user to log in.

Post condition: AAS displays relevant homepage.

Exception:

- 3.a. Authentication fails.
 - 3.a.1 AAS displays the error message.
 - 3.a.2. AAS again returns back to the login page.

5. Use Case: Create new course

Use Case Id: UC_5

Goal: This shows how to create a new course.

Actors: Instructor

Pre condition: Instructor should be successfully logged in the system by performing UC_4.

Description:

1. Instructor clicks on the “Create a new course” button.
2. AAS displays create a new course page.
3. Instructor enters all the course information that the AAS asks.
4. Instructor clicks on the submit button.
5. AAS shows the success message.

Post condition: AAS displays the valid course page that the instructor has newly created.

Exception:

None.

6. Use Case: View course**Use Case Id:** UC_6**Goal:** This shows how to view the course.**Actors:** Instructor**Pre condition:** Instructor should be successfully logged in the Auto-Attendance System by performing UC_4.**Description:**

1. AAS shows the list of all the courses that he/she has created using UC_5.
2. Instructor clicks on the particular course that he/she wants to inspect.
3. AAS shows the valid course page which consists of attendance statistics.

Post condition: AAS displays the valid course page.**Exception:**

None.

7. Use Case: Open attendance**Use Case Id:** UC_7**Goal:** This shows how to open a new attendance portal.**Actors:** Instructor**Pre condition:** Instructor should be successfully logged in the system by performing UC_4 and instructor should be able to view that course that he/she wants to open attendance using UC_6.**Description:**

1. Instructor opens the course page.
2. Instructor clicks on the "Open new attendance" button.
3. AAS displays a form.
4. Instructor enters the lecture name and time frame.
5. AAS validates and shows the confirmation page.

Exception:

5.a. AAS validation fails.

5.a.1 AAS shows the error message.

5.a.2 AAS redirects the user to the same form page.

Post condition: AAS returns back to the same course page with the confirmation message.

8. Use Case: Download data

Use Case Id: UC_8

Goal: This shows how to download attendance data.

Actors: Instructor

Pre condition: Instructor should be successfully logged in the system by performing UC_4 and instructor should be able to view that course that he/she wants to open attendance using UC_6.

Description:

1. Instructor opens the course page.
2. Instructor clicks on the "Download data" button.
3. AAS starts downloading the attendance data for that course.

Post condition: AAS returns back to the same course page with the confirmation message.

9. Use case: Authentication

Use case: UC_9

Goal: To authenticate user's credentials.

Actors: AAS

Pre condition: None

Description:

Post condition: AAS shows success or error message.

3. NON FUNCTIONAL REQUIREMENTS

Non-Functional Requirements with justifications:

- 1) **Security:** The website should store the data securely and provide protection against threats.
- 2) **Compatibility and Portability:** The website should adapt according to the specifications of the user system. The website should support all the modern web browsers as well as older versions.
- 3) **Reliability and Availability:** The website should remain up 24*7 and the databases and servers should be ready and available to establish the connection all the time.
- 4) **Scalability and Performance:** Multiple users should be able to access the website at a time and the process of authentication and validation should be fast even for a high number of users at the same time.
- 5) **Localization:** The website should fit into the local specifics of the user system. It should be responsive to the screen size.
- 6) **Usability:** The UI should be easy to use for all kinds of users.(i.e. Technical as well as Non-Technical users)