****

**IT-314 Software Engineering**

**Lab Group : 4**

**Group No : 22 Student Information System**

**1. Topic :** StudentLogin

**User Story :** As a Student I want to login so that I can access my personal academic information and course details.

**Acceptance criteria** **:**

System should be able to identify the correctness of credentials. Upon successful validation, the Student profile is displayed. After an unsuccessful attempt, the system should display the relevant error message and students should be able to re-enter the credentials. There users can check the checkbox called “REMEMBER ME”, so that there is no need to re-enter the credentials for future logins.

**Failure:**

1. If a user forgot the password then he/she cannot login..

**Mitigation:**

1. Provide password reset functionality with security measures.

**2. Topic :** Course registration

**User Story :** As a Student I want to register courses online so that I can enroll myself in the course that I need for the semester.

**Acceptance Criteria :**

Students can Search courses. They can See prerequisites for the course and Information about the professor who takes the course. System should be able to confirm Registration.

**Failure :**

1. Course Registration System crashes due to large number of registrations at a time.

**Mitigation :**

1. Scale up server capacity to handle high traffic during registration.

**3. Topic :** Attendance

**User Story :** As a Faculty I want an attendance tracking feature which allows me to mark attendance .

**Acceptance criteria :**

Students can see their attendance.Faculties can update the attendance for the classes which are taken by them.

**Failure :**

1. Incorrectly marked attendance due to technical issues.

**Mitigation:**

1. Regularly test and update the system to avoid technical issues.

**4. Topic :** Student Profile

**User Story :** As a student, I want to be able to update my personal information such as address, contact,email etc.

**Acceptance criteria** **:**

The user should be able to access the profile from their student account dashboard. After opening the profile I am able to see the profile page.The user should be able to update details such as User name, Student address, Contact information and Email address.

**Failure :**

1. System allowed invalid input, without proper validation.
2. System does not reflect on update information.

**Mitigation** **:**

1. Input validation should be on both the frontend and backend to prevent invalid data.
2. The Confirmation step should be added before saving and updating the data.

**5. Topic :** Registration Management

**User stories** **:** As an Administrator, I want to efficiently manage the student records so that all their administration records are not disorganized.

**Acceptance criteria** **:**

The Acceptance criteria is that all the students who wanted to register are registered. All the information regarding the students is organized properly and no information overload occurs.

**Failure :**

1. There is a loss of data.
2. When the information regarding students is mixed up and the data is disorganized.

**Mitigation** **:**

1. For the loss of data there should be a backup made for all the information entered by the student.
2. Once you find the problem then check for errors in the storage and input in the registration part.

**6. Topic** **:** Grading Assignments

**User Stories** **:** As a faculty member, I want to be able to enter and submit grades for assignments so that students can track their performance and receive accurate transcripts.

**Acceptance criteria** **:**

1. The faculty should be able to know whether the student has copied the assignment or not.
2. The student should be able to view all the assignments and their answers after the grading has been done.

**Failure :**

1. The assignment is copied but faculty cannot identify that it is copied or not.
2. The student can not view their assignment or answer after the grading is done.

**Mitigation** **:**

1. The system should be able to check plagiarism of all the assignments.
2. If the assignment is missing then upload the assignment or if the student cannot open it recheck the access of the assignments.

**7. Topic :** User Friendly interface

**Acceptance criteria** **:**

1. Create a user-friendly interface with an easy adjustment period for parents, teachers, administrators, and students.

**Failure :**

1. Complicated and confusing user interface that causes frustration and mistakes.
2. The usability and overall user experience are impacted by poor design.

**Mitigation :**

1. Refine the UI depending on user feedback by doing user testing.
2. Provide detailed guides and tutorials to assist users in using the software .

**8. Topic:** Payment

**User story :** As a student, fee payment should be reliable and easy.

**Accepting Criteria :**

1. The system should offer a secure and accessible payment interface via payment portals. Multiple payment methods should be supported.

**Failure :**

1. Payment portal facing problem hence causing users/students unable to pay fee on time or causing issues.

**Mitigation** **:**

1. A security check should be performed on the payment interface.
2. In order to verify the update, testing should be carried out in a control environment.
3. Redundancy and backup

**9. Topic :** Academic Calendar

**User story :** As a student I want to access an academic calendar that includes class schedules,exam dates,holidays.

**Acceptance criteria :**

1. The academic calendar should be easily accessible from the student's dashboard or menu upon logging into the system.
2. The academic calendar should display class schedules for all enrolled courses, including the course name, course code, date, time and location of each class session.
3. The academic calendar should include dates for all scheduled exams, including midterms, finals.
4. The calendar should clearly indicate holidays, breaks, and other important academic events.

**Failure :**

1. If changes to class schedules, exam dates, or holidays are not promptly updated in the calendar, students may rely on outdated information, which can lead to missed classes or exams.

**Mitigation :**

1. Ensure that data sources for the academic calendar are reliable and regularly updated. Cross-check information from official sources.

**10. Topic :** Grading

**User Story:** As a teacher, I want to be able to enter and update grades.

**Acceptance Criteria:**

1. The system should allow the teacher to select a specific course or class for which they want to enter or update grades.
2. The system should validate grades to ensure they fall within the predefined grading scale or criteria.
3. Students should be able to view their individual grades and overall course grades, but they should not have access to other students' grades.

**Failure :**

1. The system becomes slow and unresponsive when entering or updating grades for a large number of students and assignments.
2. Students may receive incorrect grades if there is a mistaken updating of wrong marks.

**Mitigation:**

1. Perform load testing to identify bottlenecks and performance issues under heavy usage.
2. Failure of the faculty to update grades incorrectly.

**11. Topic :** Report card generation

**User Story:** As an administrator I want to generate a report card on student registration in the semester so that students get a comprehensive overview of their academic performance.

**Acceptance criteria:**

1. Administrators can access the report card generation section.students should be able to view report cards once they register in course. System should update grades in the report card on completion of the semester.

**Failures**:

1. calculation errors leading to incorrect final grade.
2. Formatting issues causing the report cards to be improperly displayed.

**Mitigation:**

1. Implement automated checks to validate the accuracy of final grade calculations.
2. Regularly testing of formatting to ensure the consistency.