

ENTERPRISE COMPUTING (IT618) AND DESIGN OF SOFTWARE SYSTEMS (IT619)

Design Document Draft

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- **Project Title**

Tuition Management System with Smart Attendance

- **Scope**

This is a web app which will be used in tuition class to manage the student details and assign the work. Also, it takes the attendance of the student in a smart way that is contactless attendance. On entering the tuition class a student's face will be scanned by the webcam and according to that the attendance will be marked. Students will be able to view the assigned task, announcements, quizzes and their attendance.

- **Functional Requirements/Key Use cases**

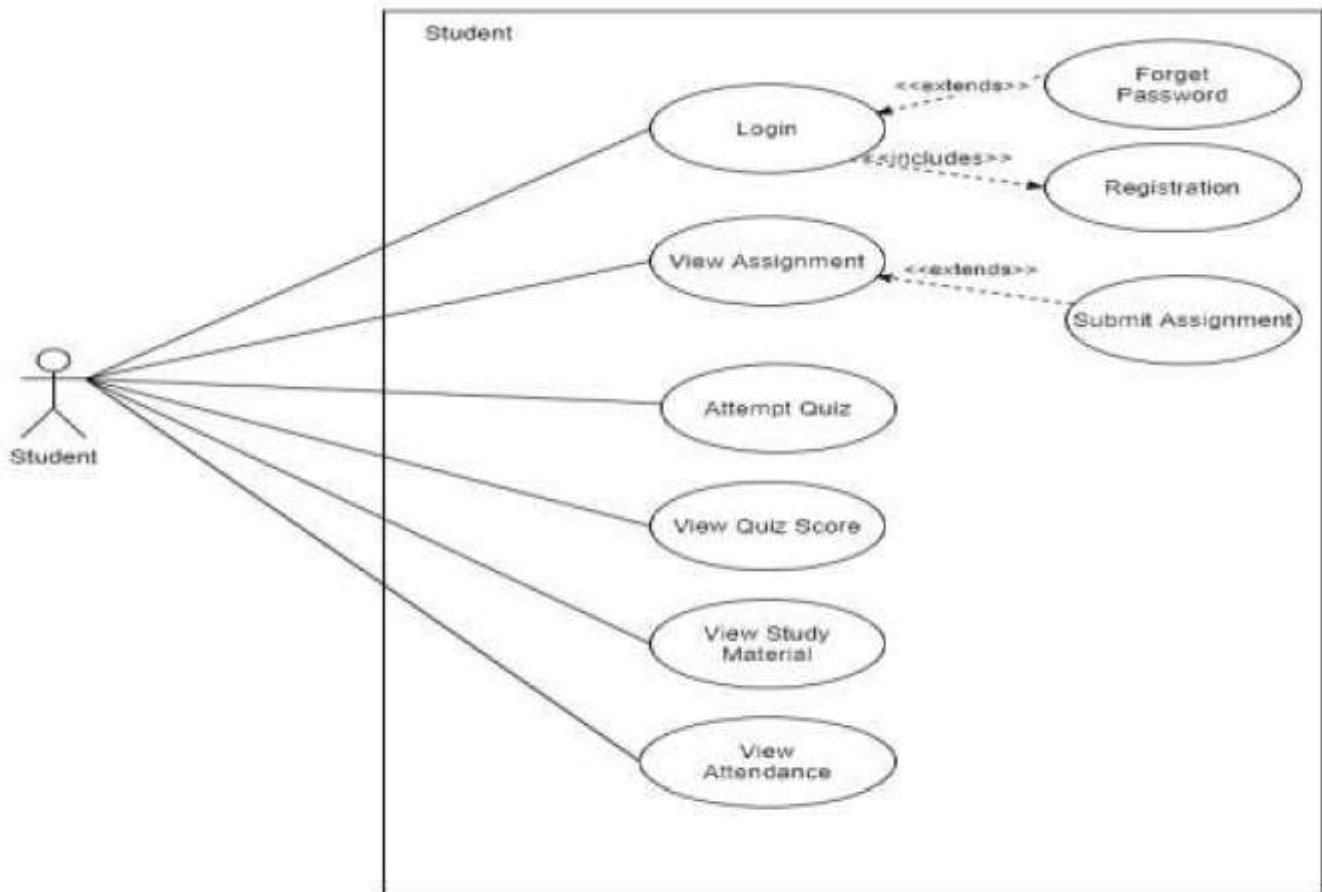
Functional Requirements:

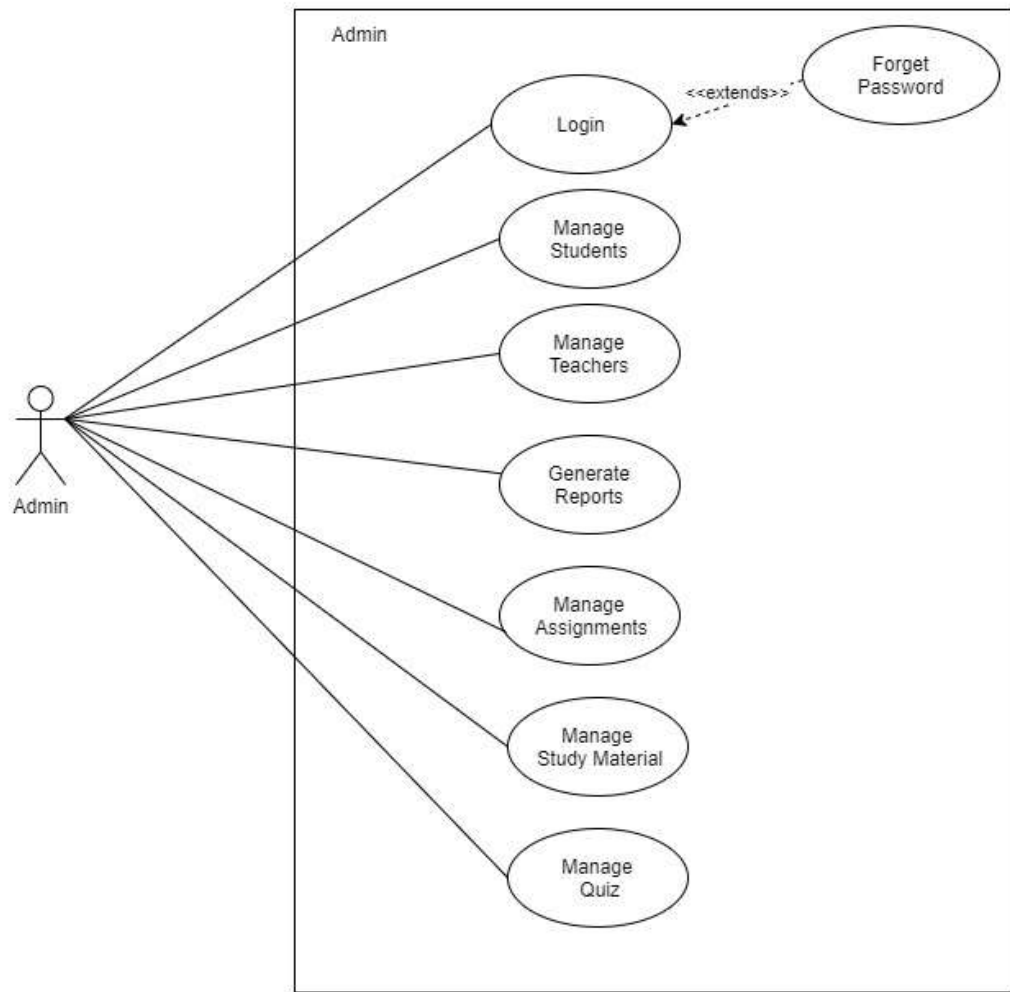
- ❖ Admin will register the student and add his/her image for further usage.
- ❖ The students who attend the class his/her attendance will be recorded using face scanning.
- ❖ If the student is absent in the class his/her parents will be notified for the same by sending mail to them.
- ❖ The assessment results of students will be sent to the given parents' email ID and also students can view their results in their view.
- ❖ The teacher will upload all the study material and video lectures so students can view them when needed.
- ❖ The students will be notified via email if there will be any new announcement made by the teacher like assignment, material or test schedule.
- ❖ The students will have to upload their work on the system itself in the given deadline.
- ❖ The student will be able to view his/her monthly attendance.

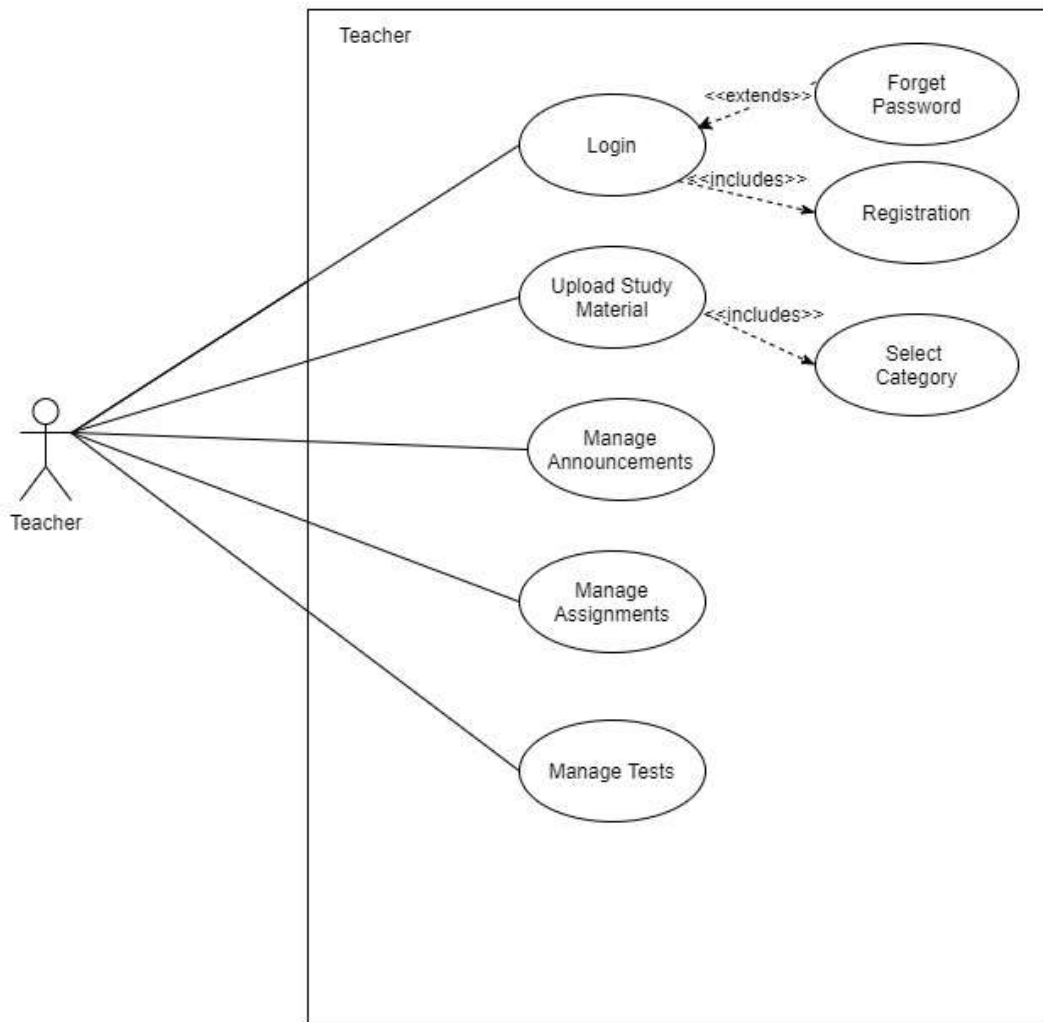
Use Cases

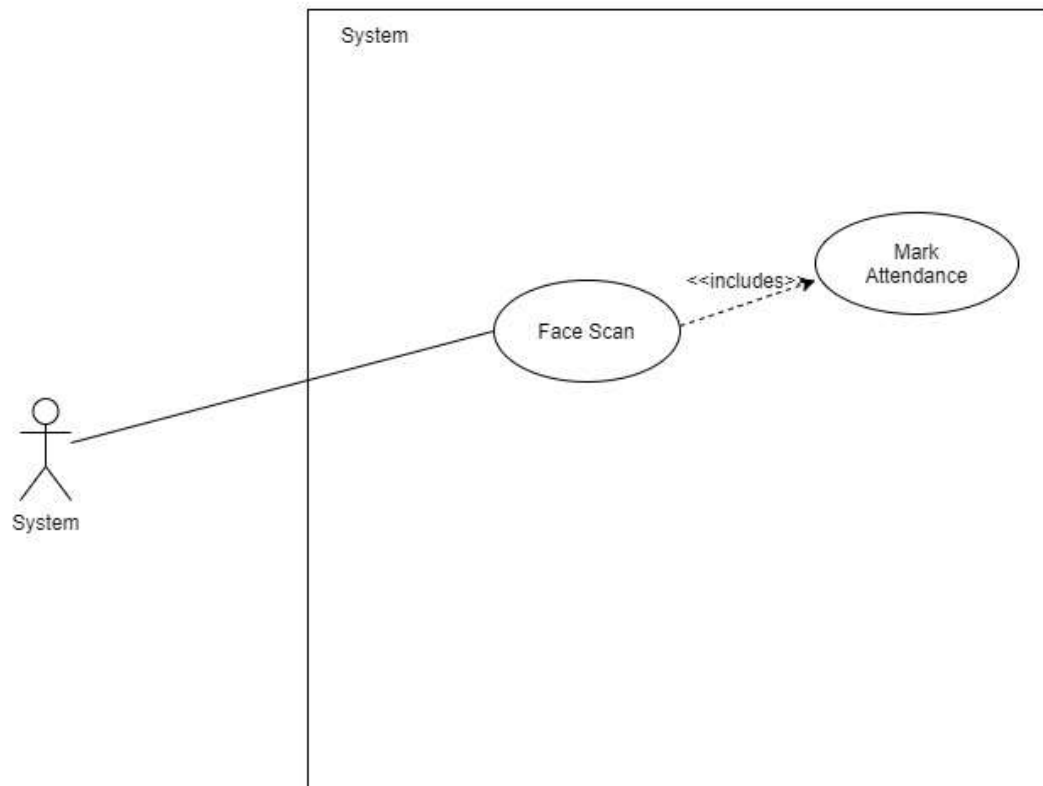
- Admin
 - Login: Admin can log into the system using his/her credentials.
 - Manage Students: Admin can add/update/delete the details of students.
 - Manage Teachers: Admin can add/ update/ delete the details of the teacher.
 - Generate Report: Admin can generate the report of the student based on the performance.
- Teacher
 - Login: Teacher can log into the system using his/her credentials.
 - Upload Study Material: He/she can upload the required study materials in the system.
 - Manage Announcements: He/she can make necessary announcements when needed.
 - Manage Assignments: The teacher can add / update / delete details of assignments.
 - Manage tests: He/she can make test schedules and inform students about the same.
- Students
 - Login: Students can log into the system using his/her credentials.
 - Assignments: Students can view and submit the Assignments in the given deadline.
 - Attempt Quiz: Students can attempt quizzes assigned to them.
- System
 - Manage Attendance: System(webcam) will scan the face of the student and encode it and match with the database and mark the attendance if the faces is matched, also it marks the entry and exit time of the student.

Use-Case Diagram

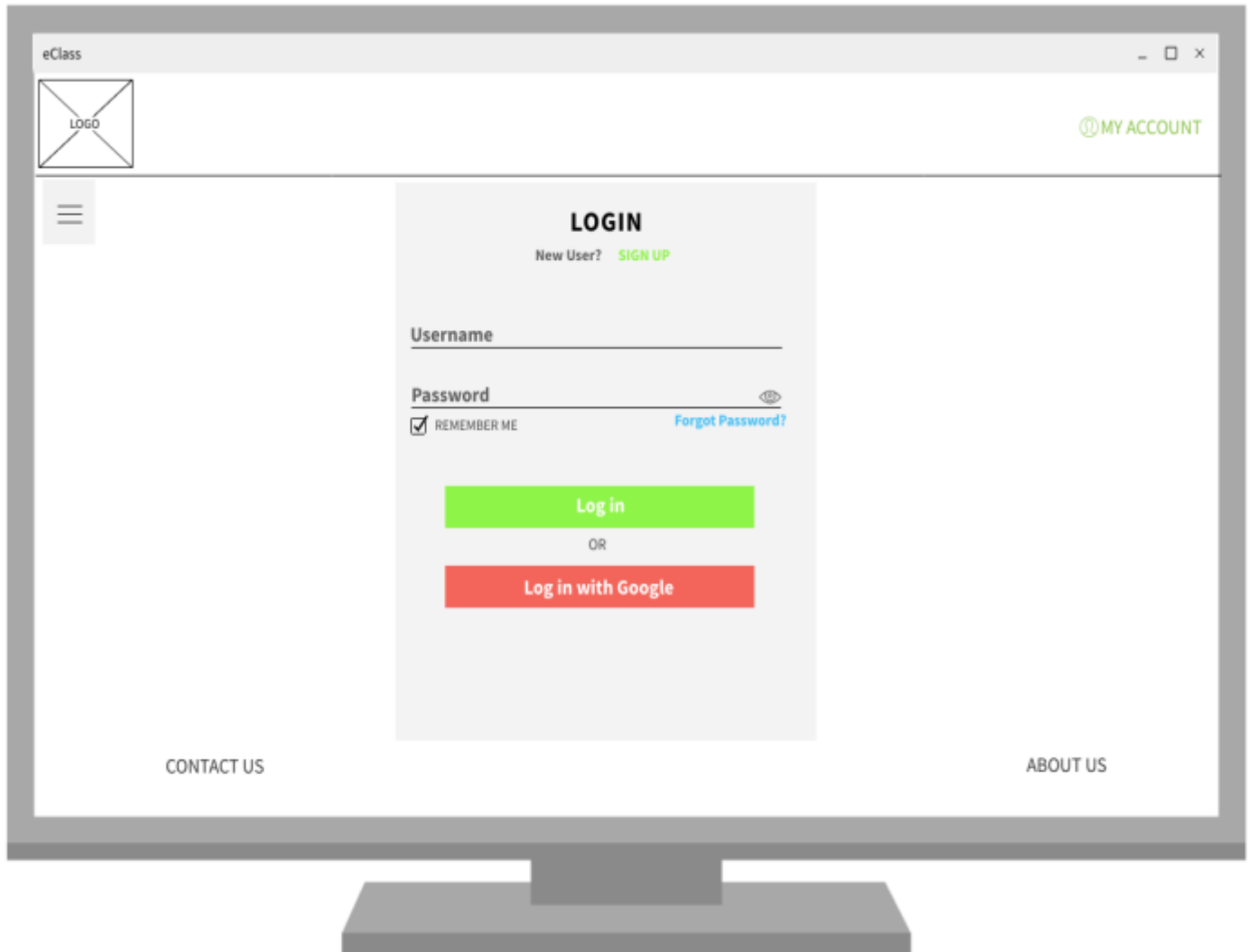


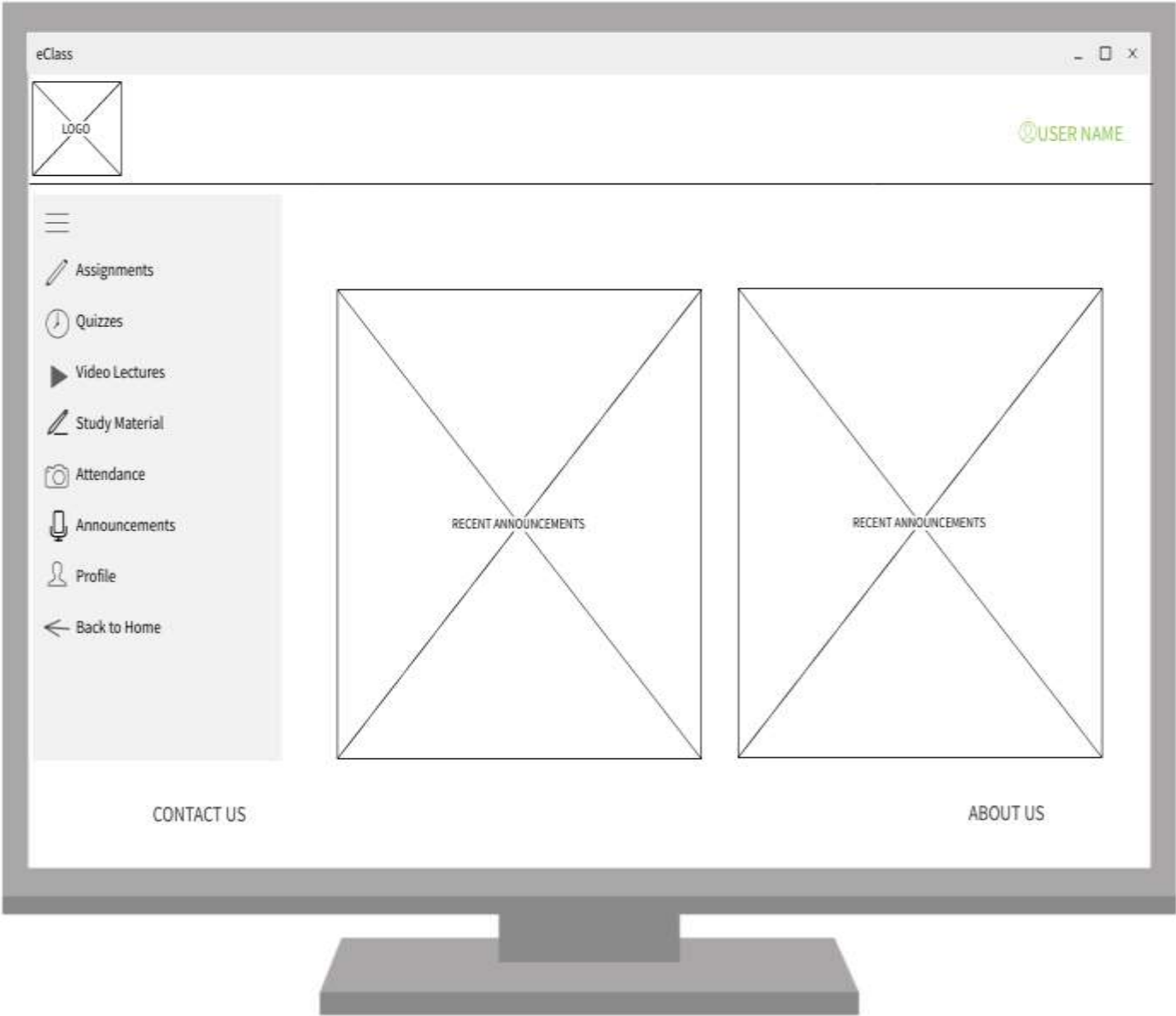


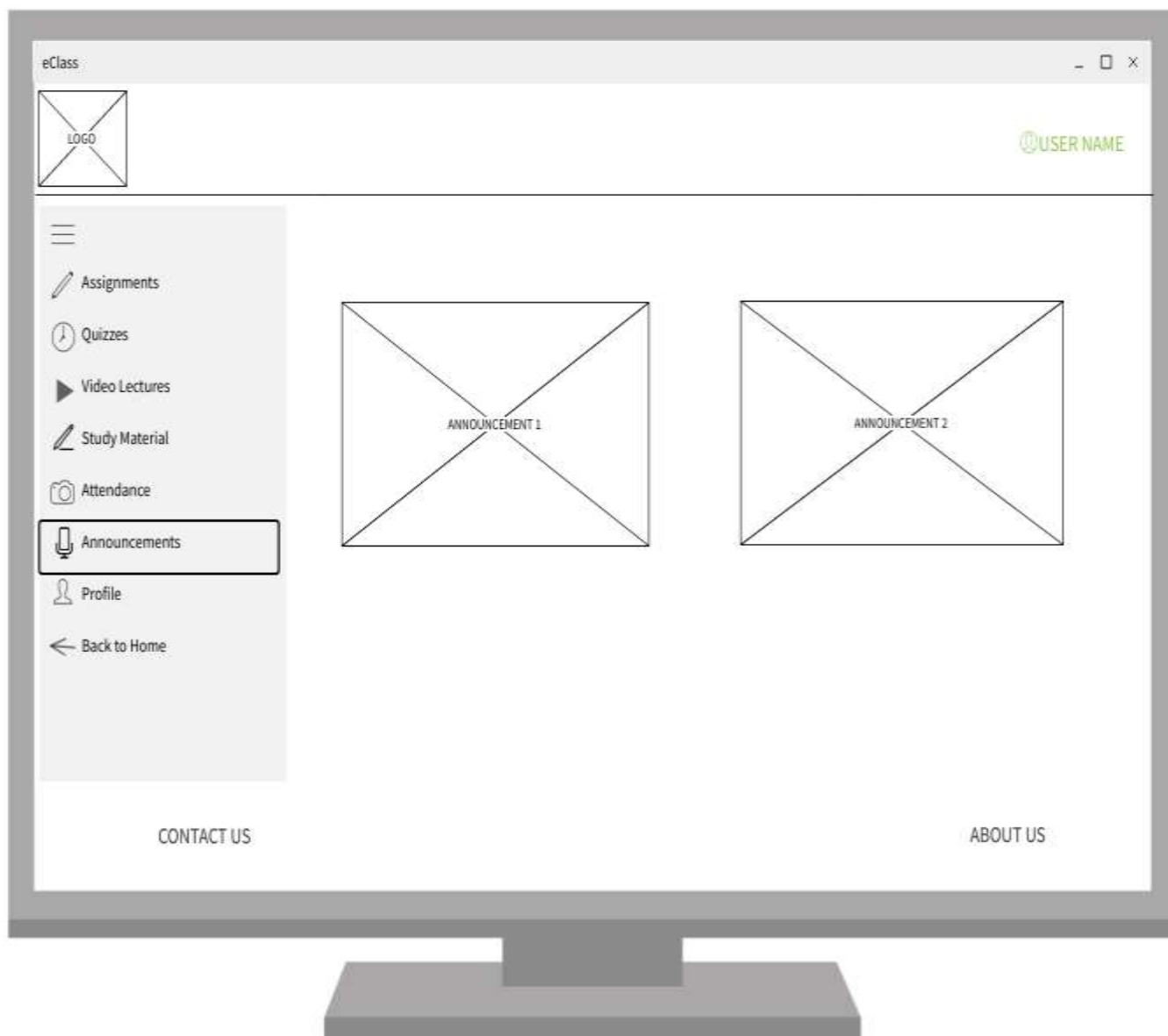




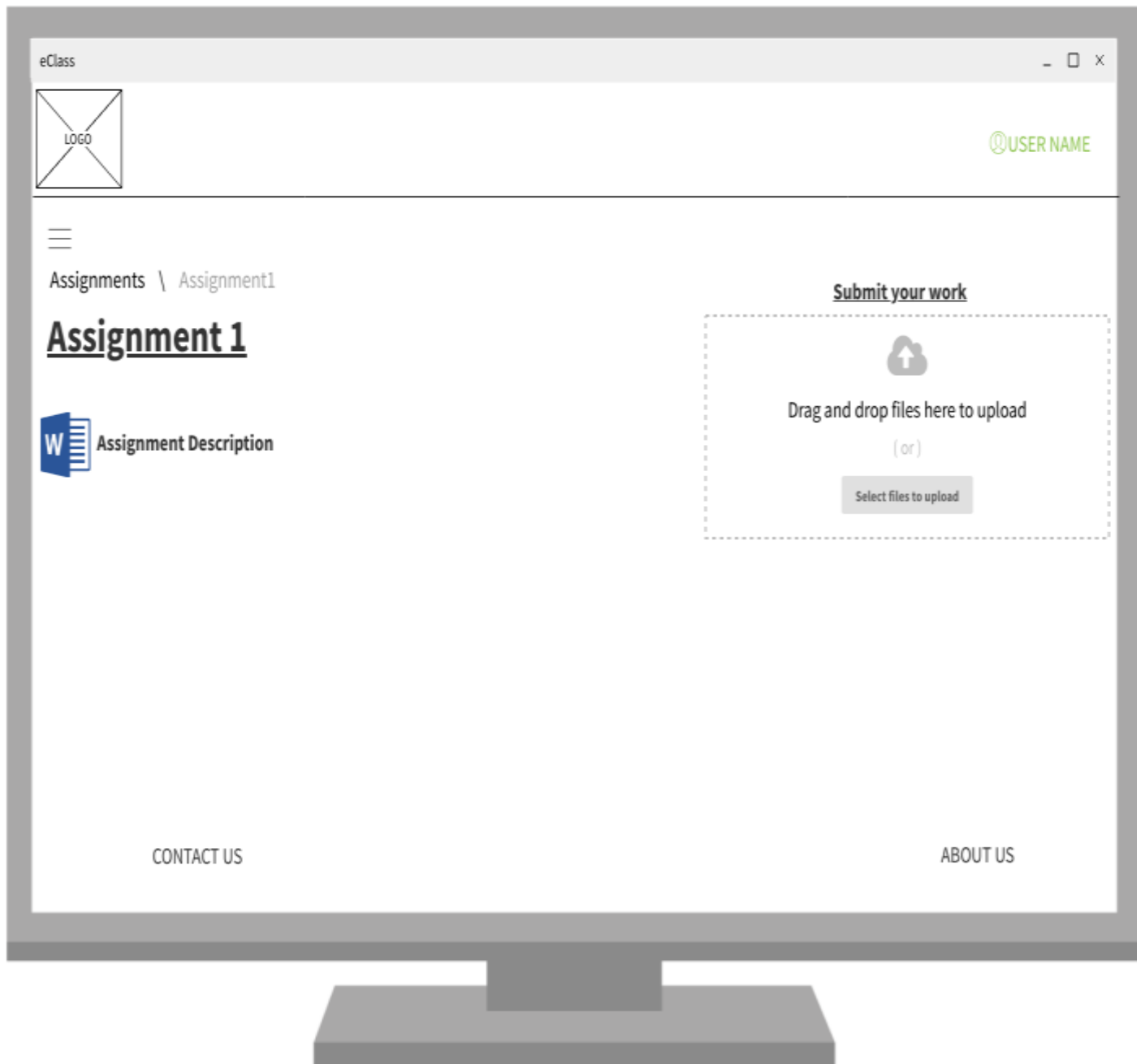
UI/UX Design

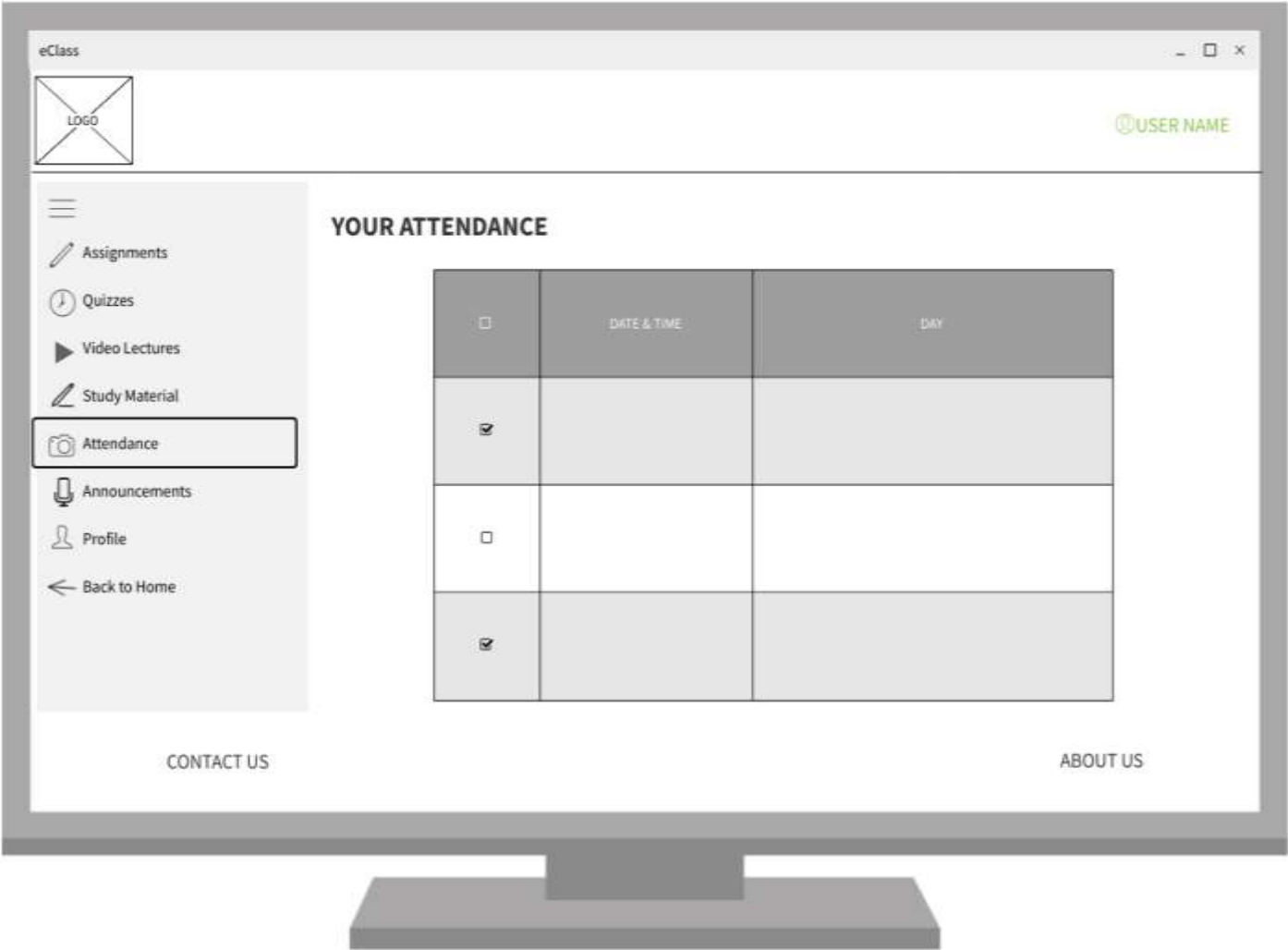


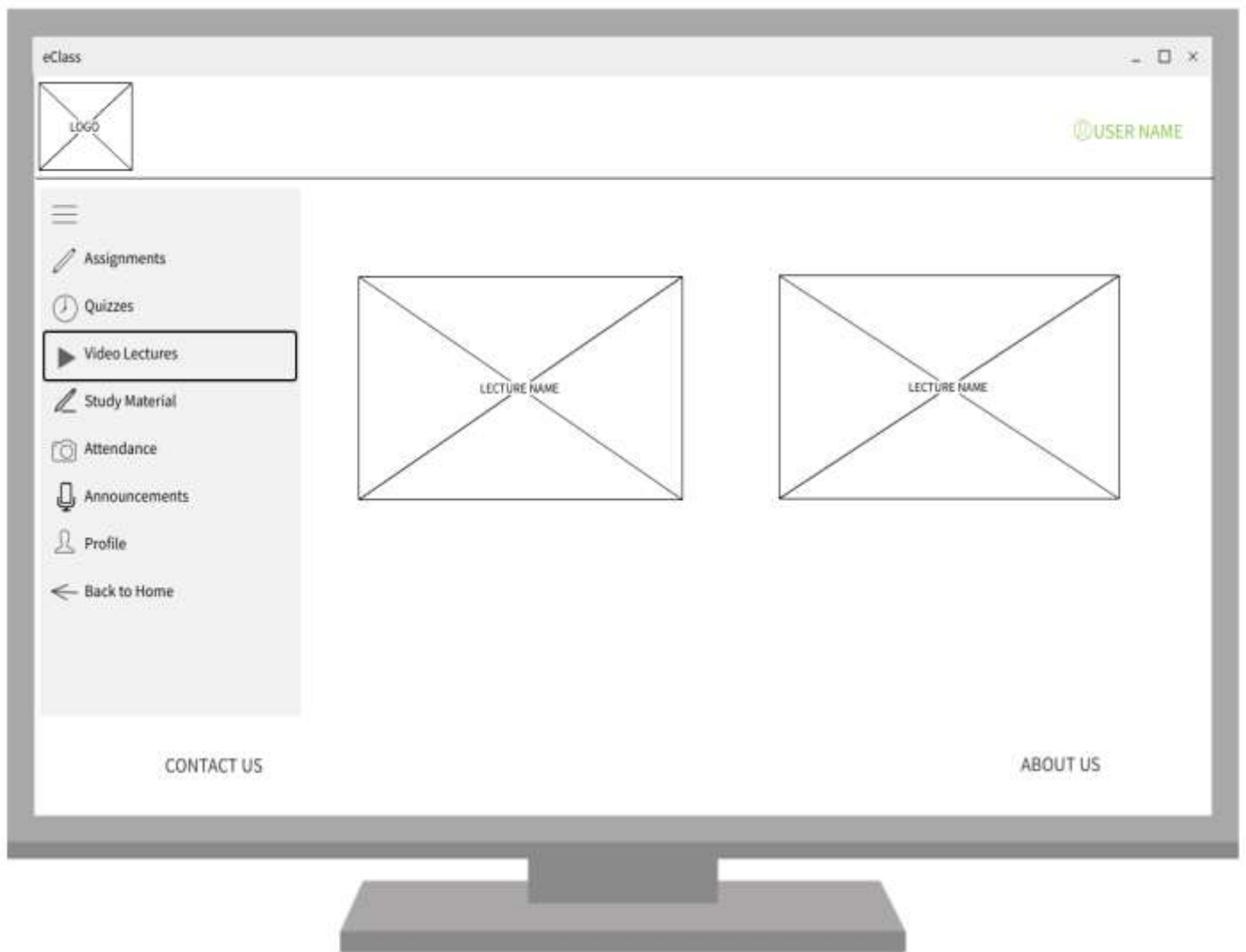




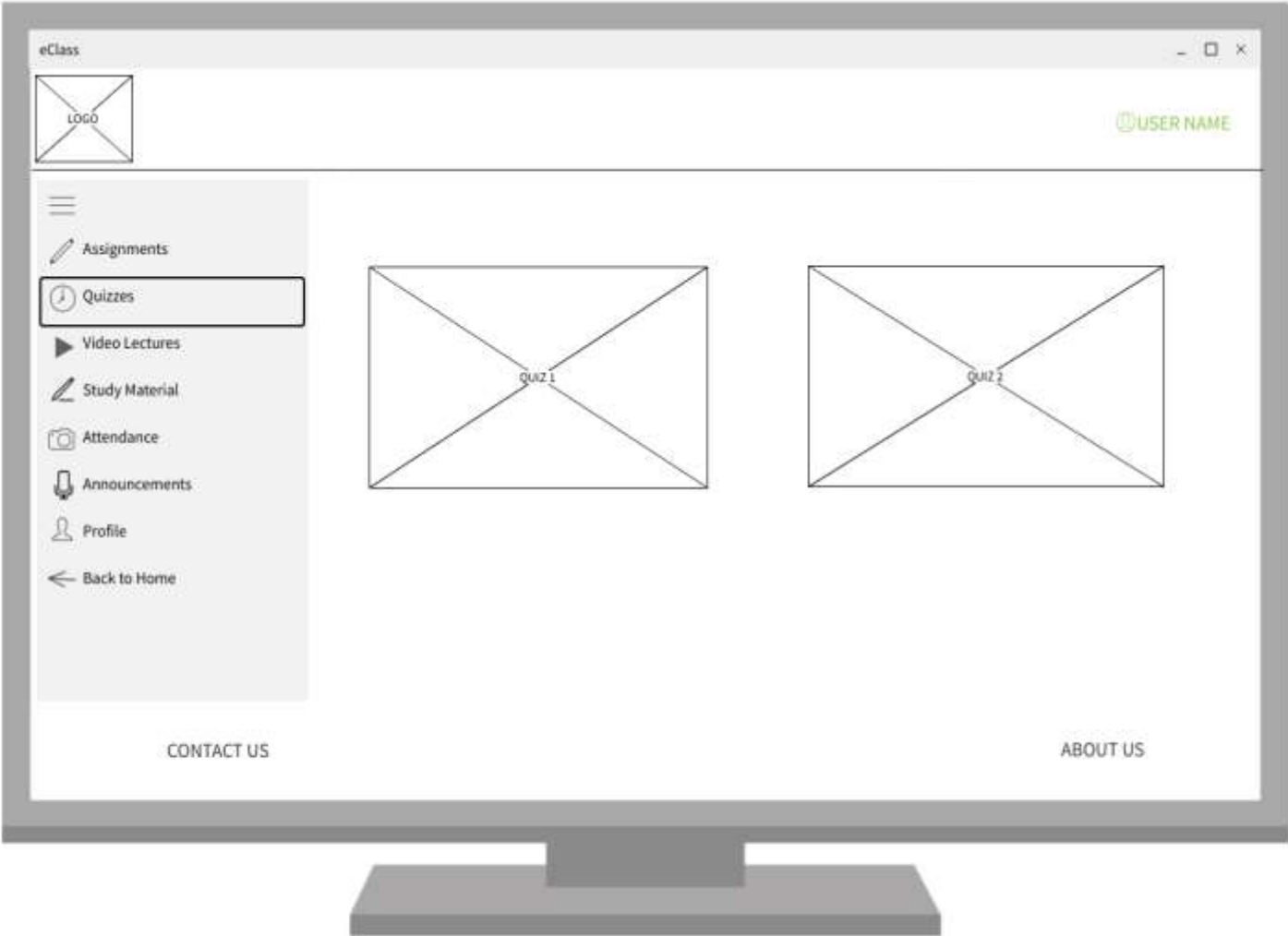


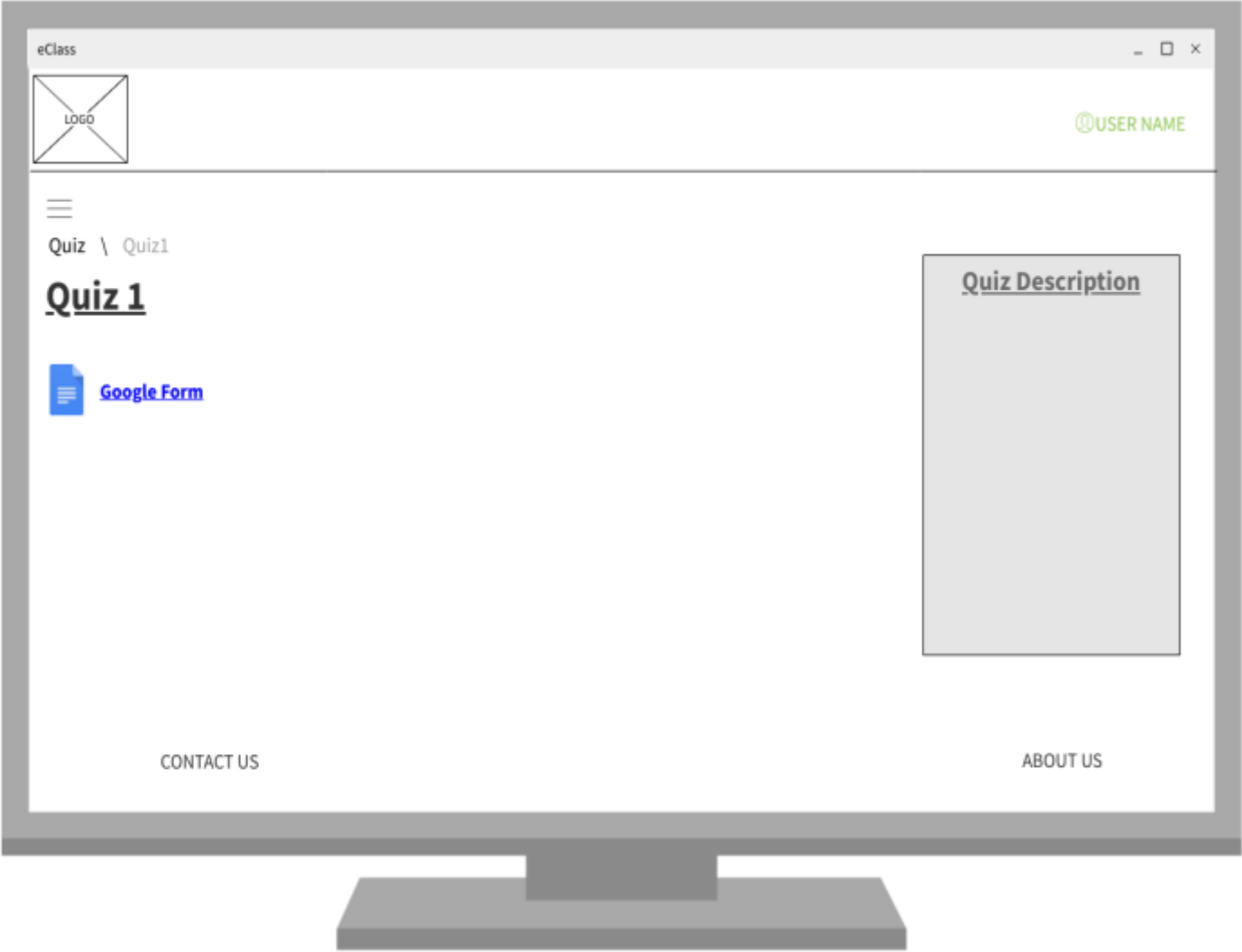


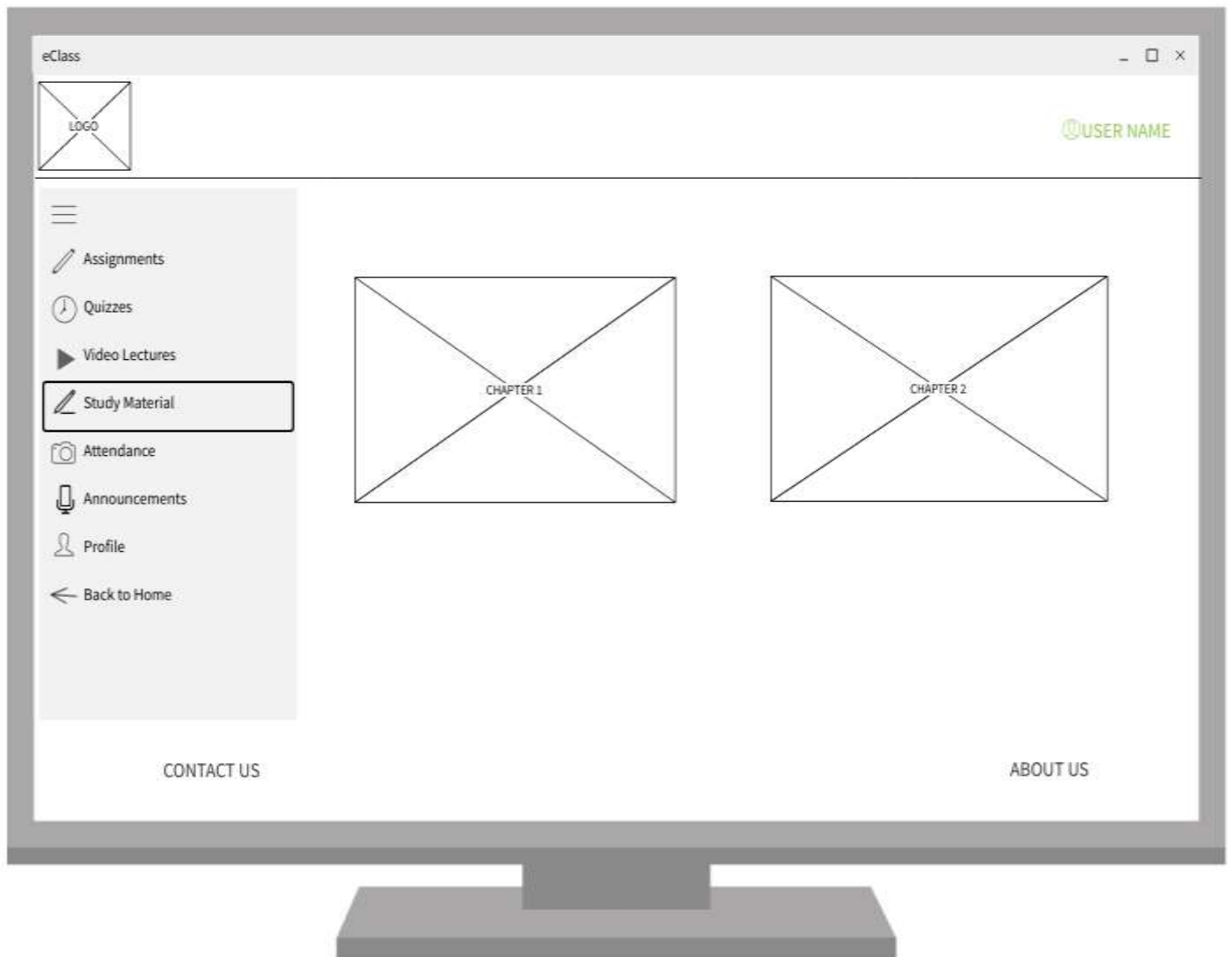




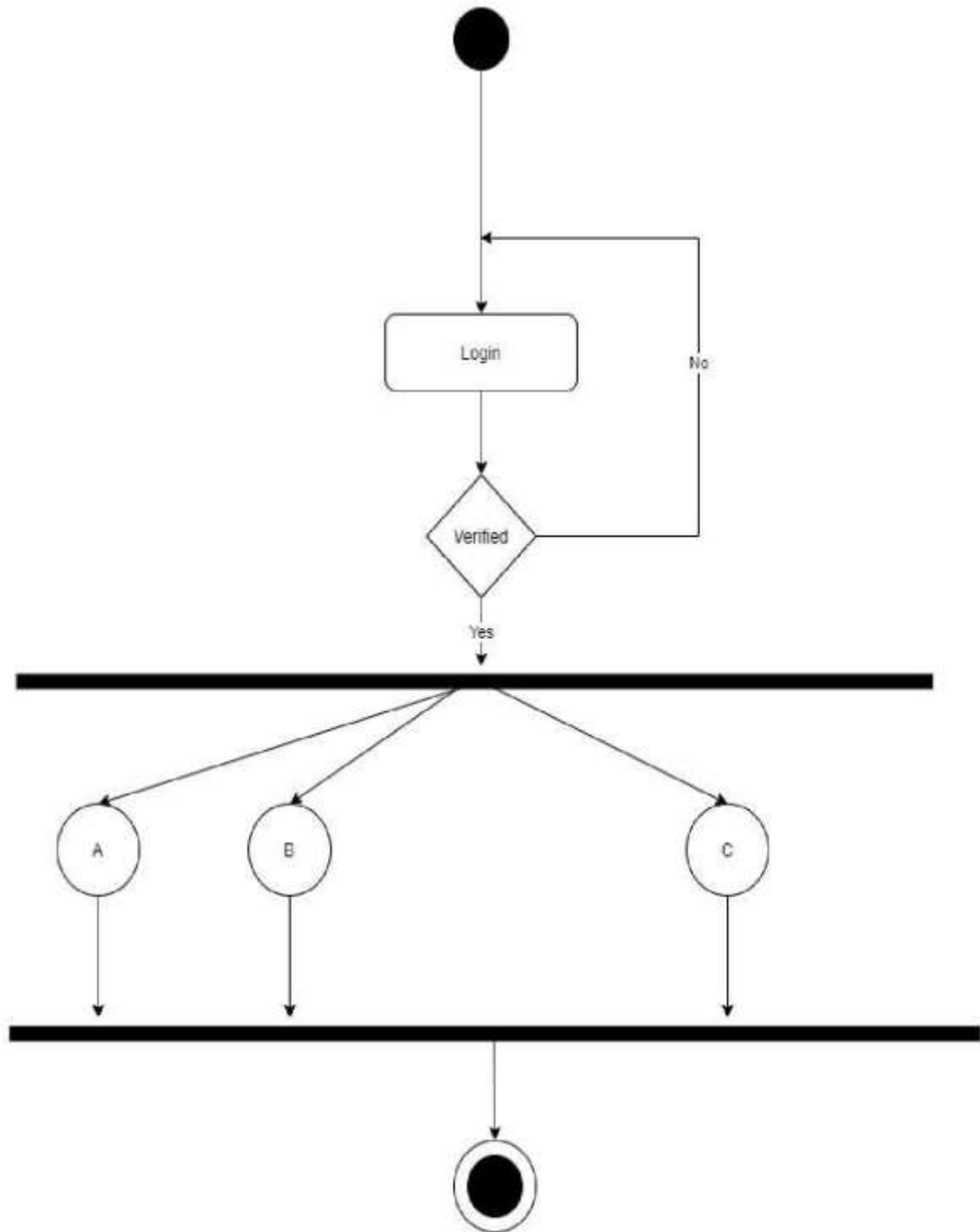






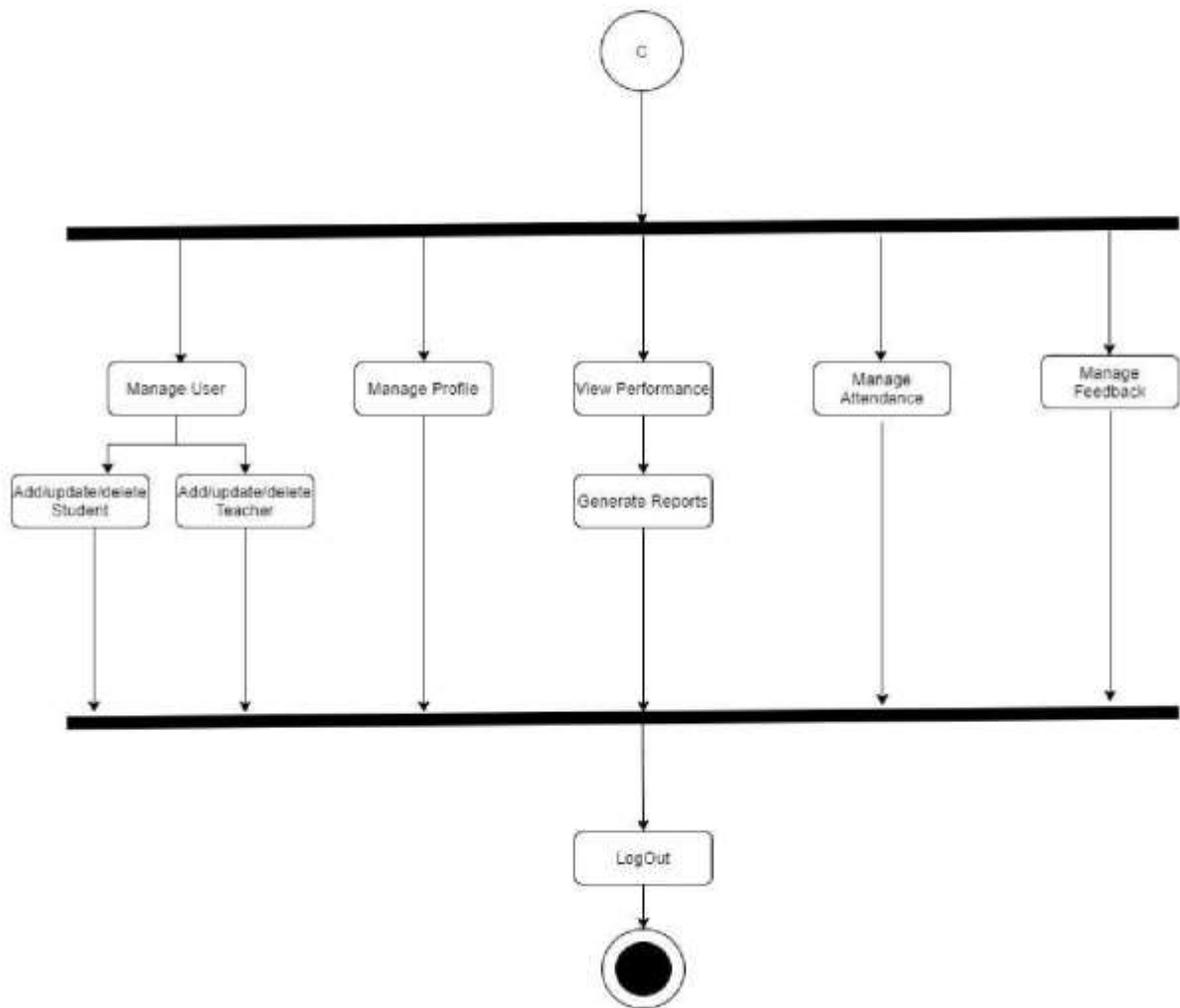


Activity Diagram

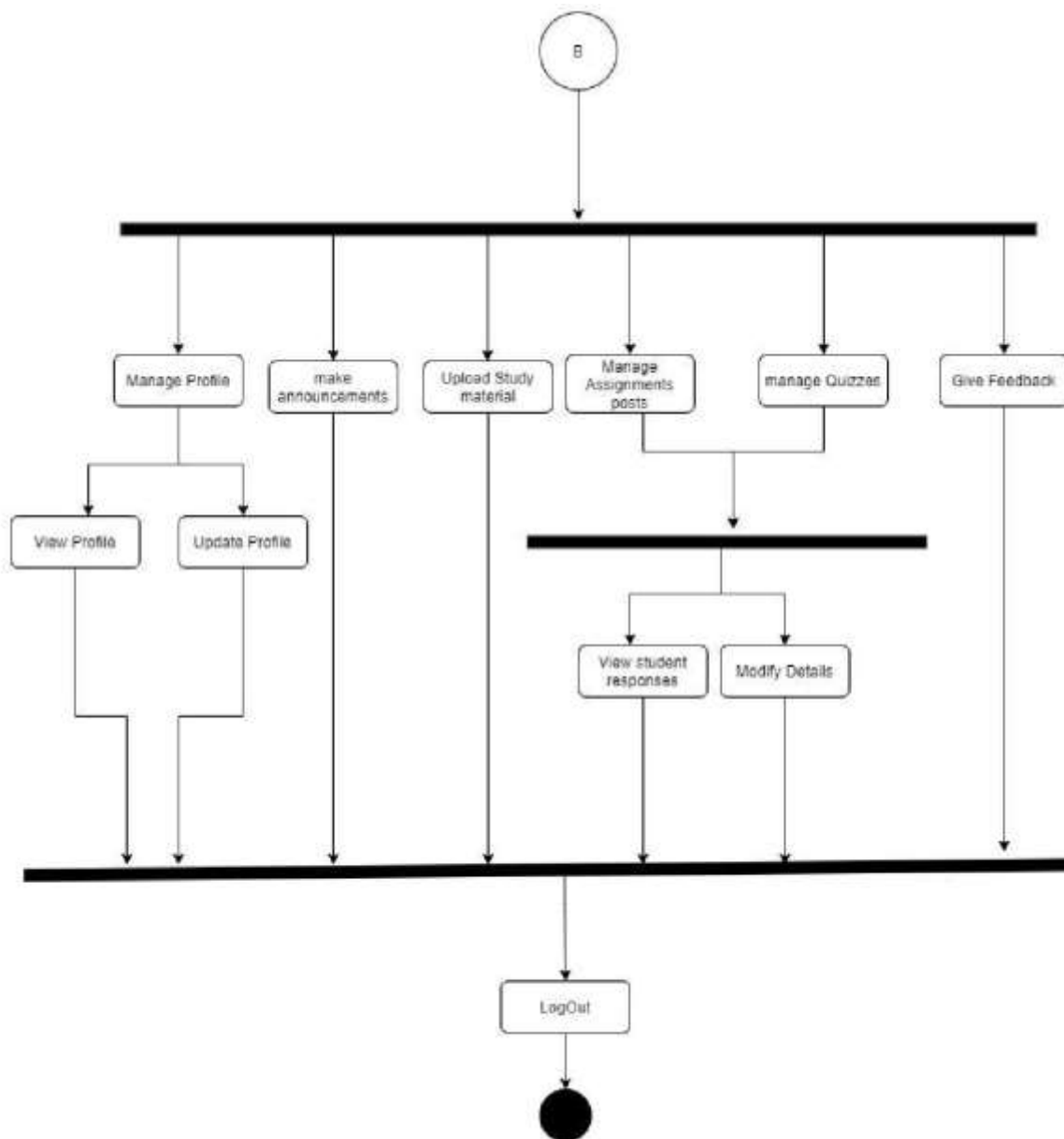


Admin

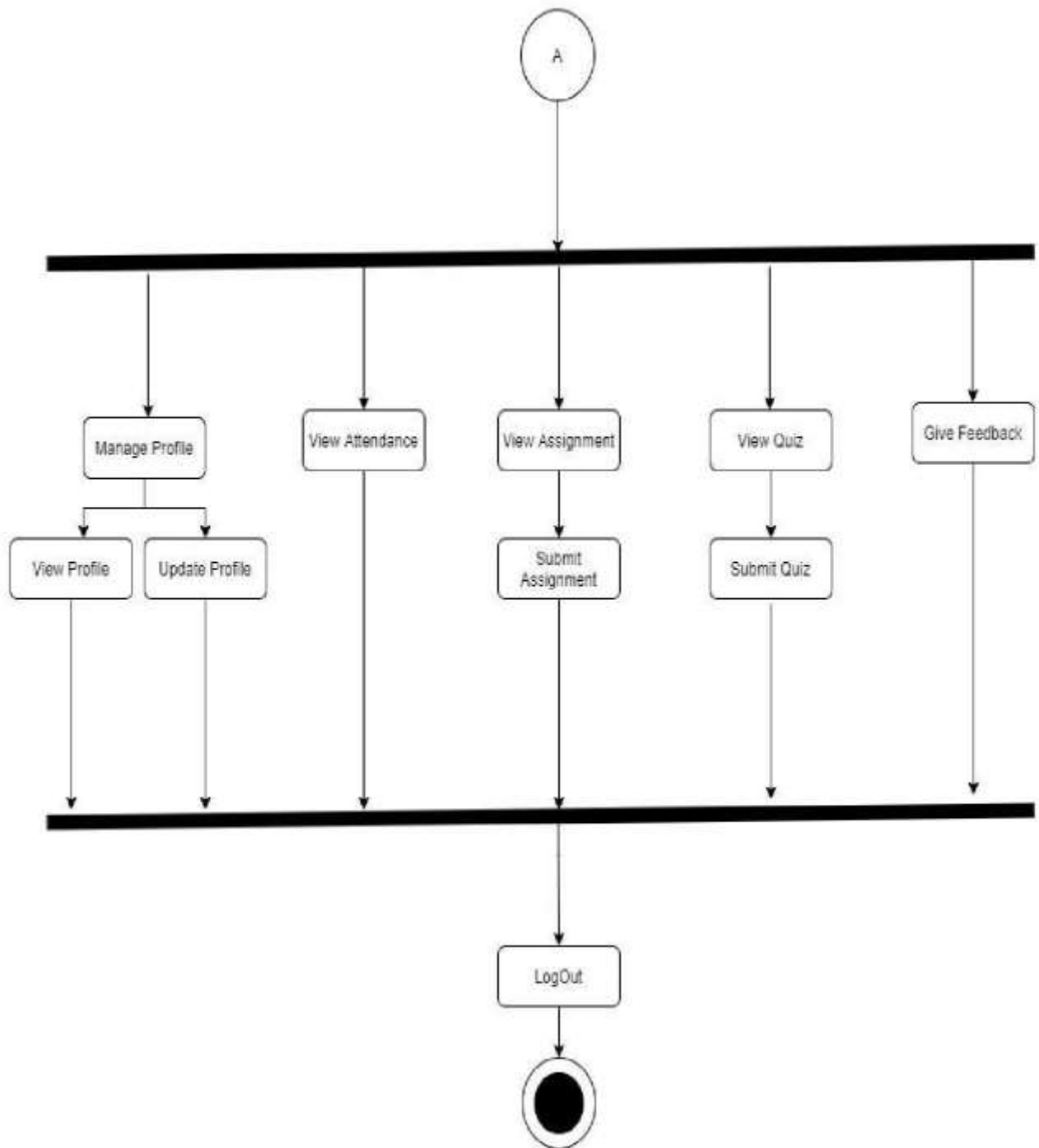
Admin:



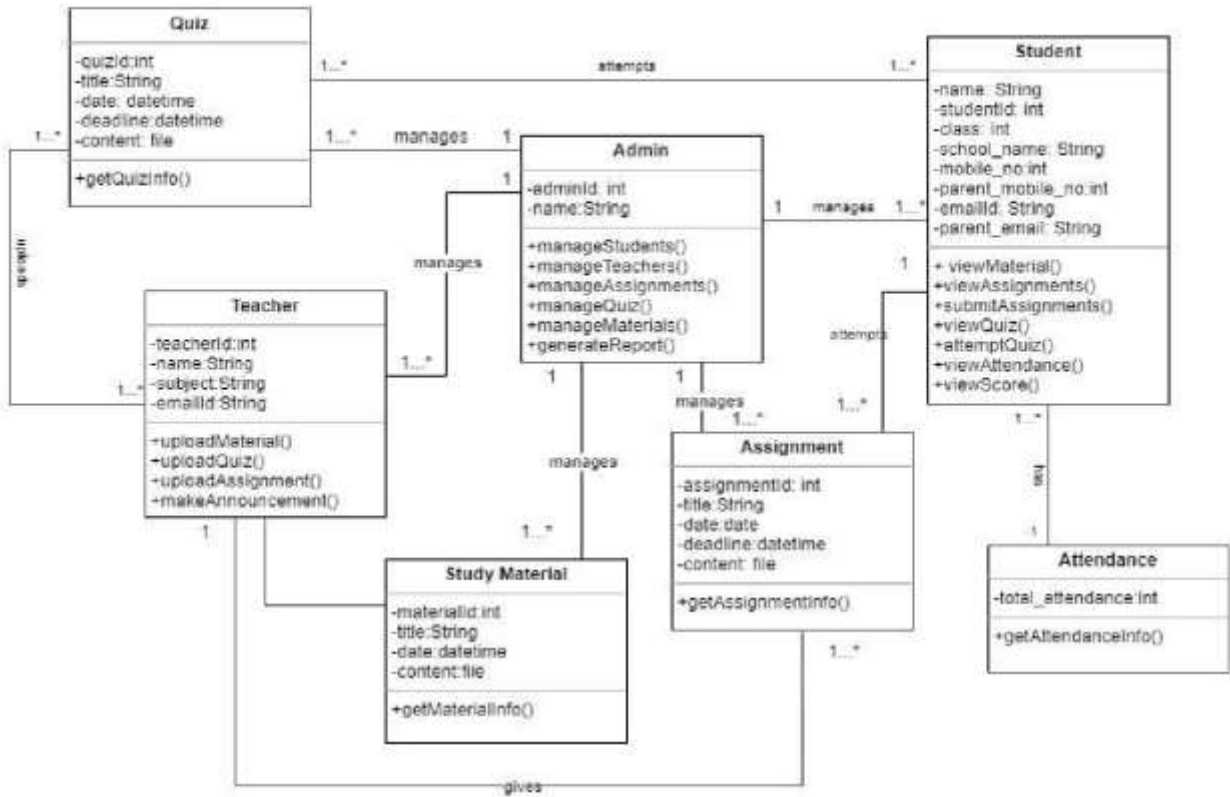
Teacher



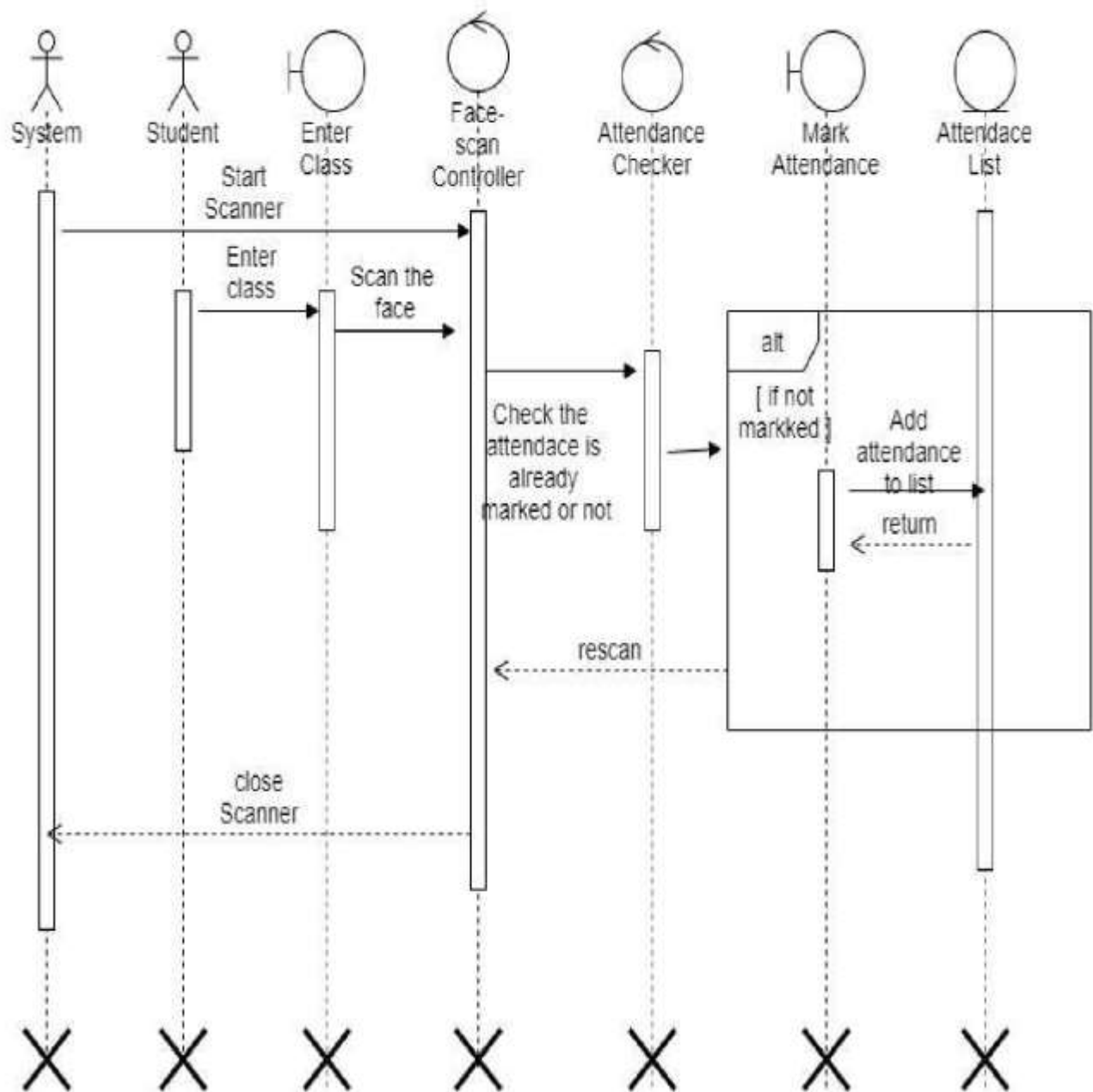
Student

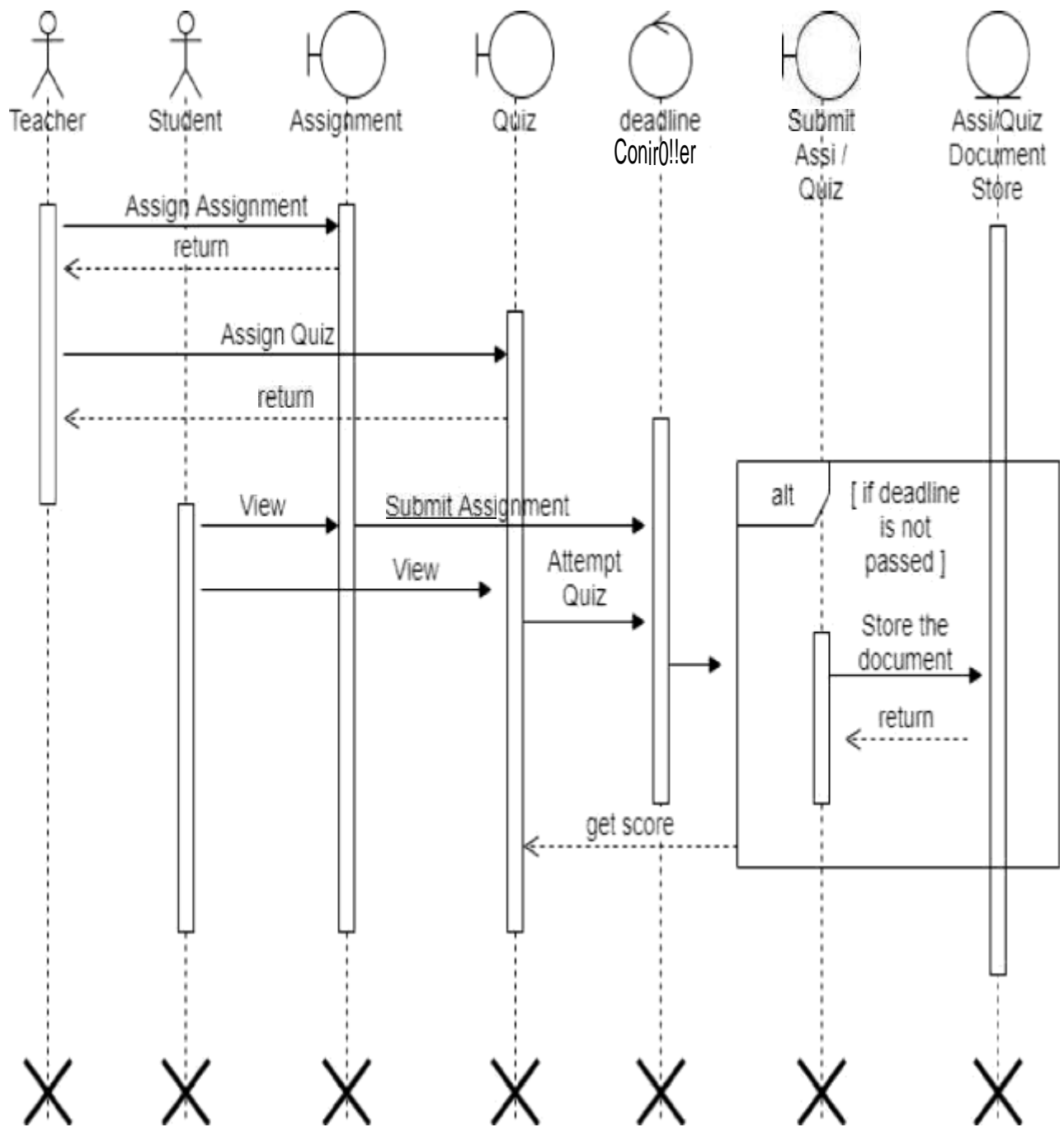


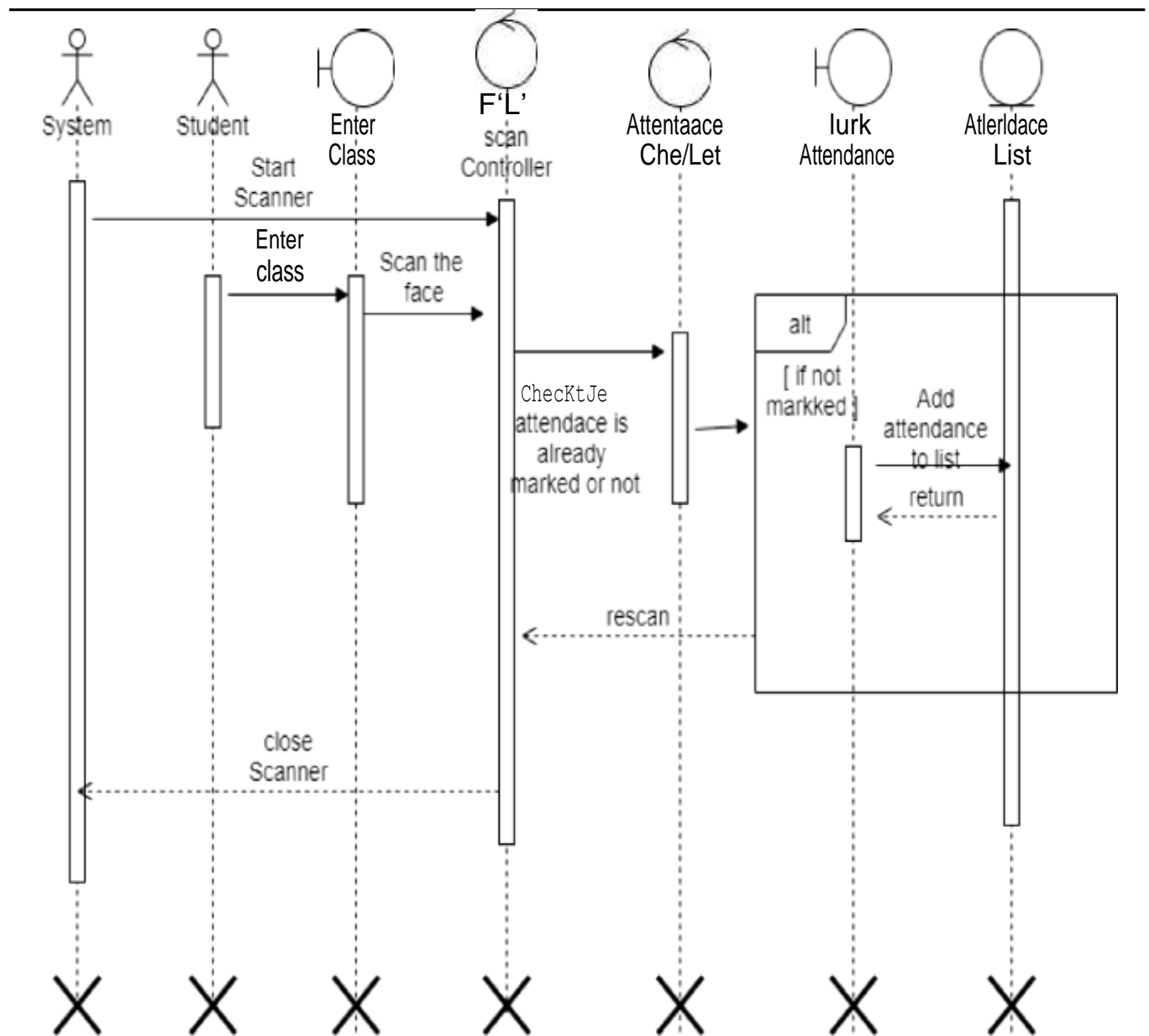
Class Diagram



Sequence Diagram







Entity-Relationship Diagram

Entity-Relationship Diagram

