UET Service Portal

Software Design and Requirement Specification

Session: 2020 – 2024

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Chapter 1

Requirement Specification

1.1 Functional Requirement

Table 1.1: Functional Req

ID	**Name**	Description	Priority
FR-01-01	Student Registration	Students should be able to create an account with a unique username and password.	1
FR-01-02	Authentication	Student must be authenticated through university email.	1
FR-02-01	Quiz and Mid retake	Students should have the option to request a retake for a specific quiz or midterm exam.	1
FR-02-01	Medical Leave Application	Students should be able to submit medical leave applications. Students should provide reasons and expected leave duration.	1
FR-02-03	Application Status	Students should be able view the status of application.	2
FR-02-04	Grade Improvement	Student should be able to submit grade improvement application.	2
FR-02-04	Review Medical leave	Faculty or administration should be able to review and approve/reject medical leave requests.	2
FR-03-01	Admin Approval	Admins and Heads of Departments should have the authority to approve or reject student applications,including course registration ,retake requests, and medical leave.	1

1.2 Non-functional Requirement

Table 1.2: Non-Functional Requirement

ID	Name	Description	Priority
NR-01-01	Security	The Portal should have user authentication and authorization mechanisms to prevent unauthorized access.	2
NR-01-02	Usability	The portal should have an intuitive and user-friendly interface for easy navigation. .	1
NR-01-03	Performance	The portal should be responsive and capable of handling a large number of concurrent users.	1
NR-01-04	Reliability	Stronger the internet connection stronger is the performance of the system. System will also be optimized for slower connection.	3

Chapter 2

Design specification

2.1 Wireframes

FIGURE 2.1: Sign-up

FIGURE 2.2: Login

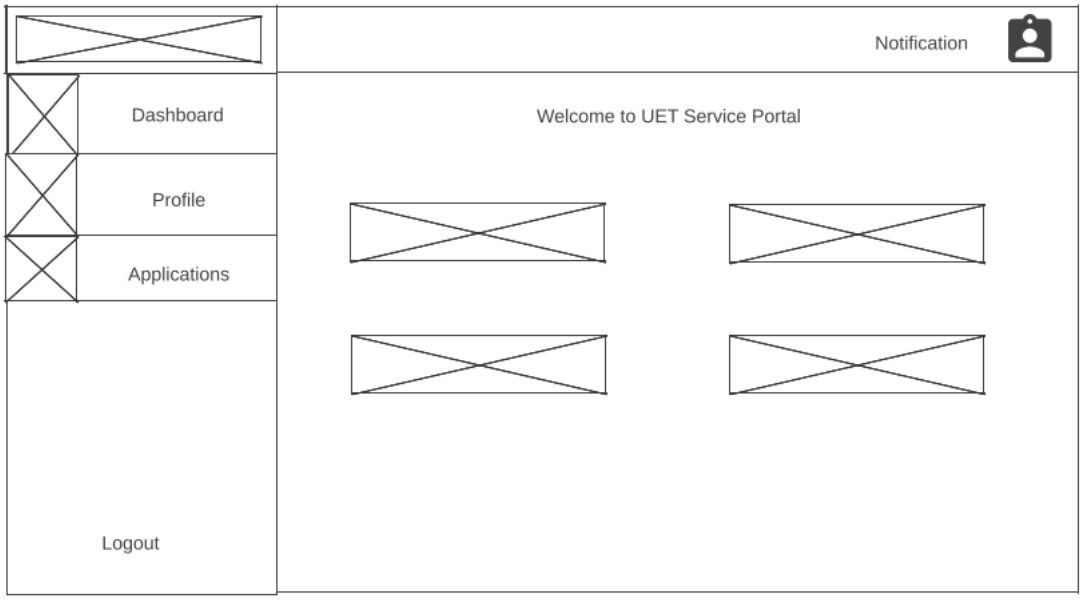

FIGURE 2.3: Dashboard

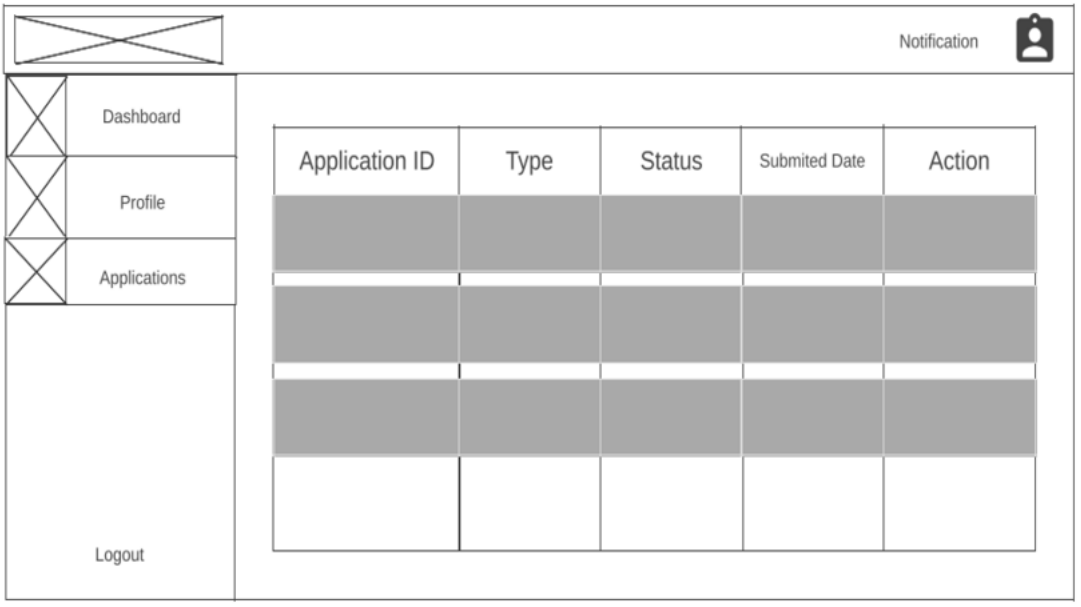

FIGURE 2.4: Application dataTable

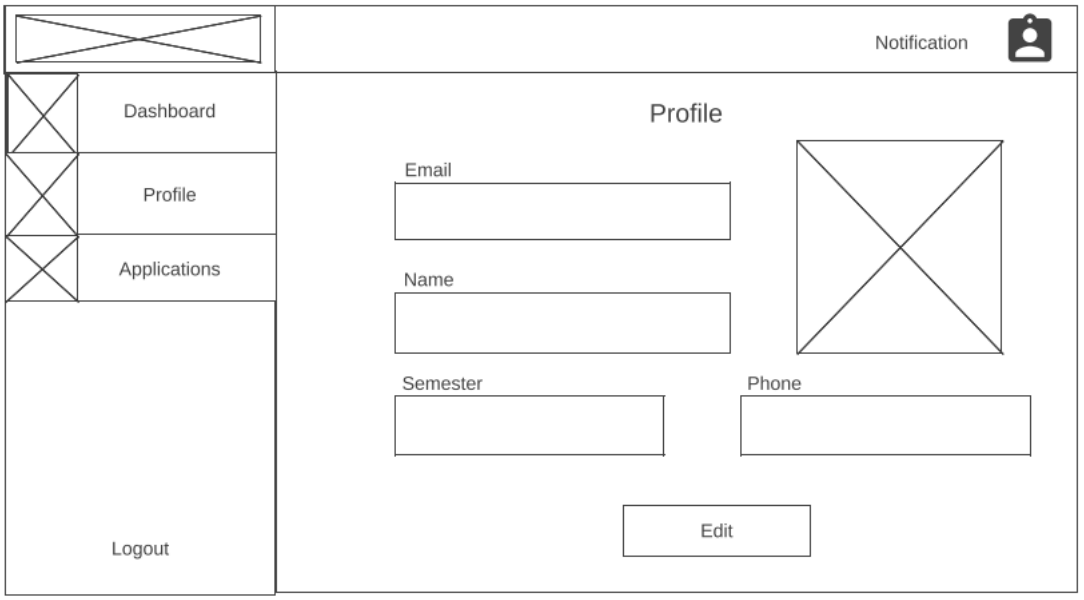

FIGURE 2.5: Profile page

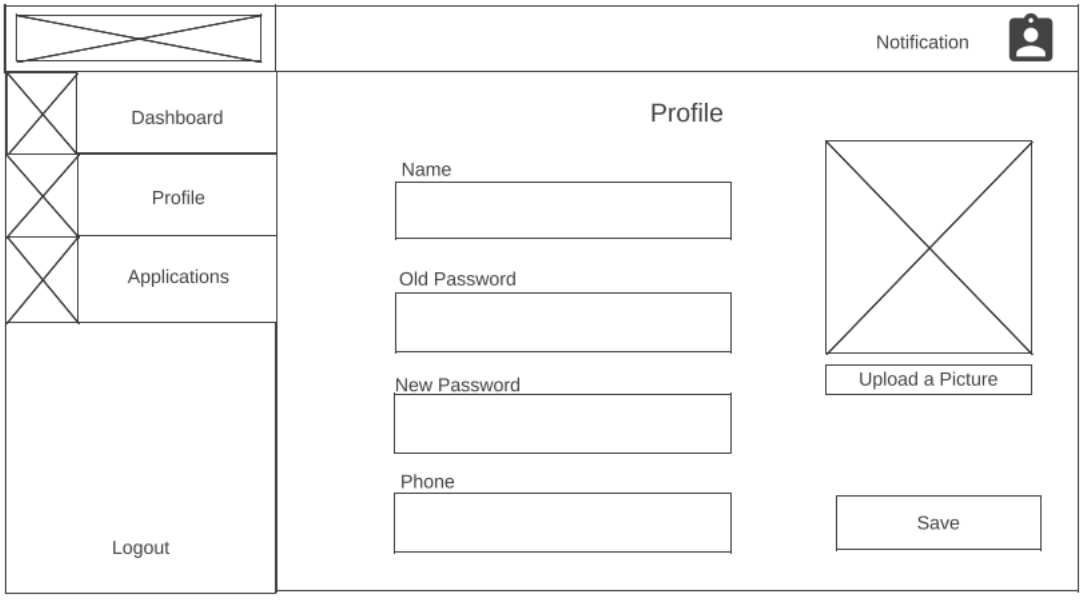

FIGURE 2.6: Edit Profile

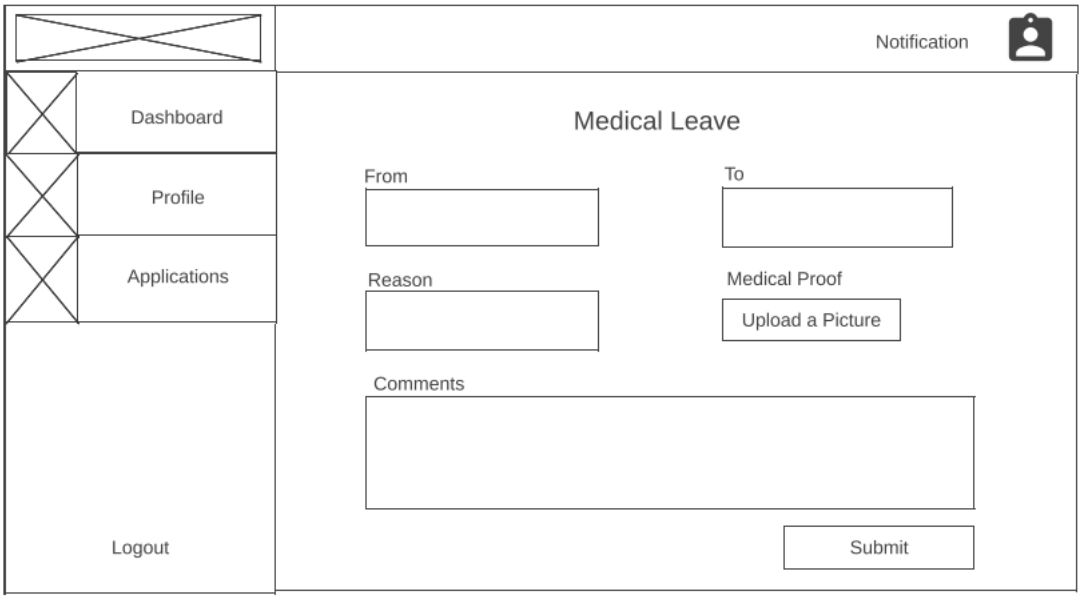

FIGURE 2.7: Medical Leave

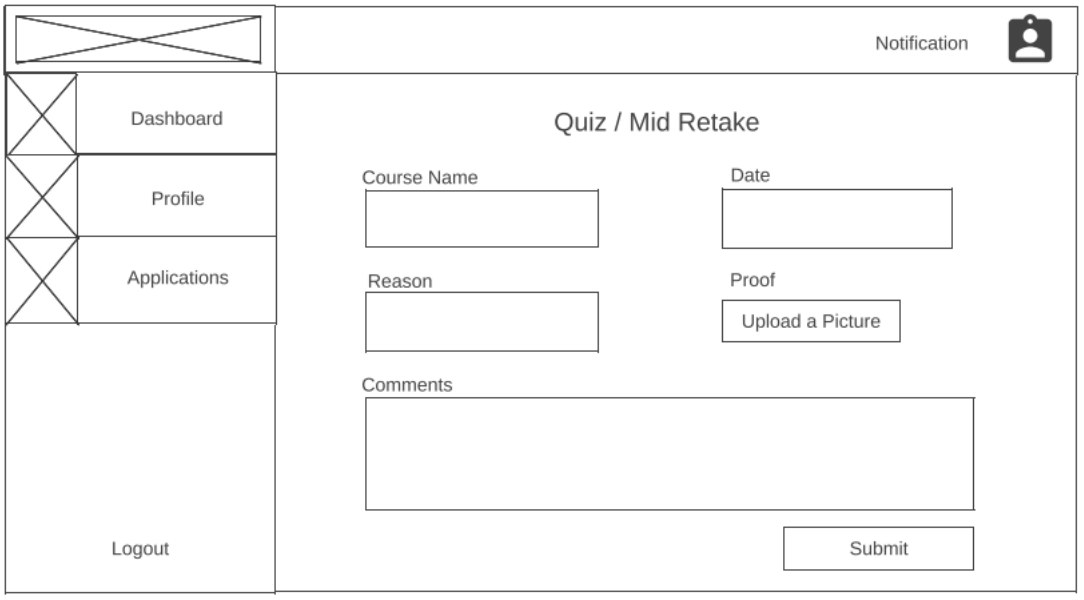

FIGURE 2.8: Quiz/mid retake

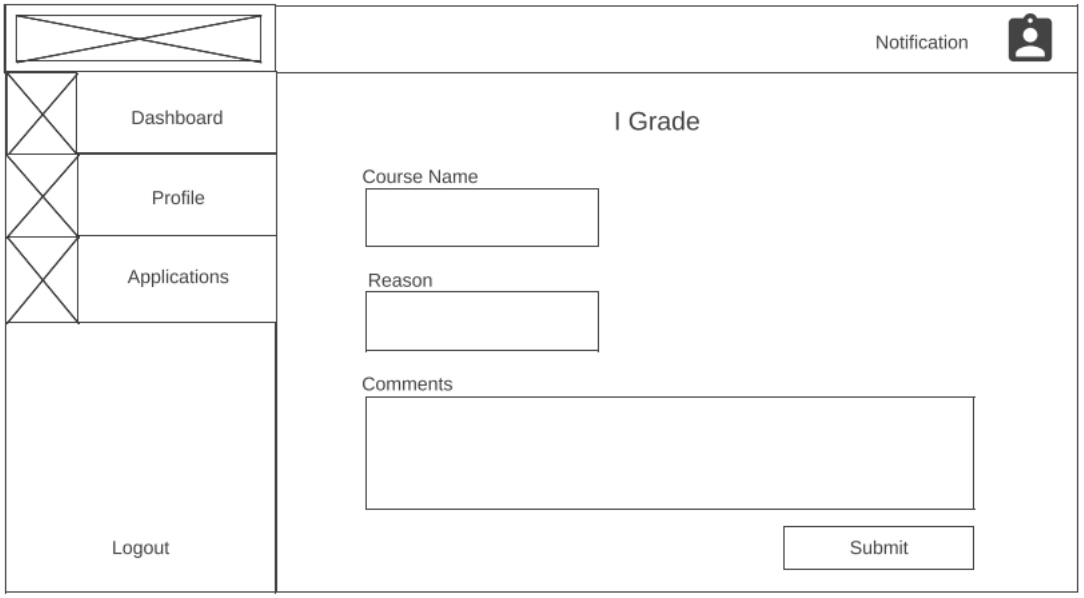

FIGURE 2.9: I-grade clearance

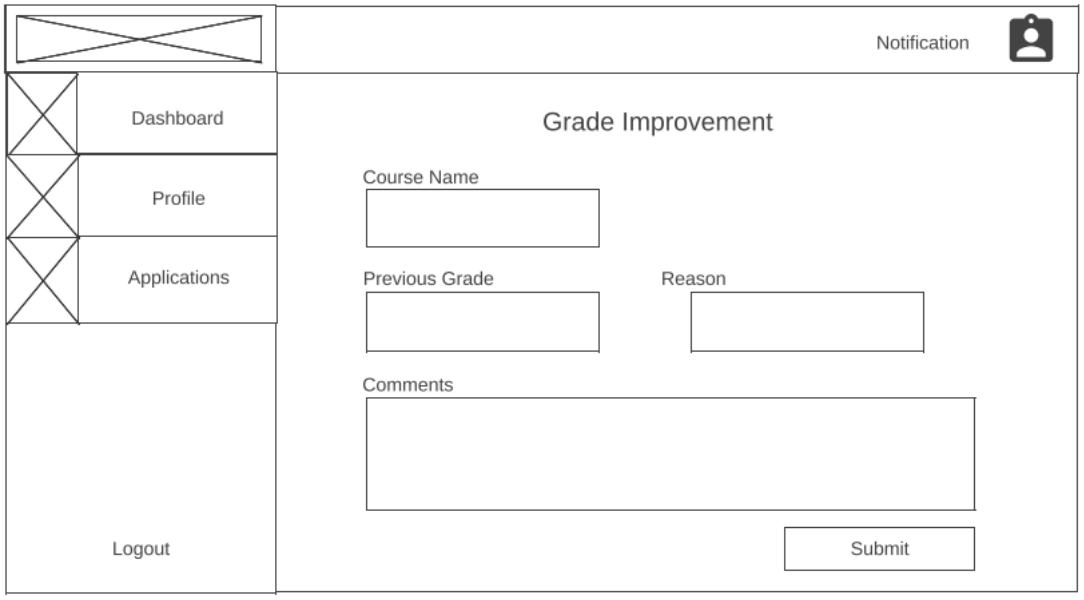

FIGURE 2.10: Grade Improvement

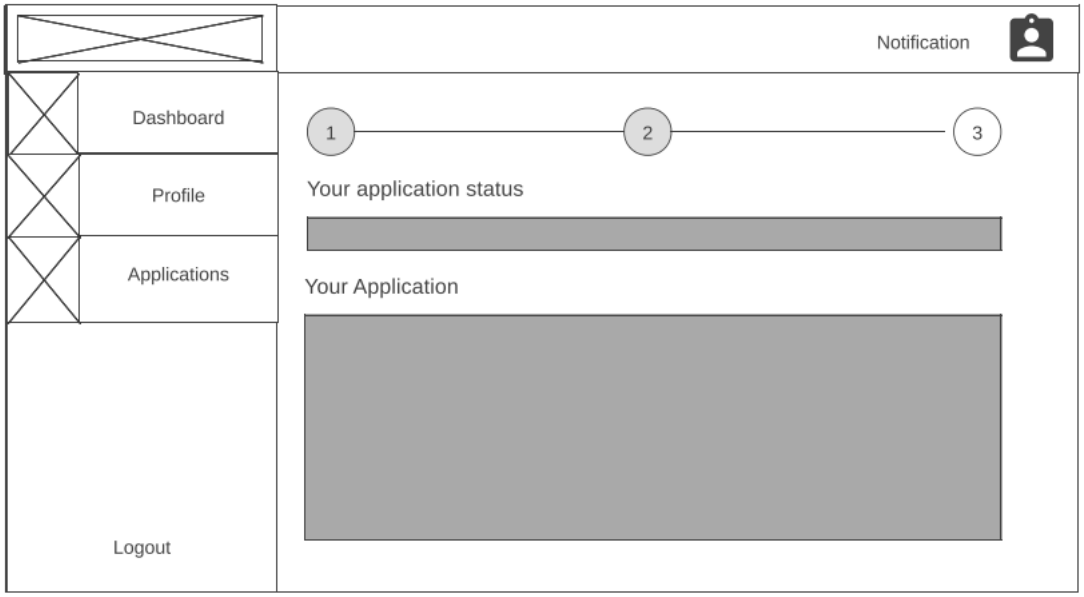

FIGURE 2.11: Application status

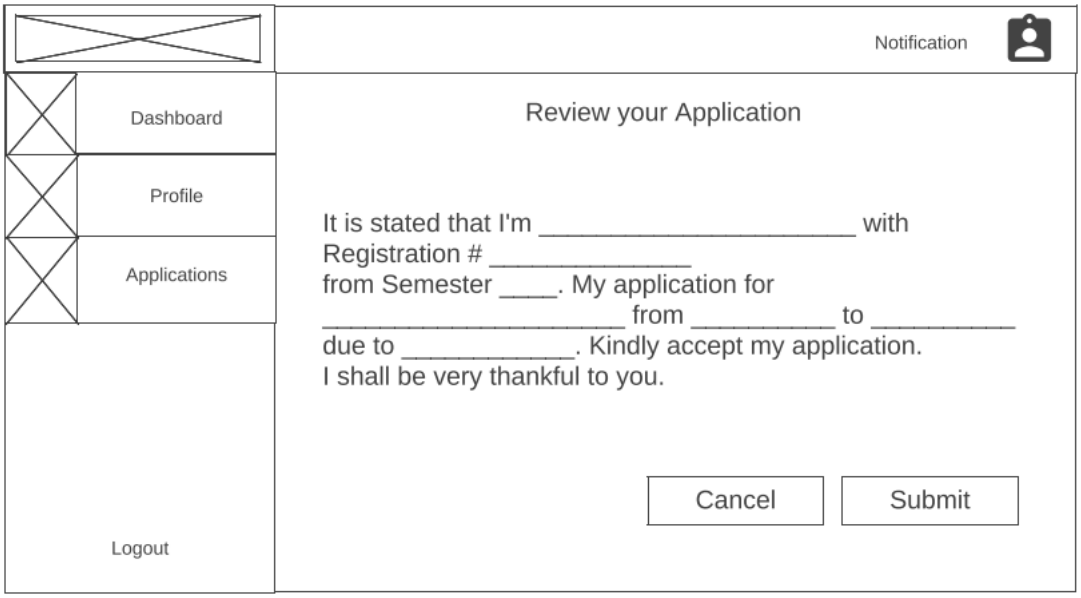

FIGURE 2.12: Review Application

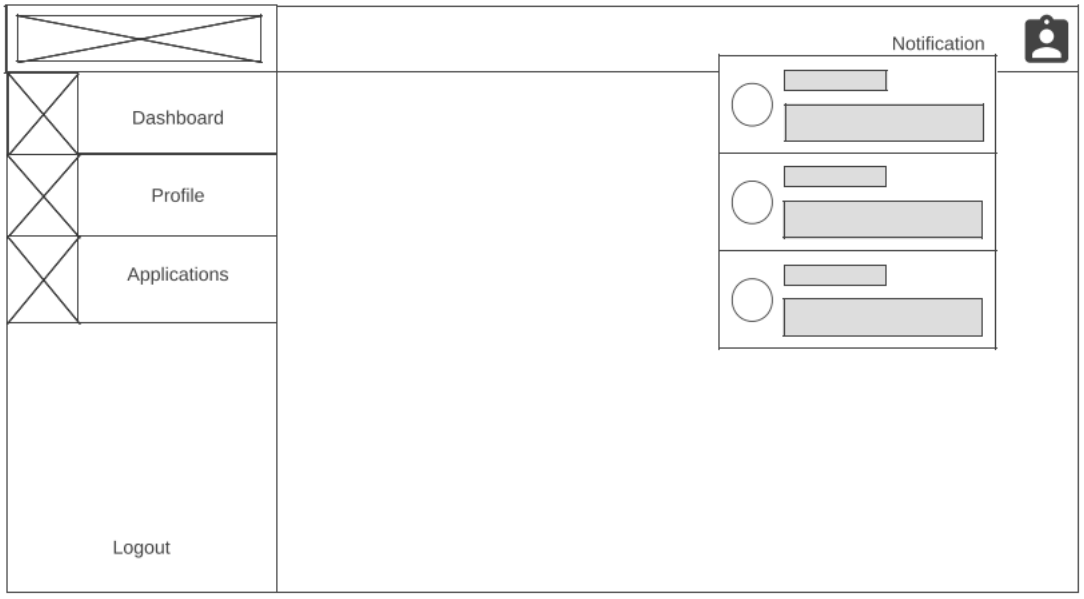

FIGURE 2.13: Notifications

FIGURE 2.14: Admin Dashboard

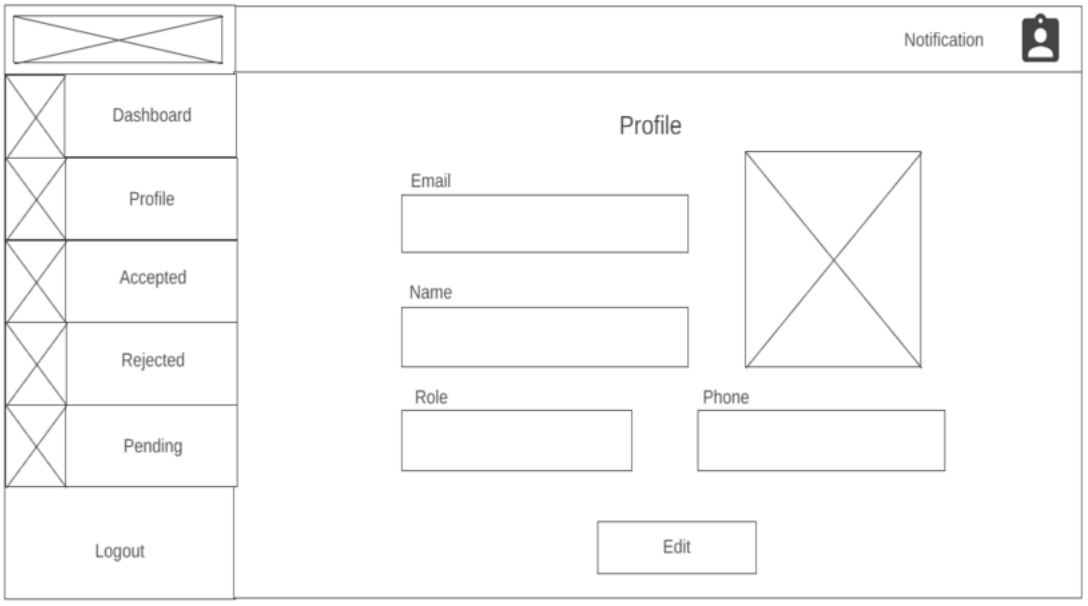

FIGURE 2.15: Admin Profile page

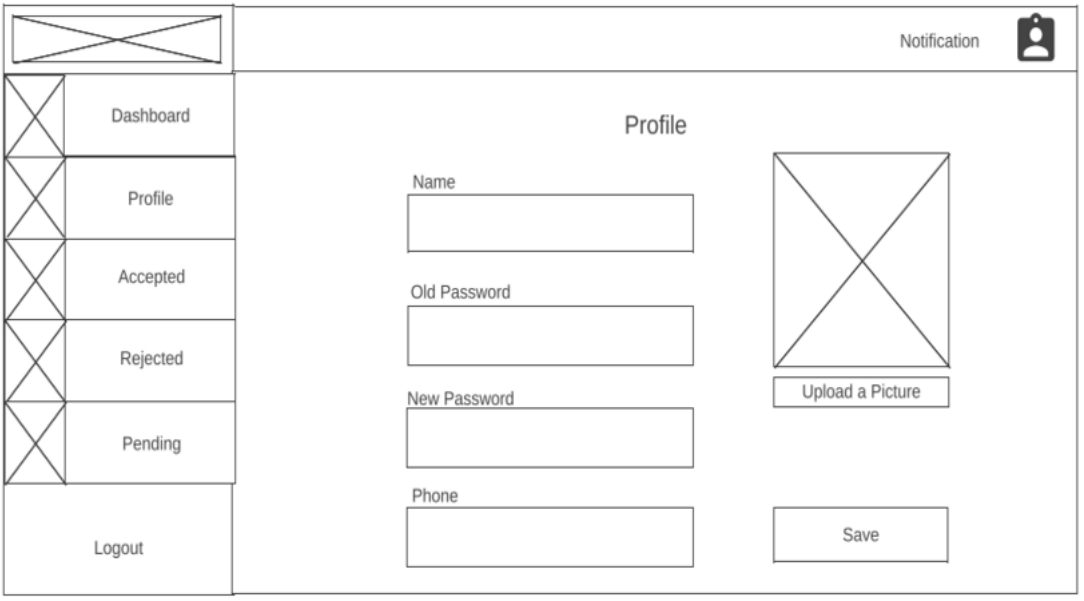

FIGURE 2.16: Admin edit profile page

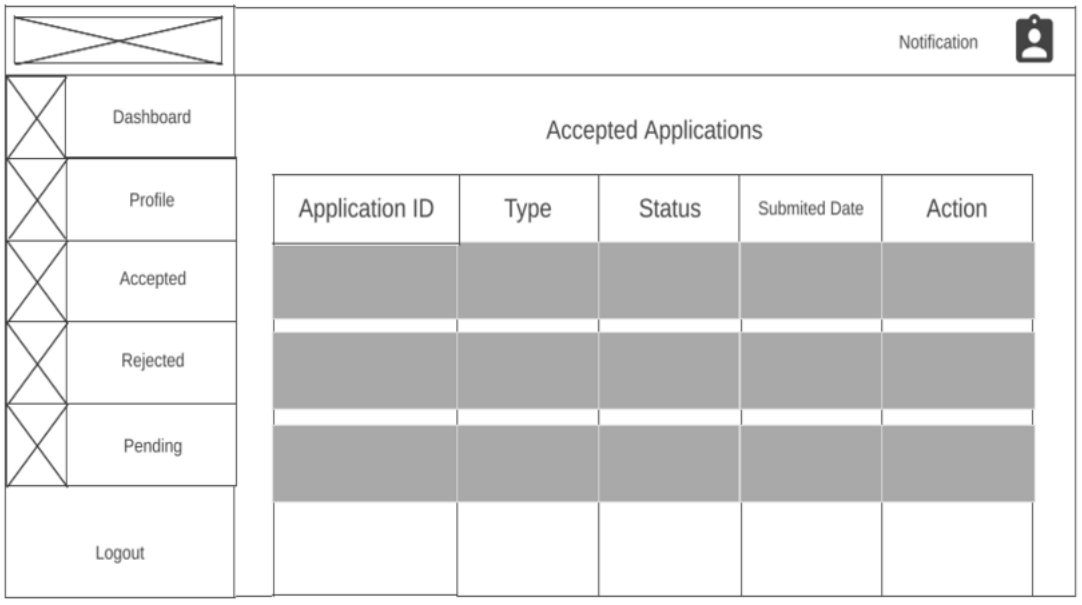

FIGURE 2.17: Admin application data list page

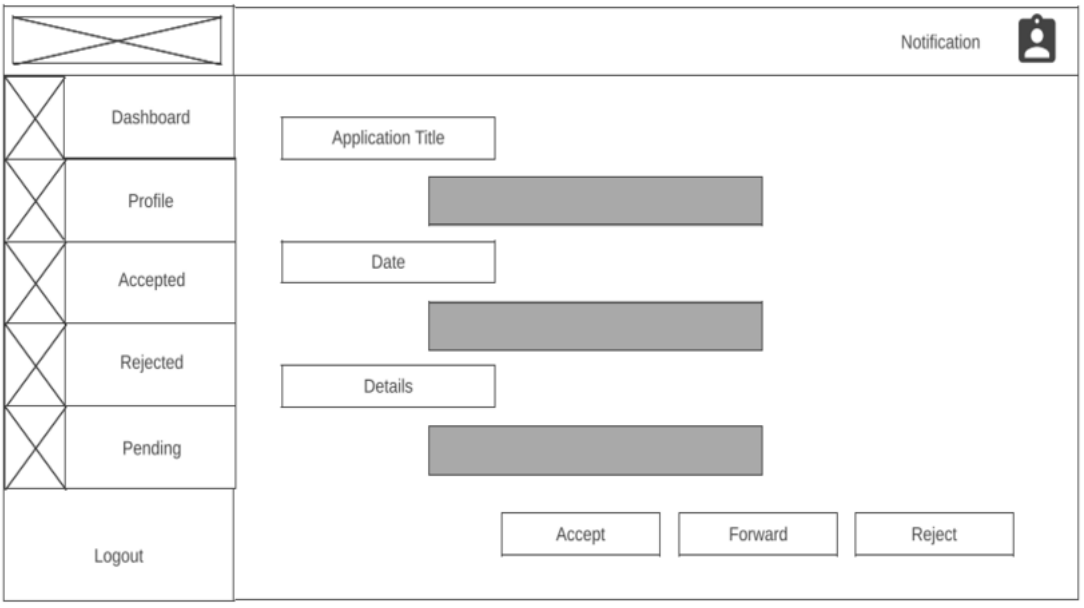

FIGURE 2.18: Admin application details

2.2 Use case

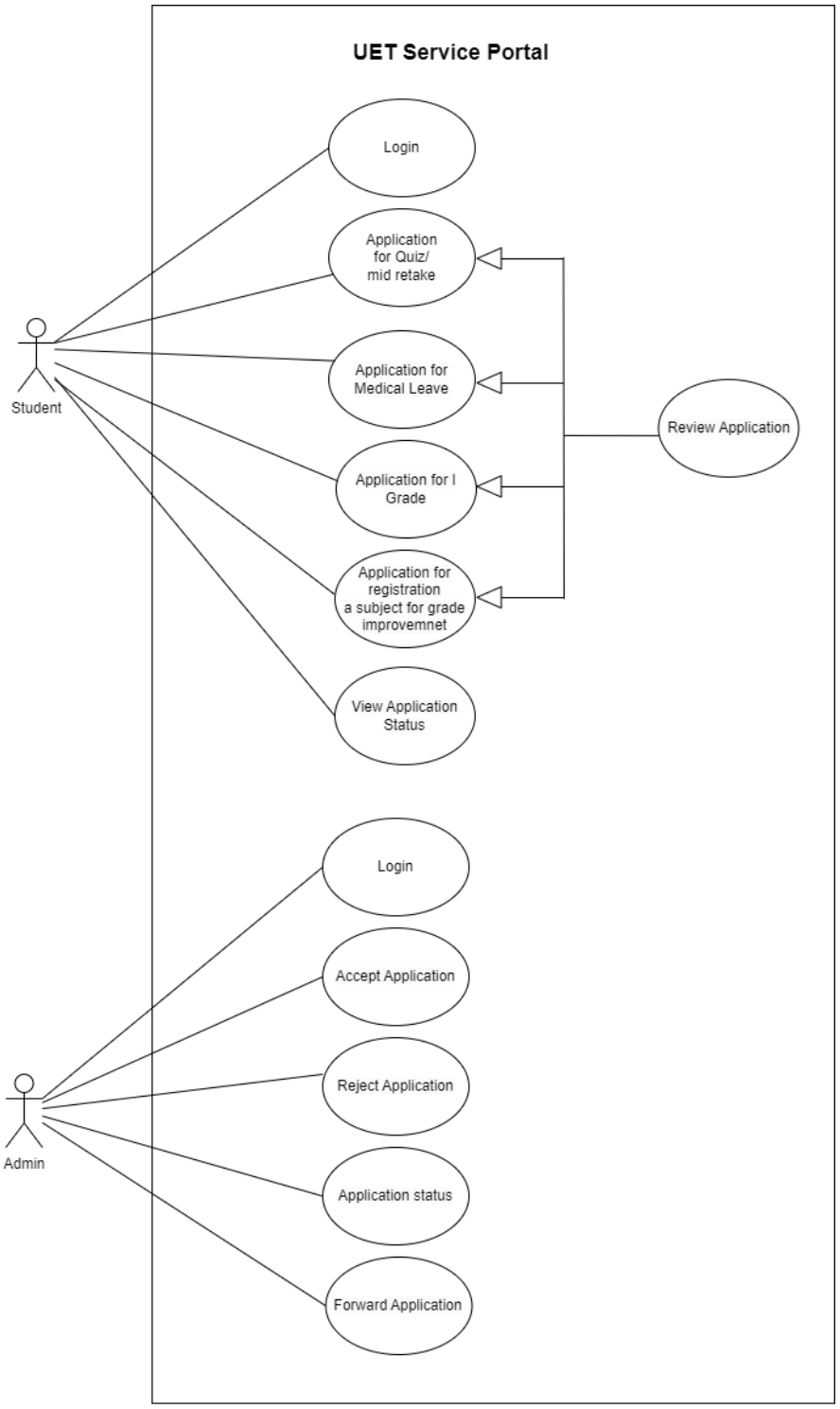

FIGURE 2.19: WholeSystem

2.2.1 Student Registration

Table 2.1: Student Registration

Use Case	**Student Registration**
ID	1
Use Case Description	This use case involves the process of a student registering on the university service portal to access various services.
Actors	Student.
Trigger	Student accesses the university service portal for the first time.
Pre-Condition	Student is not registered on the portal.
Post-Condition	Student registered on the portal.
Main Scenario	Student navigates to the university service portal. Student selects the "Register" option.Student sets up a username and password.
Extension	If entered information is invalid or incomplete: Portal displays an error message. Student revises the information and resubmits the form.

2.2.2 Quiz and Mid retake

Table 2.2: Quiz and Mid retake

Use Case	**Quiz and Mid retake**
ID	2
Use Case Description	This use case involves a student requesting a retake of a quiz or midterm exam. .
Actors	Student.
Trigger	Student decides to request a retake.
Pre-Condition	Student is logged in and enrolled in the course.
Post-Condition	Application submitted succesfully.
Main Scenario	Student navigates to the course page. Student selects the option to request a retake for a specific quiz or midterm.
Extension	If the request is rejected: Portal notifies the student with the reason for rejection.

2.2.3 Medical leave Application

Table 2.3: Medical leave Application

Use Case	**Medical leave Application**
ID	3
Use Case Description	This use case involves a student submitting a medical leave application.
Actors	Student.
Trigger	Student decides to apply for medical leave.
Pre-Condition	The student is logged in on the portal.
Post-Condition	Application Submitted Successfully.
Main Scenario	Student selects the option to apply for medical leave. Student attaches relevant medical documents if required.
Extension	If additional documentation is required: The portal notifies the student to submit the necessary documents. .

2.2.4 Student Application Status Check

Table 2.4: Student Application Status Check

Use Case	**Student Application Status Check**
ID	4
Use Case Description	This use case allows students to view the status of their submitted applications on the portal.
Actors	Student.
Trigger	Student accesses the application status section.
Pre-Condition	Any application should be submitted.
Post-Condition	Application status checked.
Main Scenario	Student logs into the portal. Student navigates to the "Application Status" section. The Portal displays a list of the student's submitted applications along with their current statuses.
Extension	If an application's status changes: The portal updates the status based on admin/HOD decisions. A student is notified of the updated status. Student revises the information and resubmits the form.

2.2.5 Grade Improvement Application

Table 2.5: Grade Improvement Application

Use Case	**Grade Improvement Application**
ID	5
Use Case Description	This use case involves a student submitting an application to improve their grades for a specific course.
Actors	Student.
Trigger	Student decides to apply for grade improvement.
Pre-Condition	Must to graded before.
Post-Condition	Application submitted.
Main Scenario	Student navigates to the "Grade Improvement" section. Student selects a course for which they want to improve their grade. Student submits the application for grade improvement.
Extension	If the grade improvement application is rejected: Portal notifies the student with the reason for rejection. Student revises the information and resubmits the form.

2.2.6 Student Application Review

Table 2.6: Student Application Review

Use Case	**Student Application Review**
ID	6
Use Case Description	This use case involves a student reviewing and editing their previously submitted applications before they are reviewed by administrators or HODs.
Actors	Student.
Trigger	Student accesses the application review section after submitting an application.
Pre-Condition	Application should be filled and proceeded.
Post-Condition	Application submitted.
Main Scenario	The student navigates to the "Application Review" section. The portal shows the details of the application. Students can edit or update the application details. The student submits the edited application for re-review.
Extension	If the application is already under review: The Portal displays a message indicating that changes cannot be made while the application is being reviewed.

2.2.7 Admin/HOD Approval of Student Applications

Table 2.7: Admin/HOD Approval of Student Applications

Use Case	**Admin/HOD Approval of Student Applications**
ID	6
Use Case Description	This use case involves administrators and HODs reviewing and making decisions on various student applications submitted on the portal.
Actors	Administrator, Head of Department (HOD) .
Trigger	An application for course registration, quiz/retake, or medical leave is submitted by a student.
Pre-Condition	An application has been submitted by a student.
Post-Condition	Application Accepted/Rejected
Main Scenario	Admin/HOD logs into the portal. Admin/HOD navigates to the "Applications" section. The Portal displays a list of pending applications. Admin/HOD selects an application to review. Portal shows the details of the application, including student information and reasons. Admin/HOD approves or rejects the application based on the provided information. If approved, portal updates the status of the application and notifies the student. If rejected, the portal updates the status, notifies the student, and may require adding a rejection reason.
Extension	If more information is required, the portal notifies the student.

2.3 Activity Diagram

2.3.1 Admin Flow

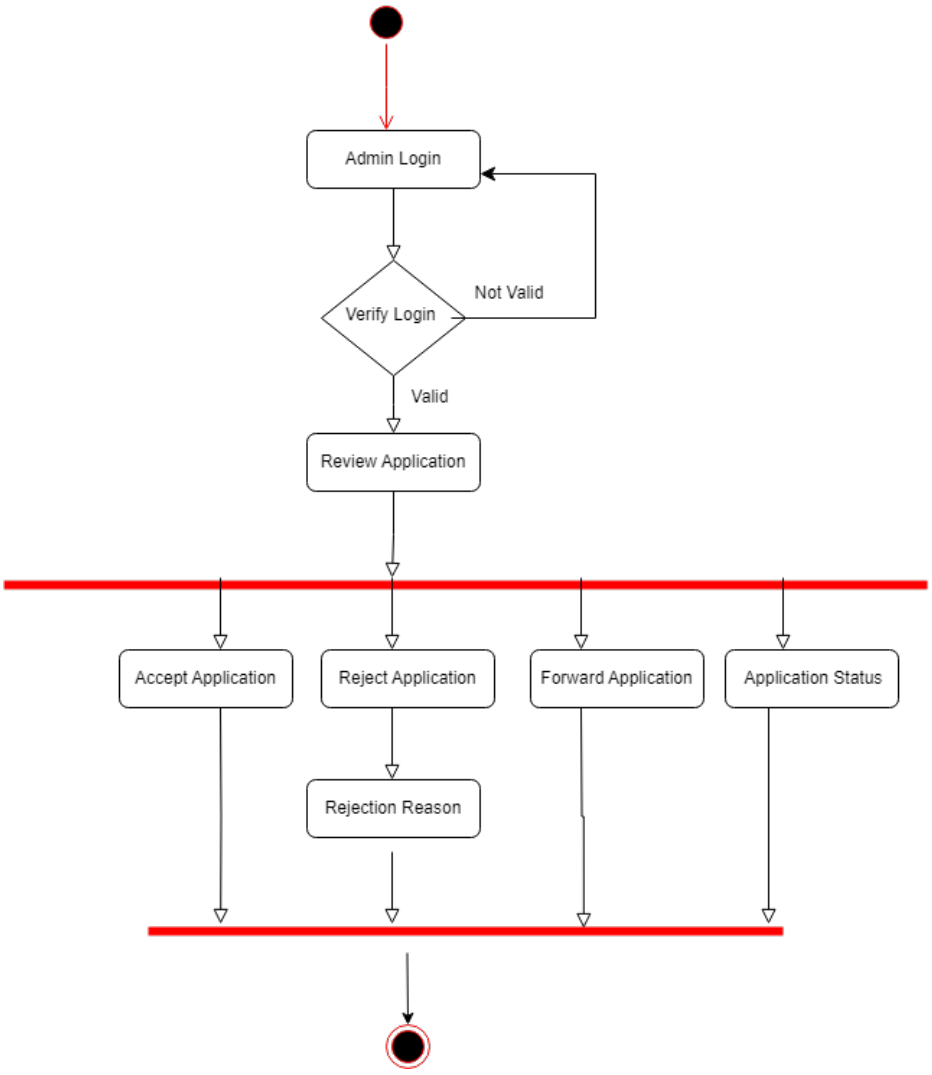

FIGURE 2.20: Activity Diagram

2.3.2 User Flow

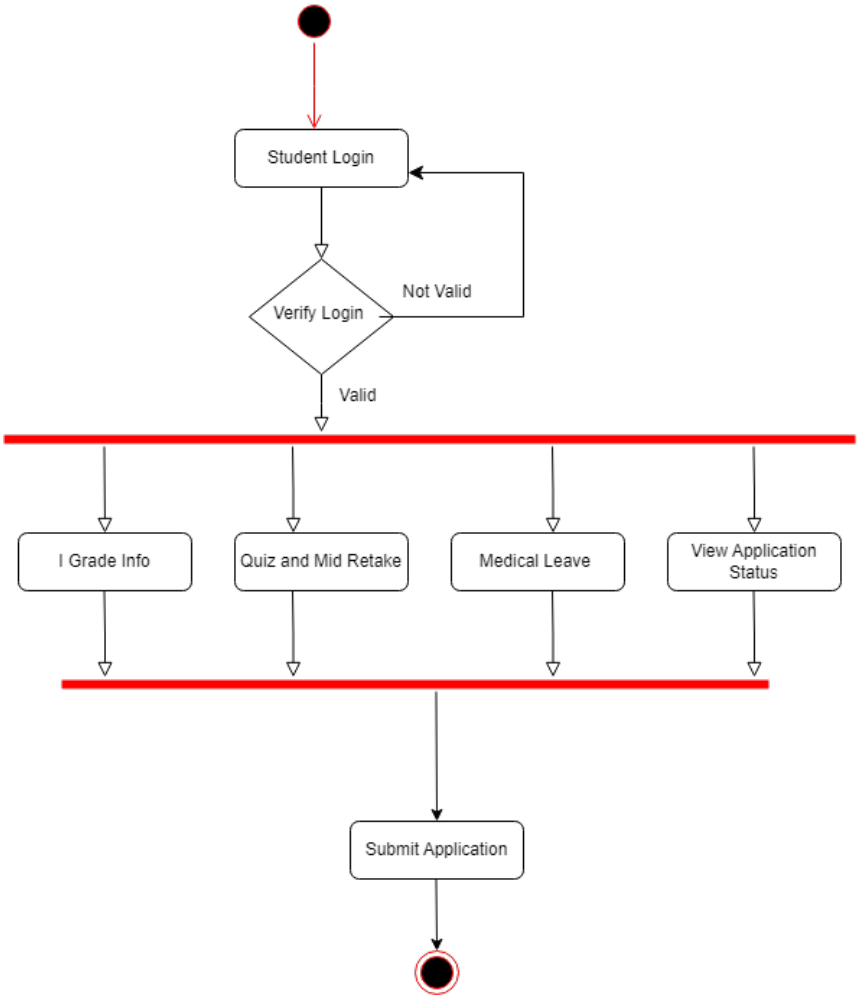

FIGURE 2.21: Activity Diagram

2.4 State Diagram

2.4.1 Student Flow

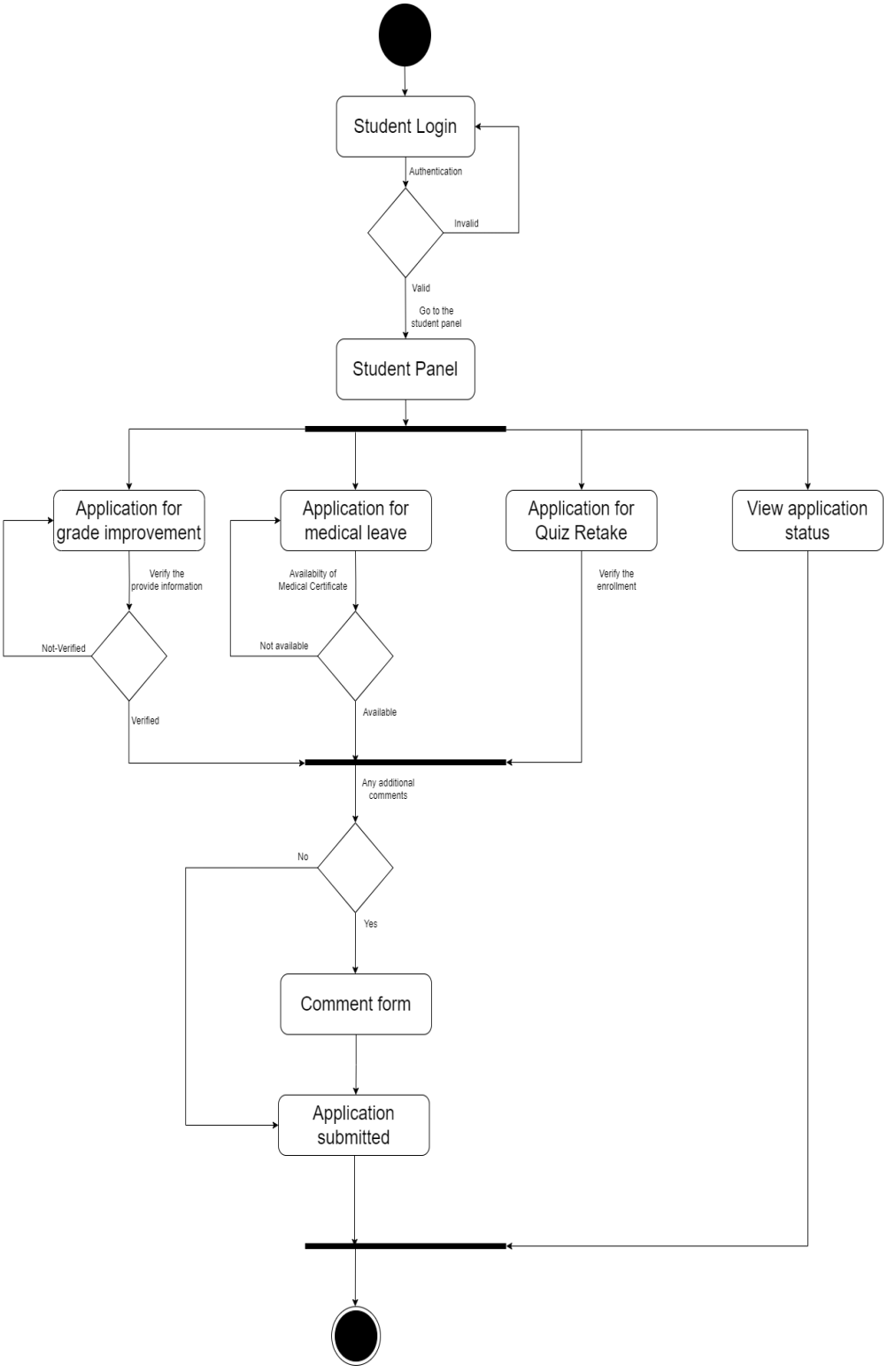

FIGURE 2.22: State Diagram

2.4.2 Admin Flow

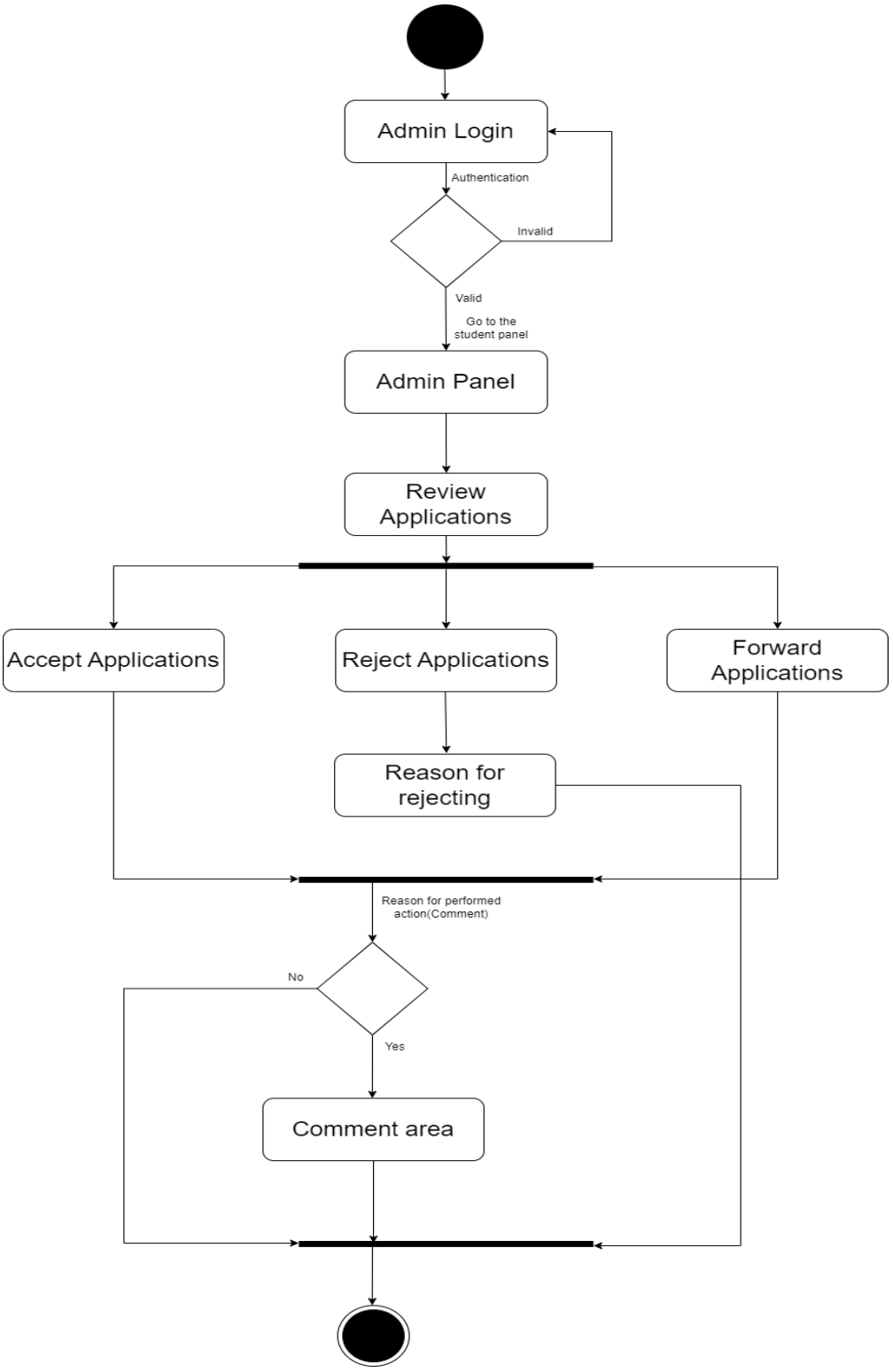

FIGURE 2.23: State Diagram

2.5 Sequence Diagram

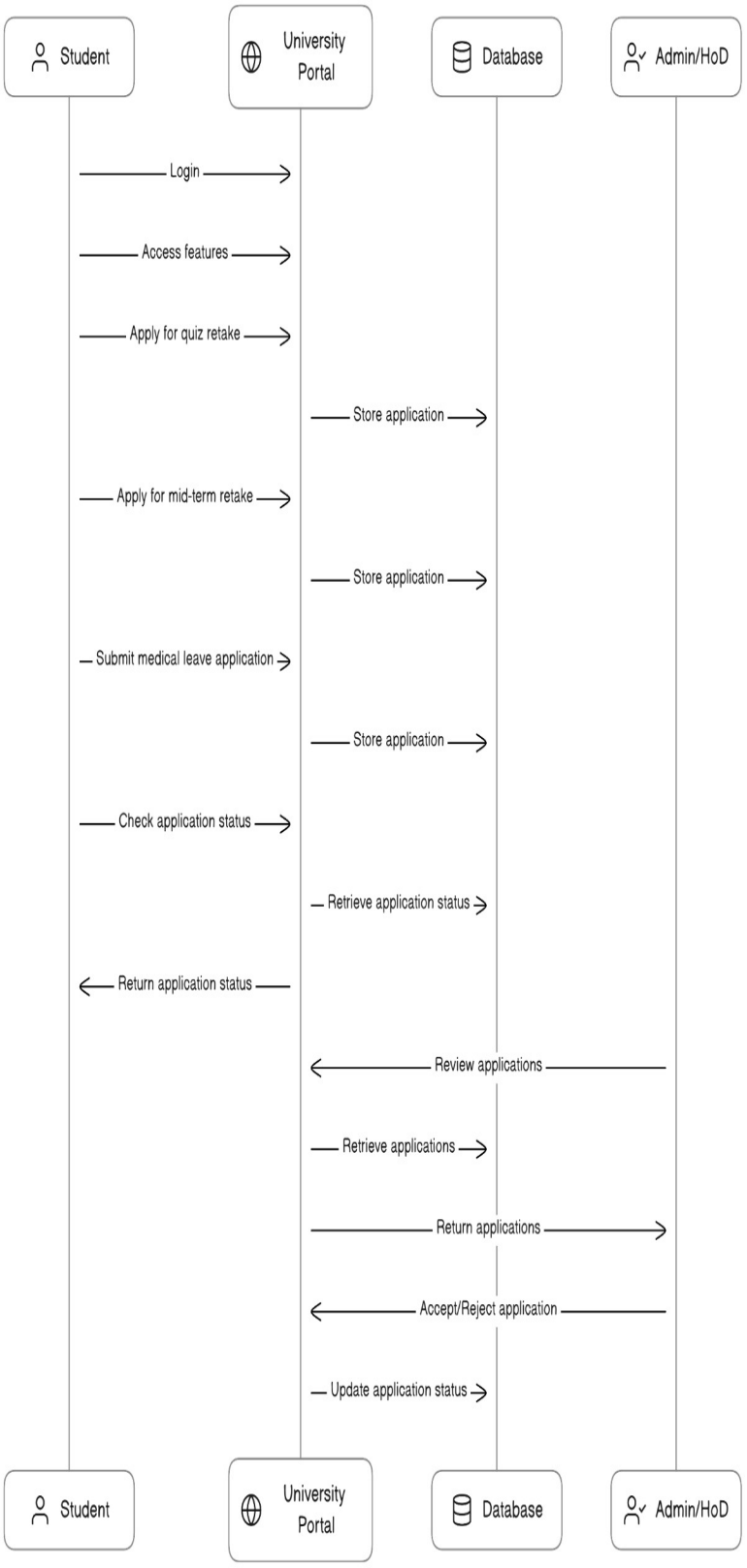

FIGURE 2.24: Sequence Diagram

2.6 Collaboration Diagram

2.6.1 Student Flow

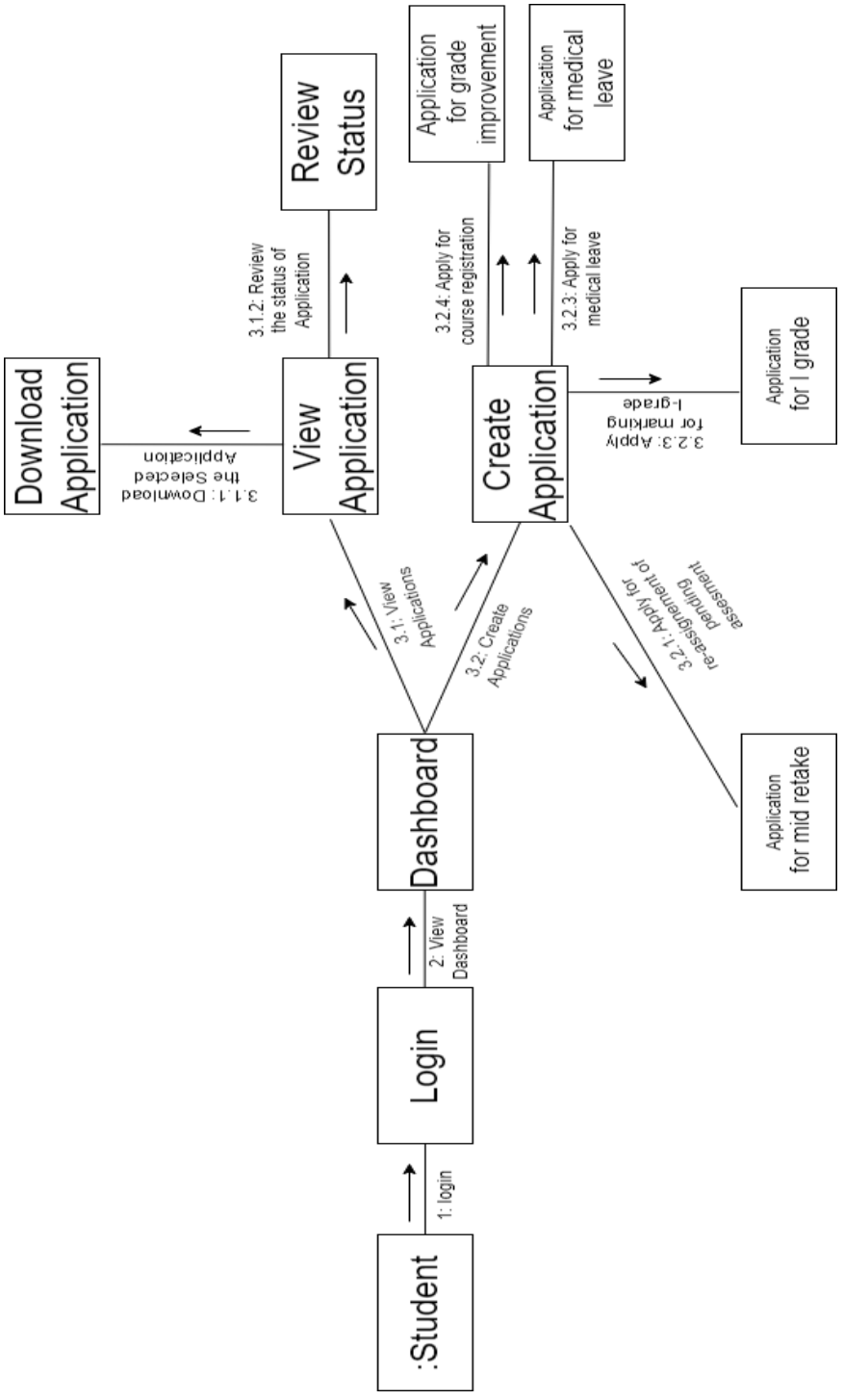

FIGURE 2.25: Collaboration Diagram

2.6.2 Admin Flow

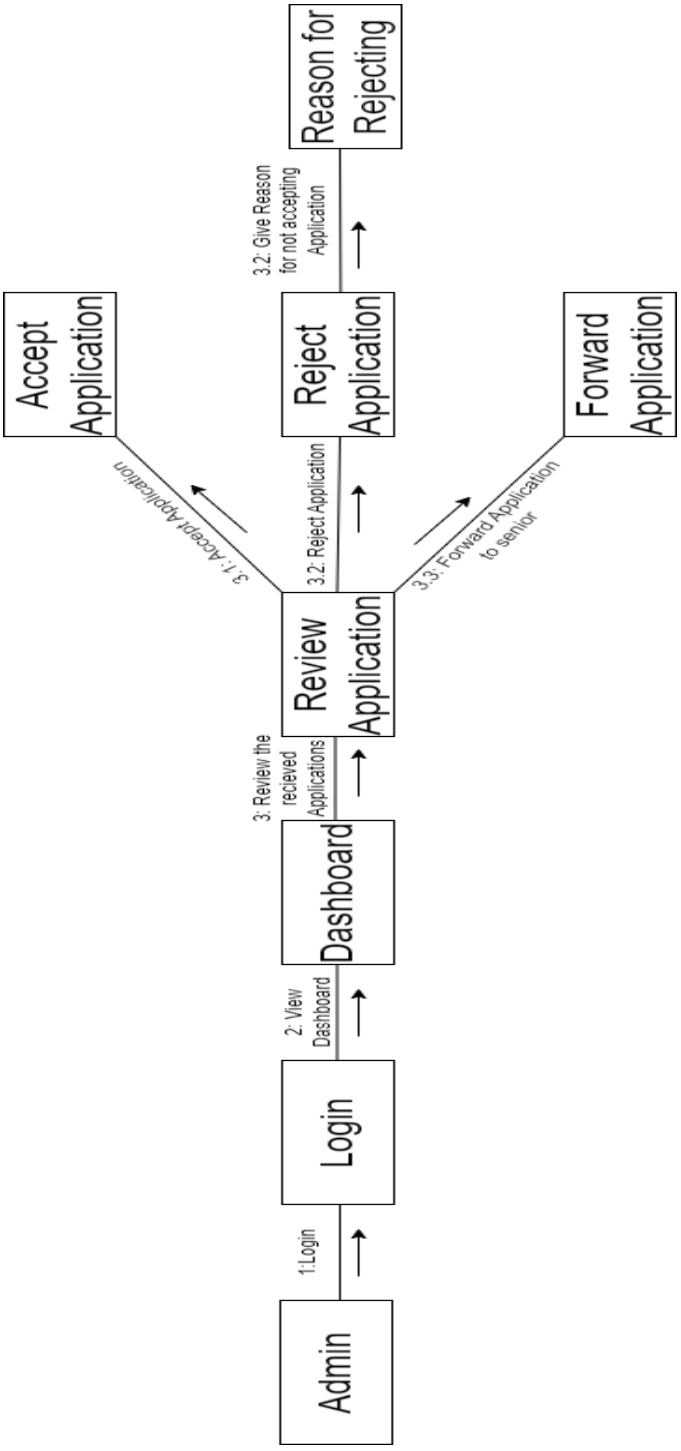

FIGURE 2.26: Collaboration Diagram

2.7 Class Diagram

2.7.1 Admin Flow

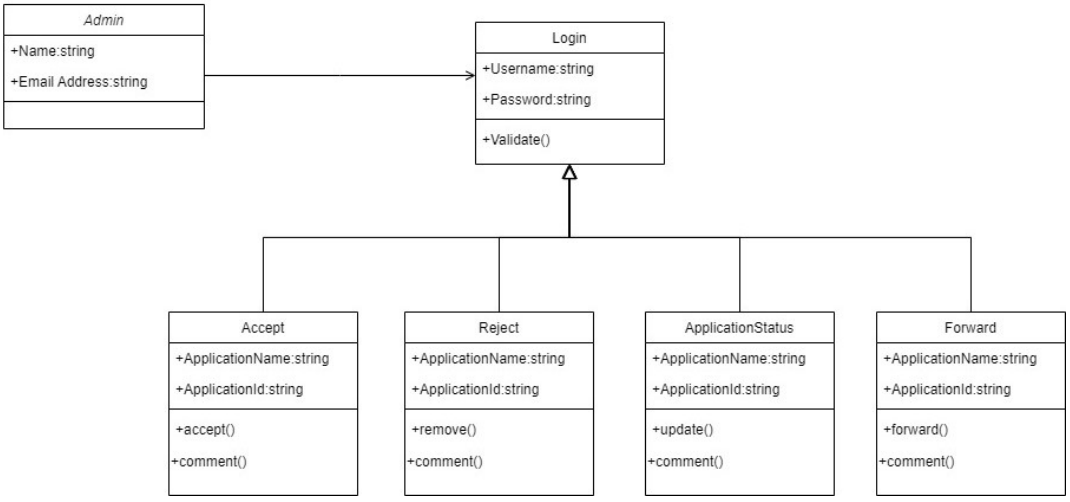

FIGURE 2.27: Class Diagram

2.7.2 Student Flow

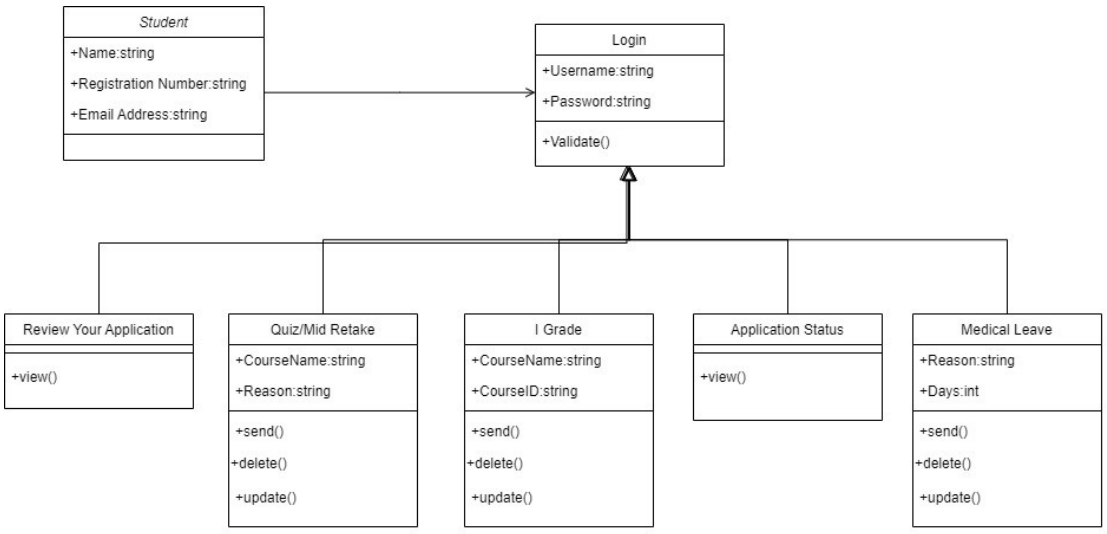

FIGURE 2.28: Class Diagram

2.8 Component Diagram

2.8.1 Admin Flow

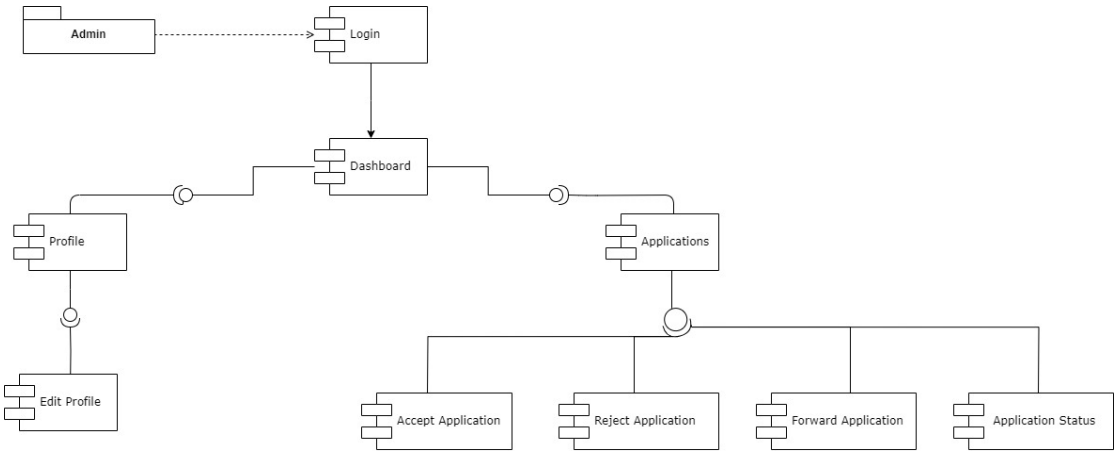

FIGURE 2.29: Component Diagram

2.8.2 User Flow

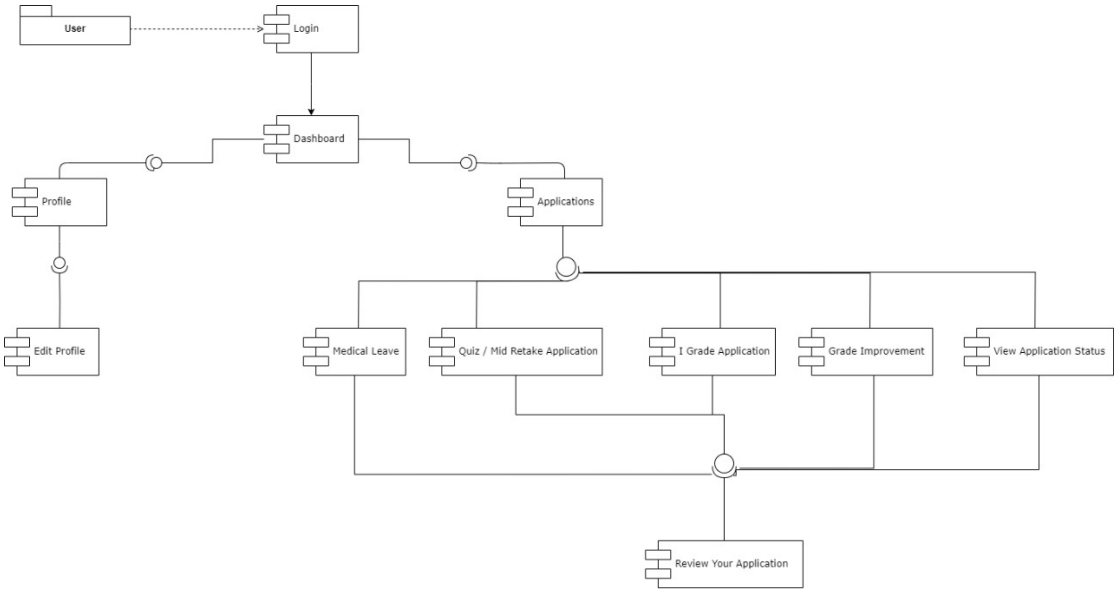

FIGURE 2.30: Component Diagram

2.9 Deployment Diagram

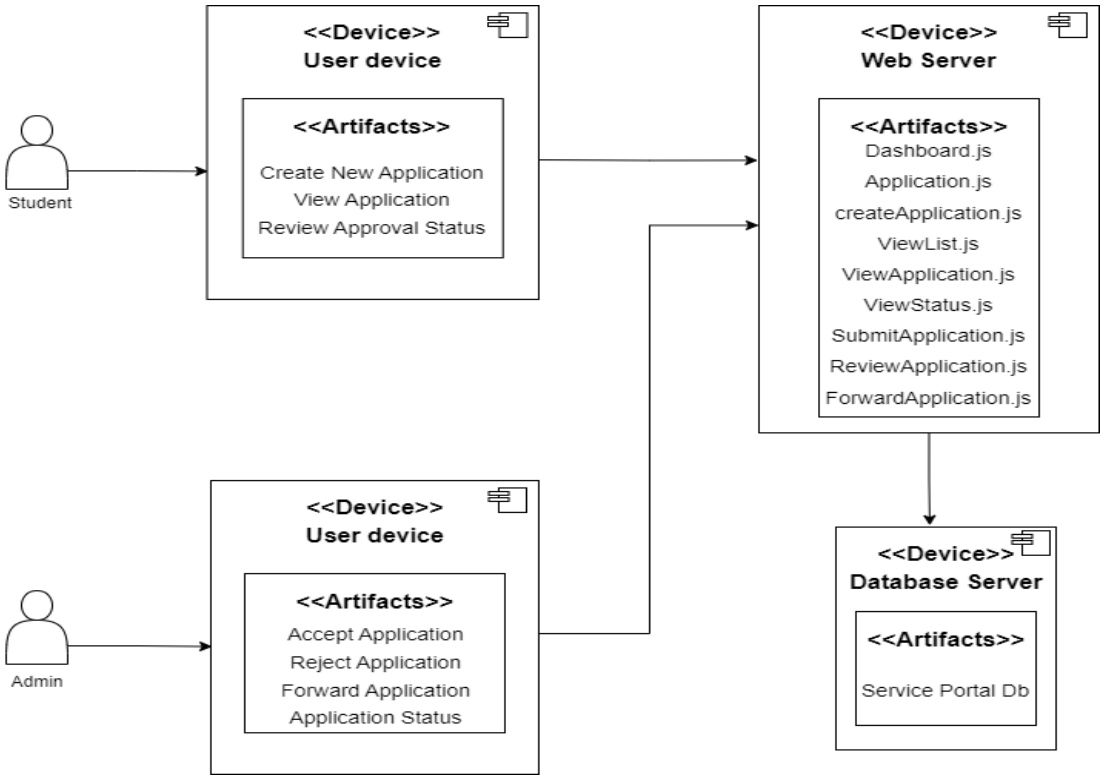

FIGURE 2.31: Deployment Diagram

2.10 ER Diagram

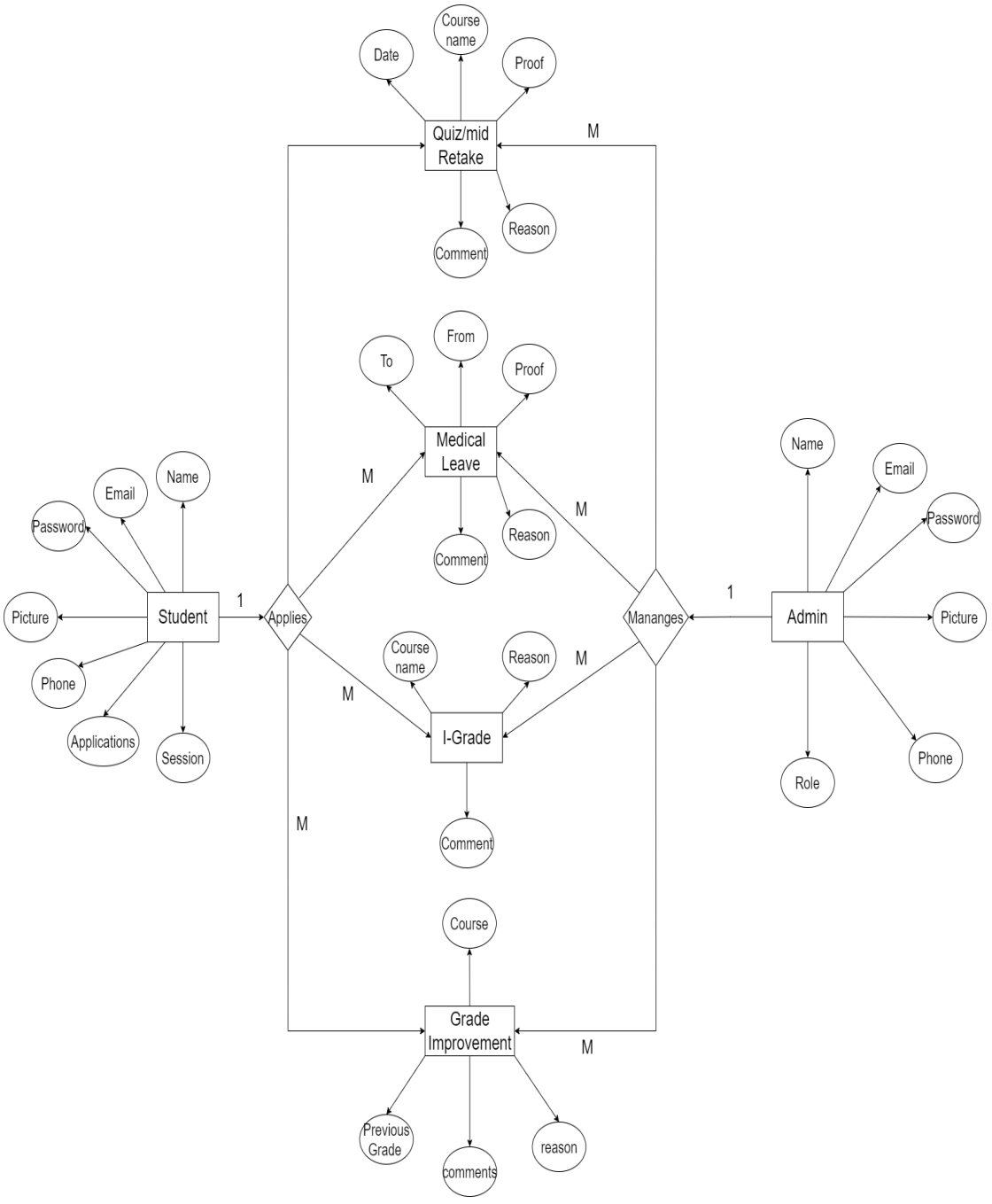

FIGURE 2.32: ER Diagram