

**Online Examination System (OES)**

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## **Abstract**

*Online Examination System (OES)* is a technology-driven website. It is a way to simplify examination activities like defining exam patterns, defining exam timer, objective sections, conducting exams using the computer or mobile devices in a paperless manner. It keeps all the record of the teachers and student and their respected activities.

It's a programme that facilitates the administration, tracking, and reporting of online examinations for a single institution. For this purpose, you may use any LAN, WAN, or the Internet. The integration of real-time monitoring proved to be the system's biggest challenge. As a result, the student may finish the test in the allocated time. After the allotted time has passed, the test is over, and the students' answers are verified mechanically, resulting in instant feedback.

Admin panel keep track of all the Departments, students and teacher's records, their activities, subjects, ongoing exams, banned students etc. The admin can also control whether the results are shown to the students or not. In short, this system provides a flexible solution to the problems whenever physical activities likewise during corona pandemic happens.

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# **Chapter No 1**

## **Introduction**

# **1. Introduction**

## **1.1. Project Overview**

Online examinations with set objectives are used in this project to evaluate pupils. The exams would be very adaptable. With the help of this initiative, educational institutions will be able to administer exams and use automated systems to evaluate applicants' responses for accuracy.

The concept enables professors to design their own exams. It would make it possible for educational institutions to run examinations, quizzes, and feedback forms. It requests that instructors develop their own set of questions. The instructor of the question set would have access to the response's outcome. Additionally, the student would get the results through mail. For example, preparing mock exams for educational institutions and using the project as a feedback form would both be beneficial.

## **1.2. Problem Statement**

During the Covid-19 outbreak last year many educational institutes were conducting online classes but there was some non-efficient mode of conducting online exams thus, had to promote the students instead. Also, it involves the use of traditional ways which was difficult to manage, and a lot of workforces was required to monitor and invigilate the students and the exams which is a time-consuming task. Furthermore, the result declaration was not rapid as we've faced recently during the Intermediate-II results.

## **1.3. Purpose**

- The candidates' responses will be quickly and automatically verified.
- The laborious task of evaluating the applicants' responses will be lessened using online exams.
- Because it is an integrated online examination system, less paper will be used.
- may rapidly provide a variety of reports as needed.

## **1.4. Cost Benefit Analysis**

Both the examiner and the student administering the test pay less. Paper and ink are now half as expensive as with the old approach. Both the examiner and the pupils no longer must pay for transportation to get to the facility. Students may take tests online, saving time and money that would otherwise be spent printing exams.

## **1.5. Objectives**

Objectives of OES are as follows:

- To facilitate exams controlling & monitoring.
- To keep track of admin and student log.
- To conduct more students' exams at the same time.
- To ease the checking of the exam.
- More secure, less cheating.
- It's convenient.

## **1.6. Scope**

This initiative would be particularly beneficial for educational institutions where it is necessary to regularly evaluate pupils. Additionally, it might be helpful for anybody who needs feedback based on replies of an objective kind.

## 1.7. Enhancement Scope

### NOTE:

- 1) We only implemented objective-based questions due to time and budget constraints, but we'll expand our services to include subjective-based questions in the future.
- 2) The present method merely offers numerous alternatives, but only one right response may be chosen. Teachers may want to provide replies with various selections and options.
- 3) Despite not being used in this system, the relevant database management system and web server software would have access to security logs.
- 4) Users who are not registered cannot respond to tests; they must be a member of a group. This is a disadvantage if the professor wants any student, even anonymous individuals, to respond to the exam.

## 1.8. Definitions, Acronyms

To fully comprehend the SRS, the accompanying Table 1 discusses the meanings of all terminology, acronyms, and abbreviations used in this work.

*Table 1: Definitions, Acronyms*

Sr. No.	Terms/Acronyms	Description
1.	The students	The typical user is a student preparing for a test.
2.	The Faculty Members	A second user (often a professor, lecturer, or examiner) submits a series of questions, answers, and grades.
3.	The Administrators	Power user who can add teachers and administer the system.

# **Chapter No**

# **2**

# **Literature Review**

## **2. Literature Review**

Several studies and ongoing efforts aim to improve test administration and online education. Different parts of the system were the subject of some of the studies.

### **2.1. System Design**

The flexibility of the system is reduced if the user interface of the system requires a lot of human effort to understand and complete all tasks.

A comparable system was created by Hou [1] and coded in the C#-based ASP.net language. Basing a system's design on C# leads to a poor user interface and limited development options, which is not feasible soon. The x-platform GUI is even worse than average. Since C# is essential to the .NET framework, the application must be hosted on a Windows-based server. The language's flexibility is decreased by the dependency on the .Net framework.

The web application only makes use of components made by Microsoft. The ASP.NET web server acts as the application's front end, C# acts as the application's intermediate language, ADO.NET makes it possible to communicate with Microsoft SQL Server, and the Microsoft database itself is what makes this feasible. Ruth Akinsanmi here [2].

It is challenging to manage several tasks using a comparable system by Bobde and Chaudhari's [3] due to issues with user privacy and a cumbersome UI. An online test may quickly measure the proficiency of students and offer some statistical assessments using a large database with a bank of questions.

As, Huszti and Petho [4]

The created programme comes with the following capabilities::

1. To increase the number of questions in the bank, instructors may add any more ones.
2. Each student may take a different Page test with questions chosen at random from a question pool.
3. It is possible to acquire various reports for the teachers, students, courses, etc.
4. Without any issues, many students may take their tests concurrently both within and outside of their institution. The client-server architecture serves as the foundation for the suggested software's functionality. One challenging aspect of e-learning security is the electronic test.

The use of a web-based examination system is an effective approach for assessing education on a large scale. Another He [5] demonstrates a web-based educational evaluation system that use Bloom's taxonomy to examine in real time how teachers teach and how students learn. Positive results from evaluating the system in science and mathematics classrooms at two nearby high schools have been obtained. As a means of decreasing anomalies, the organization responsible for administering entrance



tests to all Nigerian universities, the Joint Admissions Matriculation Board (JAMB), has proposed the idea of an e-Test in Nigeria, where all applicants would be forced to complete an online entrance exam. This strategy was designed and evaluated at Covenant University, a private university in Nigeria. Research suggests the approach may address problems associated with traditional testing techniques, such as impersonation and other forms of testing fraud. Ayo Akinyemi [6].

When looking at how open university education has developed in Nigeria A discussion of the components of an effective online classroom may be found in Ipaye [7]. Another article aims to tackle this problem head-on by developing a web tool that would allow students to take and get immediate feedback on multiple-choice tests through the internet.

The method gives tests to the students and grades them mechanically. Tests may be given, replies collected, and grades given more quickly and accurately all thanks to technological advancements. It's useful for many kinds of research. Because it was accessed online, it may pass muster for either close-up or far-off scrutiny. Students taking the tests and teachers, professors, and anyone who wish to create or modify exams might all benefit from using the system. The system was built using several open-source tools, such as AJAX, PHP, HTML, and a MySQL database. To accommodate several types of exams and questions, a universal auto-grading module was developed. Assessment of the system was performed by the Quality Assurance Center at Mansoura University. The project demonstrated the usefulness of using web-based tools for evaluating students at large universities. Rashad Kandil [8].

Moodle is a popular, open-source platform for online instruction and evaluation.

[9] Moodle is a free, customizable, online learning management system. With its broad, flexible, and secure learning management facilities, it may be utilized to create a private website for interactive online classes. A learning management system (LMS) or virtual learning environment (VLE), Moodle is an initialism for "modular object-oriented dynamic learning environment." E-learning projects in government, business, and education may all make use of this system.

## 2.2. Problems with exiting solution

We examined a variety of institutions and found that manual input was used to maintain the data on students who were enrolled at the time. Additionally, every student finds it difficult to get to the testing location on exam day. An online examination method eliminates the need for manually preparing the registration application form, the question paper, and printing many copies. Calculating the total number of students enrolled and checking their data manually would take a lot of time and effort. Since so many individuals need to be hired to do this activity, time and money are being squandered.

Another aspect to take into consideration is the possibility of making mistakes. A test's creation takes longer than anticipated. It's time to manually add up the right and wrong answers. the human capacity for error. There is a limit on the number of students who may submit their papers at once. Request that the instructor keep an eye on the testing space.

The existing system lacks in various aspects which are discussed as follows:

- Poor Graphical User Interface(GUI)
- User Confidentiality
- Transparency
- User Integrity
- No updating facilities of Student, Teacher profile
- Limited Registration seats for students

## **2.3. Reasons of Development**

The reason of development for our project are due to many aspects which are discussed as follows:

- To make user-friendly Graphical User Interface(GUI)
- To provide User Confidentiality
- Providing Transparency to users
- Providing User Integrity
- Providing updating facilities of Student, Teacher profile
- Un-Limited Registration seats for students
- Rapid result generation
- Result report generation
- Manageable Hierarchy
- Profile Setup Facilities

# **Chapter No 3 Functional & Specific Requirements**

### 3. Functional or Specific Requirements

Software is necessary for conducting online "objective" style exams and giving quick results. The system must meet the following criteria:

#### 3.1. Methodology

##### Iterative Waterfall-Model

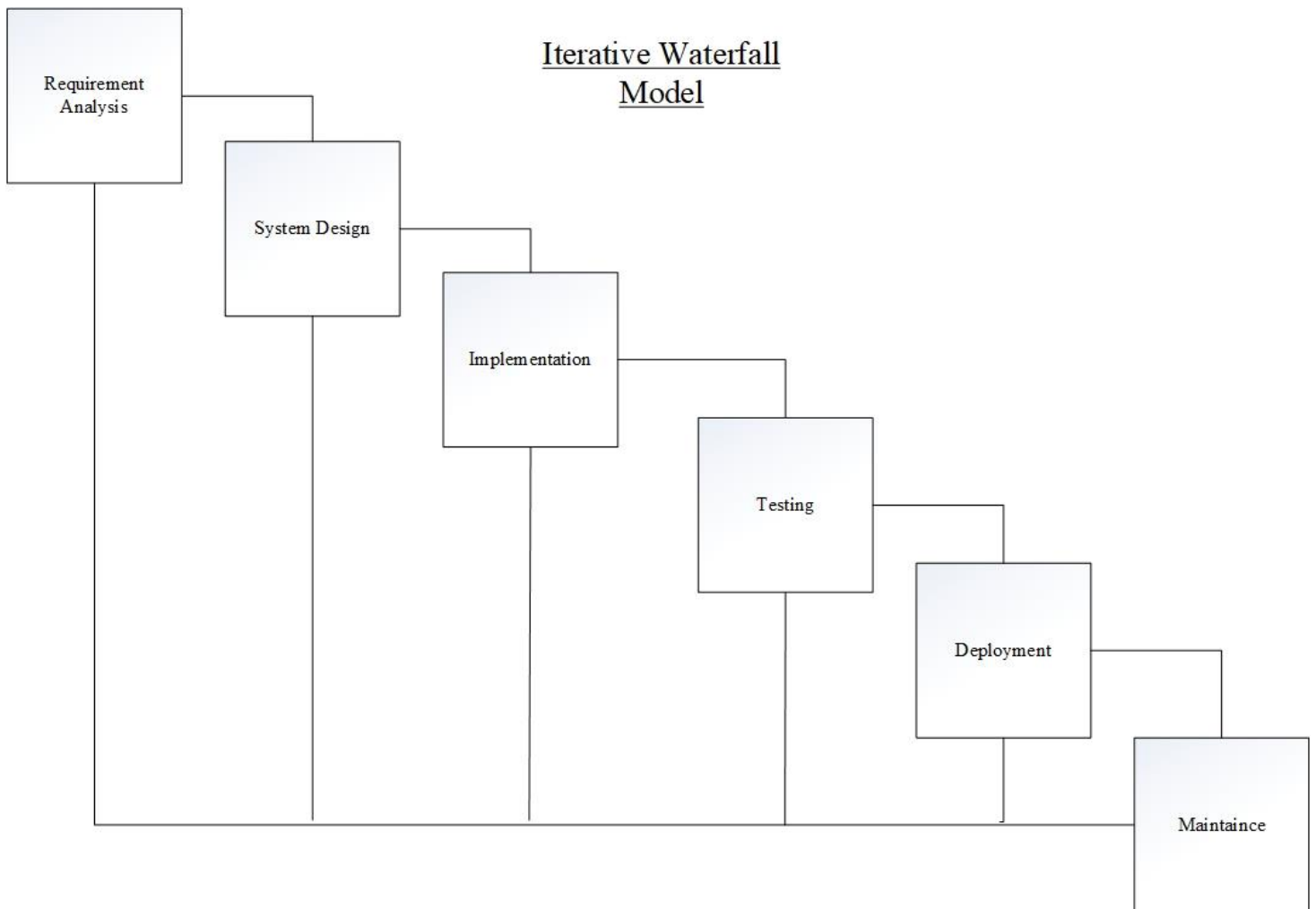


Figure 1: Waterfall Methodology

This Figure 1 illustrates how the Waterfall methodology works in providing the solution of the problem

The Waterfall Model was the first Process Model described. It is often referred to as a linear-sequential life cycle model. It's simple to understand and put to good use. In a waterfall paradigm, one stage cannot begin until the previous one is complete.

the following steps are included in the waterfall model:

A requirement specification document is created once all the needs of the future system have been identified and analyzed.

In this stage, known as "system design," the necessary requirements established in the previous stage are analyzed, and a system design is developed. The entire system architecture and the necessary hardware may then be established with the help of this system design.

The system is built through stages, or units, of code that are later merged based on the specifications laid forth in the system design. Testing at the unit level involves creating and verifying the functioning of individual units.

Of the individual components developed and evaluated during the implementation phase, the whole system is brought together for integration and testing. After the system has been integrated, it is evaluated thoroughly to look for problems.

Setting up the apparatus: Following successful completion of both functional and non-functional testing, the product is released to the public or deployed to the customer's environment.

Upkeep: Issues in the customer environment do develop on occasion. Certain issues are fixed with the release of patches. Further, many upgraded variants of the product have been released. The consumer's environment is altered by the application of maintenance.

Since each phase builds upon the previous ones, the development flows gradually downhill (like a waterfall). The "Waterfall Model" derives its moniker from the fact that progress to the next step is delayed until the results of the prior phase have been verified and accepted. According to this theory, a phase transition does not occur.

## **3.2. Aspect**

### **3.2.1. Administrator Aspect**

- Database backup procedure
- Modifying, erasing, and adding records to the database
- Including or removing teachers
- To modify the expert password, go here.

### **3.2.2. Faculty Aspects**

- Participating in the system by logging in.
- Invitations sent via mail to select students
- applicants' registrations being accepted
- Group potential candidates in whatever way you choose, then edit or delete them
- Making a quiz
- In the above quiz, please post your questions in the comments section.
- Add numerous answers to each question.
- Selecting the best response from the alternatives provided.
- Providing a space for free-form user response
- If there is a time restriction on the exam, please specify it.
- Should the questions be shuffled or not
- Should the presented choices be shuffled or not
- That correct answers be shown instantly when a candidate picks an option during practice tests.
- Grade incorrect answers negatively.

### **3.2.3. Student Aspects**

- Registration is required.
- Entering the system
- Modifying a user's profile
- Choosing the exam.
- Choose whether to take the exam in practice mode, where the right response is shown as soon as the applicant makes a choice.
- Displaying up for the test.
- Printing the test's results when it is finished.
- Examining the provided replies.
- Altering the password
- Password reset for forgotten accounts

### **3.2.4. Analysis**

- Using usernames and passwords to authenticate users
- Keeping track of user activities throughout a session Recording candidates' answers to each question
- Determining if the answer provided is accurate or not
- Preserving a record of each user's test results

### **3.2.5. Mailing**

- Reports must be sent to the candidates at their official address.
- If the user has forgotten their password, a new one will be sent to them in the mail.
- The release of the new exam will be announced through invitation.



### **3.3. External Interface Requirements**

#### **3.3.1. Hardware Interfaces**

##### **Server-side hardware**

- All necessary software has hardware requirements.
- To meet the needs of the market, communication hardware has been developed.

##### **Client-side hardware**

- Communication devices to interact with the server Software.
- Operating systems suggested for clients

#### **3.3.2. Software Interface**

##### **Server-side software**

- Apache Tomcat web server software
- Server-side scripting languages: PHP
- Application software for Sedna databases MySQL
- Windows is an acceptable OS.

##### **Client-side software**

- Viewing in a browser that supports JavaScript, as detailed in Browser Compatibility 2.3.1

#### **3.3.3. Third Party Software Interfaces**

MS Visio 2016

### **3.3.4. Communication Protocol**

Following protocols are required to be permitted on the server side

- HTTP incoming request
- HTTPS incoming request if secure gateway is implemented

Following protocols are required to be permitted on the client side

- HTTP outgoing request
- HTTPS outgoing request if secure gateway is implemented

### **3.3.5. Assumption and Dependency**

- Usernames are valid email addresses of respective user
- Administrator has the authority to add/delete faculty level accounts.
- Faculty have the authority to approve/expel student
- Faculty have the authority to change student's group

## **3.4. Non-Functional Requirements**

- System should be able handle multiple users
- Database updating should follow transaction processing to avoid data inconsistency.

### 3.5. Software System Attributes

#### 3.5.1. Browser Compatibility

Since it was web-based, the project required support for at least the most widely used browsers. The most widely used computer operating systems today are Windows XP and subsequent versions of Microsoft Windows, Linux, and Mac OS X, while the most widely used web browsers are Internet Explorer, Mozilla Firefox, Opera, Safari, and Google Chrome. The compatibility of our system with popular browsers is summarized in Table 2.

Table 2: Browser Compatibility

Operating System → Browsers ↓	Win 2000	Winx	WinXPSP2	Win Vista	Win 7	Win 8, 9, 10	Mac OS	Linux
	<b>Modern Browsers</b>							
<b>IE 8.0</b>	N/A	SUPP	SUPP	SUPP	SUPP	SUPP	N/A	N/A
<b>IE 7.0</b>	N/A	N/A	N/A	N/A			N/A	
<b>IE 6.0</b>	N/A	N/A	N/A	N/A			N/A	
<b>Firefox 3.5</b>	N/A	SUPP	N/A	N/A			N/A	
<b>Opera 9.23</b>	N/A	SUPP	N/A	N/A			N/A	
<b>Safari 9.27</b>	N/A	SUPP	N/A	N/A			SUPP	
	<b>“Legacy” Old Browsers</b>							
<b>IE5.5</b>	N/A	N/A	N/A	N/A			N/A	
<b>Netscape</b>	N/A	N/A	N/A	N/A			N/A	

### **3.6. Database Requirements**

To effectively manage characters that are not in the English alphabet, the database fields for questions and the choices they correspond to need to be in the Unicode format.

### **3.7. Technologies**

In this section, all the technologies that make up the web-based system are listed.

- PHP is a popular server-side programming language due to its robust XML and MySQL compatibility.
- XML is used as the database format since it has the potential to create custom fields in case the quiz developer must add more than anticipated response alternatives and the database's performance requirements are low. Apache, as a web server, is very compatible with many different systems.

### **3.8. Software**

- For PHP and XML development, try either NetBeans or Eclipse.
- Utilizing Apache Tomcat as a Web Server

### **3.9. Test Cases**

#### **3.9.1.Black Box Testing**

Black box testing is a method of evaluating a system in which the tester has no prior technical knowledge of the system. A tester operates the system by providing input and observing the expected results. This allows us to see how the system reacts to both typical and unusual user input.

#### **3.9.2. White Box Testing**

A form of system testing known as "black box testing" involves the tester without having any previous technical knowledge of the system. A tester controls the system by entering data and monitoring the anticipated outcomes. By doing this, we may see how the system responds to both common and unique user input.

### 3.9.3. Test Cases

Create test cases to evaluate the overall system performance. To verify that the system is functioning as expected, test cases are produced for each component of the system and the outcomes expected from that component.

#### 3.9.3.1. Test Case: Login

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Login 5.1.1,</b> <b>Login 5.2.1,</b> <b>Login 5.3.1</b>	Fill out the Form	Login Successful	Login Successful	<b>PASS</b>

#### 3.9.3.2. Test Case: Add Department

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Department 5.1.4</b>	Fill out the Form	Addition Successful	Addition Successful	<b>PASS</b>

#### 3.9.3.3. Test Case: Add Categories

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Categories 5.1.5</b>	Fill out the Form	Addition Successful	Addition Successful	<b>PASS</b>

**3.9.3.4.Test Case: Add Subjects**

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Subjects 5.1.6</b>	Fill out the Form	Addition Successful	Addition Successful	<b>PASS</b>

**3.9.3.5.Test Case: Add Students**

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Students 5.1.7</b>	Add Credentials	Addition Successful	Addition Successful	<b>PASS</b>

**3.9.3.6.Test Case: Add Faculty**

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Faculty 5.1.8</b>	Add Credentials	Addition Successful	Addition Successful	<b>PASS</b>

**3.9.3.7.Test Case: Add Notice**

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Notice 5.1.9</b>	Enter Notice	Addition Successful	Addition Successful	<b>PASS</b>

**3.9.3.8. Test Case: Give Exam**

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Examination 5.2.5</b>	Select Exam	Active-Exam Successful	Active-Exam Successful	<b>PASS</b>

**3.9.3.9. Test Case: Send Invitation**

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Send Invitation 5.3.4</b>	Write Invitation	Send-Invite Successful	Send-Invite Successful	<b>PASS</b>

**3.9.3.10. Test Case: Make Exam**

Test Case ID	Test Case Condition	Expected Result	Actual Result	Test Case Result
<b>Make Exam 5.3.7</b>	Add Fill in the blanks/ MCQS	Exam-Creation Successful	Exam-Creation Successful	<b>PASS</b>

## **3.10. Hardware**

The recommended hardware specified by the respective software would suffice the needs. The memory and processing power needed would increase as the number of users increase. The estimated hardware requirements are as specified.

### **3.10.1. Server**

The minimum hardware as recommended by all the software required on server side say web server, operating system, and development software

- Processing speed of 1.6 GHz
- 1 GB of RAM
- Network interface

### **3.10.2. Client**

The minimum hardware as recommended by all the software required on client side say web browser, operating system

- Minimum hardware depending on the operating system used
- True color visual display unit
- User peripherals for better interaction



# **Chapter No 4 Analysis & Design Pattern**

## 4. Analysis and Design

### 4.1. Use Case Diagram

#### 4.1.1. Use case Overview

The Figure 2 illustrates how the overall system collaborate with each other for its functioning.

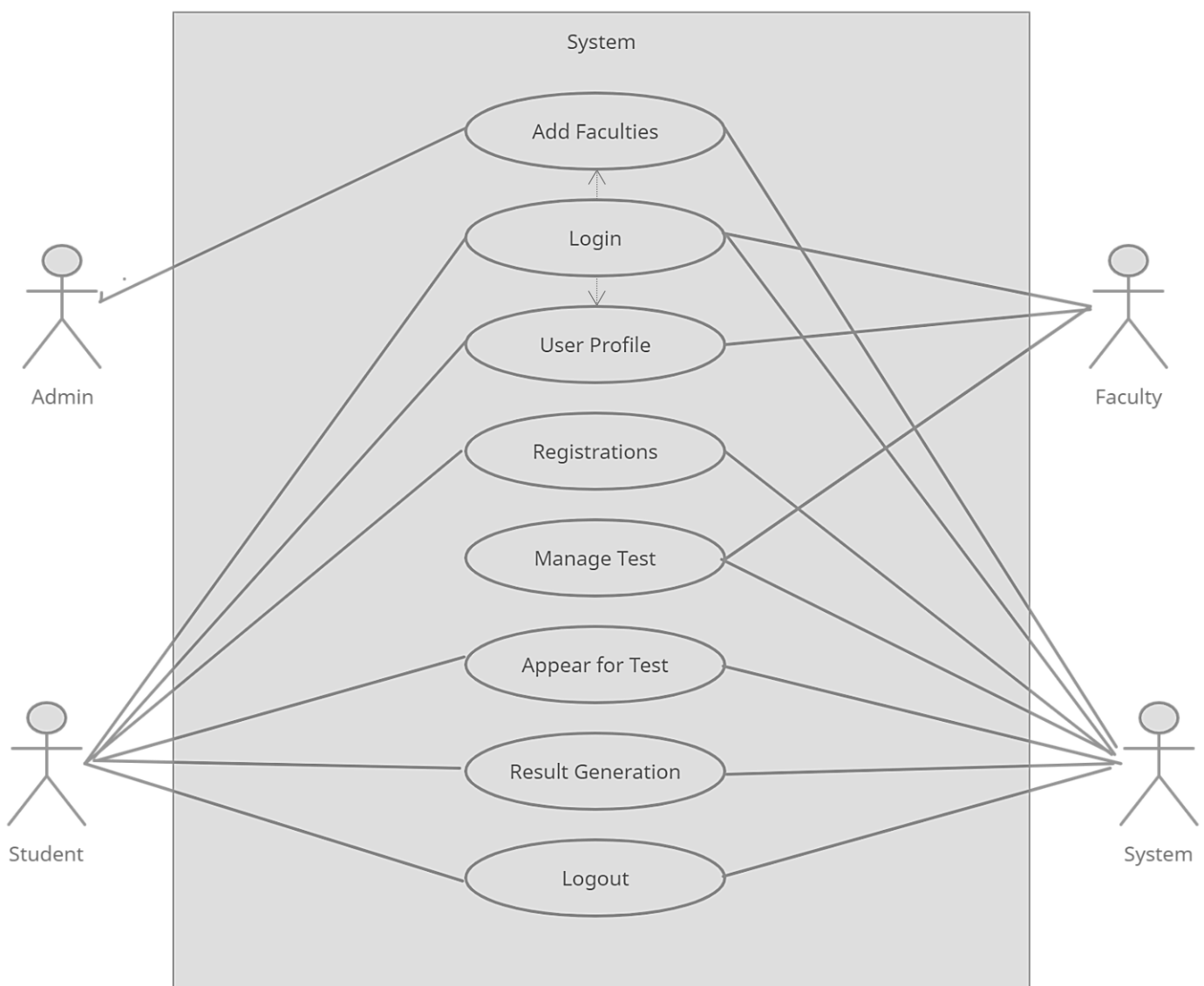


Figure 2: Use Case-Overview

#### 4.1.2. Add Faculty Use Case

The Figure 3 illustrates Faculty login names can be added by the administrator, as well as temporary passwords for the user to sign in.

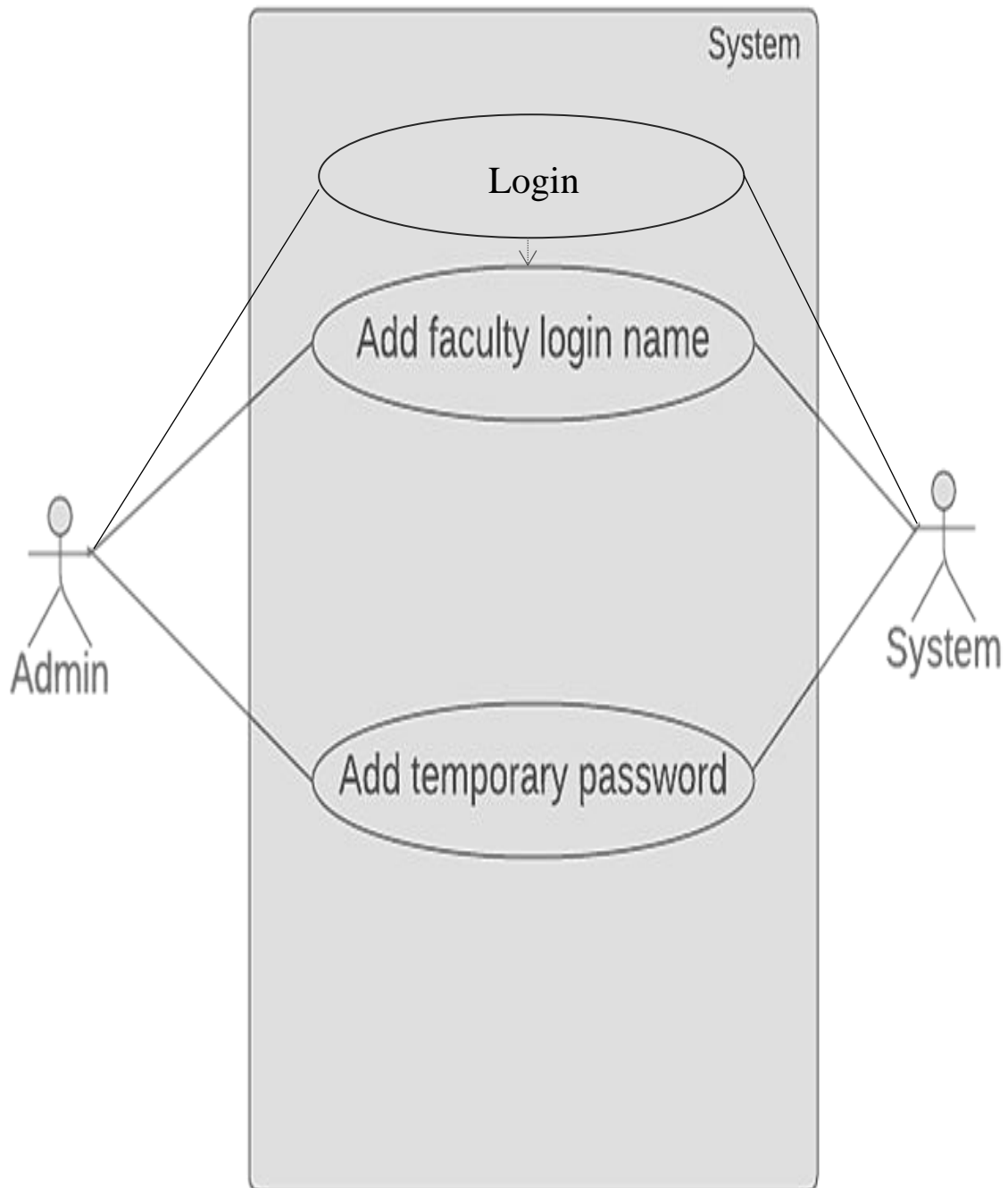


Figure 3: Use Case-Add Faculty

### 4.1.3. Login Use Case

The Figure 4 illustrates for login, students and faculty enter their username and password. Before logging in, the system verifies the username and password.

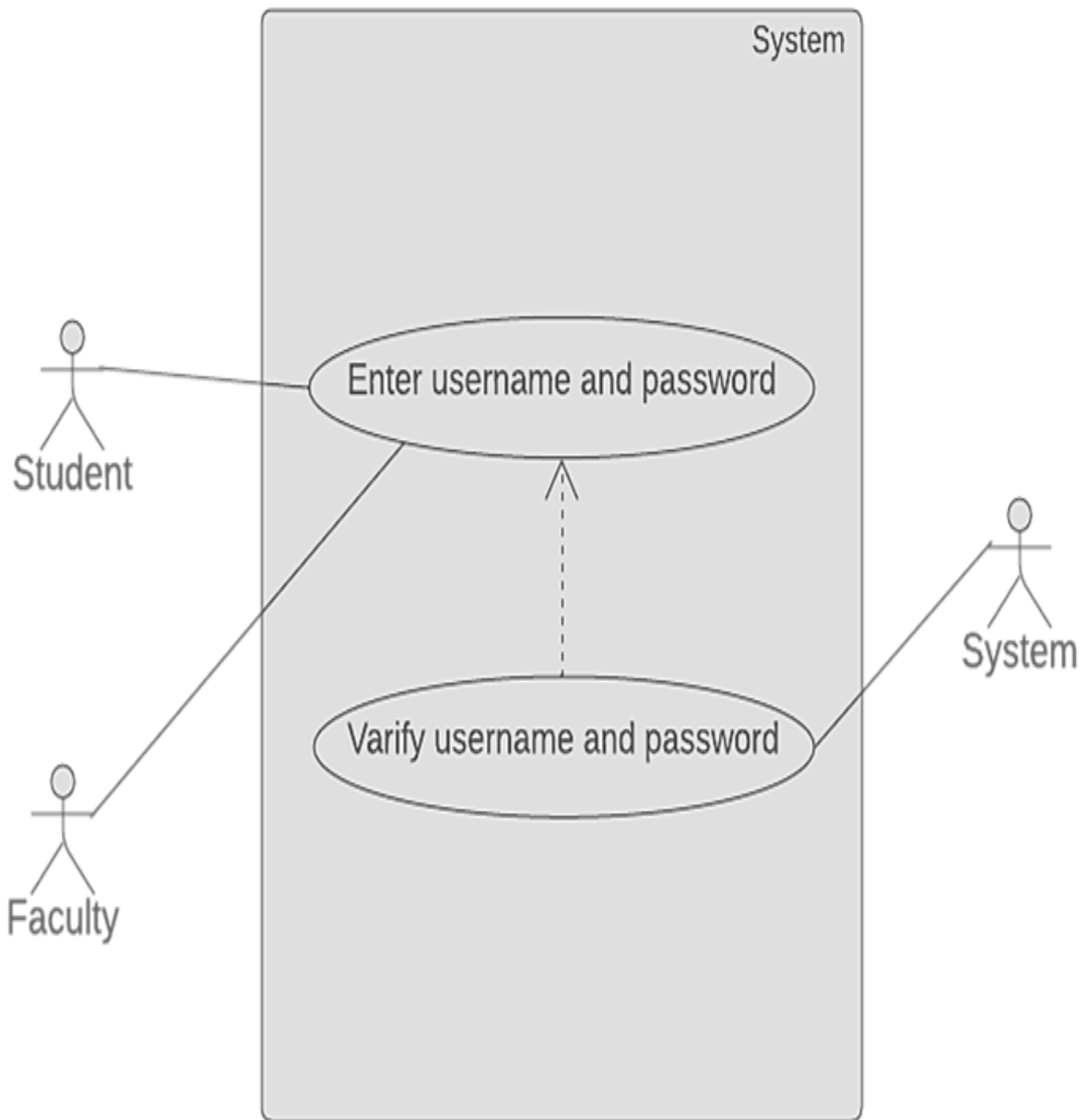


Figure 4: Use Case-Login

#### 4.1.4. Student Registration Use Case

The Figure 5 illustrates Students receive the invitation and then enter the name and password

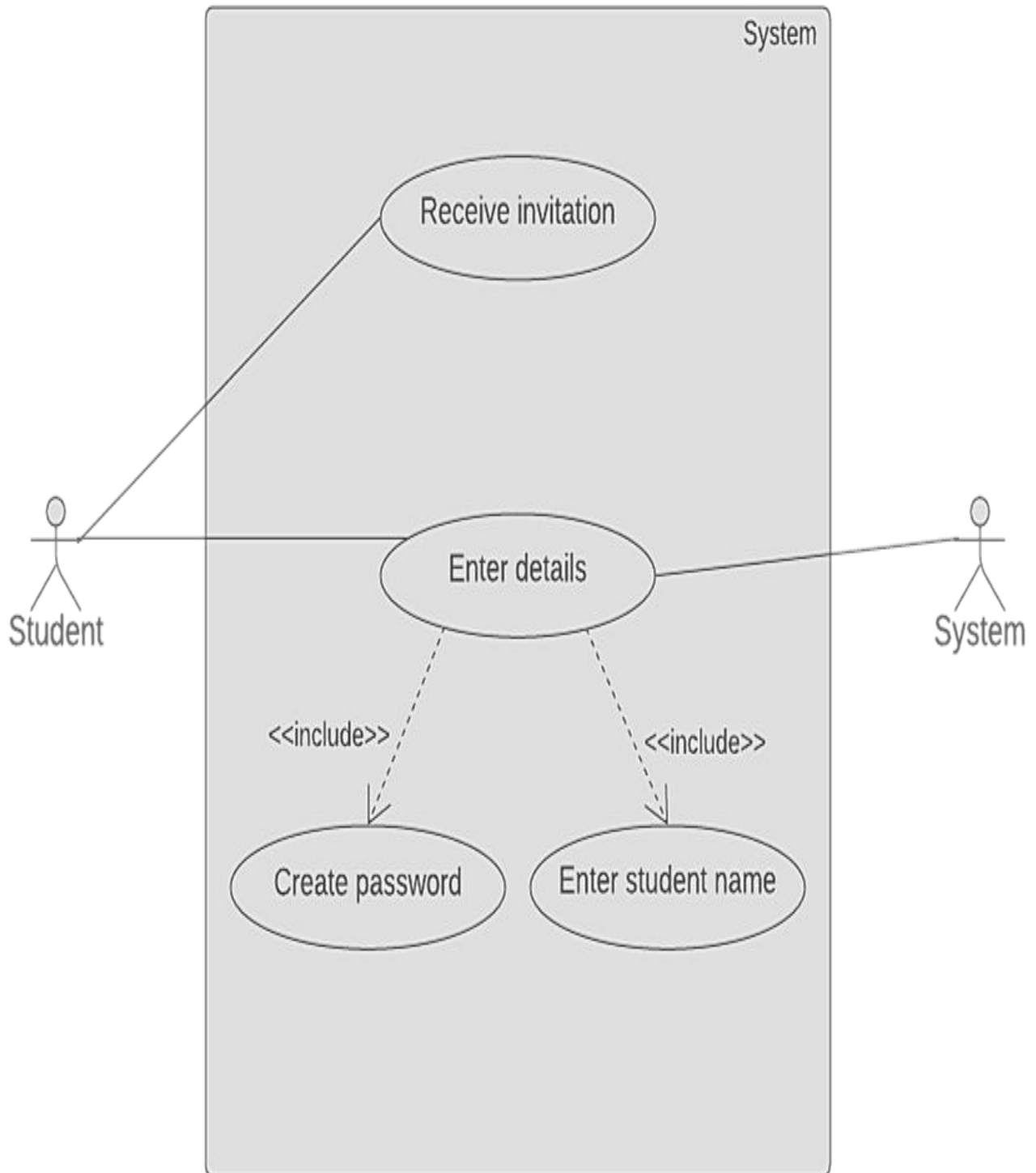


Figure 5: Use Case-Student Registration

#### 4.1.5. User Profile Edit Use Case

The Figure 6 illustrates the admin can update the profile picture and password Students can change their profile pictures and passwords The profile picture and password can be changed by faculty

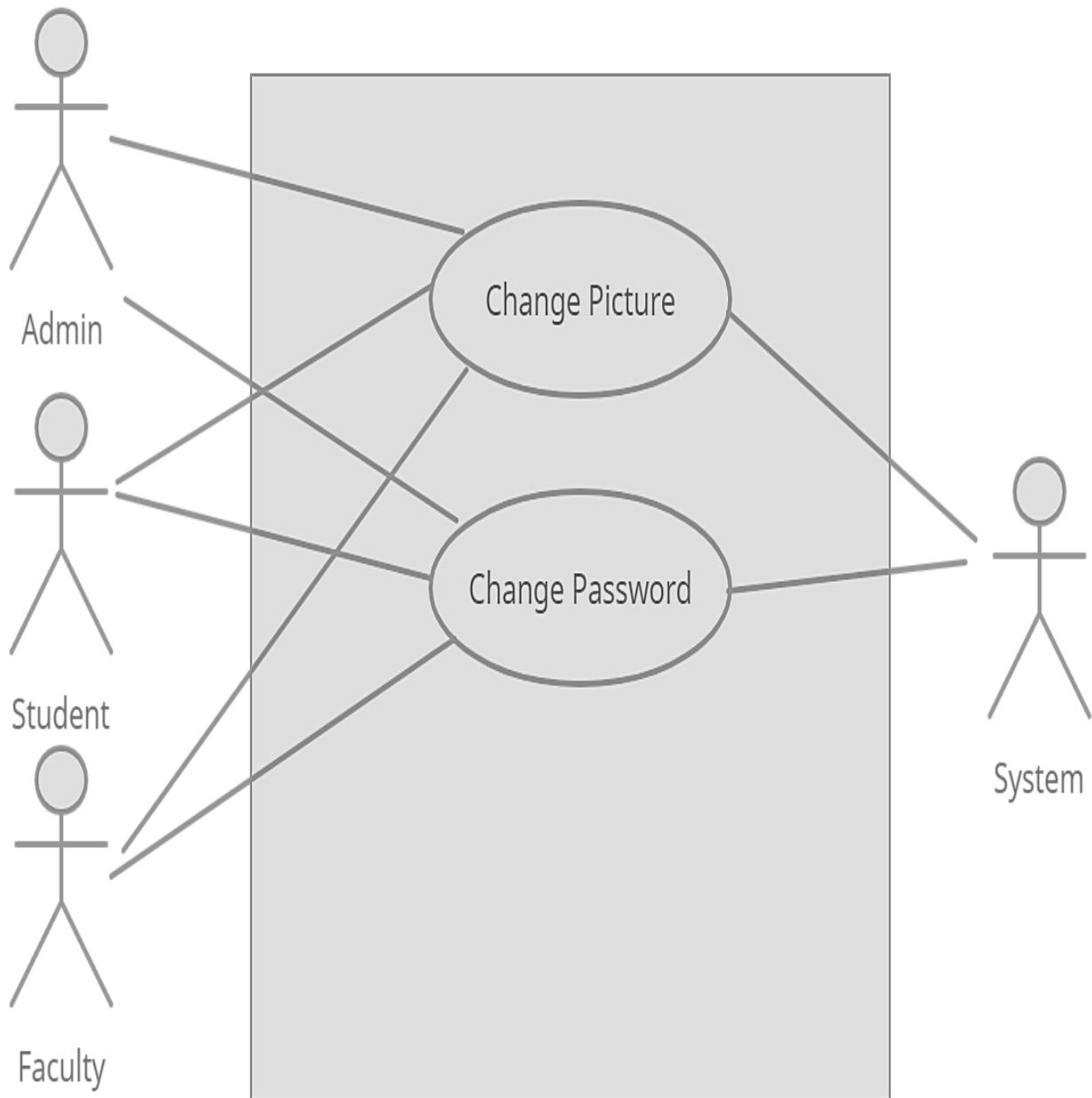


Figure 6: Use Case-Profile Edit

#### 4.1.6. Manage Test Use Case

The Figure 7 illustrates the faculty member can login, set the test title, set the exam time and date, enter the questions, and choose the correct answer out of 4 options. Overall functionality is controlled by the system

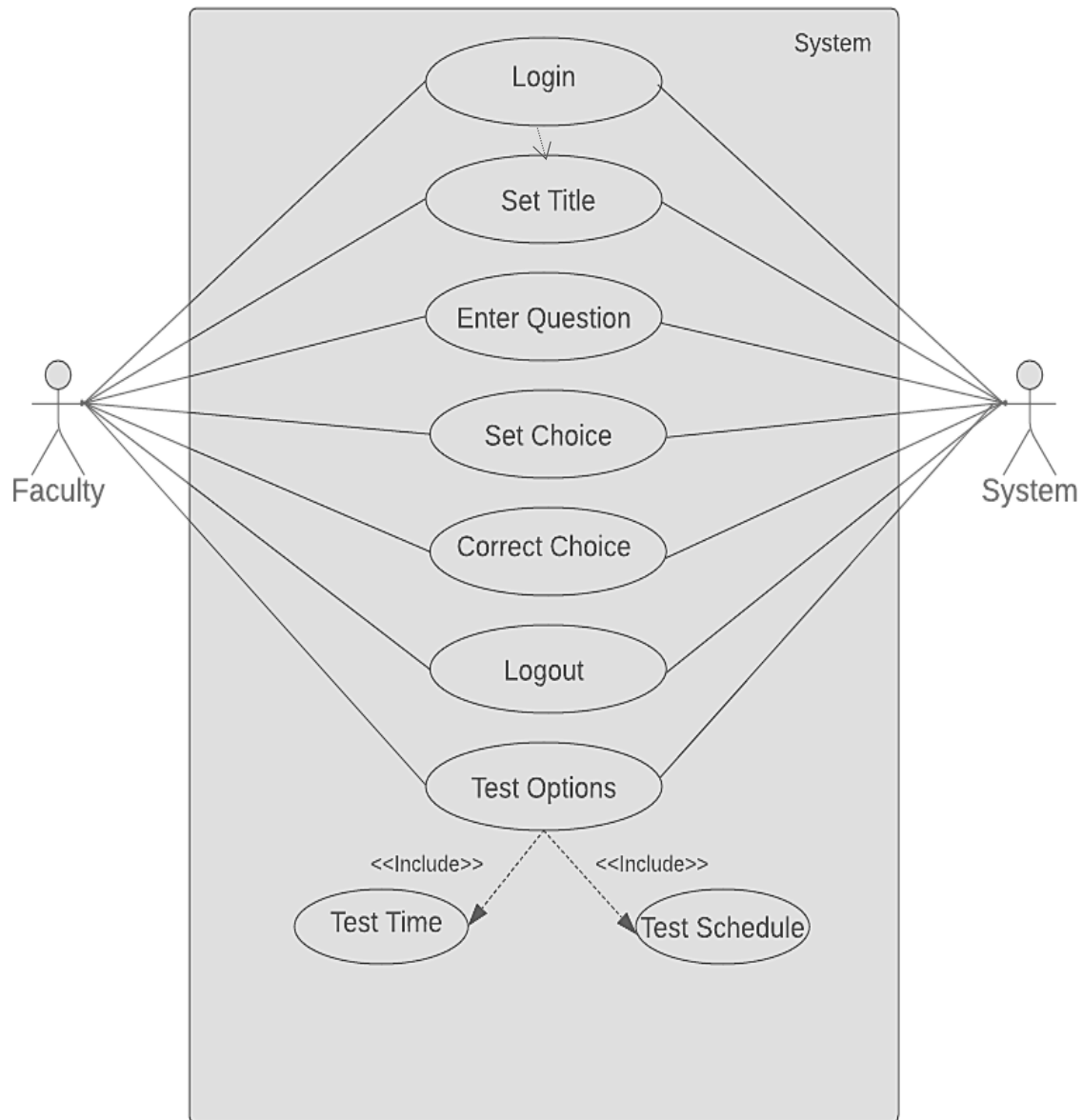


Figure 7: Use Case-Manage Test

#### 4.1.7. Appear for Test Use Case

The Figure 8 illustrates After logging in, the student chooses the test, selects the mode, and answers the questions. The system inspects the exam

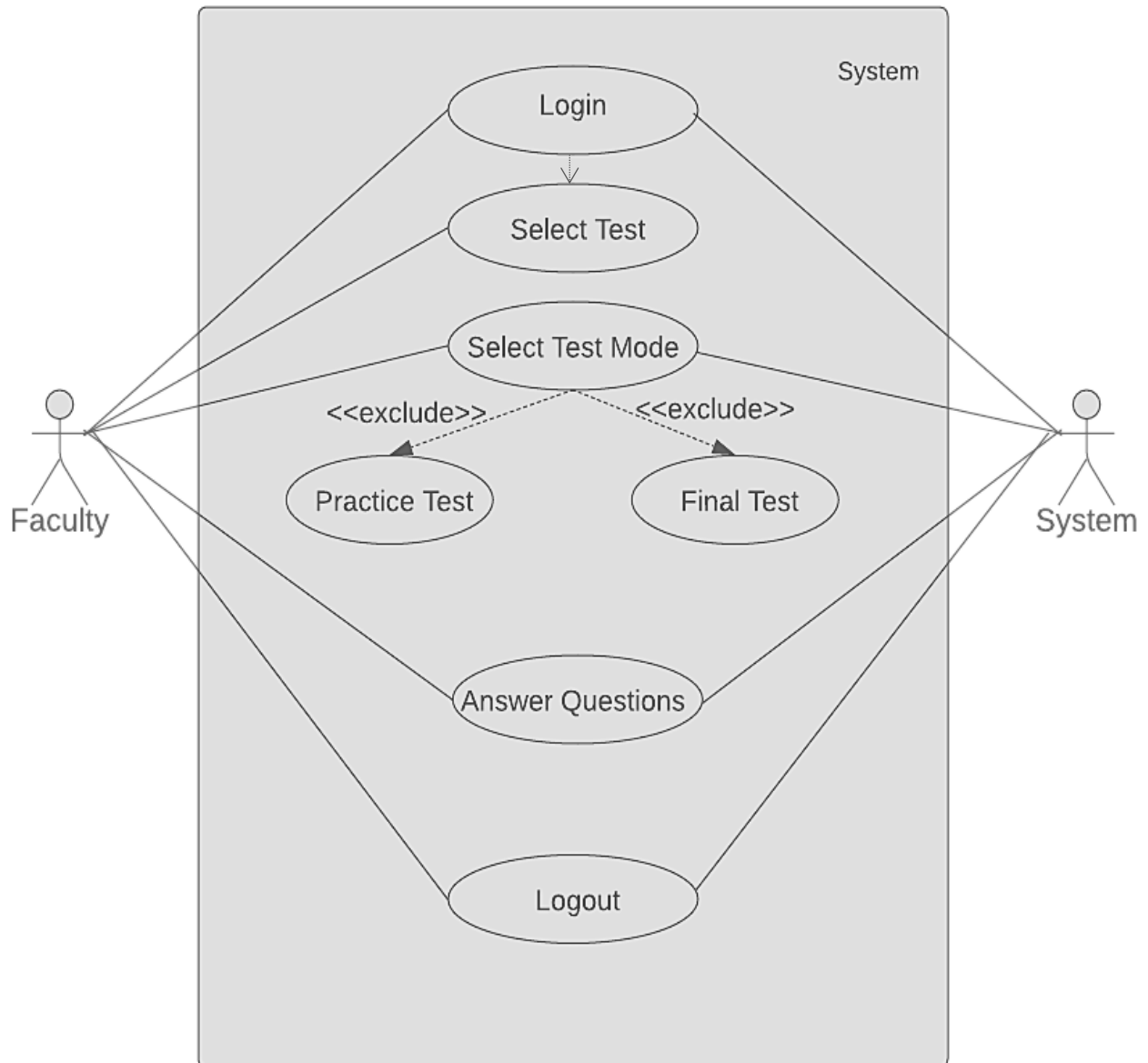


Figure 8: Use Case- Appear for Test



#### 4.1.8. Generate Result Use Case

The Figure 9 illustrates the system checks the answer and calculates the marks. The result is displayed as a percentage.

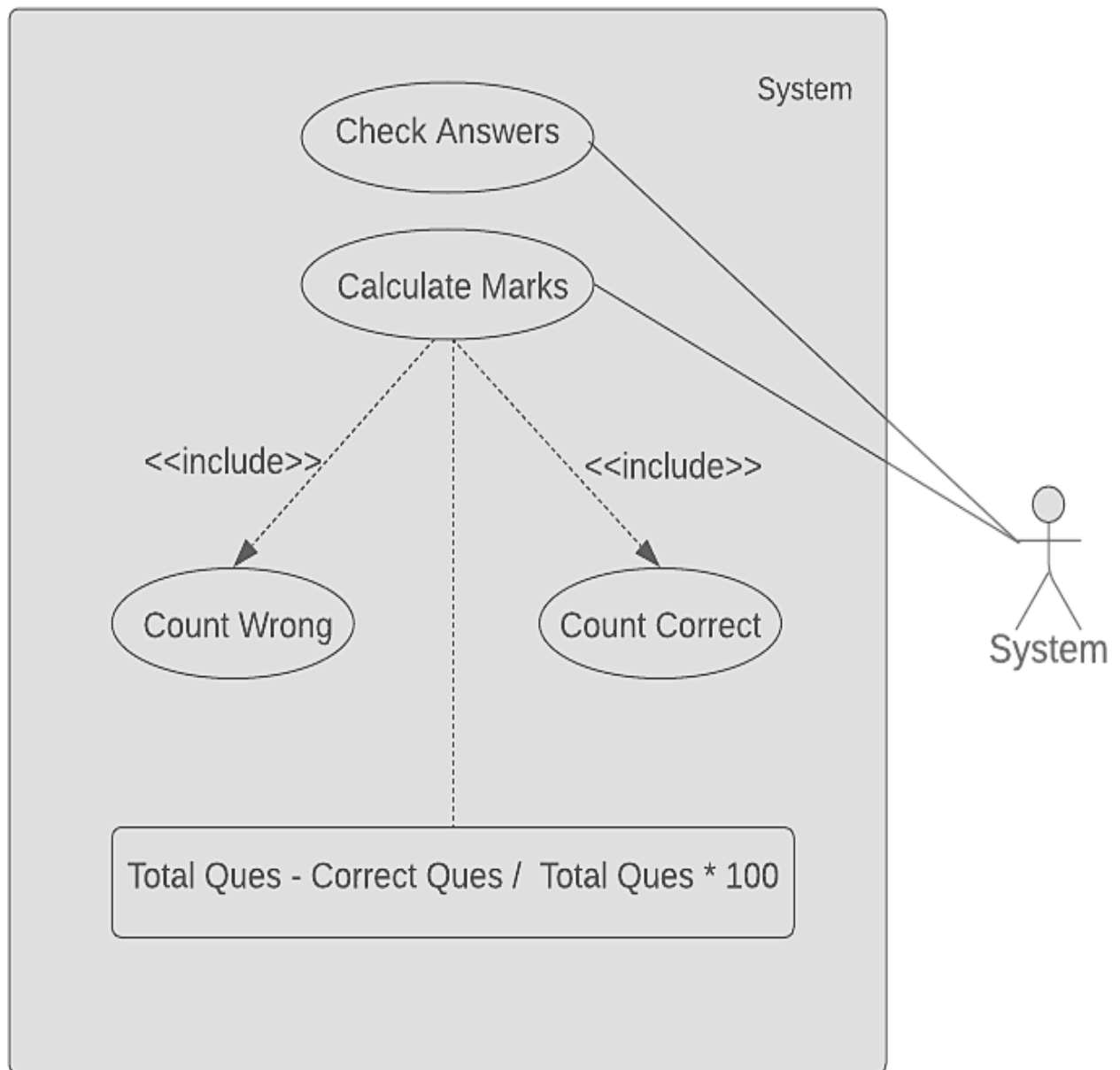


Figure 9: Use Case-Generate Result

## 4.2. Activity Diagram

### 4.2.1. Login Activity Diagram

The Figure 10 illustrates the flow of login of a specific user.

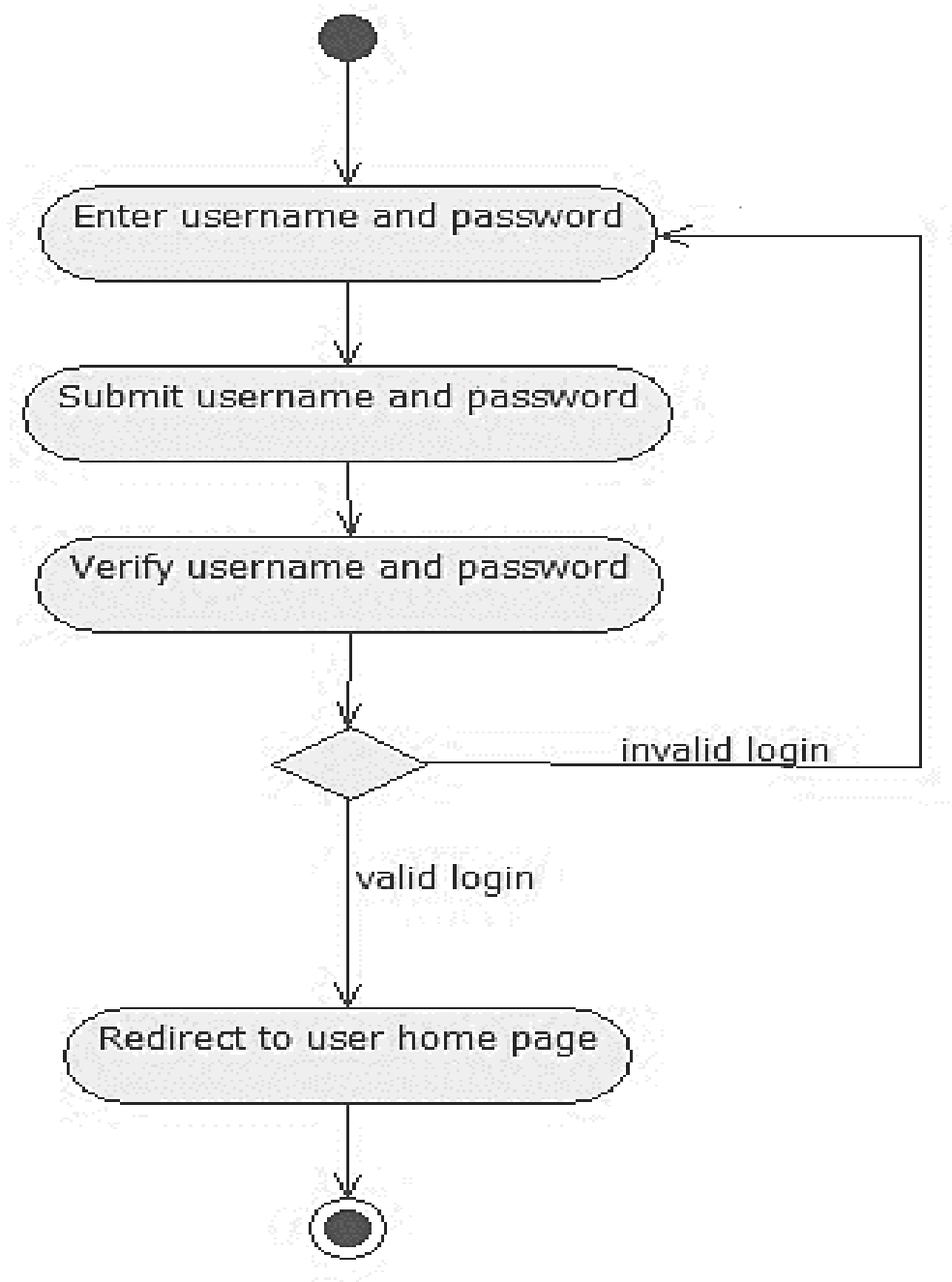


Figure 10: Activity Diagram-Login

### 4.2.2. Manage Students Activity Diagram

The Figure 11 illustrates how the students are managed and added by their appropriate invite.

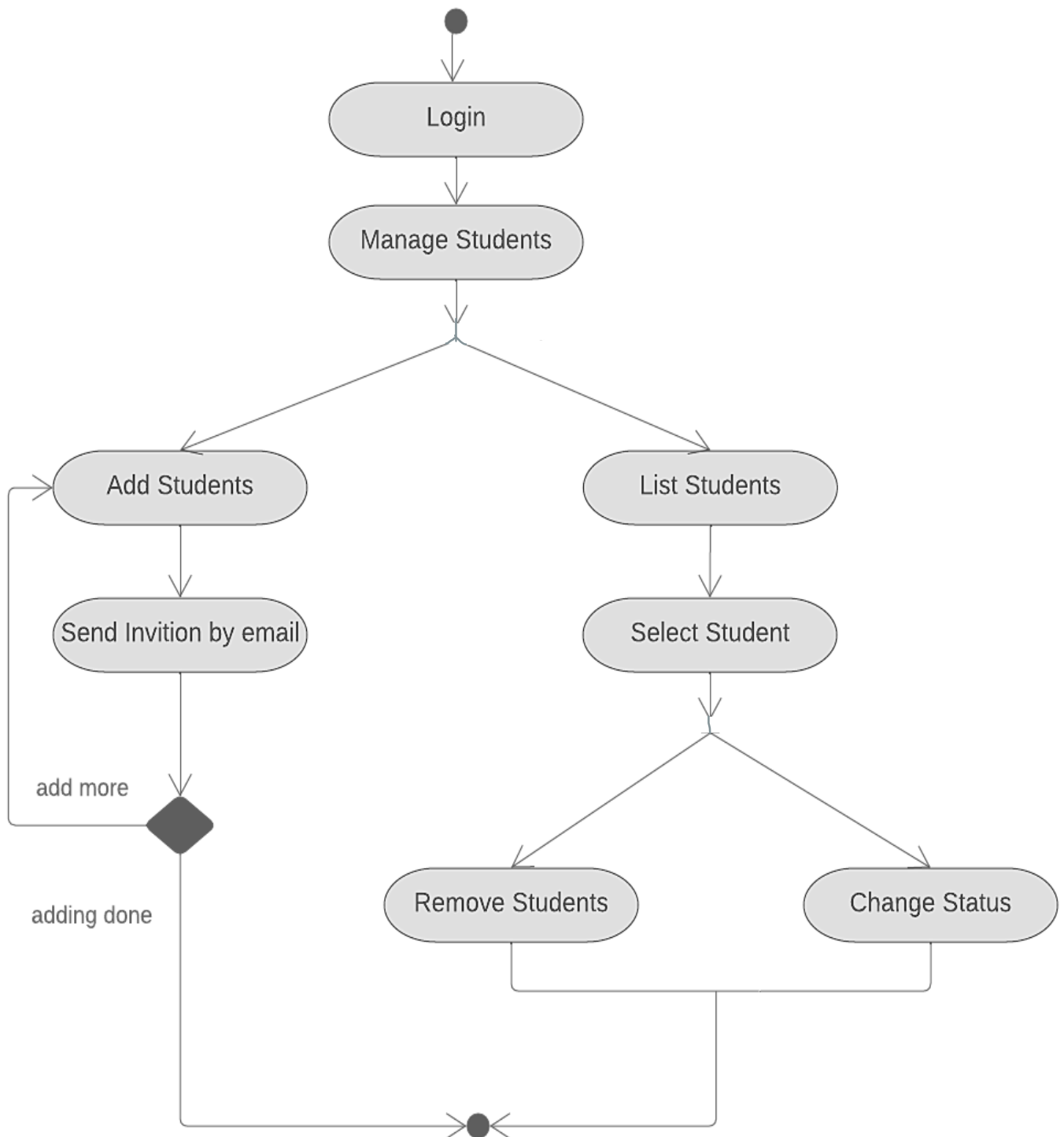


Figure 11: Activity Diagram-Manage Students Activity

### 4.2.3. Manage Tests Activity Diagram

The Figure 12 illustrates the managing and creation of test after logging in.

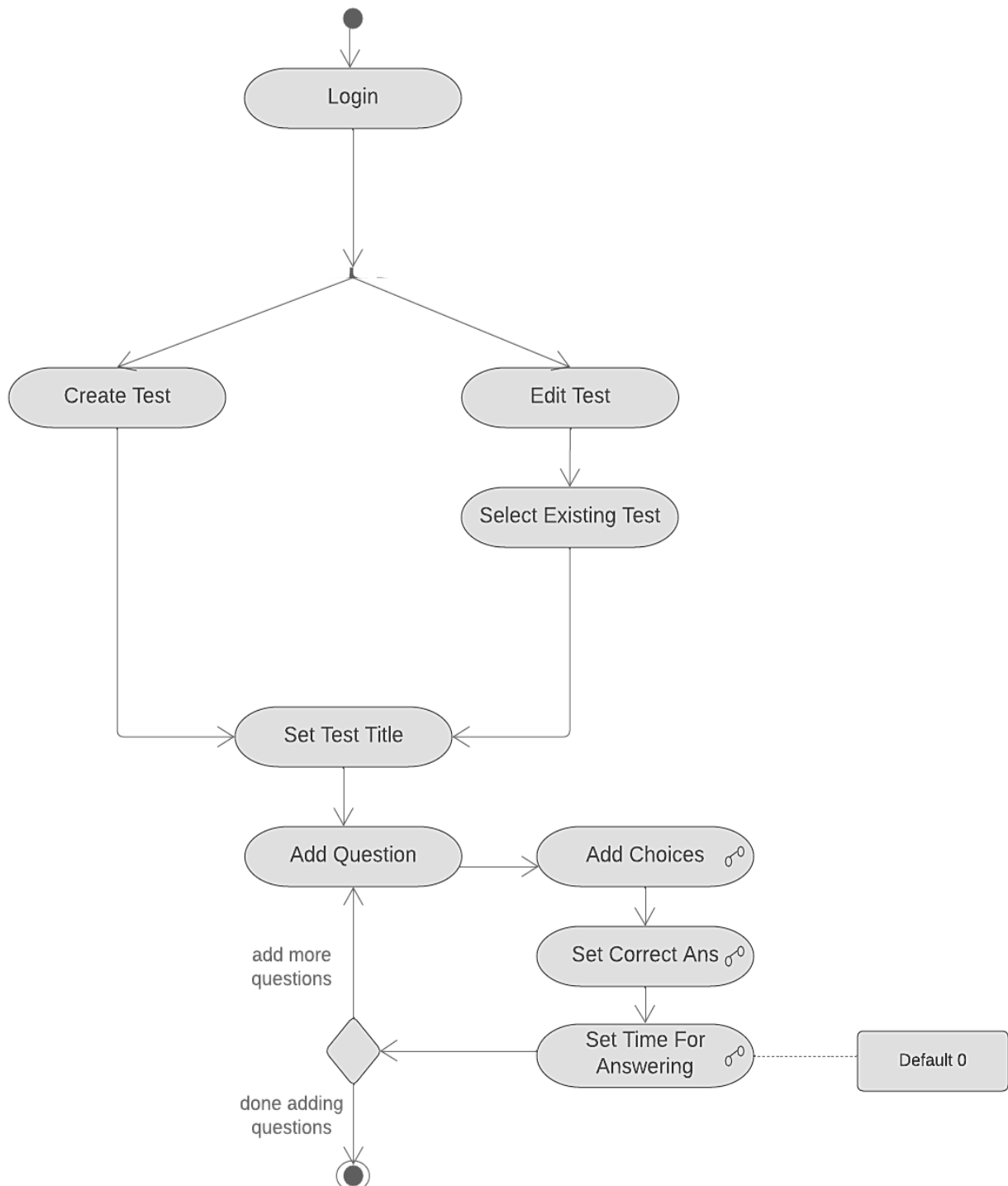


Figure 12: Activity Diagram-Manage Test

#### 4.2.4. Generate Result Activity Diagram

The Figure 13 illustrates the generation of results after the exam is conducted and submitted.

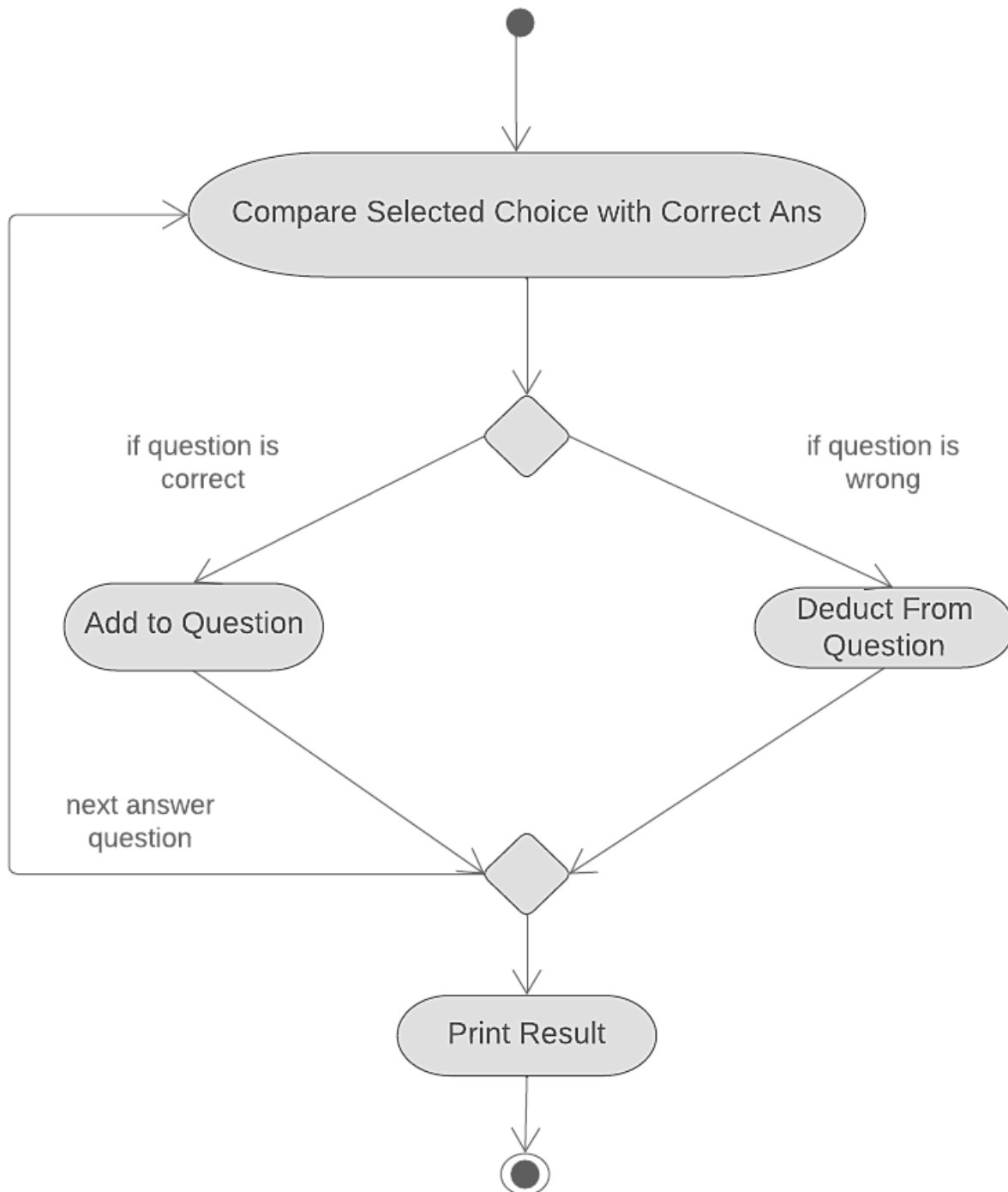


Figure 13: Activity Diagram-Generate Result

#### 4.2.5. Student Registration Activity Diagram

The Figure 14 illustrates how the students on receiving an invitation e-mail gets registered for the exam.

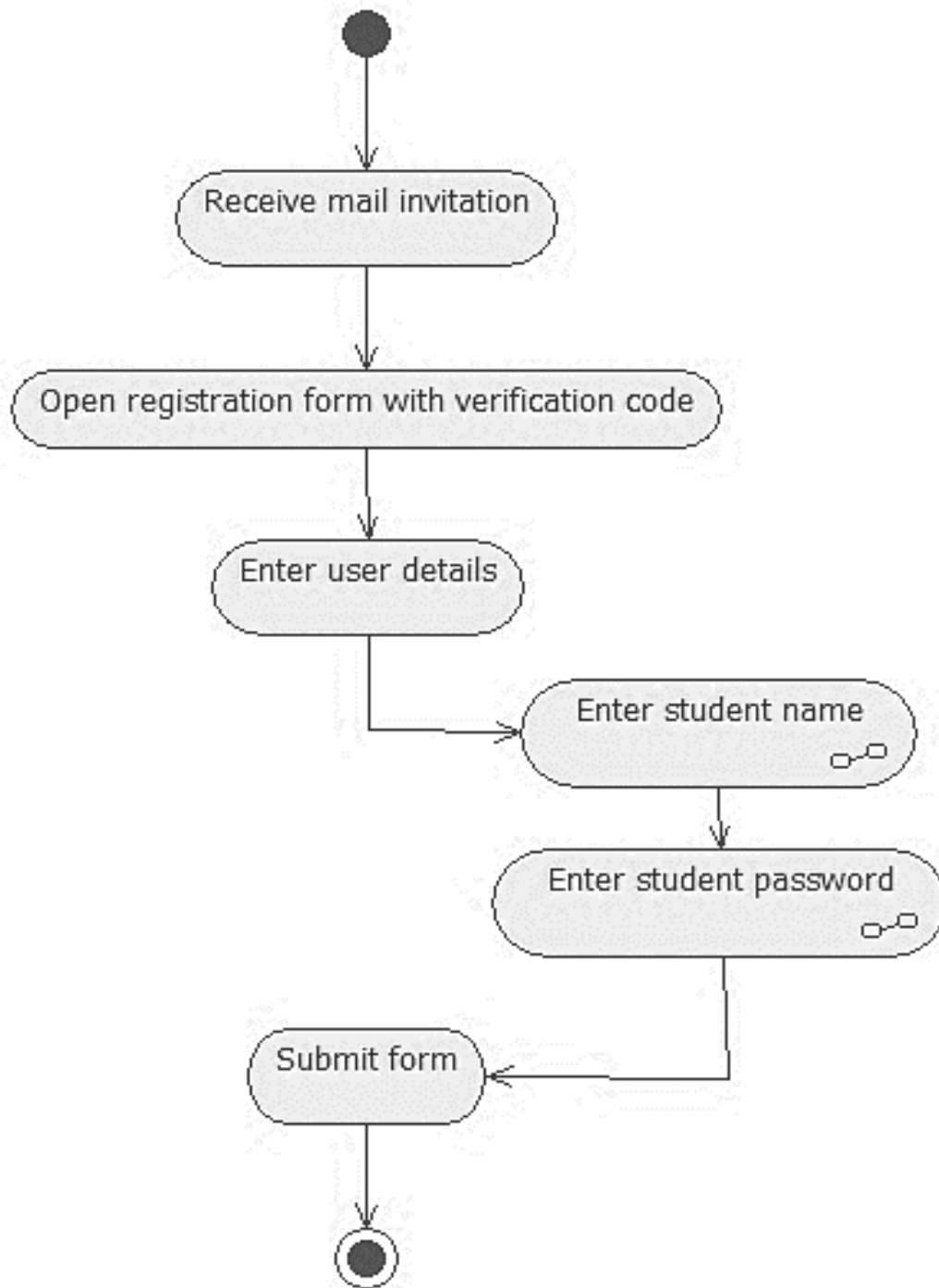


Figure 14: Activity Diagram-Student Registration

#### 4.2.6. Answer Test Activity Diagram

The Figure 15 illustrates the attempting and answering of the given question with-in the exam.

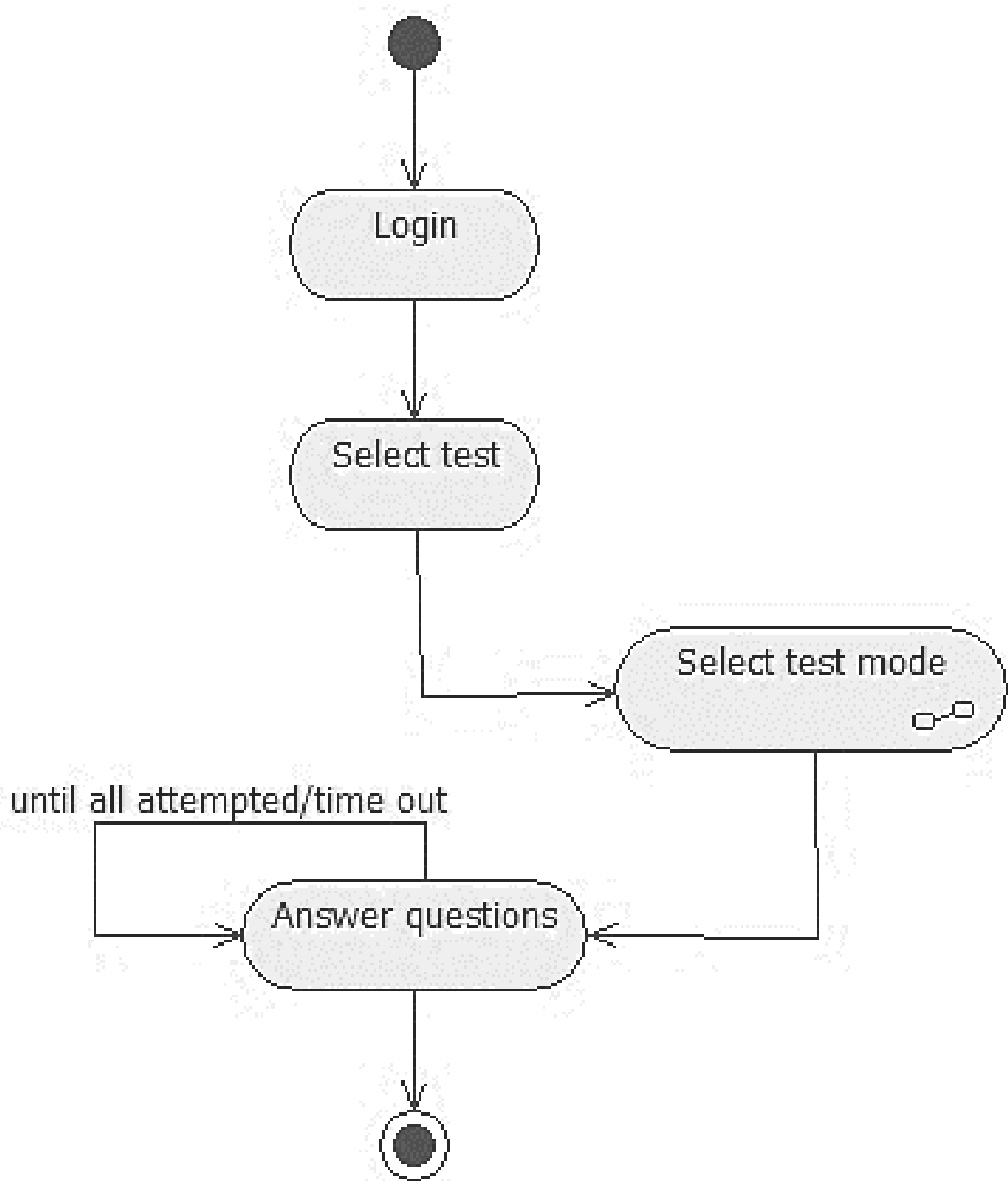


Figure 15: Activity Diagram-Answer Test

## 4.3. Sequence Diagrams

### 4.3.1. Sequence Diagram Overview

The Figure 16 illustrates the life span of different entities regarding their work with-in the preferred domain.

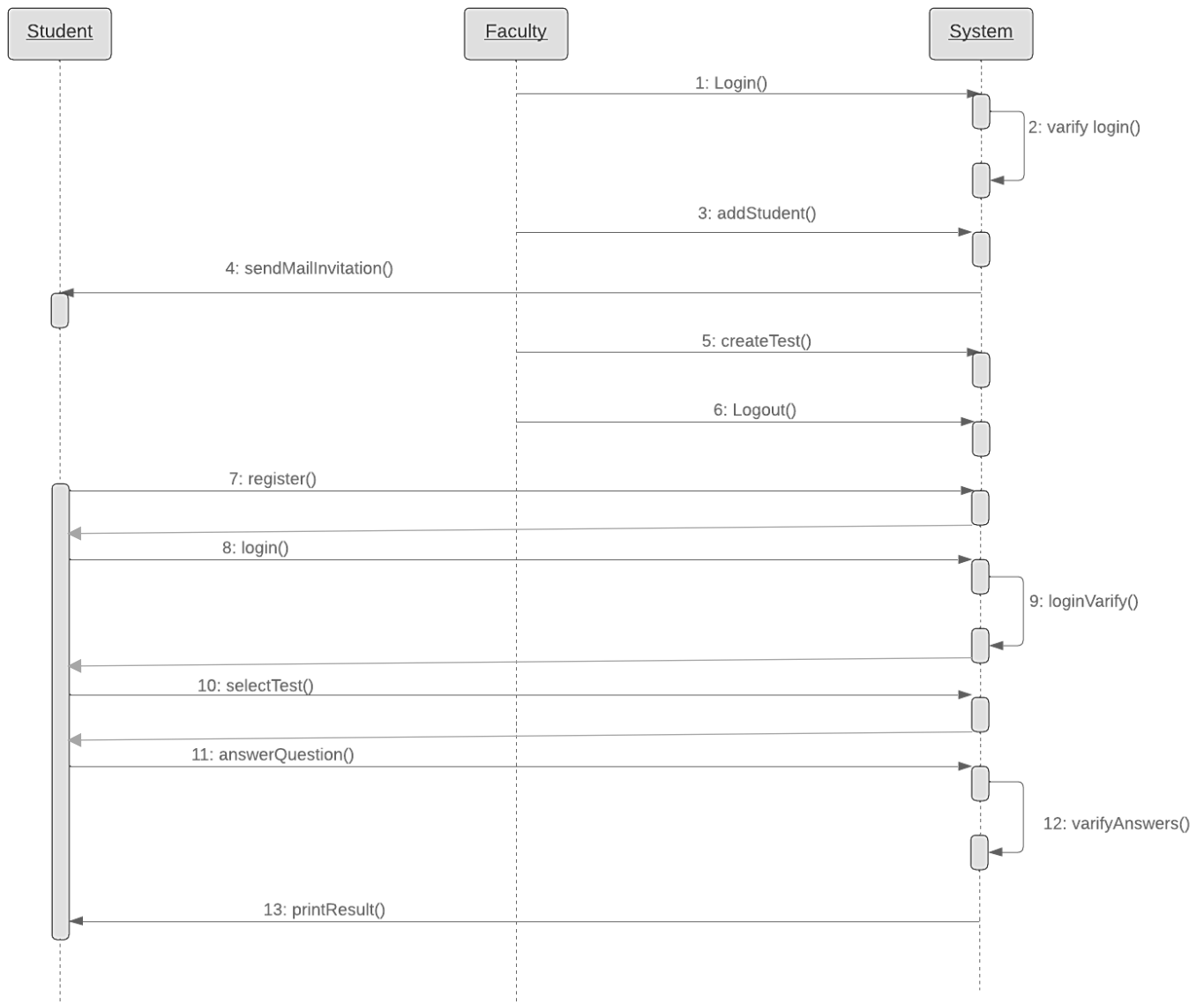


Figure 16: Sequence Diagram-Overview



### 4.3.2. Login Sequence Diagram

The Figure 17 illustrates how the user log in with the system and it verifies the user credentials with the database for the session to start.

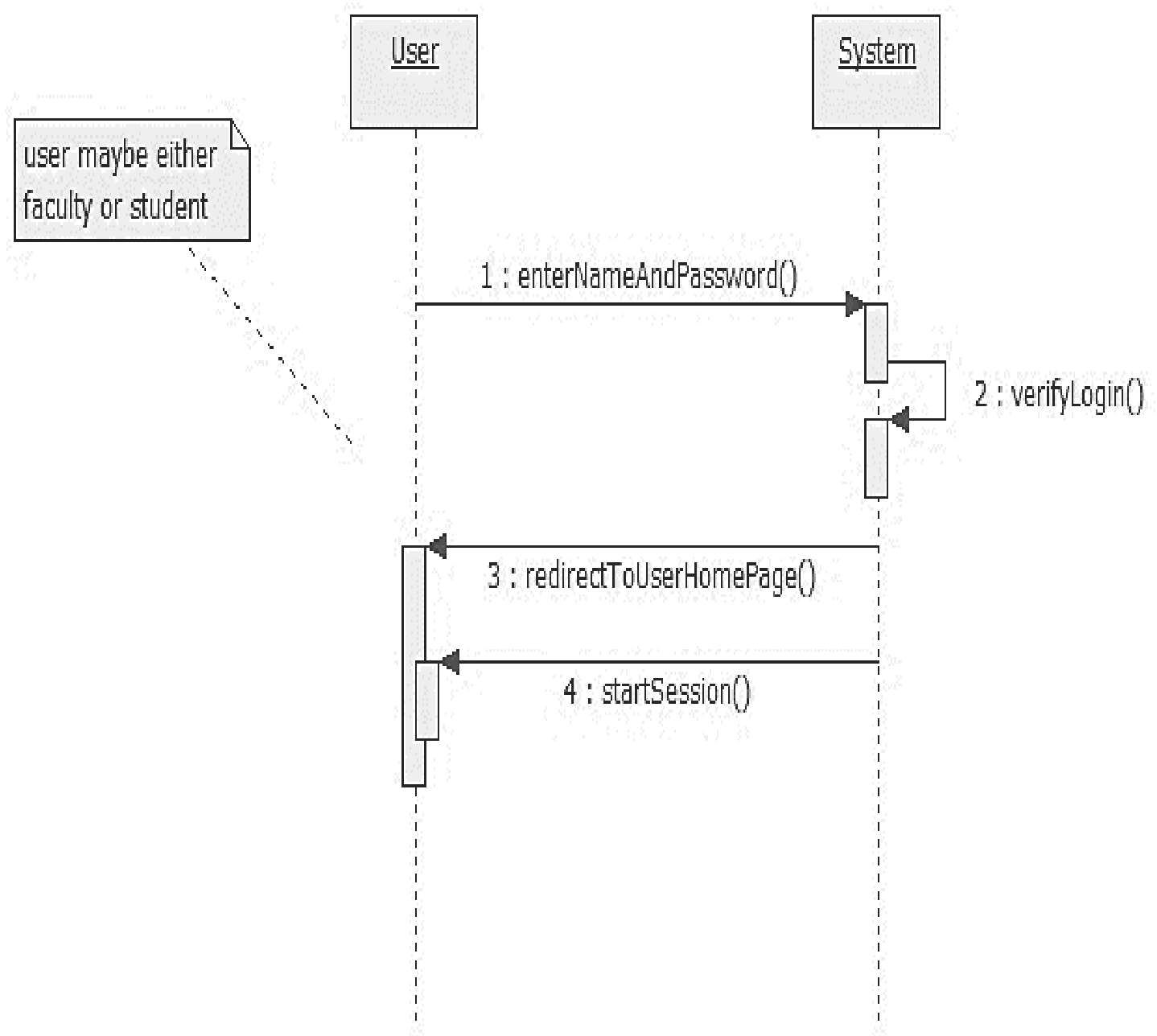


Figure 17: Sequence Diagram-Login

### 4.3.3. Manage Test Sequence Diagram

The Figure 18 illustrates how the faculty within its lifespan creates test and then modifies it.

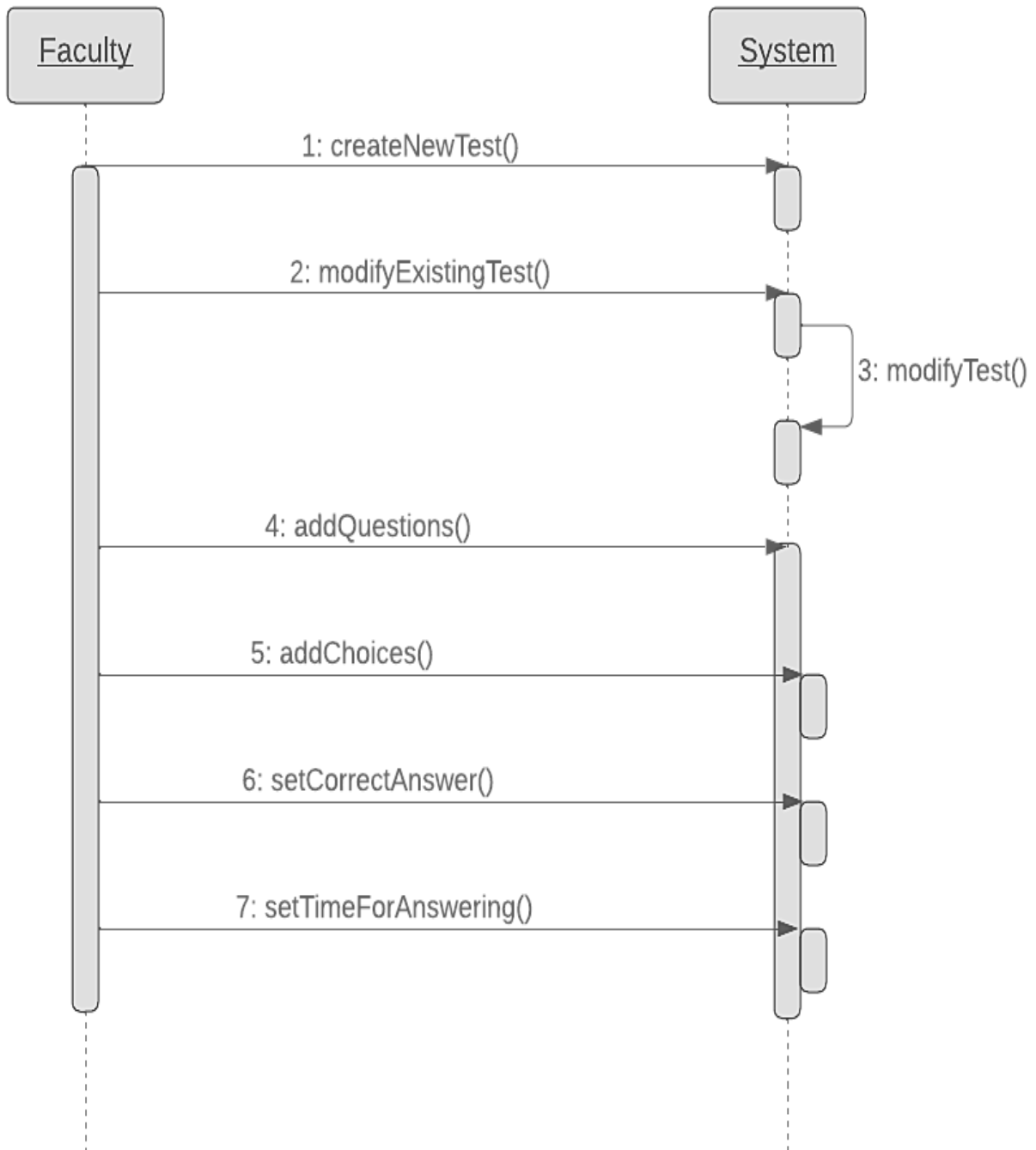


Figure 18: Sequence Diagram-Manage Test

#### 4.3.4. Appear for Test Sequence Diagram

The Figure 19 illustrates the student selecting its test and then selecting on which mode he/she wants to give the exam.

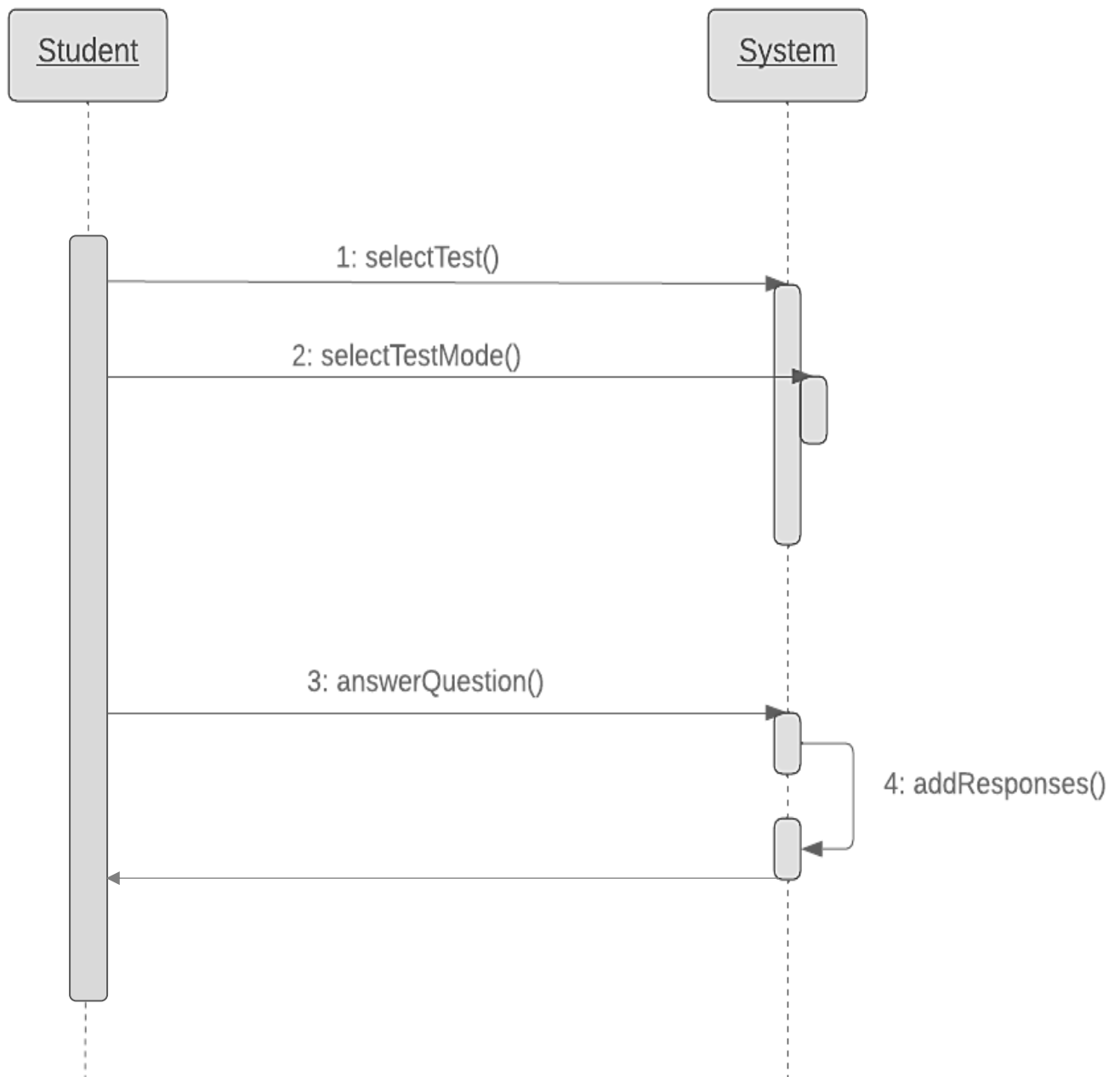


Figure 19: Sequence Diagram-Appear for Test

## 4.4. Class Diagram

The Figure 20 illustrates all the entities and their involved relationship within the domain and how the perform different operations to get their job done.

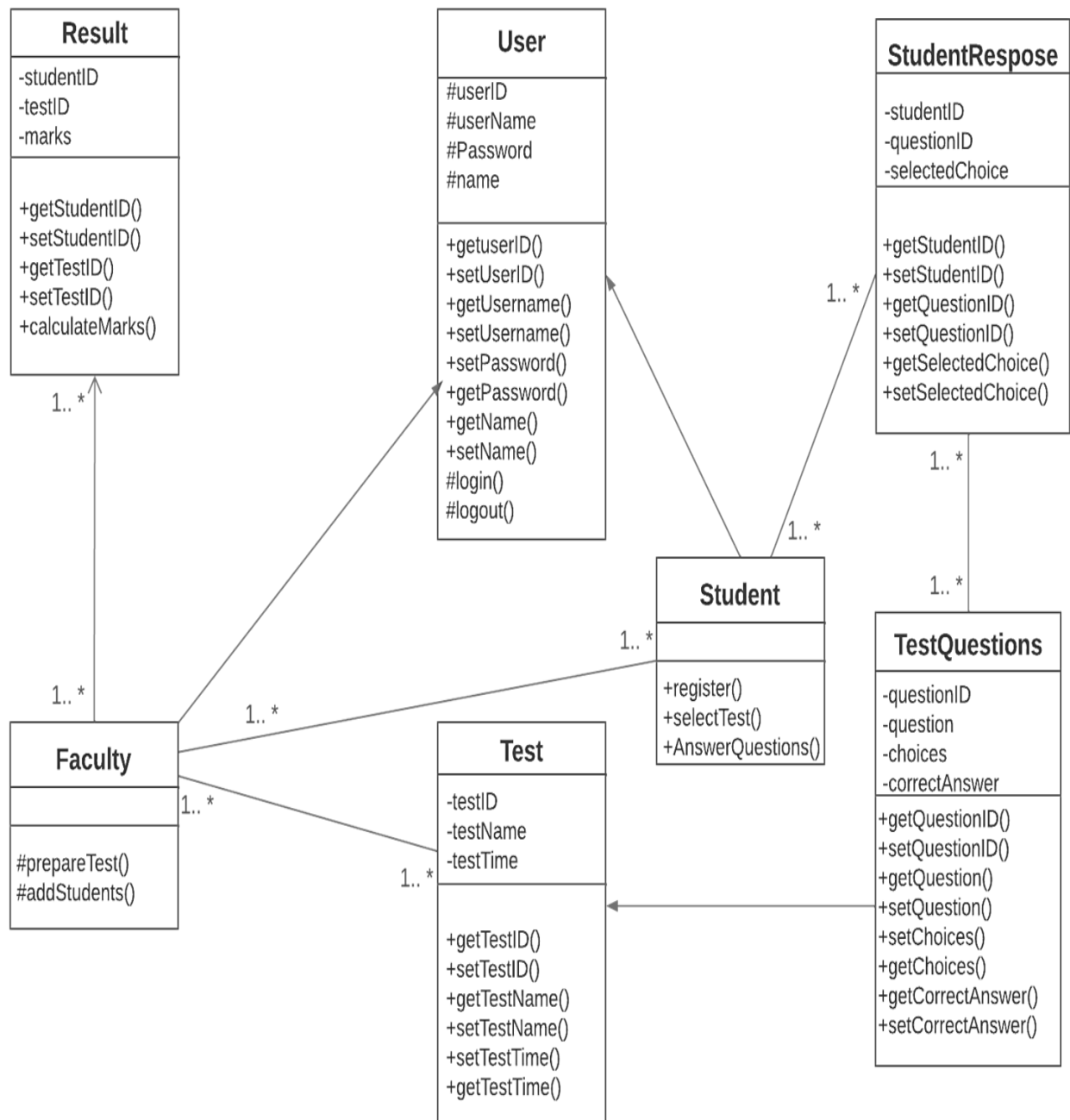


Figure 20: Class Diagram

## 4.5. Database Design

The Figure 21 illustrates the design of database and how the primary keys and foreign keys are interacting with one another.

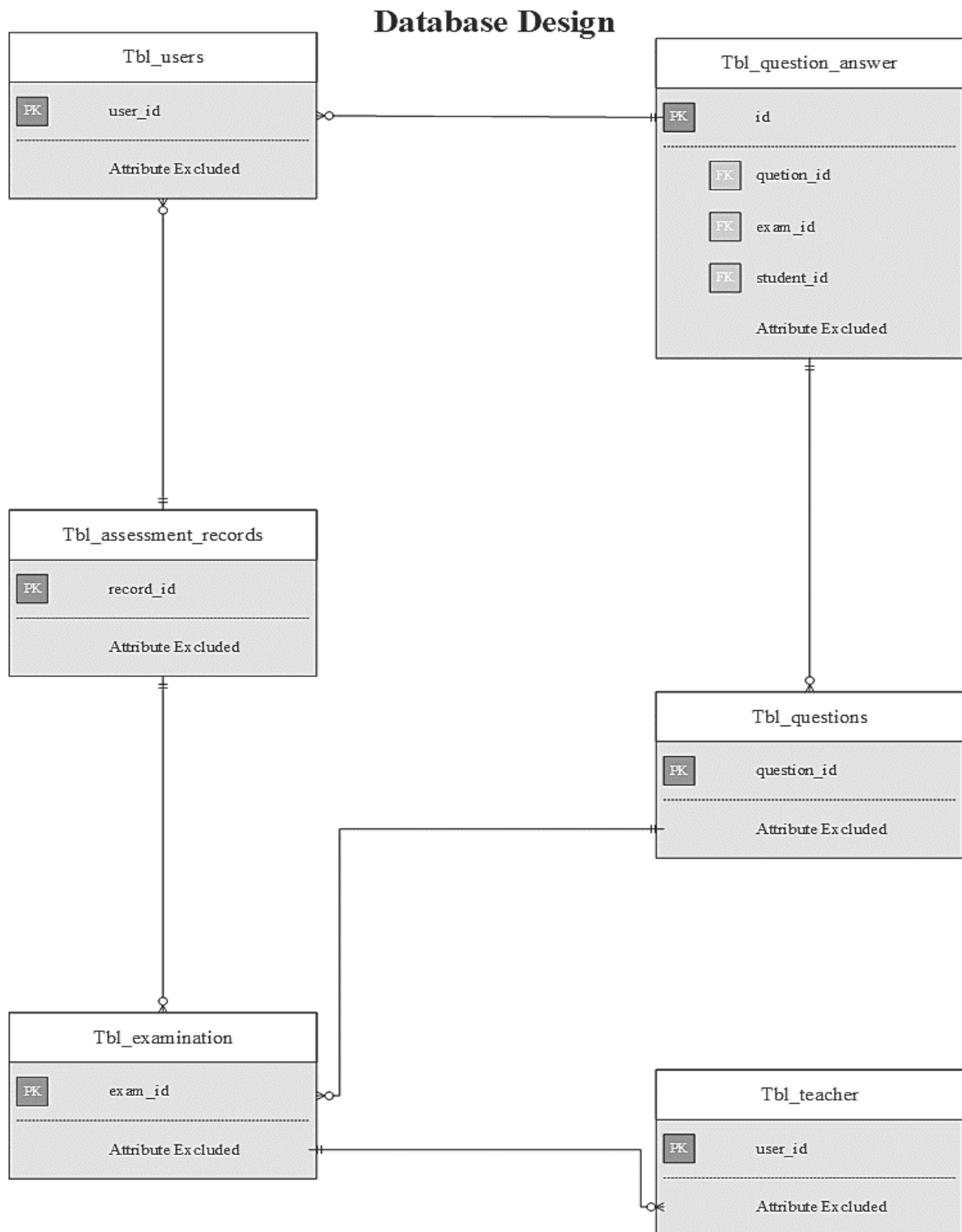


Figure 21: Database Design

## 4.6. Tables

### 4.6.1. Table: Tbl\_users

The Table 3 illustrates the credentials of user within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	user_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	first_name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	last_name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	gender	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	dob	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
6	address	LONGTEXT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
7	email	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
8	phone	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
9	department	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'.'		latin1_swedish_ci
10	category	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'.'		latin1_swedish_ci
11	login	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'e10adc3949ba59...		latin1_swedish_ci
12	role	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'student'		latin1_swedish_ci
13	sending_invita...	INT	11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'0'		
14	avatar	LONGBLOB		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		
15	acc_stat	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'1'		latin1_swedish_ci

Table 3: Database Table-User

### 4.6.2. Table: Tbl\_teacher

The Table 4 illustrates the credentials of teacher within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation	Expression
1	user_id	VARCHAR	50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci	
2	first_name	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
3	last_name	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
4	gender	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
5	dob	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
6	address	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
7	email	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
8	phone	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
9	department	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
10	category	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	
11	role	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	'teacher'		latin1_swedish_ci	
12	acc_stat	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	'1'		latin1_swedish_ci	
13	login	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	'1'		latin1_swedish_ci	
14	avatar	LONGTEXT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci	

Table 4: Database Table-Teacher

### 4.6.3. Table: Tbl\_subjects

The Table 5 illustrates the various subjects being taught by the teachers within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	subject_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	department	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	category	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	date_registered	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
6	status	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Active'		latin1_swedish_ci

Table 5: Database Table-Subjects

### 4.6.4. Table: Tbl\_question\_answer

The Table 6 illustrates the fields of the questions and answers in the database.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	id	INT	11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AUTO_INCREME...		
2	question_id	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci
3	exam_id	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci
4	student_id	VARCHAR	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci
5	answer	TEXT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci
6	correct_answer	TEXT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci
7	type	TEXT		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NULL		latin1_swedish_ci

Table 6: Database Table-Q&A

### 4.6.5. Tbl\_questions

The Table 7 illustrates the fields and choice of options for MCQS.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	question_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	exam_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	type	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	question	LONGTEXT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	option1	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'.'		latin1_swedish_ci
6	option2	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'.'		latin1_swedish_ci
7	option3	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'.'		latin1_swedish_ci
8	option4	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'.'		latin1_swedish_ci
9	answer	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
10	datetime	TIMESTAMP		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	current_timestam...		

Table 7: Database Table-Questions

#### 4.6.6. Table: Tbl\_notice

The Table 8 illustrates the notice fields within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	id	INT	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AUTO_INCREMENT		
2	notice_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	post_date	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	last_update	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	description	LONGTEXT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
6	title	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci

Table 8: Database Table-Notices

#### 4.6.7. Table: Tbl\_examination

The Table 9 illustrates the examination fields within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	exam_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	category	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	subject	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	exam_name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	date	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
6	duration	INT	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		
7	passmark	INT	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		
8	re_exam	INT	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		
9	terms	LONGTEXT		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
10	status	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Inactive'		latin1_swedish_ci

Table 9: Database Table-Examinations

#### 4.6.8. Table: Tbl\_departments

The Table 10 illustrates the registered departments fields within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	department_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	date_registered	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	status	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Active'		latin1_swedish_ci

Table 10: Database Table-Departments



#### 4.6.9. Table: Tbl\_categories

The Table 11 illustrates the categories of the department fields within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	<b>category_id</b>	<b>VARCHAR</b>	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	department	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	date_registered	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	status	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	'Active'		latin1_swedish_ci

Table 11: Database Table-Categories

#### 4.6.10. Table: Tbl\_assessment\_records

The Table 12 illustrates the assessment record fields within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	<b>record_id</b>	<b>VARCHAR</b>	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	student_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	student_name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	exam_name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	exam_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
6	score	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
7	status	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
8	next_retake	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
9	date	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci

Table 12: Database Table-Assessment Records

#### 4.6.11. Table: Tbl\_assessment\_practice\_records

The Table 13 illustrates the assessment practice record fields within database of the system.

#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
1	<b>record_id</b>	<b>VARCHAR</b>	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
2	student_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	student_name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
4	exam_name	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
5	exam_id	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
6	score	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
7	status	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
8	next_retake	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
9	date	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci

Table 13: Database Table-Practice Record

#### 4.6.12. Table: Tbl\_alerts

The Table 14 illustrates the alert fields within database of the system.


#	Name	Datatype	Length/Set	Unsign...	Allow N...	Zerofill	Default	Comment	Collation
 1	id	INT	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AUTO_INCREME...		
 2	code	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci
3	description	VARCHAR	255	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No default		latin1_swedish_ci

Table 14: Database Table-Alerts

# **Chapter No 5**

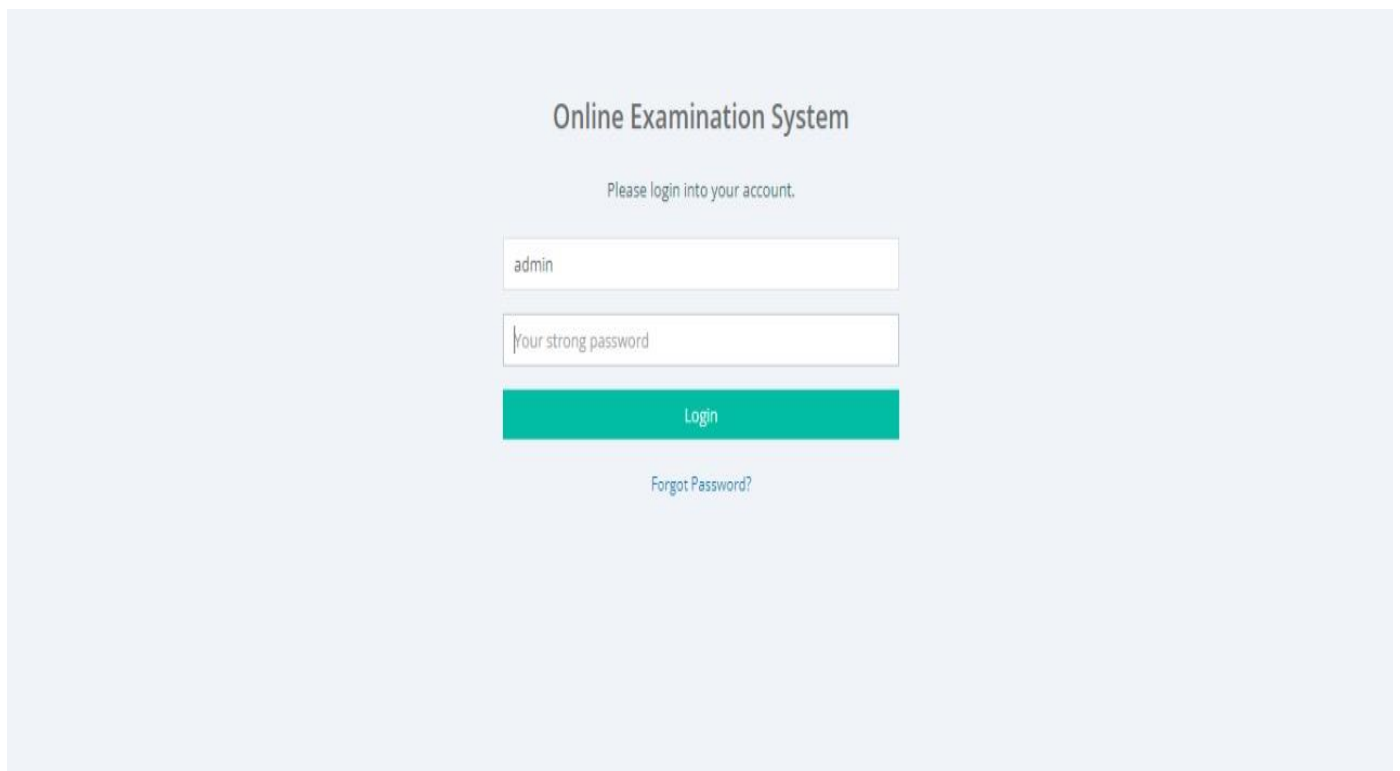
## **User- Interface**

## 5. User Interface

### 5.1. Admin Panel

#### 5.1.1. Login

The Screenshot 1 illustrates the admin login for it to use and view all the operations of the system.

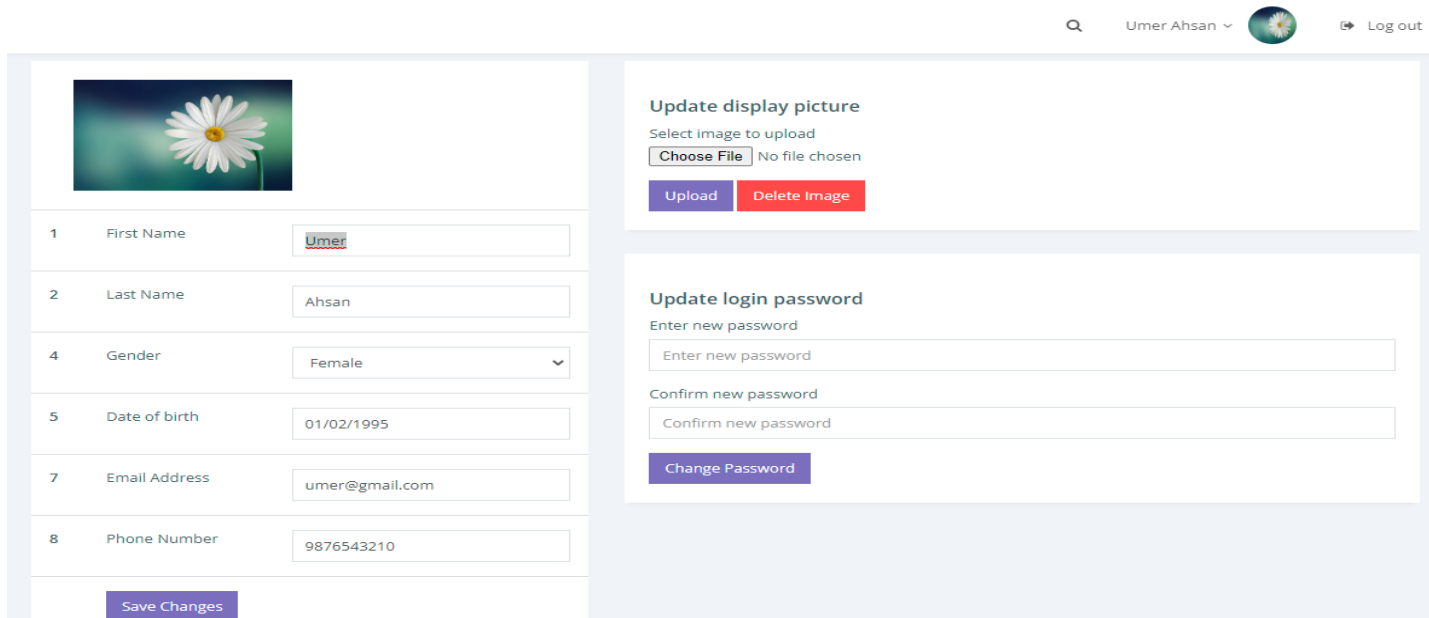


The screenshot displays the admin login interface for the Online Examination System. The page has a light blue background. At the top center, the title "Online Examination System" is displayed in a dark grey font. Below the title, a prompt "Please login into your account." is shown in a smaller, lighter grey font. The login form consists of two white input fields with thin grey borders. The first field contains the text "admin". The second field contains the placeholder text "Your strong password". Below these fields is a solid teal button with the word "Login" in white text. At the bottom center, there is a link "Forgot Password?" in a small, light blue font.

*Screenshots 1: Admin Login*

### 5.1.2. Admin Profile

The Screenshot 2 illustrates the details of the admin profile.

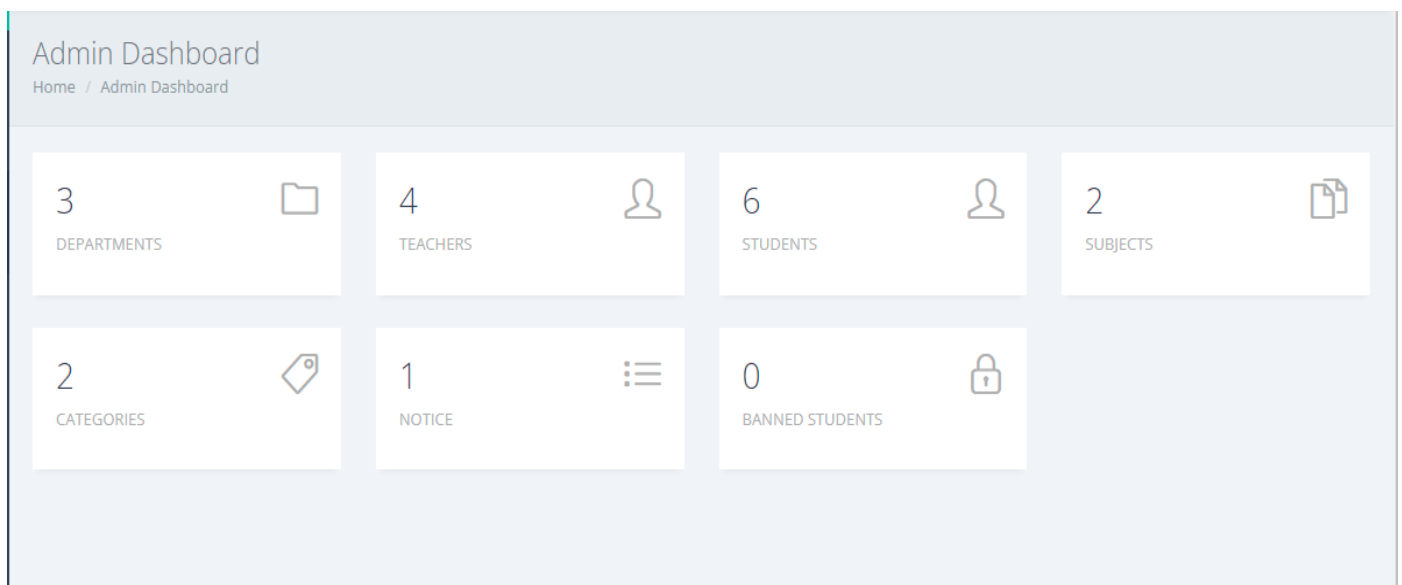


The screenshot shows the Admin Profile page. At the top right, there is a search icon, the user name "Umer Ahsan", a profile picture, and a "Log out" button. The main content area is divided into two columns. The left column contains a form for updating user details, with fields for First Name (Umer), Last Name (Ahsan), Gender (Female), Date of birth (01/02/1995), Email Address (umer@gmail.com), and Phone Number (9876543210). A "Save Changes" button is at the bottom of this form. The right column contains two sections: "Update display picture" with a "Choose File" button and "Upload" and "Delete Image" buttons, and "Update login password" with fields for "Enter new password" and "Confirm new password", and a "Change Password" button.

Screenshots 2: Admin Profile

### 5.1.3. Dashboard

The Screenshot 3 illustrates the operations that can be managed by the admin.



The screenshot shows the Admin Dashboard. At the top, there is a header with "Admin Dashboard" and a breadcrumb "Home / Admin Dashboard". Below the header is a grid of seven statistics cards, each with a number, a label, and an icon. The cards are: DEPARTMENTS (3), TEACHERS (4), STUDENTS (6), SUBJECTS (2), CATEGORIES (2), NOTICE (1), and BANNED STUDENTS (0). The grid is arranged in two rows: the first row contains DEPARTMENTS, TEACHERS, STUDENTS, and SUBJECTS; the second row contains CATEGORIES, NOTICE, and BANNED STUDENTS.

Screenshots 3: Dashboard

### 5.1.4. Departments

The Screenshot 4 illustrates the Departments section of the dashboard which contains the status of department whether it is active or not.

Manage Departments

Departments Add Departments

Show 10 entries Search:

Name	Status	Department ID	Date Registered	Action
Civil Engineering	ACTIVE	DP-152240	10-12-2017	Select Action
Computer Science	ACTIVE	DP-030059	10-12-2017	Select Action
Fashion Design	ACTIVE	DP-095351	28-06-2022	Select Action

Showing 1 to 3 of 3 entries Previous 1 Next

*Screenshots 4: Manage Department*

The Screenshot 5 illustrates that admin can add new departments if there in not any available department

Manage Departments

Departments Add Departments

Department Name

Enter department name

Submit

*Screenshots 5: Add Department*

### 5.1.5. Categories

The Screenshot 6 illustrates the list and status of categories within the department which is controlled by admin

The screenshot shows the 'Manage Categories' interface. It has two tabs: 'Categories' (selected) and 'Add Categories'. Below the tabs, there is a 'Show' dropdown set to '10' and a 'Search' input field. A table lists the categories with columns: Name, Category ID, Status, Department, Date Registered, and Action. Two categories are listed: 'Computer Application 1' and 'IT', both with status 'ACTIVE' and department 'Computer Science'. At the bottom, it says 'Showing 1 to 2 of 2 entries' and has 'Previous', '1', and 'Next' pagination links.

Name	Category ID	Status	Department	Date Registered	Action
Computer Application 1	CT-686828	ACTIVE	Computer Science	16-06-2022	Select Action ▼
IT	CT-302627	ACTIVE	Computer Science	16-06-2022	Select Action ▼

*Screenshots 6: Manage Categories*

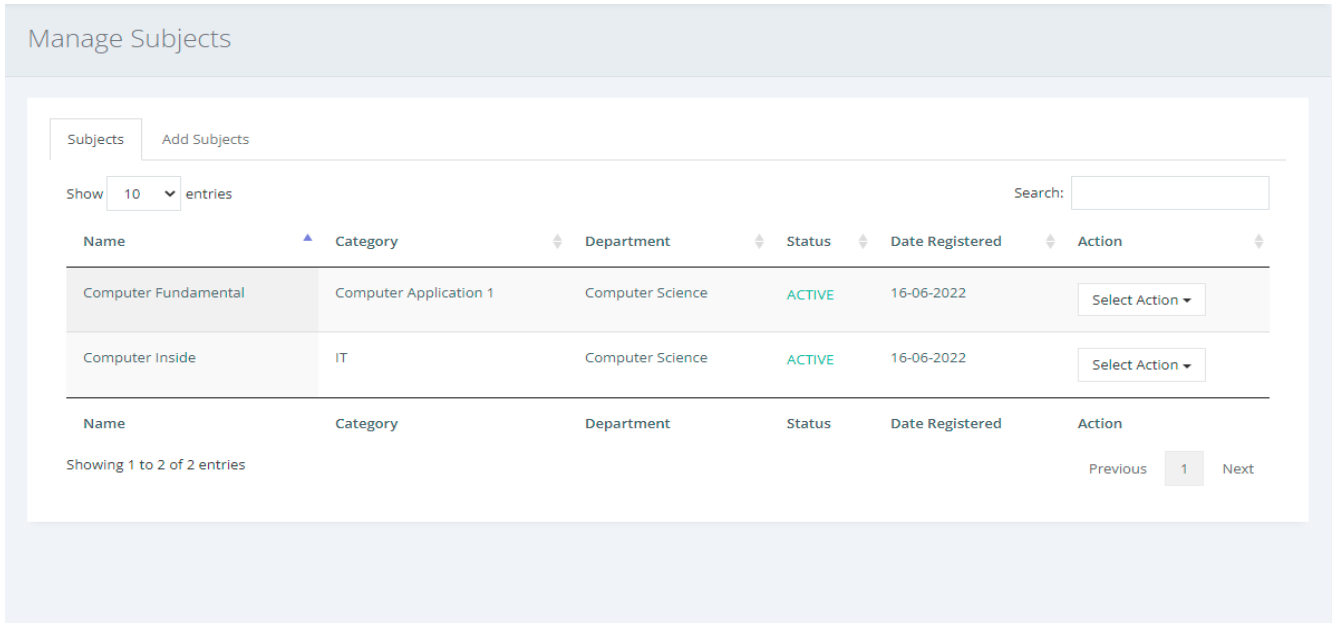
The Screenshot 7 illustrates the addition of new categories related to that department by the admin.

The screenshot shows the 'Add Categories' form within the 'Manage Categories' interface. It has two tabs: 'Categories' and 'Add Categories' (selected). The form includes a 'Category Name' input field with placeholder text 'Enter category name', a 'Select Department' dropdown menu with '-Select department-' selected, and a 'Submit' button.

*Screenshots 7: Add Categories*

### 5.1.6. Subjects

The Screenshot 8 illustrates how admin manages subjects within different categories and ensure the status of them



Manage Subjects

Subjects Add Subjects

Show 10 entries Search:

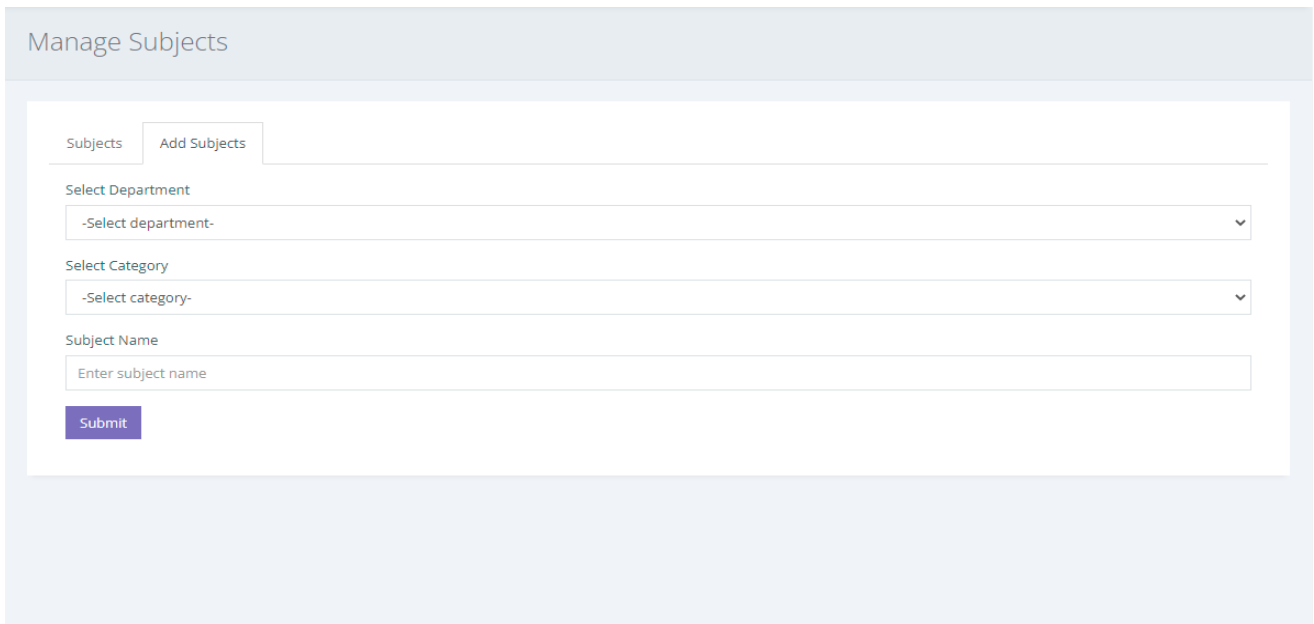
Name	Category	Department	Status	Date Registered	Action
Computer Fundamental	Computer Application 1	Computer Science	ACTIVE	16-06-2022	Select Action
Computer Inside	IT	Computer Science	ACTIVE	16-06-2022	Select Action

Name Category Department Status Date Registered Action

Showing 1 to 2 of 2 entries Previous 1 Next

*Screenshots 8: Manage Subjects*

The Screenshot 9 illustrates that admin can add subjects into specific categories of the department



Manage Subjects

Subjects Add Subjects

Select Department  
-Select department-

Select Category  
-Select category-

Subject Name  
Enter subject name

Submit

*Screenshots 9: Add Subjects*



### 5.1.7. Students

The Screenshot 10 illustrates that admin can manage student credentials and can block-list them by dropping them.

Manage Students						
Students		Add Students				
Show	10	entries		Search: <input type="text"/>		
Name	Gender	Category	Status	Date of Birth	Action	
Ahsan Student	Male	Computer Application 1	ACTIVE	07/14/2022	Select Action ▼	
Arsam Student	Male	Computer Application 1	ACTIVE	06/02/2022	Select Action ▼	
M Umer	Male	Computer Application 1	ACTIVE	06/02/2022	Select Action ▼	
Munim Student CS	Male	Computer Application 1	ACTIVE	06/02/2022	Select Action ▼	
Munim Jutt	Male	IT	ACTIVE	06/04/2022	Select Action ▼	

*Screenshots 10: Manage Students*

The Screenshot 11 illustrates that admin can student credentials in the database for them to login.

Manage Students	
Students	Add Students
First Name	
<input type="text" value="Enter first name"/>	
Last Name	
<input type="text" value="Enter last name"/>	
Male <input type="radio"/> Female <input type="radio"/>	
Email Address	
<input type="text" value="Enter email address"/>	
Phone	
<input type="text" value="Enter phone"/>	
Select Department	
<input type="text" value="-Select department-"/>	
Select Category	
<input type="text"/>	

*Screenshots 11: Add Students*

### 5.1.8. Faculty

The Screenshot 12 illustrates that admin have the control of managing teachers as well and to ensure their proper working.

Manage Teachers

Teachers

Add Teachers

Show

10

▼

entries

Search:

Name	Gender	Category	Status	Date of Birth	Action
Ahmad Teacher	Male	Computer Application 1	ACTIVE	06/02/2022	Select Action ▼
Ali Teacher	Male	Computer Application 1	ACTIVE	06/02/2022	Select Action ▼
Rashid Ali	Male	IT	ACTIVE	03/09/1994	Select Action ▼
Umer Teacher	Male	Computer Application 1	ACTIVE	06/09/2022	Select Action ▼

Name

Gender

Category

Status

Date of Birth

Action

Showing 1 to 4 of 4 entries

Previous

1

Next

*Screenshots 12: Manage Teachers*

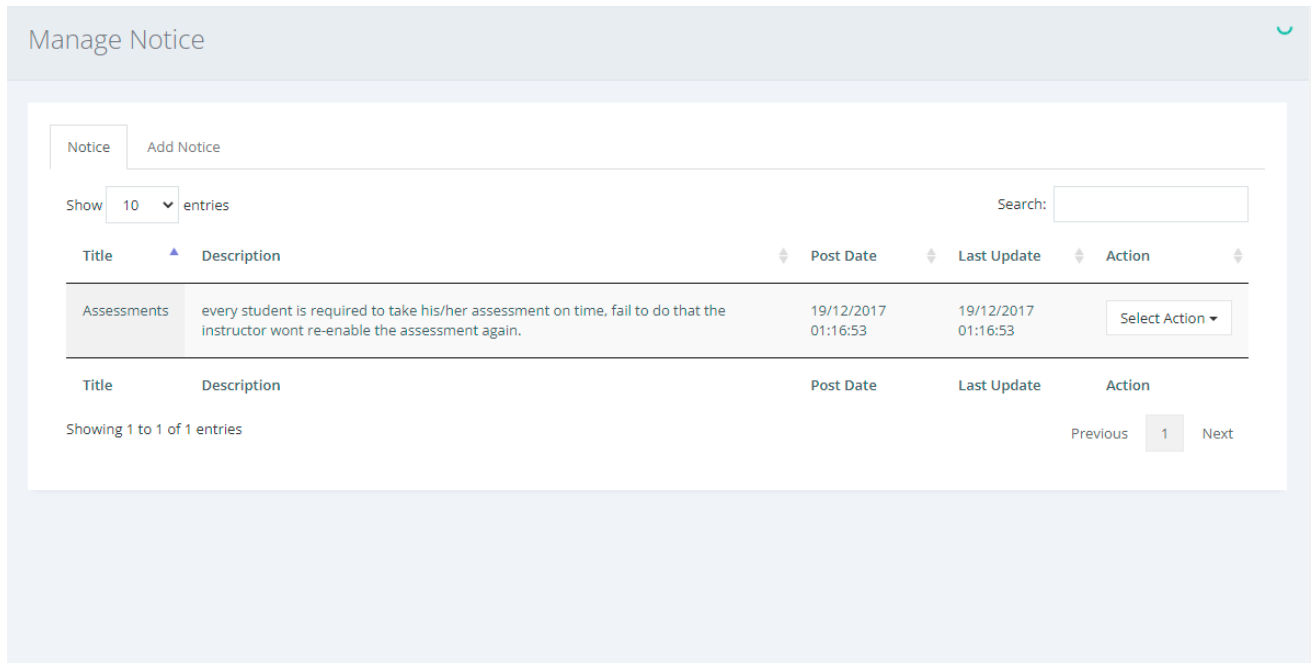
The Screenshot 13 illustrates that only admin can add teachers who will be teaching a particular subject and more than one teacher can teach the same subject as well .

Manage Teachers	
Teachers	Add Teachers
<div> <div>First Name</div> <div>Enter first name</div> </div>	
<div> <div>Last Name</div> <div>Enter last name</div> </div>	
<div> <div>Male</div> <div>Female</div> </div>	
<div> <div>Email Address</div> <div>Enter email address</div> </div>	
<div> <div>Phone</div> <div>Enter phone</div> </div>	
<div> <div>Select Department</div> <div>-Select department-</div> </div>	
<div> <div>Select Category</div> <div></div> </div>	

*Screenshots 13: Add Teachers*

## 5.1.9. Notice

The Screenshot 14 illustrates that only admin can post and manage notices on the board to be read by students and teachers.

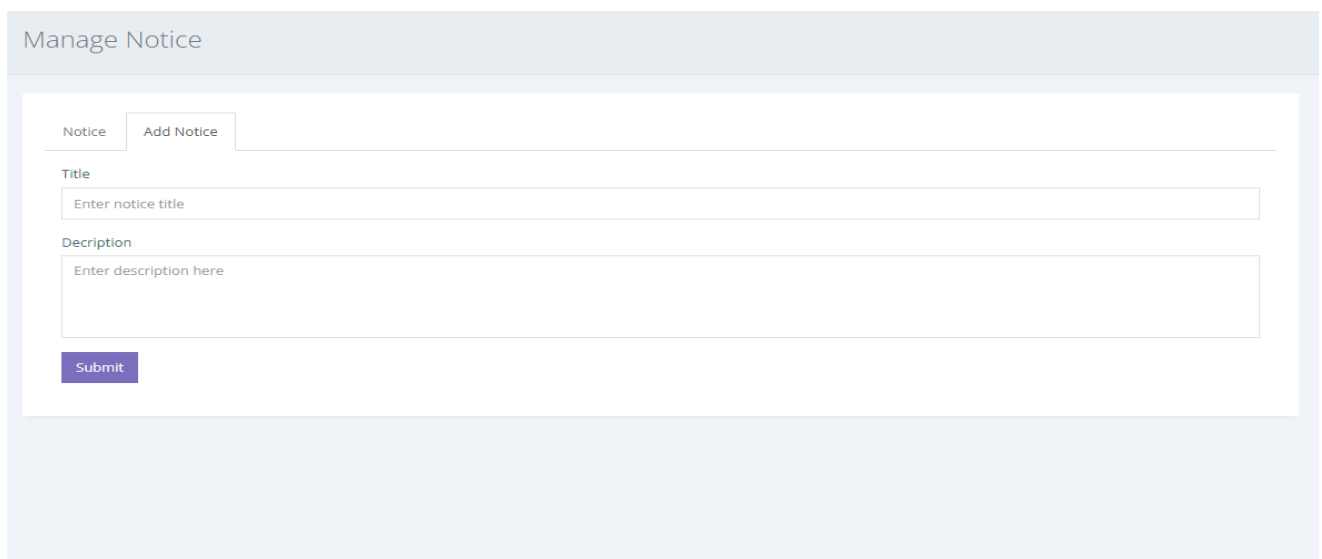


The screenshot shows the 'Manage Notice' interface. At the top, there are tabs for 'Notice' and 'Add Notice'. Below the tabs, there is a 'Show 10 entries' dropdown and a search bar. The main content is a table with the following columns: Title, Description, Post Date, Last Update, and Action. The table contains one entry with the title 'Assessments' and a description about student assessment requirements. The 'Post Date' and 'Last Update' are both '19/12/2017 01:16:53'. The 'Action' column has a 'Select Action' dropdown. Below the table, there is a 'Showing 1 to 1 of 1 entries' message and pagination controls with 'Previous', '1', and 'Next' buttons.

Title	Description	Post Date	Last Update	Action
Assessments	every student is required to take his/her assessment on time, fail to do that the instructor wont re-enable the assessment again.	19/12/2017 01:16:53	19/12/2017 01:16:53	Select Action ▼

Screenshots 14: Manage Notice

The Screenshot 15 illustrates that only admin can write notice.

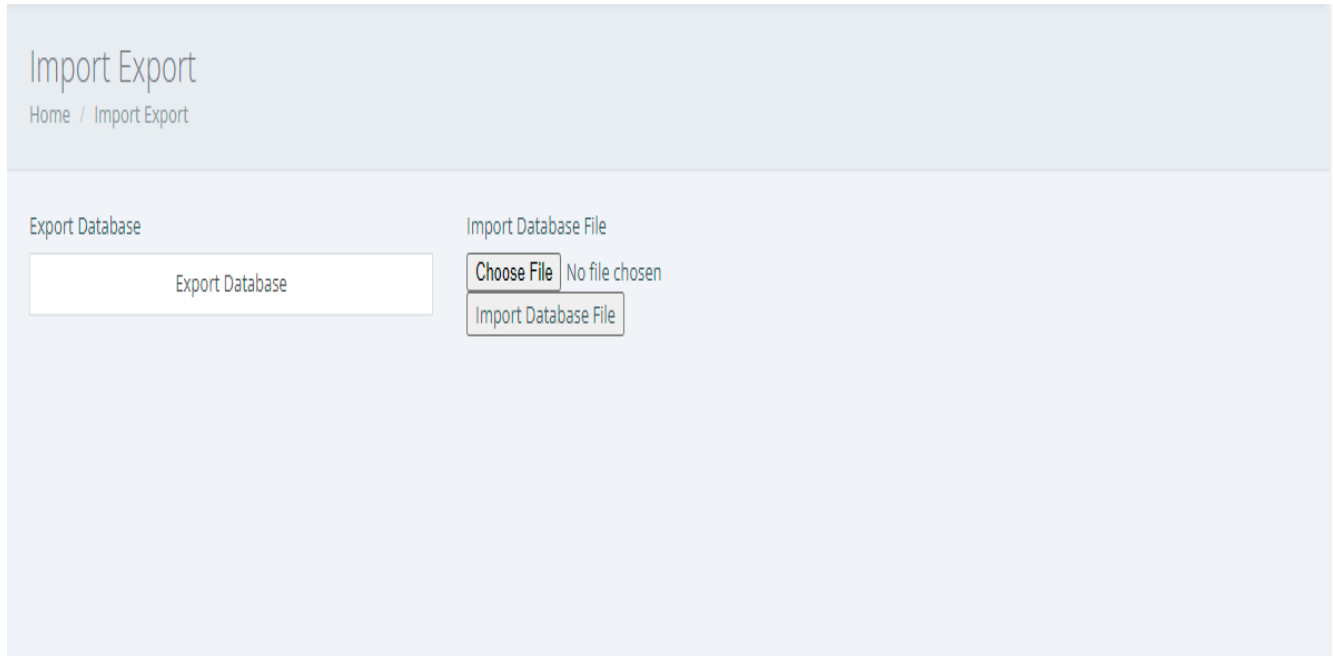


The screenshot shows the 'Add Notice' form. It has tabs for 'Notice' and 'Add Notice'. The form contains two input fields: 'Title' with the placeholder 'Enter notice title' and 'Description' with the placeholder 'Enter description here'. A 'Submit' button is located at the bottom left of the form.

Screenshots 15: Add Notice

### 5.1.10. Export Database

The Screenshot 16 illustrates that admin have the right to make an external copy for backup of the database.

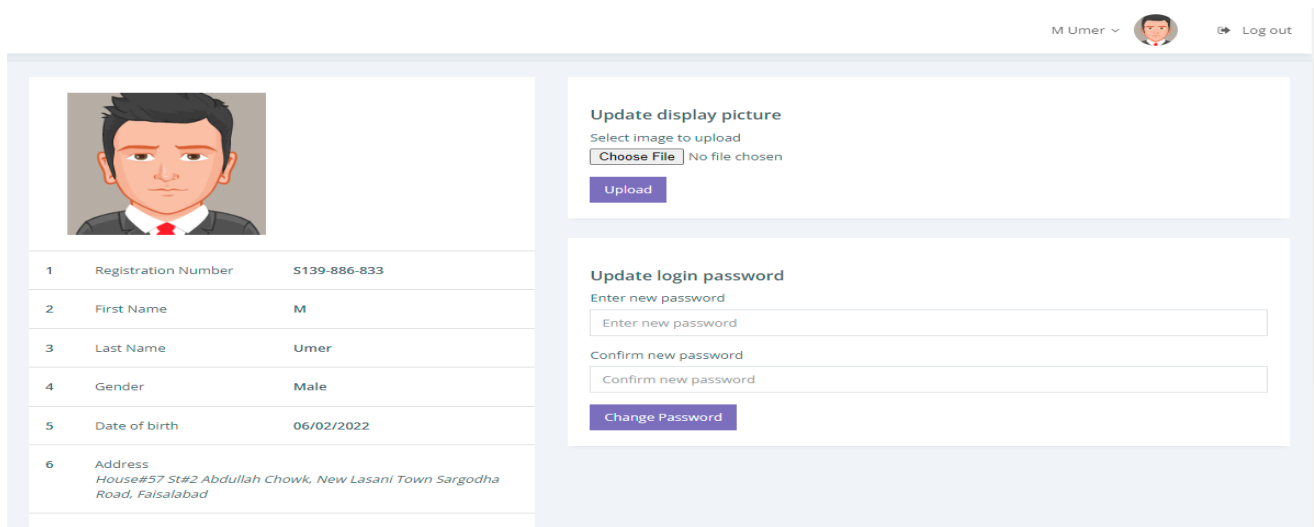


*Screenshots 16: Export Database*

## 5.2. Student Panel

### 5.2.1. Student Profile

The Screenshot 17 illustrates the student profile with its given credentials.



The screenshot shows the Student Profile page. At the top right, the user is identified as 'M Umer' with a dropdown arrow and a 'Log out' button. The profile section on the left includes a display picture of a man in a suit and a table of personal details:

1	Registration Number	S139-886-833
2	First Name	M
3	Last Name	Umer
4	Gender	Male
5	Date of birth	06/02/2022
6	Address	House#57 St#2 Abdullah Chowk, New Lasani Town Sargodha Road, Faisalabad

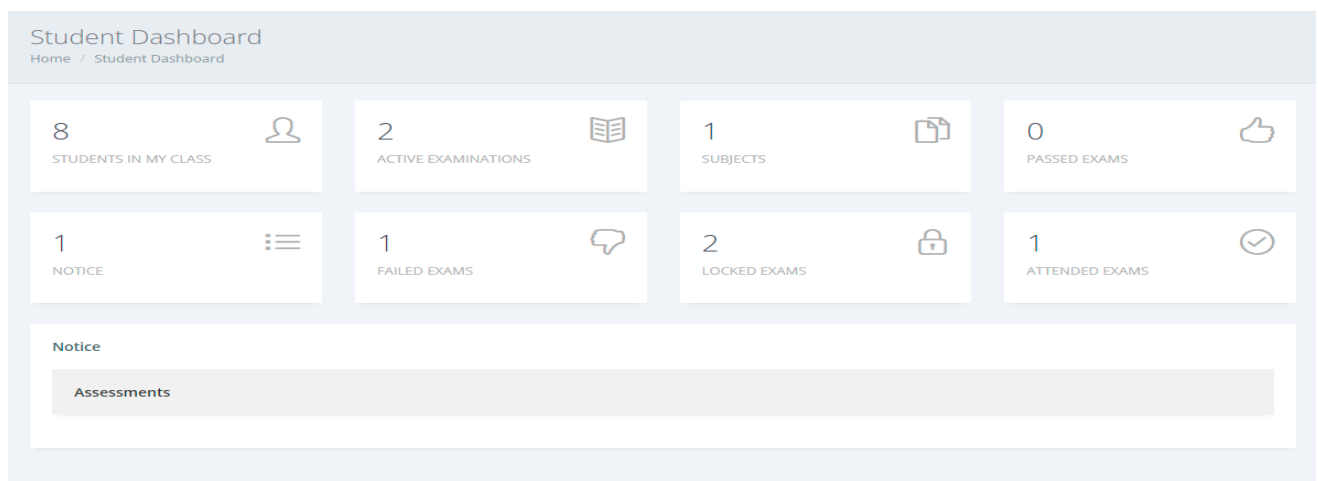
On the right, there are two update sections:

- Update display picture:** Includes a 'Choose File' button (labeled 'No file chosen') and an 'Upload' button.
- Update login password:** Includes fields for 'Enter new password' and 'Confirm new password', and a 'Change Password' button.

Screenshots 17: Student Profile

### 5.2.2. Dashboard

The Screenshot 18 illustrates the options on dashboard for the ease of students.



The screenshot shows the Student Dashboard. At the top, it says 'Student Dashboard' with a breadcrumb 'Home / Student Dashboard'. Below this are eight cards showing statistics:

- 8 STUDENTS IN MY CLASS (with a person icon)
- 2 ACTIVE EXAMINATIONS (with a book icon)
- 1 SUBJECTS (with a document icon)
- 0 PASSED EXAMS (with a thumbs up icon)
- 1 NOTICE (with a list icon)
- 1 FAILED EXAMS (with a speech bubble icon)
- 2 LOCKED EXAMS (with a lock icon)
- 1 ATTENDED EXAMS (with a checkmark icon)

Below the cards is a 'Notice' section with a single item: 'Assessments'.

Screenshots 18: Dashboard

### 5.2.3. Subjects





The Screenshot 19 illustrates the subjects the student undertook.

My Subjects				
Show	10	entries	Search:	<input type="text"/>
Name	Category	Department	Status	Date Registered
Computer Fundamental	Computer Application 1	Computer Science	ACTIVE	16-06-2022
Name	Category	Department	Status	Date Registered
Showing 1 to 1 of 1 entries				
Previous				1 Next

Screenshots 19: Student Subjects

### 5.2.4. Students

The Screenshot 20 illustrates the other students present in one's class.

Students In My Class	
Home / Students In My Class	
	<b>Ahsan Student</b> the@gmail.com Male
	<b>Arsam Student</b> arsam@gmail.com Male
	<b>M Umer</b> umerm6921@gmail.com Male
	<b>Muniim Student CS</b> munim@gmail.com Male

Screenshots 20: Students with-in Class

### 5.2.5. Examination

The Screenshot 21 illustrates the examinations booth either he wants to practice an assessment or wants to give the exam.

My Examinations

Show 10 entries Search:

Name	Subject	Deadline	Status	Action
CSS	Computer Fundamental	04/30/2022	INACTIVE	<a href="#">Take Assessment</a>
Demo	Computer Fundamental	06/30/2022	INACTIVE	<a href="#">Take Assessment</a>
Demo 2	Computer Fundamental	06/30/2022	ACTIVE	<a href="#">Take Assessment</a> <a href="#">Practice Assessment</a>
Demo3	Computer Fundamental	07/01/2022	ACTIVE	<a href="#">Take Assessment</a> <a href="#">Practice Assessment</a>

Name Subject Deadline Status Action

Showing 1 to 4 of 4 entries Previous 1 Next

Screenshots 21: Undertaking Exam

The Screenshot 1 illustrates the welcoming screen of the examination on which the student was being with the guidelines of examination.

Take Assessment  
Assessments / Demo 2

**Examination Properties**

1	Exam Name	Demo 2
2	Subject	Computer Fundamental
3	Deadline	06/30/2022
4	Duration	20 min.
5	Next Re-take	07/02/2022
6	Passmark	60%
6	Questions	0

**Take Assessment**

You are good to go.

[Begin Assessment](#)

**Assessment History**

No records found.

**Terms and conditions**

Do a testing

Screenshots 22: Initiating Exam


The Screenshot 23 illustrates the individual result in a particular exam of the subject.

Assessment Results				
Assessments / Demo				
Results Information			Status	
1	Exam Name	Demo	Well done! You have pass this examination.	
2	Student_name	M Umer		
3	Score	100%		
4	Next Re-take	07/03/2022		
Sr#	Exam Name	Question	Answer	Correct Answer
1	Demo	Who are you?	ALI	UMER
2	Demo	php use for?	BACK END	BACK END

*Screenshots 23: Assessment Result*

The Screenshot 24 illustrates the on-going exam (MCQS).

29:33 Min

M Umer  Log out

Dashboard
Subjects
Students
Examinations
Exam Results

Examination
Home / Examinations / CSS

5. Which HTML tag is used to define an internal style sheet?

☐ script
☐ php
☐ csss
☐ html

1 2 3 4 5 6

Submit Assessment

*Screenshots 24: On-Going Exam*



## 5.2.6. Exam Results

The Screenshot 25 illustrates the overall result of an individual in all subjects.

Manage Results

Show10▼entries

Search:

Name	Category	Subject	Date	Duration	Passmark	RE Exam	Status	Action
CSS	Computer Application 1	Computer Fundamental	04/30/2022	30 min.	67%	0 day(s)	ACTIVE	Select Action ▼
Demo	Computer Application 1	Computer Fundamental	06/30/2022	20 min.	60%	0 day(s)	INACTIVE	Select Action ▼
Demo 2	Computer Application 1	Computer Fundamental	06/30/2022	20 min.	60%	0 day(s)	ACTIVE	Select Action ▼
Demo3	Computer Application 1	Computer Fundamental	07/01/2022	53 min.	60%	0 day(s)	ACTIVE	Select Action ▼

NameCategorySubjectDateDurationPassmarkRE ExamStatusAction

Showing 1 to 4 of 4 entries

Previous1Next


*Screenshots 25: Overall Result*

## 5.3. Teacher Panel

### 5.3.1. Teacher Profile

The Screenshot 26 illustrates the teacher profile with all its credentials.

**Teacher Profile**  
Home / Teacher Profile



**Update display picture**  
Select image to upload  
 No file chosen

1	Registration Number	T804-593-153
2	First Name	Umer
3	Last Name	Teacher
4	Gender	Male
5	Date of birth	06/09/2022

**Update login password**  
Enter new password  
  
 Confirm new password

Screenshots 26: Teacher Profile


### 5.3.2. Dashboard

The Screenshot 27 illustrates the list of options on dashboard with which a teacher can manage and control the activities of the students.

**Teacher Dashboard**  
Home / Teacher Dashboard


4

STUDENTS IN MY CLASS




2

ACTIVE EXAMINATIONS




1

SUBJECTS




1

NOTICE




2

LOCKED EXAMS



1

BANNED STUDENTS



**Notice**

Assessments

Screenshots 27: Teacher Dashboard

### 5.3.3. Subject

The Screenshot 28 illustrates the subjects taught by the teacher in different categories of department.

My Subjects

Show  entries

Search:

Name	Category	Department	Status	Date Registered
Computer Fundamental	Computer Application 1	Computer Science	ACTIVE	16-06-2022

Showing 1 to 1 of 1 entries

Previous  Next




Screenshots 28: Teaching Subjects

### 5.3.4. Send Invitation

The Screenshot 29 illustrates that teacher can send invite to the students for joining the subject.

Student Sending Invitation

Home / Student Sending Invitation

 <p><b>Arsam Student</b> arsam@gmail.com Male</p>	Send E-Mail Invitation
 <p><b>M Umer</b> umerm6921@gmail.com Male</p>	Send E-Mail Invitation
 <p><b>Muniim Student CS</b> munim@gmail.com Male</p>	Send E-Mail Invitation

Screenshots 29: Invitation Pane

### 5.3.5. Candidate

The Screenshot 30 illustrates the overall students in the teacher's class reading a particular subject

The screenshot shows the 'Manage Candidate' interface. At the top, there are tabs for 'Candidate' and 'Add Candidate'. Below the tabs, there is a 'Show' dropdown set to '10' and a 'Search' input field. The main content is a table with the following columns: Name, Gender, Category, Status, Date of Birth, and Action. The table contains three entries, all with a status of 'ACTIVE' and a date of birth of '06/02/2022'. Each entry has a 'Select action' dropdown in the Action column. Below the table, there is a pagination bar showing 'Showing 1 to 3 of 3 entries' and buttons for 'Previous', '1', and 'Next'.

Name	Gender	Category	Status	Date of Birth	Action
Arsam Student	Male	Computer Application 1	ACTIVE	06/02/2022	Select action ▼
M Umer	Male	Computer Application 1	ACTIVE	06/02/2022	Select action ▼
Munilim Student CS	Male	Computer Application 1	ACTIVE	06/02/2022	Select action ▼

Screenshots 30: Overall Students

The Screenshot 31 illustrates that teacher too can add students which directly goes into the database of the system.

The screenshot shows the 'Manage Candidate' interface with the 'Add Candidate' tab selected. The form contains the following fields: First Name (text input), Last Name (text input), Gender (radio buttons for Male and Female), Email Address (text input), Phone (text input), and Select Department (dropdown menu). The 'Add Candidate' button is located at the top right of the form.

Screenshots 31: Add Students

### 5.3.6. Examination

The Screenshot 32 illustrates the overall exam that is being conducted.

Manage Examinations

Examinations

Add Exam

Show 10 entries

Search:

Name	Category	Subject	Deadline	ID	Status	Action
CSS	Computer Application 1	Computer Fundamental	04/30/2022	EX-0009440	ACTIVE	Select Action
Demo	Computer Application 1	Computer Fundamental	06/30/2022	EX-3506920	ACTIVE	Select Action
Demo 2	Computer Application 1	Computer Fundamental	06/30/2022	EX-3506921	ACTIVE	Select Action
Demo3	Computer Application 1	Computer Fundamental	07/01/2022	EX-3148130	ACTIVE	Select Action

Name

Category

Subject

Deadline

ID

Status

Action

Showing 1 to 4 of 4 entries

Previous

1

Next

*Screenshots 32: Overall On-Going Exams*

### 5.3.7. Questions

The Screenshot 33 illustrates that teacher is making an exam of MCQS based. In which he first adds the question followed by the options.

Add Questions

Multiple Choice

Filling Blanks

Exam Name

Question

Option No.	Option	Answer
1	Option 1 <input style="width: 90%;" type="text" value="Enter option 1"/>	○
2	Option 2 <input style="width: 90%;" type="text" value="Enter option 2"/>	○

*Screenshots 33: Exam Creation (MCQS)*

The Screenshot 34 illustrates that teacher is making an exam of filling in the blanks type

Add Questions

Multiple Choice

Filling Blanks

Exam Name  

-Select exam
▼

Question

Submit

*Screenshots 34: Exam Creation (S/Q)*

### 5.3.8. Exam Result

The Screenshot 35 illustrates the overall exam result of various subjects.

Manage Results

Show 

10

 entries

Search:

Name	Category	Subject	Date	Duration	Passmark	RE Exam	Status	Action
CSS	Computer Application 1	Computer Fundamental	04/30/2022	30 min.	67%	0 day(s)	ACTIVE	Select Action
Demo	Computer Application 1	Computer Fundamental	06/30/2022	20 min.	60%	0 day(s)	ACTIVE	Select Action
Demo 2	Computer Application 1	Computer Fundamental	06/30/2022	20 min.	60%	0 day(s)	ACTIVE	Select Action
Demo3	Computer Application 1	Computer Fundamental	07/01/2022	53 min.	60%	0 day(s)	ACTIVE	Select Action

Name

Category

Subject

Date

Duration

Passmark

RE Exam

Status

Action

Showing 1 to 4 of 4 entries

Previous

1

Next

Screenshots 35: Exams Status

The Screenshot 36 illustrates the result of a particular subject.

CSS Results

Show10▼entries

Search:

Student Name	Student ID	Exam Name	Score	Status	Date	RE Exam	Action
Arsam Student	S738-929-281	CSS	0%	FAIL	06/28/2022	06/28/2022	Select Action▼
Muniim Student CS	S739-434-648	CSS	0%	FAIL	06/27/2022	06/27/2022	Select Action▼

Showing 1 to 2 of 2 entries

Previous1Next

Screenshots 36: Overall Student Result

# **Chapter No 6**

## **References**



## 6. References

### 6.1. References

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