

A PROJECT REPORT ON

# QUIZ APPLICATION

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In partial fulfilment of B. Sc. (Computer Science)



Kannada Sangha Pune's  
Kaveri College of Arts, Science and Commerce, Pune  
AY 2021-22



KANNADA SANGHA PUNE'S

**KAVERI COLLEGE OF ARTS, SCIENCE &  
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for the partial fulfillment of **CS-3611 Project, T. Y. B. Sc. (Computer Science), Savitribai Phule Pune University** for the academic year 20\_\_\_\_ -20\_\_\_\_ .

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Principal

# ABSTRACT

The project: “**Quiz Application**” is a collection of number of different types of quiz like technical, games, sports, etc. A user can access/play all of the quiz and can attempt any of the one. There will be limited number of questions and for each correct answer user will get a credit score. User can see answers as well as can ask a query related to it. There are many quiz applications available currently on internet. But there are few Which provide better understanding between users and the application like, providing proper answers, user query solving, uploading user questions as well as answer to it, etc.

To develop a user friendly quiz application which will contain : Numbers of quiz, Answers to every question, Query solving regarding any question, Uploading of user question and answer, and to improve the knowledge level of users. To develop an application which will contain solution to the above problems. By this application the user will come to know about his/her level and can learn additional knowledge. Also by this application a user can expand his/her knowledge among the world.

# ACKNOWLEDGMENT

We express our sincere thanks to our **Principal, Mr. Ashok Agrawal**

We would like to express our special thanks of gratitude to our

**Project Guides- Prof. Archana Ghiware**

for their support and guides which helped us to complete our project.

We are thankful to our Principal and our mentors who gave us the golden opportunity to do this wonderful project on the topic “**Quiz Application** ” which also helped us in doing a lot of research and we came to know about so many new things as well as it helped us increase our knowledge and skills.

# DECLARATION

I hereby declare that the project entitled, “**Quiz Application**” done at Kaveri College of Arts, Science and Commerce, Pune has not been in any case duplicated to submit to any other university for the award of any degree. To the best of my knowledge other than me, no one has submitted to any other university.

The project is done in partial fulfilment of the requirements for the award of degree of BACHELOR OF SCIENCE (Computer Science) to be submitted as a final semester project as part of our curriculum.

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# Chapter 1

## Introduction

### 1.1 Background:

The project: “Quiz Application” is a collection of number of different types of quiz. A user can take quiz . There will be limited number of questions and for each correct answer user will get a credit score. User can see answers as well as can ask a query related to it. There are many quiz applications available currently on internet. But there are few which provide better understanding between users and the application like, providing proper answers, user query Solving, uploading user questions as well as answer to it, etc. To develop a user friendly quiz application. Which will contain - Numbers of quiz, Answers to every question, Query solving, Uploading of user question and answer, and to improve the knowledge level of users. To develop an application which will contain solution to the above problems. By this application the user will come to know about his/her level and can learn additional knowledge. Also by this application a user can expand his/her knowledge among the world.

### 1.2 Aim and Objective:

#### ➤ Aim:

“Our aim is to develop an application for the users in which a user can attempt any number of quiz related to his/her choice.”

#### ➤ Objective:

The main objective of “Quiz Application” is to facilitate a user friendly environment for all users and reduces the manual effort. In past days quiz is conducted manually but in further resolution of the technology we are able to generate the score and pose the queries automatically. The functional requirements include creating users that are going to participate in the quiz, automatic score and report generation and administrative tasks like add, delete, update for admin privilege users. In this application, all the permissions lies with the administrator i.e., specifying the details of the quiz with checking result will show to interviewee or not, addition of question and answers, marks for each question, Set timer for each quiz and generate report with score for each quiz.

## 1.3 Purpose, Scope and Applicability:

### ➤ Purpose:

This web application provides facility to Play online quiz and test knowledge. It provides a good platform, where a student not only judges there knowledge/skill but also they can improve knowledge/skill at the same time

### ➤ Scope:

The Scope of this project is very broad in terms of gaining knowledge and sharing knowledge among world.

Few points are :-

- Can be used anywhere any time as it is a JAVA based application.
- This application will be used in educational institutions as well as in corporate world.

### ➤ Applicability:

Anyone, whether a newcomer or professional, willing to learn they can choose it . All users will have access to all subject containing sub topics. Users will receive best experience without any interruptions.

## 1.4 Description:

Firstly, we have to make interfaces for Home Page, Login Page, Questions Attempting forum, Result Page, & Profile of user. These all pages have connectivity with the server and database. So, that it can work properly. Currently, there are websites which only provide limited number of quiz related to different domain. Many website do not have a single platform for quiz and there is not a website where the users can upload his/her questions and answers for the others. We have to develop an application which can resolve all of the above problems. By this user can gain knowledge, can solve his/her query, and spread his/her knowledge among the world.

## 1.5 Methodology:

The programming language used for the development of the project is JAVA.

PostgreSQL is used for Database.

## **1.6 Assumptions:**

We assume that the users of our Application should have a minimal Knowledge of computer system and should have an availability of internet. We are dependent on the sources from where we have gathered the data and the data are authenticated.

## **1.7 Limitations and Issues covered:**

### ➤ Limitations:

- No direct interaction between the students and teacher.
- User cannot add Questions for others.
- Questions may take time to arrive due to slow internet connections

### ➤ Issues covered:

- Students may have option to select subject that meets their level of knowledge and interest.
- Beneficial for those users who cannot afford studying in a class.
- This quiz application is free of cost.

## **1.8 Achievement :**

With the help of our application user will get complete knowledge of their respective subject. This application helpful for all competitive exam.

# Chapter 2

## Survey of Technology

### 2.1 Existing System:

Up to now we take examinations on paper, the idea to take examinations in our device led us to creation of the application. Earlier, correction of the answers is also a big problem to correct manually so our application gets rid of the heavy work of correcting each and every answer in manual way.

### 2.2 Proposed System:

Unlike the other Application where you need to make account for every quiz you want to play, but using this application, you just have to login by user name and password and then you will get access to quiz from it. The proposed system is an application will help in improving the knowledge and accuracy.

### 2.3 Requirement Analysis:

#### ➤ Hardware Requirement:

Most current Computers and Laptop have enough specifications to used create an application. The most important specification to check on the computer would be the size of the RAM, which should be over 4 GB, more is better. This will ensure runs quickly and smoothly, even with heavier programs. The computer should have a keyboard and mouse attached and working as well.

Sno.	NAME	HARDWARE
1	RAM	4GB
2	Processor	Intel Dual Core(32bit)
3	Processor Speed	2GHz

#### ➤ Software Requirement:

Sno.	NAME	HARDWARE
1	RAM	4GB
2	Processor	Intel Dual Core(32bit)
3	Processor Speed	2GHz

## 2.4 Justification of Platform:

Justification means why I choose this project to make because not just for making Project for College It is for improving my skills.

### ➤ **Why Net beans :**

Net beans is an open-source Integrated Development Environment (IDE). It is used to develop applications with JAVA, PHP, C++, HTML and many other Programming languages. The applications are developed using modules in JAVA. Net beans can run on any operating system such as windows, Mac OS, Linux etc.

Apache Net beans provides editors, wizards and templates to help you create applications in JAVA, PHP and many other languages. The IDE simplifies the development of web, enterprise, desktop and mobile applications that use. The JAVA and PostgreSQL platforms.

### **Advantages:**

- Net beans is very efficient in code development and java web development.
- Net beans is a great tool to small as it is quite easy to use. its integration is great with other tools.

### ➤ **Why PostgreSQL:**

PostgreSQL comes with many features aimed to help developers build applications, administrators to protect data integrity and build fault-tolerant environments, and help you manage your data no matter how big or small the dataset. In addition to being free and open source, PostgreSQL is highly extensible.

### **Advantages:**

- PostgreSQL is more secure.
- PostgreSQL is available for free to download and use from the official site of PostgreSQL.

# Chapter 3

## Requirements and Analysis

### 3.1 Problem Definition:

Quiz Contest is an application developed to conduct a quiz based on time constraints. Quiz Contest system is accessed by entering the user name and password which is added to the database. Before start of the quiz, the rules and regulations are displayed that includes description of the time limit, number of questions to be answered and scoring methods. Quiz is started by displaying one question with four options each based on computer and general knowledge. if the answer is correct, score is incremented and negative marks for wrong answers . next question will come automatically after giving few limited question's answer quiz application will finally direct you to the score page. Final score will be displayed and updated in the database with username.

### 3.2 Requirements Specification

The primary focus of the system should be on providing a user friendly easy to understand interface, which can be used easily and simple by anyone.

Functional Requirements:

#### ➤ **System Feature-**

This section gives a functional requirement that applicable to the online Quiz.

There are two modules in this phase:

- **Student/user module:**

The student/user have to login in application. They can choose the Quiz. Then the student/user will get result immediately after the completion of test.

- **Admin module:**

The admin can see all the tables in the Database and can add and delete the question by selecting the particular topic.

### ➤ Non-Functional Requirements:

- **Response Time-**

The system shall give responses in 2 sec after user login.

- **Safety Requirements**

All logged information, updates, user activities are securely stored.

- **Security Requirement**

Any modification for the Database shall be synchronized and done by system admin

### 3.4 Software and Hardware Requirements:

#### ➤ Software Requirements:

S.NO	NAME	SOFTWARE
1	Platform	LINUX
2	Editor	NetBeans
3	Database Tool	PostgreSQL

#### ➤ Hardware Requirements:

Sno.	NAME	HARDWARE
1	RAM	4GB
2	Processor	Intel Dual Core(32bit)
3	Processor Speed	2GHz

#### ➤ Product Preliminary Description:

##### **Product Perspective:**

The Quiz Application is an educational platform built for those students and professionals who have interest in competitive exams and gaining knowledge. The admin of our application can keep all the Quiz updated all the time so that members get updated information. Here, various Quiz will be available with different topics and description. Users can provide their valuable feedback and even contact us if there is any issue. The main users are: **Admin** (who can add, update or remove any Quiz and information) and **Users** (who are here to study).



## ➤ **Waterfall Process model**

The Classical Life Cycle or waterfall Process Model was the first process model to present a sequential framework, describing basic stages that are mandatory for a successful software development model. It formed the basis for most software development standards and consists of the following phases: Requirement analysis, design, coding, testing, and maintenance.

### **Advantages of waterfall model:**

- Simple goal.
- Simple to understand and use.
- Clearly defined stages.
- Easy to arrange tasks.
- Process and result are well documented.
- Customers / end users already know about it.
- Easy to manage.

### **Disadvantage of Waterfall model:**

- Rigid design and inflexible procedure.
- Waterfall model faced “Inflexible point solution” which meant even small amendments in the design were difficult to incorporate later design phase.
- As the requirement were froze before moving to the design phase, using the incomplete set of requirement, a complete design was worked amendments In case of a large project, completing a phase and then moving back to reconstruct the same phase, incurred a large overhead.

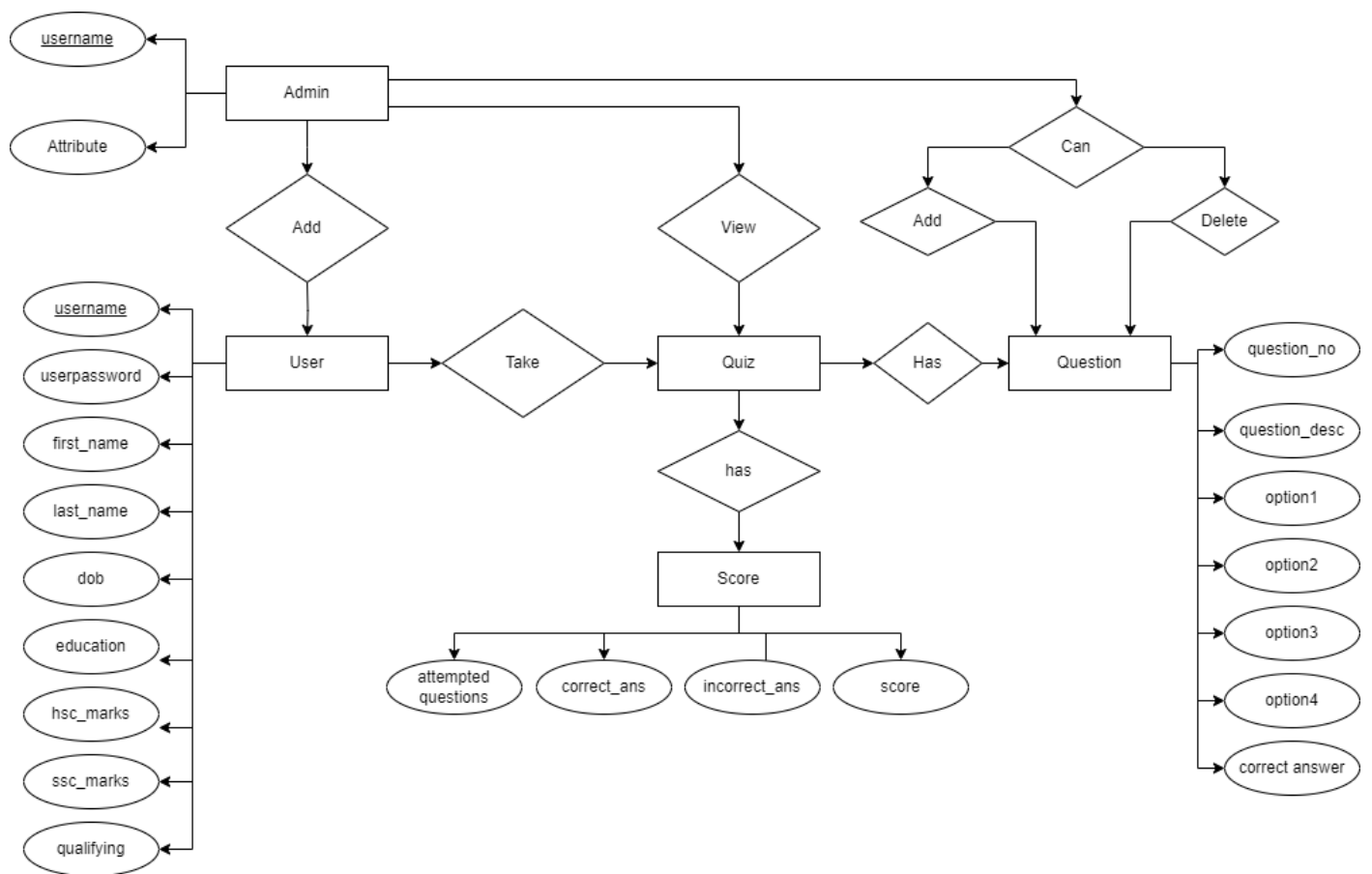
- Once a phase is done, it is not repeated again that is movement in the waterfall goes one to the next and the vice versa is not supported, deadlines are difficult to meet I case of large projects.



**Figure 2: Waterfall Model**

### 3.5 ER Diagram

An Entity Relationship (ER) Diagram is a type of flowchart that illustrates how “entities” such as people, objects or concepts relate to each other within a system. ER Diagrams are most often used to design or debug relational databases in the fields of software engineering, business information systems, education and research. Also known as ERDs or ER Models, they use a defined set of symbols such as rectangles, diamonds, ovals and connecting lines to depict the interconnectedness of entities, relationships and their attributes. They mirror grammatical structure, with entities as nouns and relationships as verbs.



### 3.5 ER Diagram

## 3.6 UML Diagrams

### 3.6.1 Use Case Diagram:

To model a system, the most important aspect is to capture the dynamic behaviour. Dynamic behaviour means the behaviour of the system when it is running/operating. Only static behaviour is not sufficient to model a system; rather dynamic behaviour is more important than static behaviour. In UML, there are five diagrams available to model the dynamic nature and use case diagrams are one of them. A use case diagram is a graphical depiction of a user's possible interactions with a system. A use case diagram shows various use cases and different types of users the system has and will often be accompanied by other types of diagrams as well. A use case diagram is used to represent the dynamic behaviour of a system. It encapsulates the system functionality by incorporating use cases, actors and their relationships. Use case diagrams consist of actors, use cases and their relationships. The diagram is used to model the system/subsystem of an application. A single use case diagram captures a particular functionality of a system. Hence to model the entire system, a number of use case diagrams are used.

The purpose of a use case diagram is to capture the dynamic aspect of a system.

**Following are some purposes of a use case diagram:**

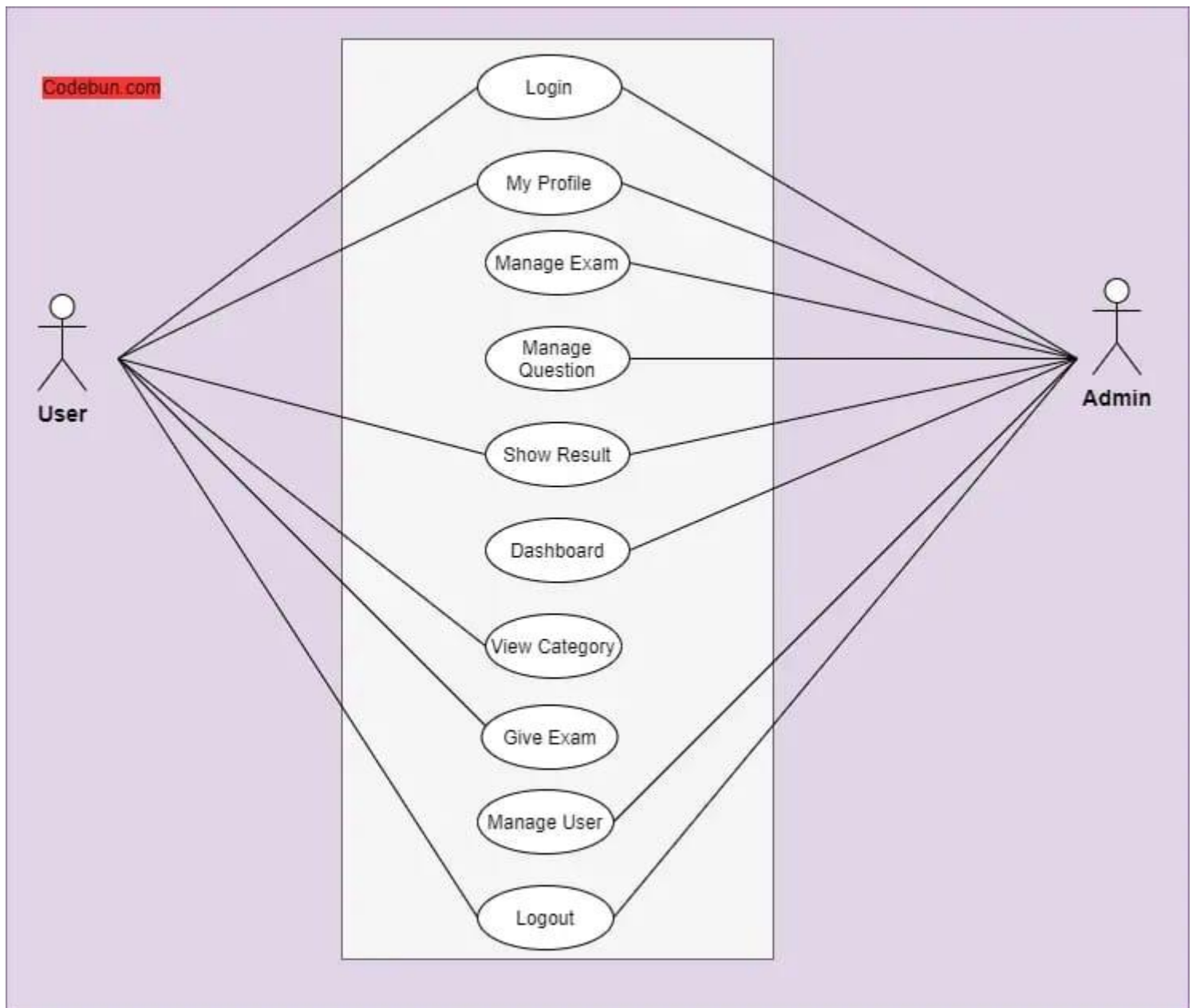
- It represents the interaction between the actors.
- It depicts the external view of the system.
- It gathers the system needs.
- It recognizes the internal as well as external factors that influence the system.

Use case diagrams are used to gather the requirements of a system including internal and external influences. These requirements are mostly design requirements. Hence, when a system is analysed to gather its functionalities, use cases are prepared and actors are identified. When the initial task is complete, use case diagrams are modelled to present the outside view.

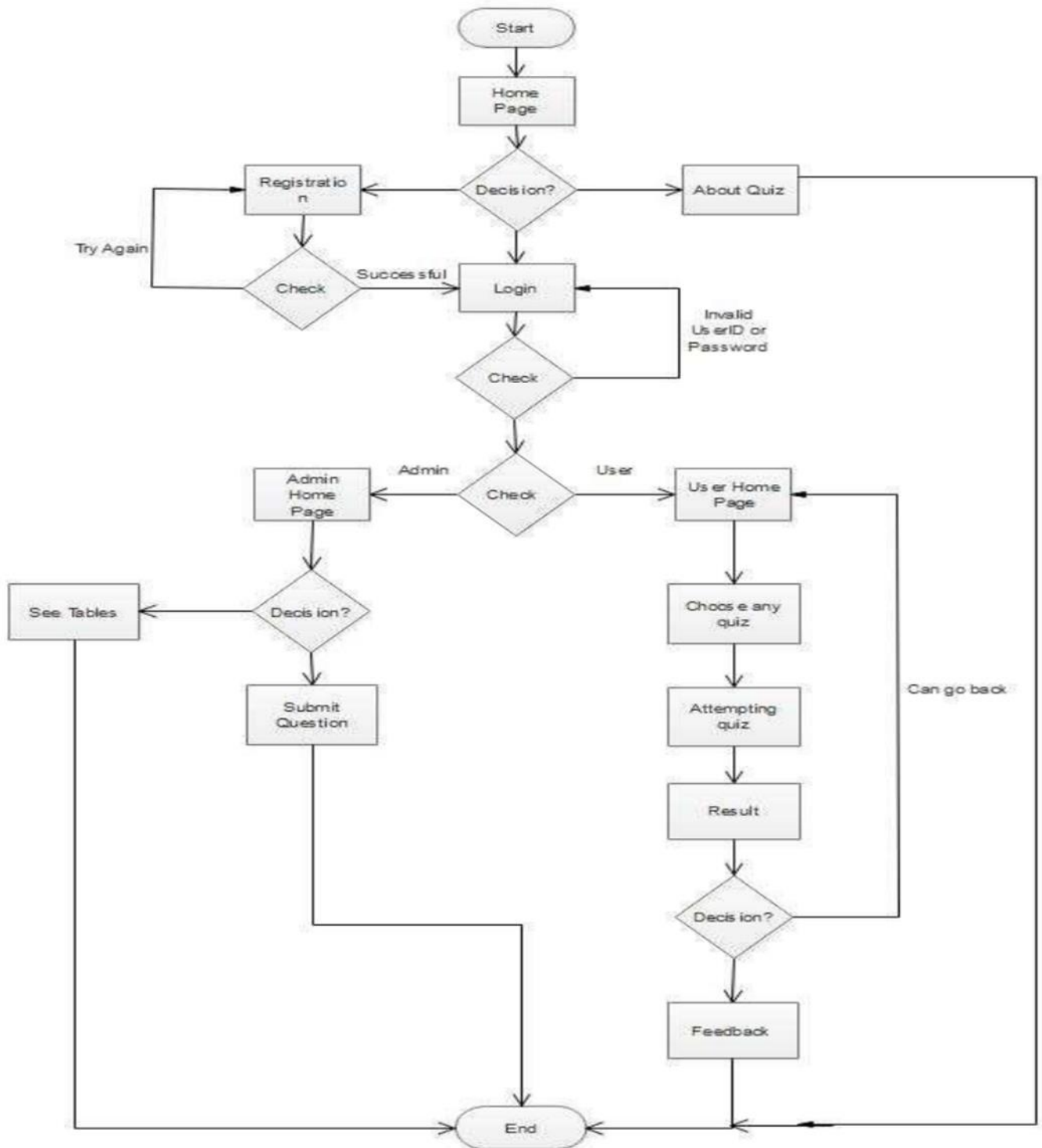
**Benefits of Use Case Diagrams are as follows:**

- Used to gather the requirements of a system.
- Used to get an outside view of a system.
- Identify the external and internal factors influencing the system

- Show the interaction among the requirements are actors.



### 3.6.2 Flow Chart

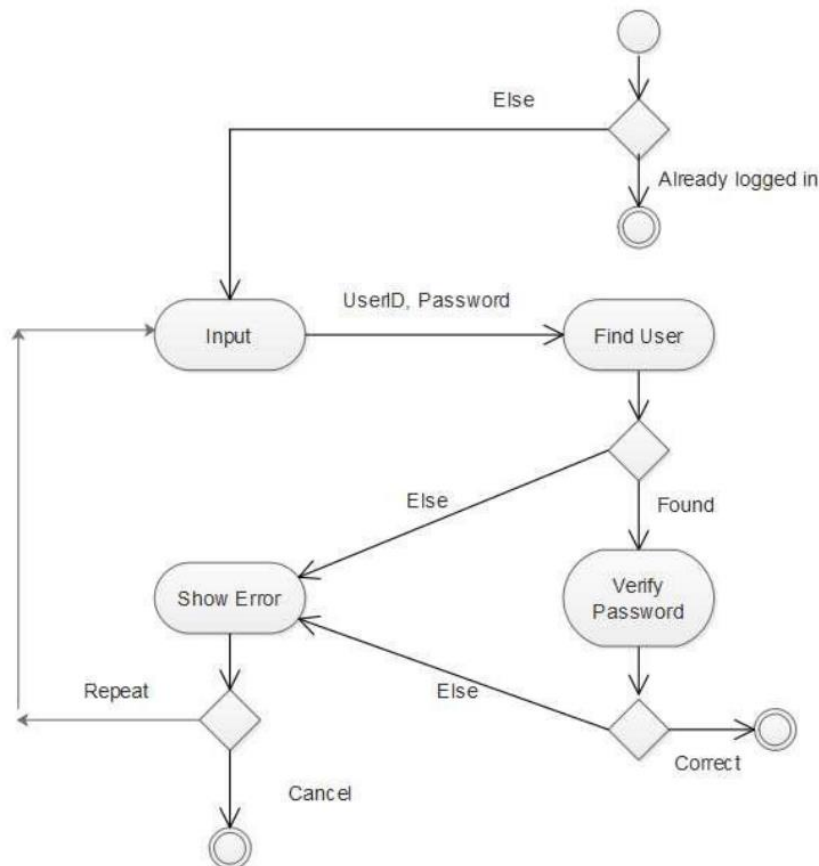


### 3.6.3 Activity diagram

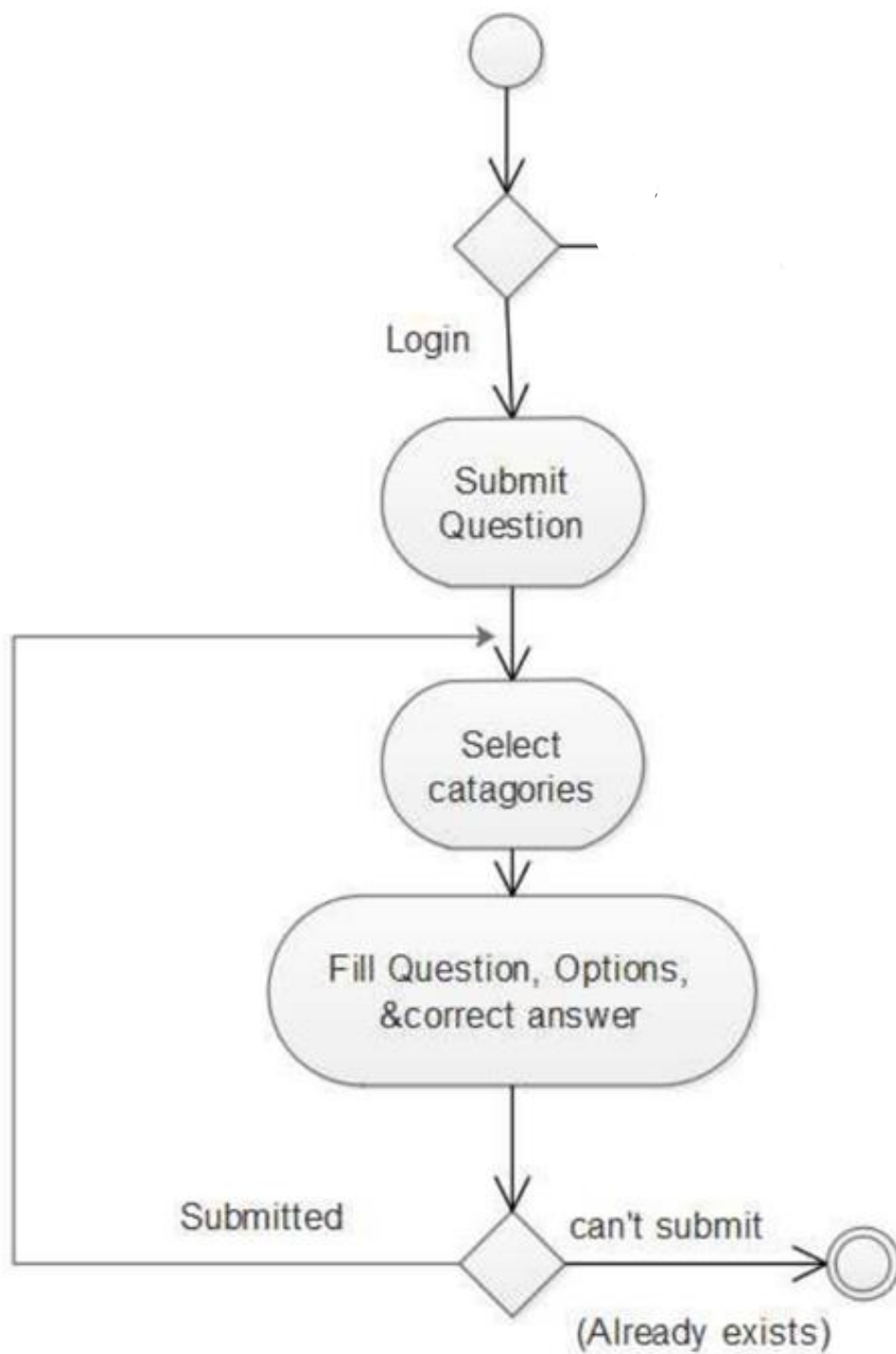
Activity diagram is another important diagram in UML to describe the dynamic aspects of the system. Activity diagram is basically a flowchart to represent the flow from one activity to another activity. The activity can be described as an operation of the system. An activity diagram is a behavioural diagram i.e. it depicts the behaviour of a system. An activity diagram portrays the control flow from a start point to a finish point showing the various decision paths that exist while the activity is being executed. Activity diagrams are used to describe business processes and use cases as well as to document the implementation of system processes

**Benefits of Activity Diagrams are as follows:**

- Demonstrate the logic of an algorithm.
- Describe the steps performed in a UML use case.
- Illustrate a business process or workflow between users and the system.
- Simplify and improve any process by clarifying complicated use cases.

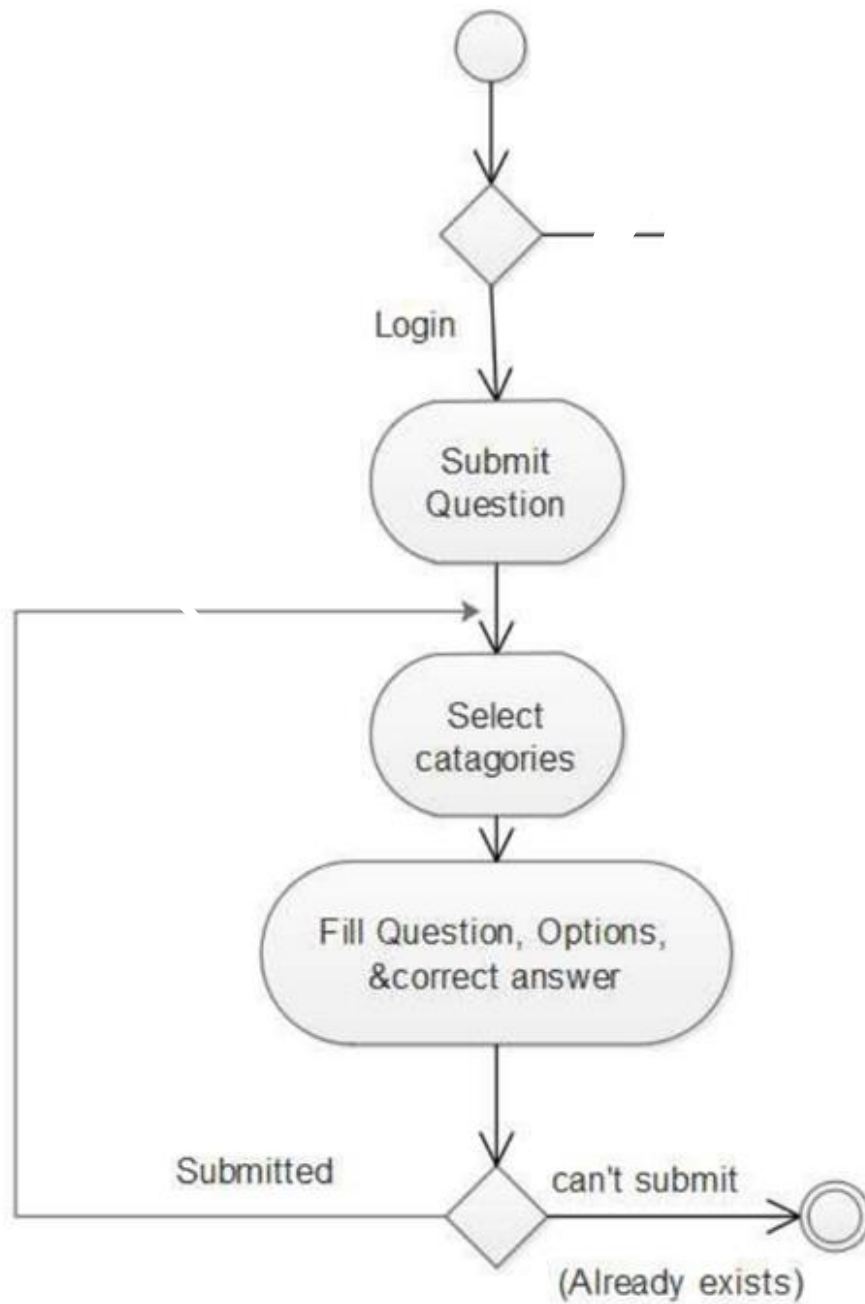


**Figure 6.1: Activity Diagram For Login**



**Figure 6.1: Activity Diagram For Quiz**





**Figure 6.3: Activity Diagram For Submit Quiz**

### 3.6.4 Class Diagram

The class diagram is the main building block of object oriented modelling. It is used for general conceptual modelling of the structure of the application, and for detailed modelling, translating the models into programming code. Class diagrams can also be used for data modelling. The classes in a class diagram represent both the main elements, interactions in the application, and the classes to be programmed. Class diagram is a static diagram. It represents the static view of an application. Class diagram is not only used for visualizing, describing, and documenting different aspects of a system but also for constructing executable code of the software application.

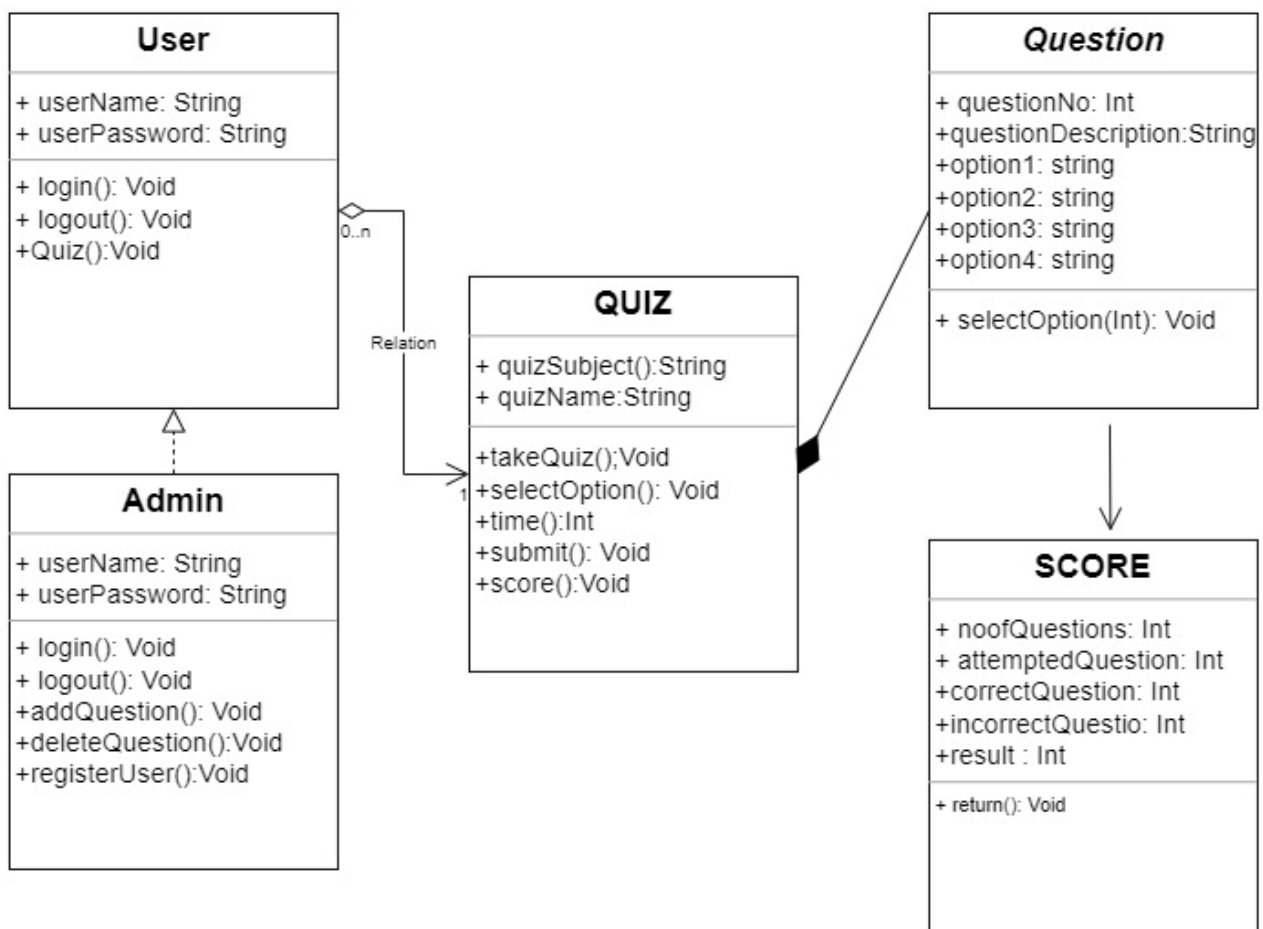


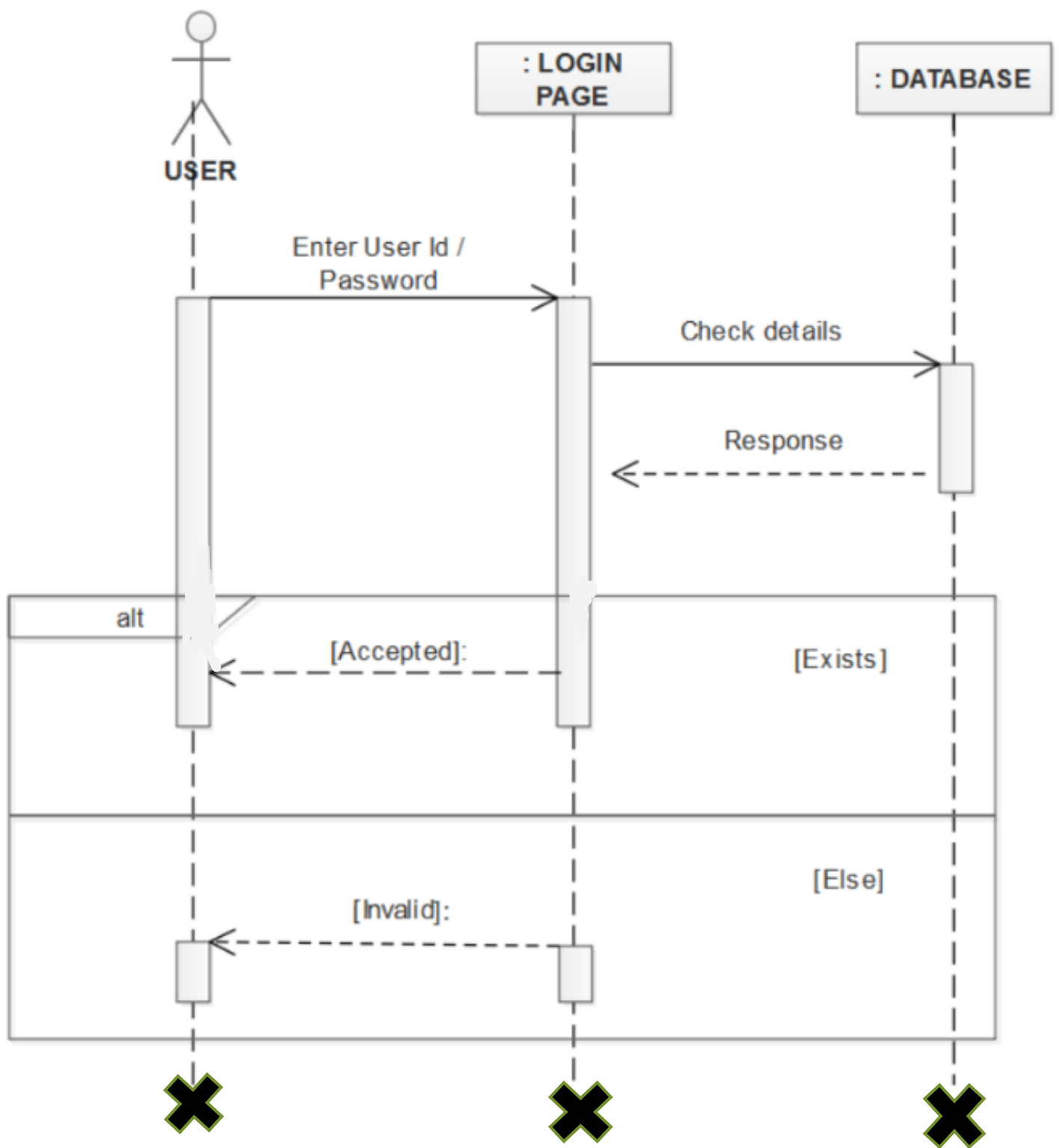
Figure 7. Class Diagram

### 3.6.4 Sequence Diagram:

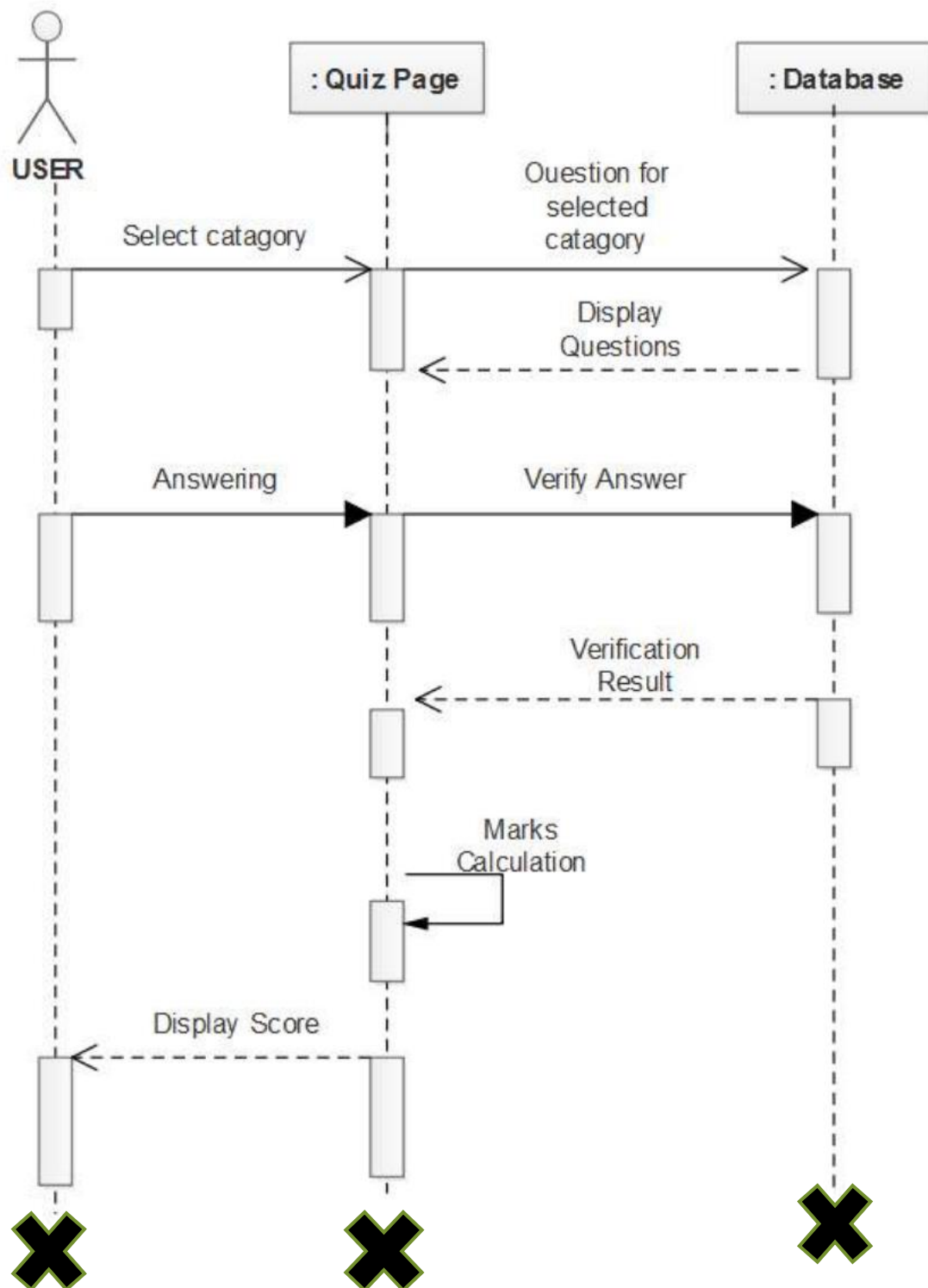
A sequence diagram is a type of interaction diagram because it describes how and in what order a group of objects works together. These diagrams are used by software developers and business professionals to understand requirements for a new system or to document an existing process. A sequence diagram is the most commonly used interaction diagram. An interaction diagram is used to show the interactive behaviour of a system.

**Benefits of Sequence diagrams are as follows:**

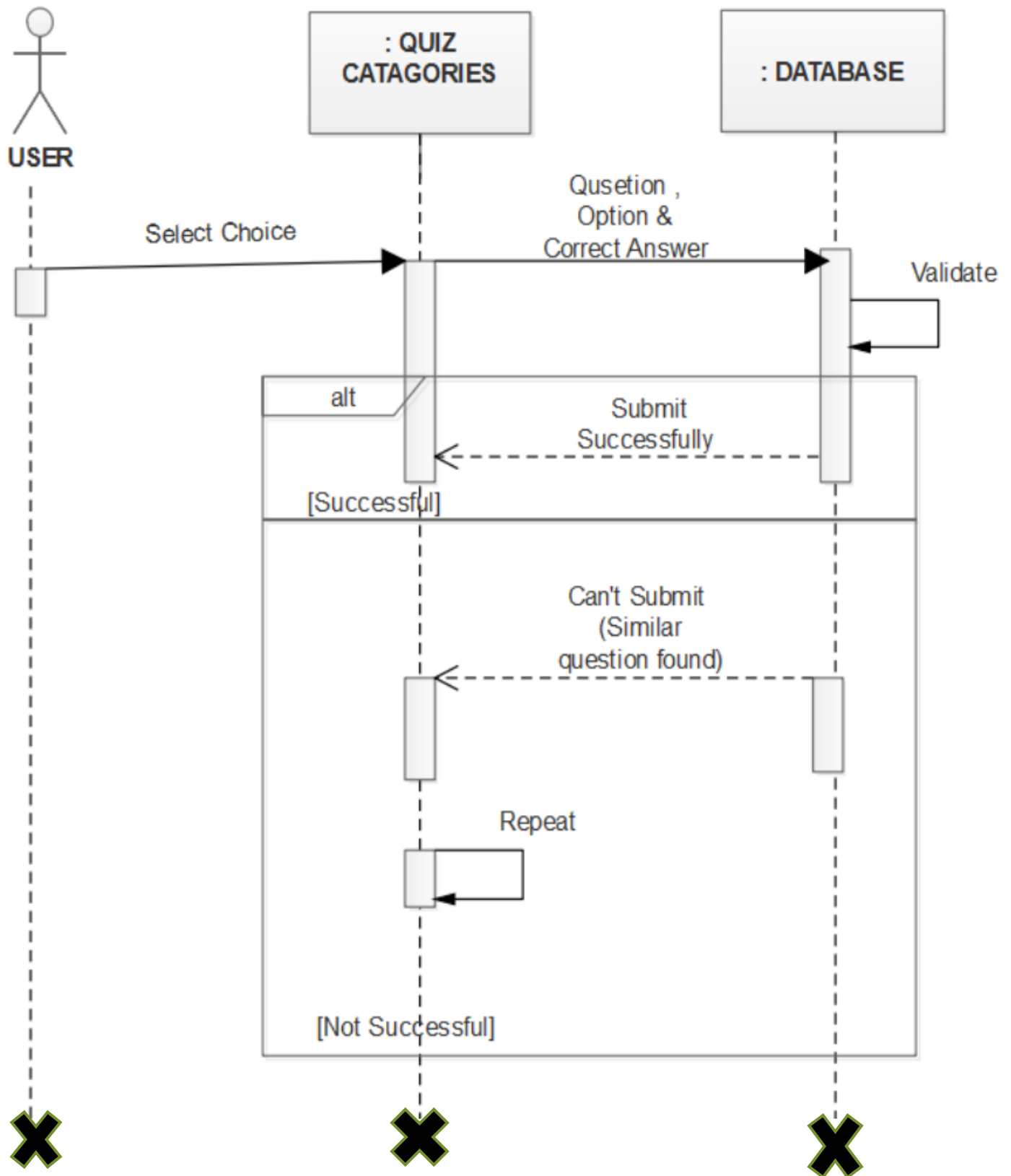
- To capture the dynamic behaviour of a system.
- To describe the message flow in the system.
- To describe the structural organization of the objects.
- To describe the interaction among objects.
- Represent the details of a UML use case.
- Model the logic of a sophisticated procedure, function, or operation.
- See how objects and components interact with each other to complete a process.
- Plan and understand the detailed functionality of an existing or future scenario.



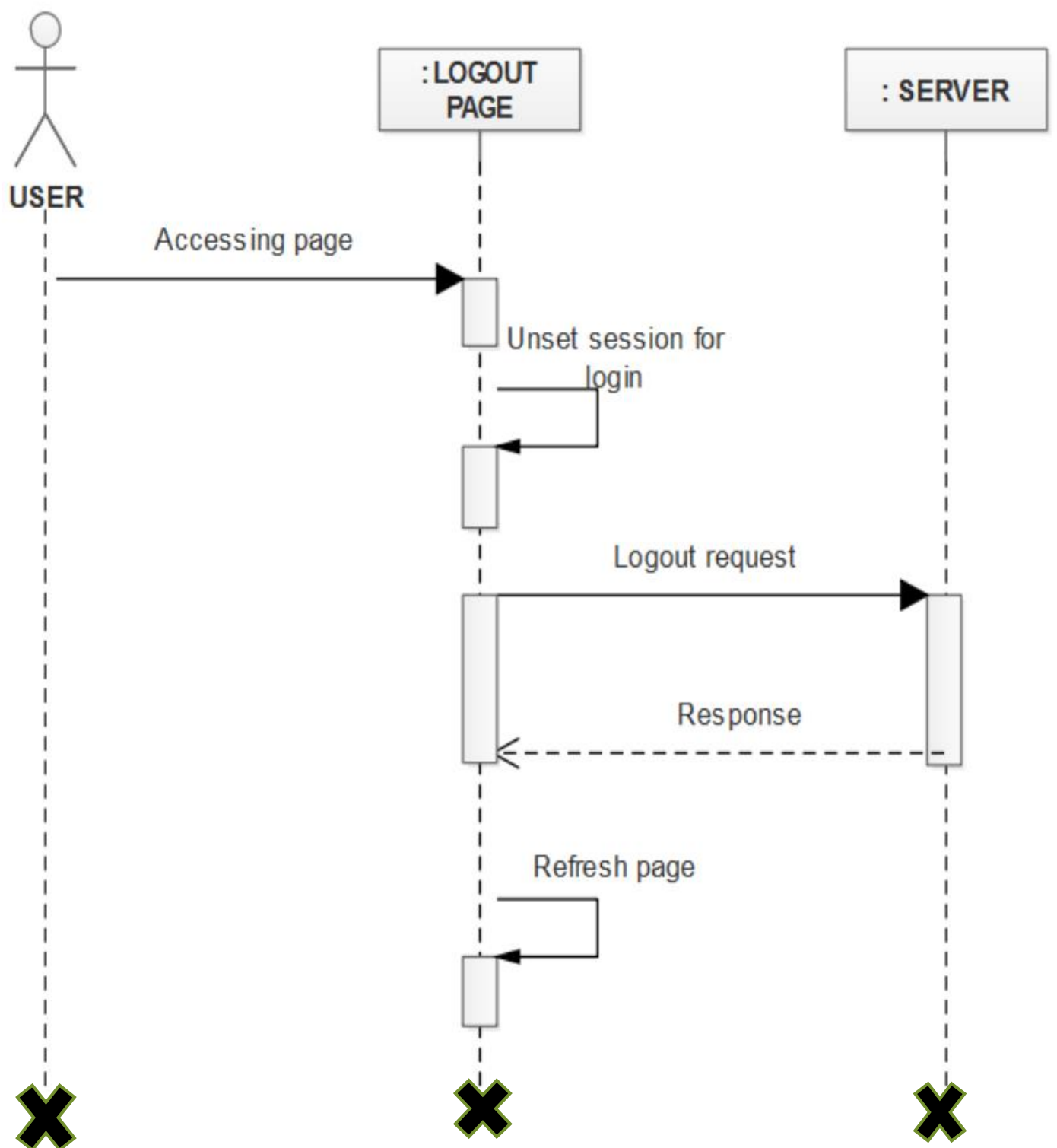
**Figure 8.1: Sequence Diagram For Login**



**Figure 8.2: Sequence diagram For Play Quiz**

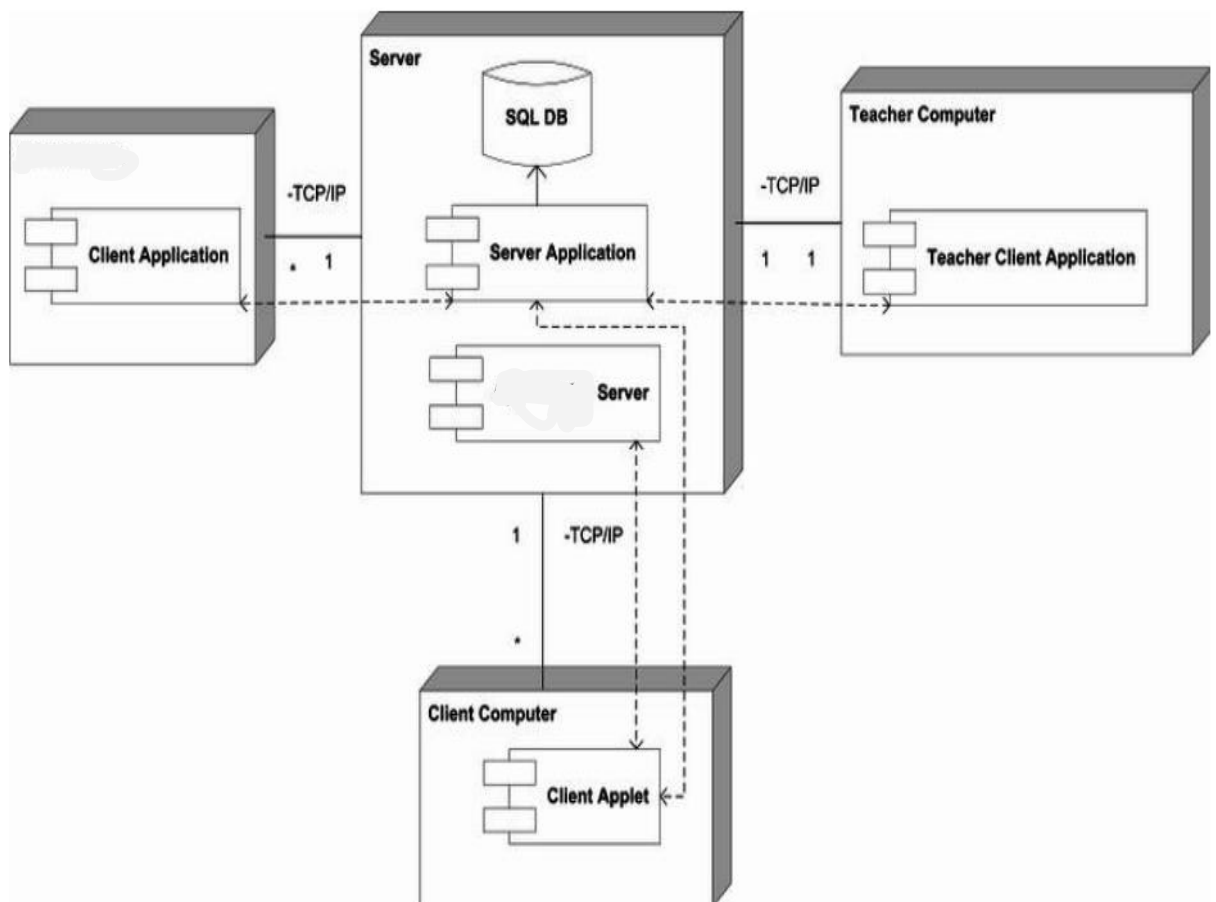


**Figure 8.3: Sequence Diagram for Submit Question**



**Figure 8.4: Sequence Diagram For Logout**

### 3.6.5 Deployment Diagram





# Chapter 4

## System Design

### 4.1 Basic Modules:

#### 1) Admin Login:

- Manage users in the system
- Manage Quiz details
- Add Quiz question

#### 2) User Login:

- Browse Quiz
- Take a Quiz

### 4.2 DATA DESIGN:

#### 4.2.1 Schema Design

##### Admin Table:

Column Name	Data Type	Size	Constraints
admin-id	Integer		Foreign key
admin-username	Varchar	100	Not Null and Primary Key
admin-password	Varchar	100	Not Null
admin-fname	Varchar	100	Not Null
admin-lname	Varchar	100	Not Null
admin-email	Varchar	100	Not Null
admin-dob	Date		Not Null

##### User Table:

Column Name	Data Type	Size	Constraints
user-id	Integer		Foreign key
ser-username	Varchar	100	Not Null and unique
user-password	Varchar	100	Not Null
User-fname	Varchar	100	Not Null
User-lname	Varchar	100	Not Null
User-email	Varchar	100	Not Null

User-dob	Date		Not Null
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### Quiz Table:

Column Name	Data Type	Size	Constraints
Quiz-id	Integer		Foreign key
Quiz-name	Varchar	100	Not Null and unique
Quiz-description	Varchar	100	Not Null
Quiz-category	Varchar	100	Not Null

## 4.2.2 Data Integrity and Constraints:

### Admin Table:

Column Name	Data Type	Constraints	Description
admin-id	Integer	Foreign key	The ID of the admin should be uniquely defined
admin-username	Varchar	Not Null and unique	The username of the admin to log in to the system
admin-password	Varchar	Not Null	The password which is required along with username to login
admin-fname	Varchar	Not Null	The first name of the admin
admin-lname	Varchar	Not Null	The last name of the admin
admin-email	Varchar	Not Null	Email address of the admin
admin-dob	Date	Not Null	Date of birth of admin

### User Table :

Column Name	Data Type	Constraints	Description
user-id	Integer	Foreign key	The ID of the user should be uniquely defined
ser-username	Varchar	Not Null and unique	The username of the user to log in to the system
user-password	Varchar	Not Null	The password of the user to log in to the system
User-fname	Varchar	Not Null	The first name of the admin
User-lname	Varchar	Not Null	The last name of the admin
User-email	Varchar	Not Null	Email address of the admin
User-dob	Date	Not Null	Date of birth of admin

### Quiz Table :

Column Name	Data Type	Constraints	Description
Quiz-id	Integer	Foreign key	The unique ID of the course present in the system
Quiz-name	Varchar	Not Null and unique	The name of the course present in the system
Quiz-description	Varchar	Not Null	The description of the respective course
Quiz-category	Varchar	Not Null	Category of the course

## 4.3 User Interface

### User Interface:

#### Homepage

This is the main Homepage of the Application. The user can log into the system through log in, the service options will take you to the service page and Admin can login from this page.

#### Register page

This is the Register page. Where user have fill information like Name, Mobile Number, Username, Password, Retype Password, Birthdate, Address. Then user can login in login page.

#### Login page

This is the Login page. The User have to enter their Username and password to avail further services.

## 4.4 Security Issues:

The protection of computer-based resources that includes hardware, software, data procedures and people against unauthorized use of natural disaster is known as system security.

ISSUES	SOLUTION
Customer's Data	Customer's Data will be kept in encrypted form in the database
User Password	Access will be given to only valid customers.

## 4.5 Test Cases

### 4.5.1 Testing Approach

A test approach is the test strategy implementation of a project, defining how testing would be carried out. Implementation of test strategy for a particular project is known as "test approach". The test approach is usually defined in all test plans and test designs. Test approach refers to the commencement of various project activities such as planning the testing process, selecting the designs, defining the entry and exit criteria etc.

**Test approach has two techniques:**

- Proactive

An approach in which the test design process is initiated as early as possible in order to find and fix the defects before the build is created.

- Reactive

An approach in which the testing is not started until after design and coding are completed

### 4.5.2 Test Cases Design:

Index	Test Case	Test Data	Test Input Values	State	Expected Result
1	Admin logins with username and password	Username And Password Validation	Invalid Username or password	Invalid	Check with the database and display message username or password is incorrect
		Username And Password Validation	Correct Username or password	Valid	Check with the database and redirect to the home

					page of Admin
2.	User logins with username and password	Username And Password Validation	Invalid Username or password	Invalid	Check with the database and display message username or password is incorrect
		Username And Password Validation	Correct Username or password	Valid	Check with the database and redirect to the home page of User
3.	Course provider logins with username and password	Username And Password Validation	Invalid Username or password	Invalid	Check with the database and display message username or password is incorrect
		Username And Password Validation	Correct Username or password	Valid	Check with the database and redirect to the home page of Course provider
4.	The ID should contain only numbers ranging (0-9) and without decimal numbers	Alphabets or any special character is used	user@78 9	Invalid	Please enter digits only
		Numbers from 0-9 is used	454875	Valid	ID is accepted
5.	The Name used must contain alphabets (A-Z) and (a-z)	Numbers (0-9)is used	Abhi556	Invalid	Please enter alphabets only
		Alphabets (A-Z) and (a-z)is used	Abhi	Valid	Name is accepted
6.	The username can contain alphabets (A-Z) and (a-z) and numbers from (0-9) and it should	Any special character is used	Any special character is used	Invalid	Special characters are not allowed

	not begin with a number				
		Username begins with a number	123admin	Invalid	Username cannot begin with a numeric value
7.	Password cannot be empty and should contain minimum of 8 character and maximum of 12 character and password must contain a special symbol	Password length has less than 8 characters and no special symbol	8700684	Invalid	Password must contain minimum 8 characters
		Password length is between 8-12 and contains a special symbol	abhi@424 4	Valid	Password is accepted, redirected to the home page
8.	Email address must be proper format	Email address without special symbols “@” and “.”	abhi123 Invalid Please enter valid email address	abhi123 Invalid Please enter valid email address	abhi123 Invalid Please enter valid email address

# Chapter 5

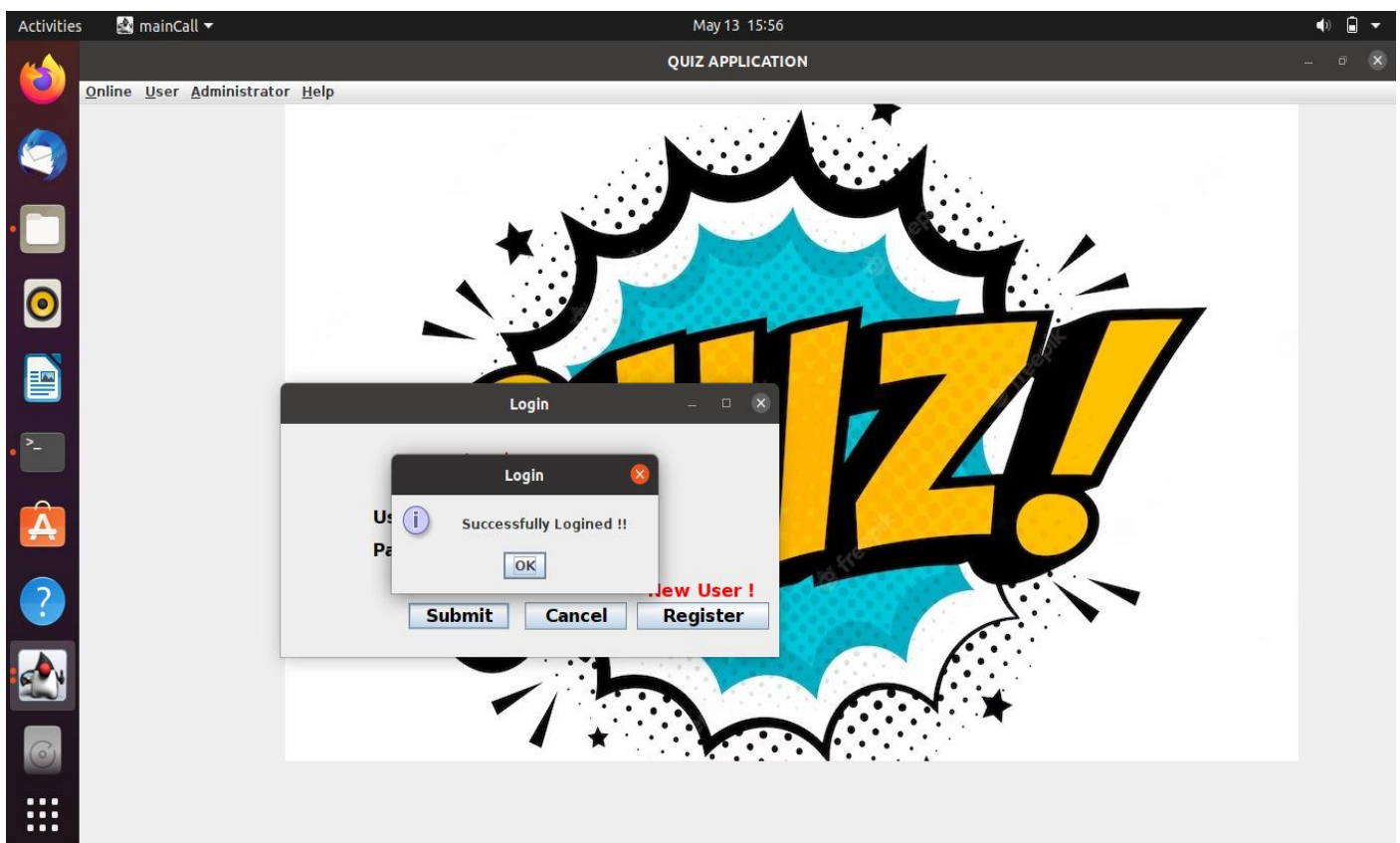
## IMPLEMENTATION AND TESTING

This is the phase in the software life cycle where the actual software is implemented. The result of this phase consists of source code, together with documentation to make the code reliable. Implementation is the action that must follow any preliminary in order for something to actually happen. It encompasses all the processes involved in getting new software and hardware operating properly in its environment, including installation, configuration, running, testing and making necessary changes. In implementation we start with the actual execution of the software application with the design we have made. Implementation is done before we start with the coding of the software product Implementation includes writing codes with the design in hand. Implementation is the process of having systems personnel check out and put new equipment into use, train users, install the new application depending on the size of the organization that will be involved in

### 5.2 Coding Details and Code Efficiency

#### 5.2.1 Coding Details

Login Admin:



## Admin Home: Page :Add New Question(Admin):

Activities mainCall May 14 18:34

Question

**Adding Question**

**QuesNo.** 52

**Question** nt i = 17;i >>=1; Value of i is:

**Option 1** 1

**Option 2** 2

**Option 3** 3

**Option 4** 4

**Answer** Option 3

Submit Cancel

**Message**

New record has been added!

OK

## Delete Question(Admin);

Activities mainCall May 13 14:36

Delete Question

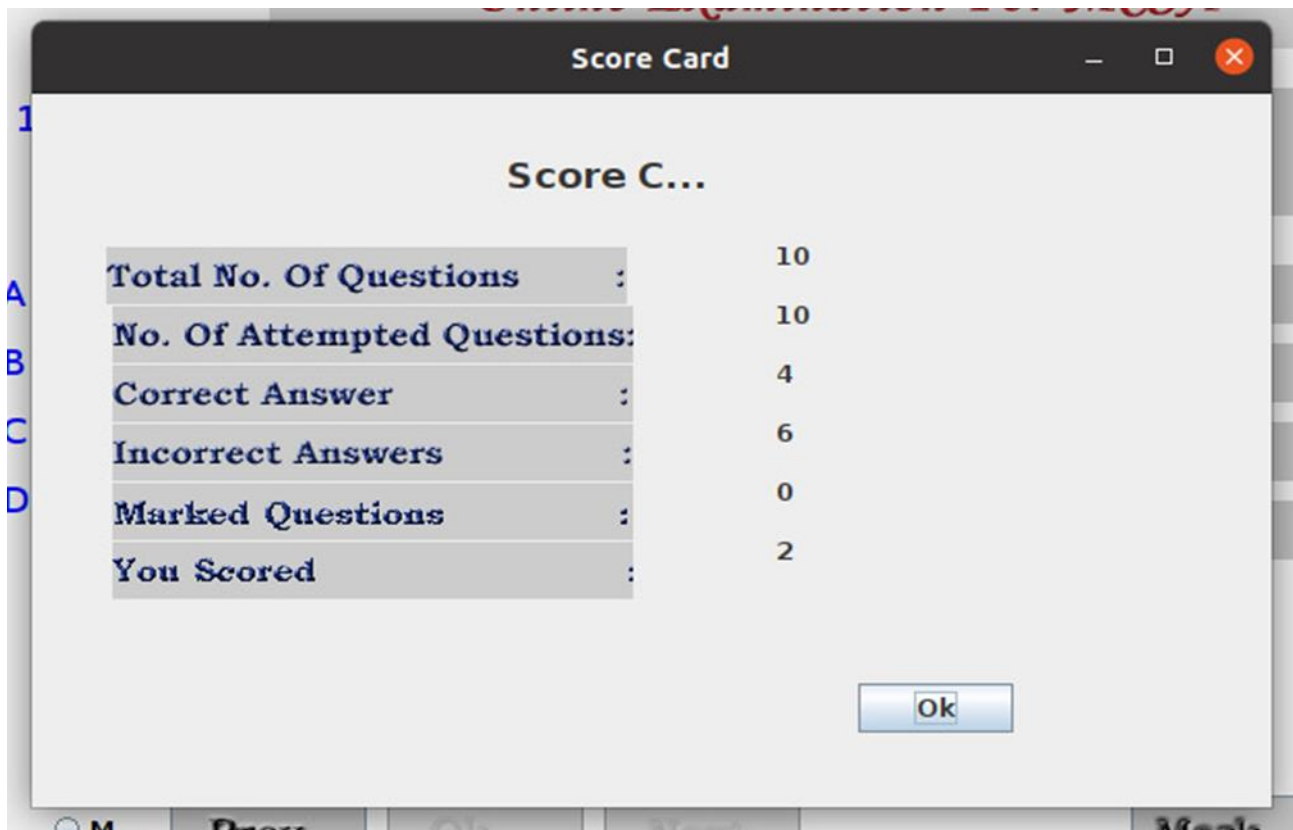
qno	ques
11	Who is the new Finance Minister ?
12	What is the initial capacity of the following string bu...
13	what method converts the integer 65 into the strin...
14	What Double method can you use to detect whethe...
15	value of new Integer(1).equals(new Long(1))
16	int i = 10;int n = i++%5; the values of i and n is :
17	What is the value of i after the following code snipp...
18	int i = 17;i >>=1; Value of i is:

Question No. to be Deleted :

Delete Cancel



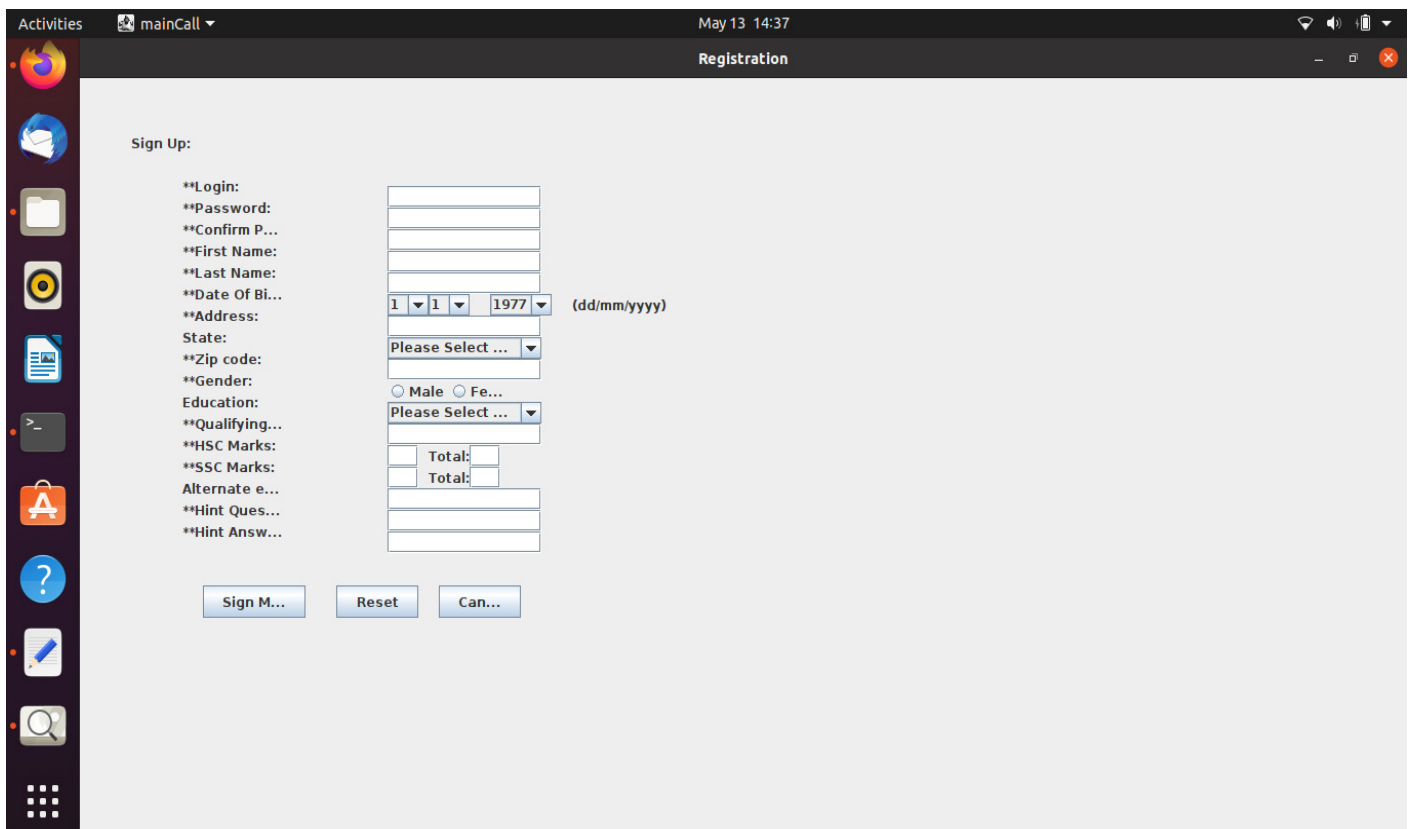
## Score Page:



A screenshot of a 'Score Card' window. The window has a title bar with 'Score Card' and standard window controls. The main content area is titled 'Score C...'. It displays a list of test statistics in a table-like format. The statistics are: Total No. Of Questions (10), No. Of Attempted Questions (10), Correct Answer (4), Incorrect Answers (6), Marked Questions (0), and You Scored (2). An 'Ok' button is located at the bottom right of the window.

Category	Value
Total No. Of Questions	10
No. Of Attempted Questions	10
Correct Answer	4
Incorrect Answers	6
Marked Questions	0
You Scored	2

## Admin New Registration Page :



A screenshot of a 'Registration' window in a web application. The window has a title bar with 'Registration' and standard window controls. The main content area is titled 'Sign Up:'. It contains a form with various input fields and buttons. The form fields are: \*\*Login: (text), \*\*Password: (text), \*\*Confirm P... (text), \*\*First Name: (text), \*\*Last Name: (text), \*\*Date Of Bi... (date picker), \*\*Address: (text), State: (dropdown), \*\*Zip code: (text), \*\*Gender: (radio buttons for Male and Female), Education: (dropdown), \*\*Qualifying... (text), \*\*HSC Marks: (text), \*\*SSC Marks: (text), Alternate e... (text), \*\*Hint Ques... (text), and \*\*Hint Ans... (text). There are also 'Total:' labels next to the HSC and SSC marks fields. At the bottom, there are three buttons: 'Sign M...', 'Reset', and 'Can...'. The window is set against a dark background with a sidebar on the left containing various application icons.

## Quiz Page :

Activities mainCall May 13 15:08 Online Exam

**Kaveri Collage PUNE**

*All the best.* 0h:4m:6s

**Qno 1** A ship went on a voyage. After it had travelled 180 miles a plane statrted with 10 times the speed of the ship.Find the distance when they meet from starting point.

( A ) ☐ 250miles

( B ) ☐ 200miles

( C ) ☐ 100miles

( D ) ☐ 150miles

☐ M... **Prev** **Ok** **Next** **Mark** **Submit**

## 5.3 Testing Approach

Software testing is a process which is used to measure the quality of software developed. It is also a process of uncovering errors in a program and makes it a feasible task. It is useful process of executing program with the intent of finding bugs. In order to prove that a piece of software works, the software must be tested to determine if the requirements of the application are met. There are several different types used throughout the development process. These are various types of testing.

**Some of which are mentioned below :**

### **Component Testing :**

Where each and every components related to the software project is tested.

**System Testing :** The testing implemented on overall software project after component integration is system testing.

**Acceptance Testing :** It is performed after software installation in user environment with data supplied by customers.

### 5.3.1 Unit Testing

The first test in the development process is the unit test. Unit testing is a level of software testing where individual units or components of a software are tested. The purpose is to validate that each unit of the software performs as designed. A unit is the smallest testable part of any software. It usually has one or a few inputs and usually a single output. The source code is normally divided into modules, which in turn are divided into smaller unit called units. These units have specific behaviour. The test done on these units of code is called unit test.

Unit test depends upon the language on which the project is developed. Unit tests ensure that each unique path of the project performs accurately to the documented specifications and contains clearly defined input and expected results. Unit tests are typically written and run by software developers to ensure that code meets its design and behaves as intended.

**Here are some of the objectives of unit testing :**

- To verify the correctness of code.
- To fix bugs early in the development cycle and save costs.
- To help developers to understand the testing code base and enable them to make changes quickly.
- To help the code reuse.
- To isolate a section of code.
- To test every function and procedure.

- To learn what functionally is provided by a unit.
- It improves design and allows better refracturing of code and makes the integration simple.
- It helps find problems and resolve them before further testing so they won't impact other bits of code.
- It makes the process of debugging easier.

### **5.3.2 Integrated Testing**

Integration testing is a level of software testing where individual units are combined and tested to verify if they are working properly. Integration testing carries a lot of significance as it helps tester in determining the effectiveness as well as the functionality of the software.

Integration testing is critical to ensure the functional correctness of the integrated system. Integration testing is often the most time consuming and expensive part of testing. Testing performed to expose defects in the interfaces and in the interactions between integrated components or systems.

### **5.3.3 Beta Testing**

Beta testing is one of the types of user acceptance testing, which adds value to the product as the end user (intended real user) validates the product for functionally, usability, reliability and compatibility. The main goal of user acceptance testing is to check whether the developed software product fulfils the user requirements. Beta testing is performed in order to access the product by exposing it to real end users. After that, the feedback is taken from the users and the defects detected are fixed. Inputs provided by the end users help in enhancing the quality of the product further and leads to its success. It helps the software product to provide better user experience. This also helps in decision-making to invest further in the products or the same product for improvisation. Since Beta Testing happens at the end user's side, it cannot be the controlled activity.

### **The features of beta testing are as follows:**

- Beta testing helps in providing the actual position of the quality. Beta testing generally is done for testing software products like utilities, operating systems and application etc.
- Beta testing focuses on the customers satisfaction.
- It helps to reduce the risk of project failure via user validations.
- Beta testing helps to get direct feedback from users.
- It helps to detect the defect and issues in the system, which is overlooked and undetected

by the team of software testers.

- Beta testing helps the user to install, test and send feedback regarding the developed software.

## 5.4 Modifications and Improvements

- Modifications made in the database structure for reliability.
- Other than admin, no other users are allowed to update their profile, Although admin can manage all things.
- Although, Admin can manage all quiz of student in the sytem.
- Admin can add new questions, update questions and delete questions as per choice.
- The user interface has been improved and kept simple.
- Test case have been modified and improved for better testing process.

## 5.5 Test Cases

### Module Name : Login

TEST CASE ID	TEST SCENARIO	TEST CASE	PRE-CONDIT ION	TEST STEP S	TEST DAT A	EXPE CTED RESU LT	POST CON DITIO N
TC_LOGIN_001	verify the login of student	Enter valid username and valid password	Need a valid Gmail Account to login	Enter user name Enter Passw ord Click “Logi n” Button	<valid userna me > <valid passw ord>	Succe ssful login	Home page is shown
TC_LOGIN_002	verify the login of student	Enter valid username and valid password	Need a valid Gmail Account to login	Enter user name Enter Passw ord Click “Logi n” Button	<valid userna me > <valid passw ord>	A messa ge “The userna me and passw ord is incorr	

						ect” is shown	
TC_LOGIN_003	verify the login of student	Enter invalid username and valid password	Need a valid Gmail Account to login	Enter user name Enter Password Click “Login” Button	<valid username > <valid password>	A message “The username and password is incorrect” is shown	
TC_LOGIN_004	verify the login of student	Enter invalid username and valid password	Need a valid Gmail Account to login	Enter user name Enter Password Click “Login” Button	<valid username > <valid password>	A message “The username and password is incorrect” is shown	
TC_LOGIN_005	verify the login of student	Enter valid username and valid password	Need a valid Gmail Account to login	Enter user name Enter Password Click “Login” Button	<valid username > <valid password>	A message “The username and password is incorrect” is shown	
TC_LOGIN_006	verify the login of student	Enter valid username and valid password	Need a valid Gmail Account to login	Enter user name Enter Password Click “Login” Button	<valid username > <valid password>	A message “The username and password is incorrect” is shown	

				n” Button		ord is incorr ect” is shown	
TC_LOGIN_ 007	verify the login of student	Enter empty username and valid password	Need a valid Gmail Account to login	Enter user name Enter Passw ord Click “Logi n” Button	<valid userna me > <valid passw ord>	A messa ge “The userna me and passw ord is incorr ect” is shown	

## Chapter 6

# RESULTS AND DISCUSSIONS

### 6.1 Test Reports

EXECUTED	PASSES	15
	FAILED	
	TEST EXECUTED IN TOTAL	15
PENDING		0
IN PROCESS		0
BLOCKED		0
(PENDING + IN PROGRESS+BLOCKED+TEST EXECUTED)		15



# Chapter 7

## CONCLUSIONS

### 7.1 Conclusion

Quiz application provides facility to attempt quiz anywhere and anytime. It save time since user does need to wait for result. So student/user cannot wait for the result. All Student/ user get extra knowledge and skills. Administrator has a privilege to put as much as question in given Quiz in application. User can register, log-in to attempt Quiz. If user forget their password then he/ she can reset password with the help of Forgot Password option. There is instruction page for students to get information about quiz like number of question, given time etc. After that student get the result of quiz. so, student cannot wait for result. also admin is responsible to add, delete and update question in the system. also he can view result of all students.

It has been a great pleasure for me to work on this exciting and challenging project. This project proved good for me as it provided practical knowledge of programming in JAVA and POSTGRESQL server and also about all handling procedure related with Quiz System. It also provides knowledge about the latest technology used in developing application and server technology that will be great demand in future. This will provide better opportunities and guidance in future in developing projects independently. This Quiz Application can be efficiently used by any students and Educational platforms. During the course of this assignment I have gone through many obstacle which made me to research and also increase knowledge.

At last it can be concluded that the “**Quiz Application**” was the real learning experience. The project has been made as per as the given specification. The system has been made as user-friendly as possible.

#### 7.1.1 Significance of the system

- The system is easy to use as it is user friendly.
- The working of the system is in organized form.
- It provides faster and accurate prescription processing.
- The system is kept simple and can be easily used by users.
- Quiz can be given without an instructor, which saves money and time.
- A larger number of participants, with instant results of your quiz

## 7.2 Limitations of the System

- The admin needs to be regularly be in contact with other users for any update in the user's information.
- We want to implement a concept where user itself can add question for others.
- We want to implement a concept where the user can solve any query related to each question at that time only.
- We also want to implement a concept where every user can see profile of other user.

## 7.3 Future Scope of the Project

- The Scope of this project is very broad in terms of gaining knowledge and sharing knowledge among world.
- Can be used anywhere any time as it is a application.
- This application will be used in educational institutions as well as in corporate world.

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