1 INTRODUCTION

1.1 What is it's quiz time project?

The it's quiz time is a desktop application in java for candidate to appear for an online test in effective way and there is no loss of time to check the paper. It is also designed for Educational Institutes like Schools, Colleges and Private Institutes to conduct logic tests of their students on a regular basis. The chief aim of it's Quiz time is to effectively estimate the candidate completely via a totally automated system which besides preserving time, offers swifter outcomes. Generally, pupil is provided with paper, pen etc for taking the test but the It's Quiz time doesn't require all these. These system handles all the operations and generates reports as soon as the test is completed which saves the precious time of faculties spent on reviewing answer sheets.

1.2 Detailed Problem Definition

- To take exam of more candidate more invigilator are required but in case of online exam no need of invigilator.
- The chance of paper leakage is more in current system of examination as compared to online examination system.
- Result processing takes more time in current examination system whereas in online examination system it is very fast and instant. It is difficult to analyze the exam manually.

1.3 Purpose

The purpose of the project is to build an application program to reduce the manual work for managing the Papers, Students, Examinations and Results. It tracks all the details about the Results, Marks and Courses. Functionalities provided by Java Project on MCQ Quiz Application are as follows: Provides the searching facilities based on various factors. The main aim of this project is to create a discussion platform consisting of quiz questions on different topics, fields and subjects. Its quiz time facilitates a user-friendly environment of Bluebook implementation, and the project overall manual effort.

1.4 What it actually does?

- In this online test you can learn and practice all subjects. By using online questions and answers you can improve your skills in order to face the Interview. You can also attempt competitive examination and various entrance tests with full confidence.

- It provides a common platform to connect student and teacher online. The registered teacher can create Quiz and student can take quiz and can assess himself/herself.

2 DESIGN AND IMPLEMENTATION

2.1 Survey

With the idea of its quiz time in mind before starting the actual project work, we have discussed the overall working of online quiz websites, applications and Exams format in school, colleges and its drawbacks. This project describes the solution for a problem which occurred in existing manual system. The major problem in existing manual system is a lost of papers and lost of time. There are mainly two users: Teachers and student. The admin (Teachers) is the master user. Student can register and can also give online test and check results within seconds. A list of students with their marks will also be updated and new questions will also be updated by the administrator.

2.2 System Architecture

This section describes how the software interfaces with other software products or users for input or output.

The architecture system consists of two modules:

- User/Student Module
- Admin/Teacher Module

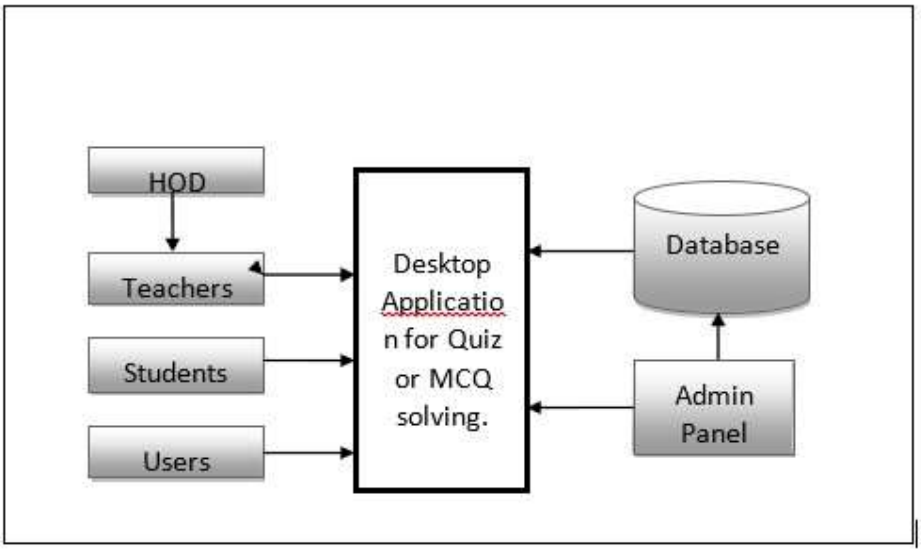

Figure 1: Basic Flow of Application

2.3 Hardware and Software Requirements

- Front End : JAVA
- Back End : MYSQL
- OS : Cross platform
- IDE : Eclipse
- RAM : 4GB and more

2.4 Architectural Diagram

2.4.1 Activity Diagram

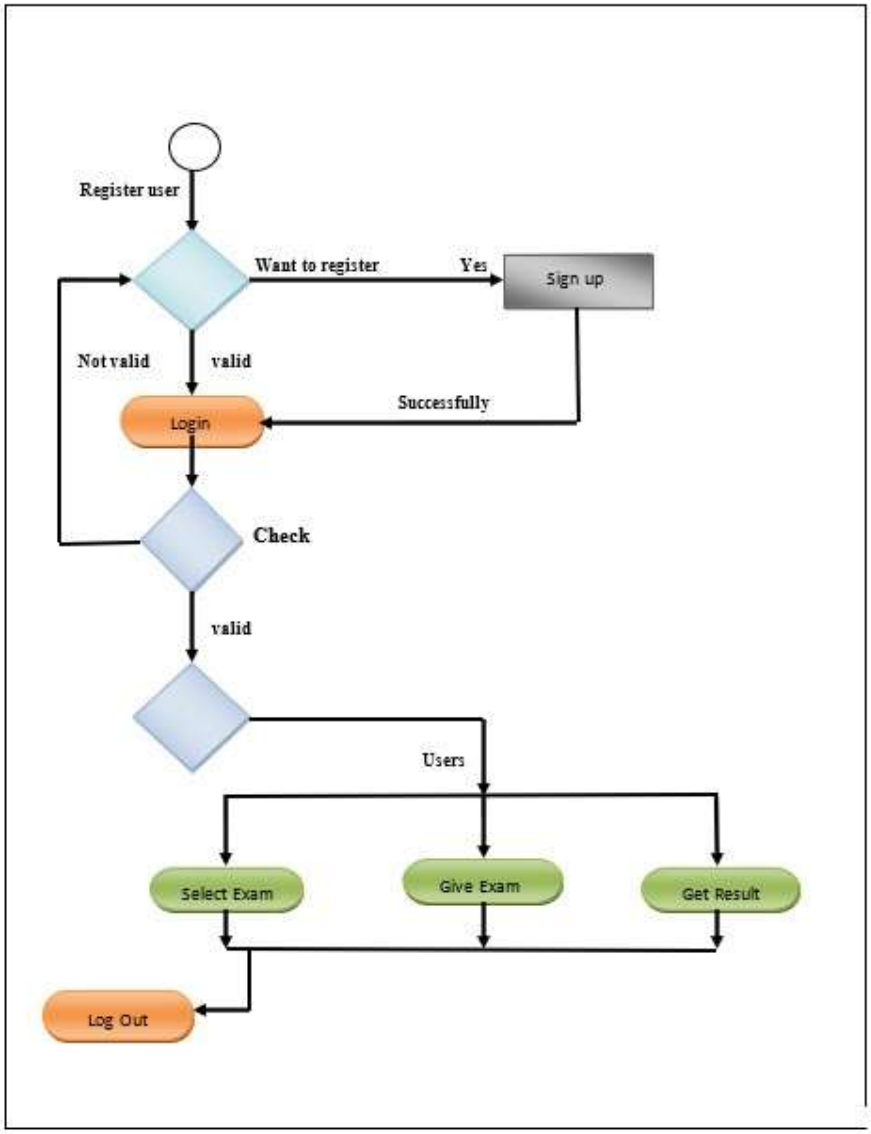

Figure 2: Activity Diagram

2.4.2 Usecase Diagram

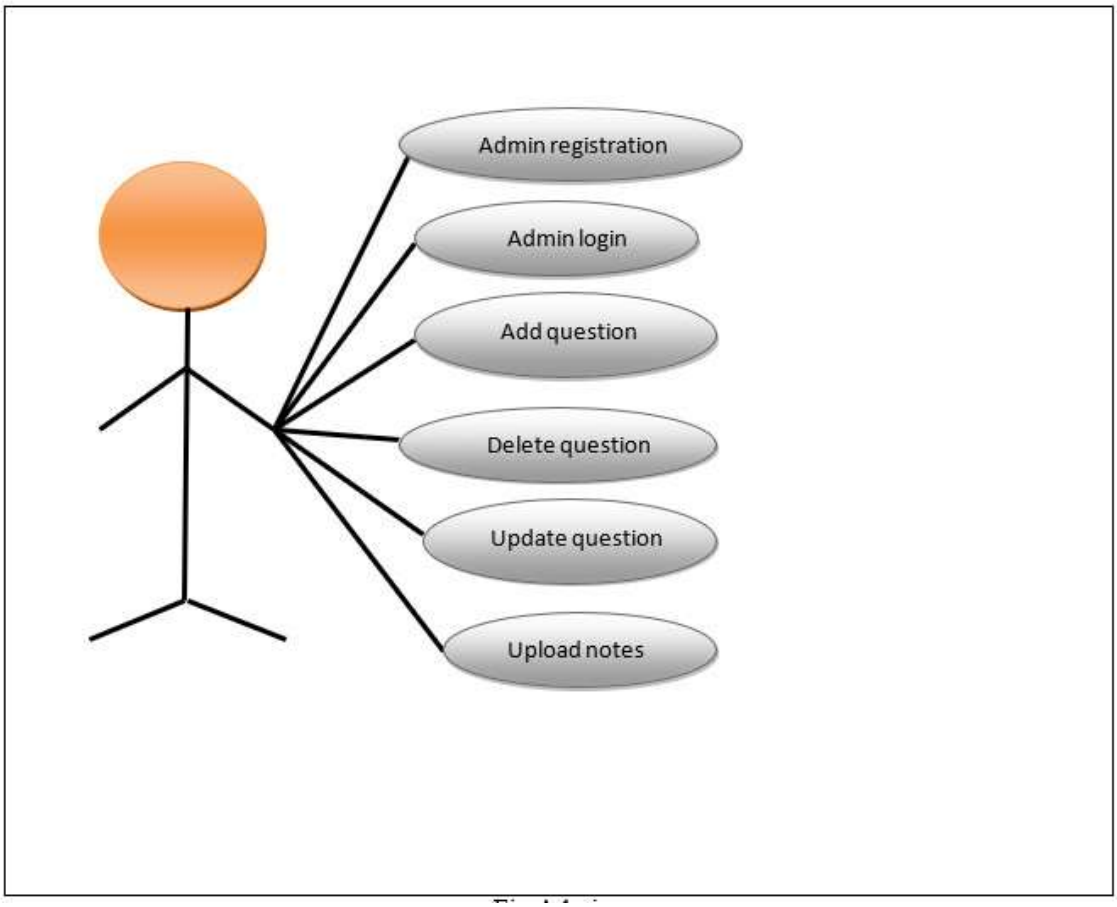

Figure 3: Admin Usecase Diagram

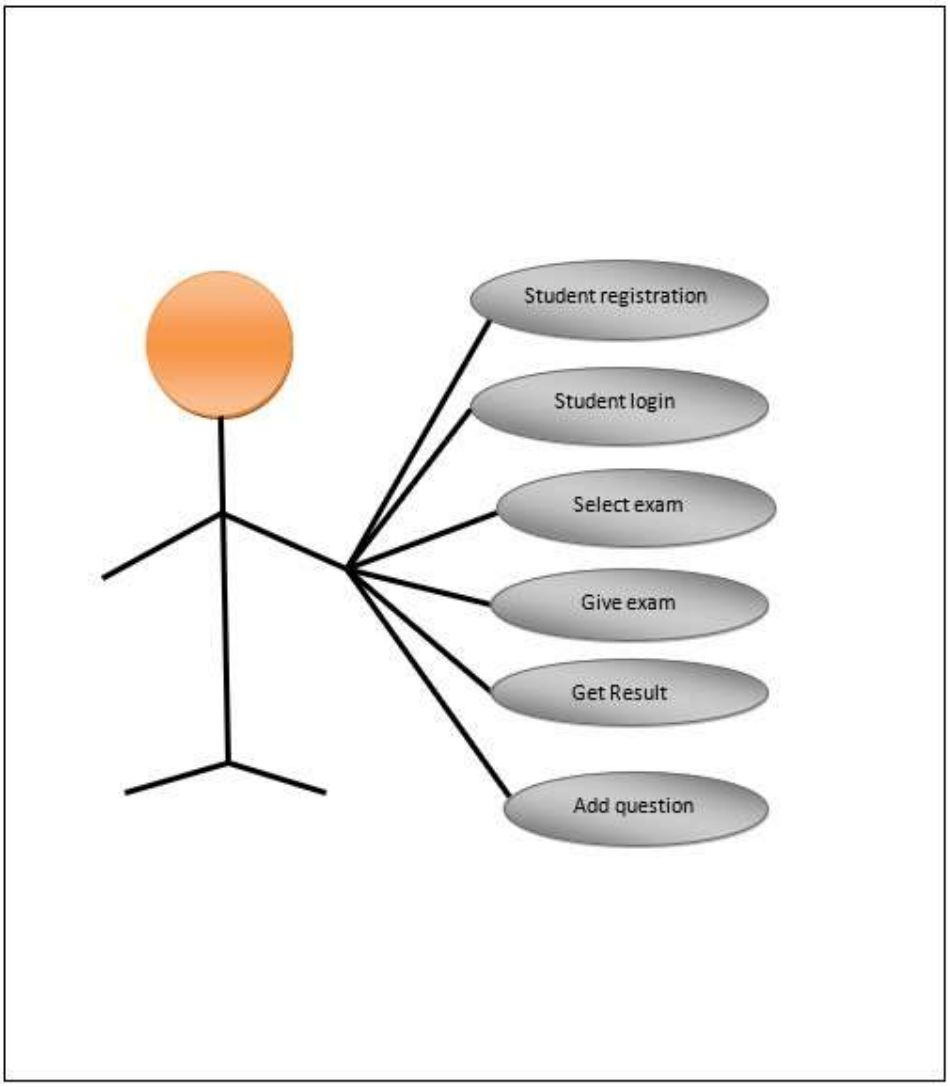

Figure 4: user Usecase Diagram

3 HIGH LEVEL DESIGN

3.1 Admin

Admin of our system is basically Teachers and Examination related staff. He has the rights of doing everything. Login credential is given to admin through Larval. Admin in system have homepage for convenience. Homepage consist of sidebar containing options like profile and update option. Update option has facility to add new questions in the database, delete unwanted questions from database and update notes for students.

Admin have given right to update, delete, insert question set. Admin can update question set if student is not able to update question set for new questions. Admin can update questions of all languages as per examinations. Admin can upload notes of different subjects and different topics and question set. Admin have given

right to edit questions through update option which is on button clicked without redirecting to pages. After all work done admin can logout.

3.2 Students

Students are given desktop application which is more user friendly for students. Students should have to register first and by same credential he/she should login. Once one student has registered, he/she can login at any time no need to get registered every time. Students are provided with so many options like profile, discussions and start quiz. Students have facility to check their marks within seconds after completing exam. Students can view pdf of question set. Hence our system helps to conduct exams more fluently and it is more helpful for practice online examination.

4 TESTCASES

4.1 Features to be tested

- Admin Panel
- User Panel

4.2 Objectives

The objective of the test is to verify that the functionality of application works according to the specifications. The test will execute and verify the test scripts, check each and every functionality and identify bugs and errors in this application.

4.2.1 Primary Objectives

A primary objective of testing is to assure that the system meets the full requirements, including quality requirements (functional and non-functional requirements) and fit metrics for each quality requirement and satisfies the use case scenarios and maintains the quality of the product. At the end of the project development cycle, the user should find that the project has met or exceeded all of their expectations as detailed in the requirements.

Any changes, additions, or deletions to the requirements document, functional specification, or design specification will be documented and tested at the highest level of quality allowed within the remaining time of the project and within the ability of the test team.

4.2.2 Secondary Objectives

The secondary objective of testing will be to: identify and expose all issues and associated risks, communicate all known issues to the project team, and ensure that all issues are addressed in an appropriate manner before release. As an objective, this requires careful and methodical testing of the application to first

ensure all areas of the system are scrutinized and, consequently, all issues (bugs) found are dealt with appropriately.

4.3 Test Approach

The approach, that used, is Analytical therefore, in accordance to requirementsbased strategy, where an analysis of the requirements specification forms the basis for planning, estimating and designing tests.Test cases will be created during exploratory testing. All test types are determined in Test Strategy.Team also must use experience-based testing and error guessing to utilize testers' skills and intuition, along with their experience with similar applications or technologies.

4.3.1 Test Automation

Automated unit tests are part of the development process, and UI smoke-tests must be also automated during which performance data must be captured.

4.4 Entry And Exit Criteria

4.4.1 Entry Criteria

- All test hardware platforms must have been successfully installed, configured, and functioning properly.
- All the necessary documentation, design, and requirements information should be available that will allow testers to operate the system and judge the correct behavior.
- All the standard software tools including the testing tools must have been successfully installed and functioning properly.
- Proper test data is available.
- The test environment such as, lab, hardware, software, and system administration support should be ready.

4.4.2 Exit Criteria

- Certain level of requirements coverage has been achieved.
- No high priority or severe bugs are left outstanding.
- All high-risk areas have been fully tested, with only minor residual risks left outstanding.
- Cost –when the budget has been spent.
- The schedule has been achieved.

4.5 TESTING STRATEGY

The testing procedure will start with the admin module first. We will test all the features of the admin module such as Add Question, Active Mock Test , Upload Notes, import questions.

The second part will consist of testing the user module. We will act as normal users and attempt a sample test. Then, we will also emulate abnormal situations and check whether the weather system reacts as expected.

Type of Testing	Manual Testing Using Device	Automated Testing on Device
Unit Testing	Yes	No
Integration Testing	Yes	No
Compatibility Testing	Yes	No

4.5.1 Unit Testing

Module: Admin
Participants: Vedant Joshi, Chaitanya Dhakare
Methodology: Testing each module separately and individually. Execute each file at least one

Module:	Admin TestCases							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	Admin.java (Mock)	Activate Mock	Initially Mock will be in deactivated state	Enter Time Duration , No. of questions and Click on Active Mock	Min - 1 sec 30 No of questions- 2	Mock Should be created on User Panel	Mock created on User Panel	pass
2	Admin.java (Add)	Add question to quiz	Initially Database can be or can not be empty of specific subject	Enter Question with Mcqs,answer and click On Add question	Enter question - CPP language is ? Op1- Object Oriented Programming Op2- Functinal Programming Op3- Procedural Programming Op4- Structured Programming ans- Object Oriented Programming	Question Should be added to table	Question is added to table	pass
3	Admin.java (Delete)	Delete all question from quiz	All qusetions will be there	Click On Delete All Question	-	All Questions should be deleted	All Questions are deleted	pass
4	Admin.java (Notes)	Upload Notes	Notes section can be empty	Click On Upload Notes	-	Notes Should uploaded and now user can view the notes	Notes Uploaded and User can view notes	pass

Module: User - Profile Testcases
Participants: Harshad Kadam, Sourabh Kekade
Methodology: Testing each module separately and individually. Execute each file at least one

Module:	User TestCases Profie TestCase							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	Dashborad1.java	Update profile info	after clicking update updation panel should open.	Edit Contact number and click on update button	Contact number: 7788994455	contact no should be updated	contact no is updated	pass
2	Dashborad1.java	Update profile info	after clicking update updation panel should open.	Edit password and click on update button	password: testuser1234 conf-password: testuser1234	password should be updated	password is updated	pass
3	Dashborad1.java	Update profile info	after clicking update updation panel should open.	Edit password and Mob No and click on update button	password: testuser1234 conf-password: testuser1234 Contact number: 7788994455	password and Mob no should be updated	password and Mob no are updated	pass
4	Dashborad1.java	Display progress in subject	Display progress after launching this page	Click on progress button and see progress of quiz played	-	Progress bar will progress according to sujects scores	Progress bar updated successfully	pass

Module: User - Login Testcases

Participants: Vedant Joshi, Chaitanya Dhakare

Methodology: Testing each module separately and individually. Execute each file at least one

Module:	Login Test Cases							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	LogIn.java	Check weather student can login	All the Fields are initially empty	Enter username and password	username: apple1234 password:apple1234	Student should be logged In	Student should be logged In	pass
2	SignUp.java	Check weather student can signup	All the Fields are initially empty	Enter username, password and mobile no	username: testuser1234 password: testuser1234 mobile: 7788994455	Student should be Signup	Student is Signed up successfully	pass
3	LogIn.java	Forget Password	Mobile No. field should be empty	Enter mobile no and enter new password	mobile no: 7788994455 password: testuser1234	Password changes successfully.	Password changed successfully.	pass
4	LogIn.java	Forget Password Fail Test	Mobile No. field should be empty	Enter mobile no	mobile no: 777777777	Alert- Enter Correct Username or Password	Alert- Enter Correct Username or Password	pass
5	LogIn.java	Data Validation	Variables should not be empty	-	password: testuser1234 conf-Password: testuser1234	return true	returned true	pass
6	LogIn.java	Login User Fail Test	All the Fields are initially empty	Enter username and password	username: testuser1234 password: testuser	Alert- Enter Correct Username or Password	Alert- Enter Correct Username or Password	pass

Module: User - Leaderboard Testcases

Participants: Harshad Kadam, Sourabh Kekade

Methodology: Testing each module separately and individually. Execute each file at least one

Module:	Leaderboard Test Case							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	Dashboard1.java	Show Leaderboard	Previous leaderborad will be there(Without update)	Click On leaderboard and select language: 'cpp'	-	Updated Leaderboard should be display	Updated Leaderboard should be display	pass
2	Dashboard1.java	Show Leaderboard	Previous leaderborad will be there(Without update)	Click On leaderboard and select language: 'java'	-	Updated Leaderboard should be display	Updated Leaderboard should be display	pass
3	Dashboard1.java	Show Leaderboard	Previous leaderborad will be there(Without update)	Click On leaderboard and select language: 'SQL'	-	Updated Leaderboard should be display	Updated Leaderboard should be display	pass

Module: User - Quiz Testcases

Participants: Vedant Joshi, Chaitanya Dhakare

Methodology: Testing each module separately and individually. Execute each file at least one

Module:	Start Quiz TestCases							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	Dashboard1.java	Start Quiz	Quiz Not started yet	Select quiz subject and Click on start quiz button	-	Quiz Should be started	Quiz is started	pass
2	Dashboard1.java	Status of Quiz	Quiz is Solved or Not	Click on Start Quiz	-	Alert- Quiz is allready Solved	Alert- Quiz is allready Solved	pass

Module: User - Save File Testcases

Participants: Harshad Kadam, Sourabh Kekade

Methodology: Testing each module separately and individually. Execute each file at least one

Module:	SaveFile							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	savefile.java	Save File	-	Click on upload and Choose file to upload	fileName: air.txt	file will be uploaded to database	file is uploaded to database	pass
2	savefile.java	Get File Name	File Should Be available at location	-	fileName: txt.ria	return txt.ria	returned txt.ria	pass

Module: User - Download File Testcases

Participants: Vedant Joshi, Chaitanya Dhakare

Methodology: Testing each module separately and individually. Execute each file at least one

Module:	Download Test Cases							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	DownLoadNotes.java	Download Notes	Previously Downloaded Notes will be there	Click On Download Notes	Click on air.txt	Notes should be Downloaded	Notes should be Downloaded	pass

4.5.2 System and Integration Testing

We will check whether after combing each admin and user module application is working fine or not.
Module: Application
Participants: Harshad Kadam, Sourabh Kekade Methodology:
Testing all module combined.

Module:	Application							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	Application	Application Test after combing module	-	run HomePage.java	-	All Application module execut's successfully	All Application module executed success-fully	pass

4.5.3 Compatibility Testing

Check if Application opens and runs as expected on windows independently.
Participants: Vedant Joshi, Chaitanya Dhakare Methodology:
Open Application using JAR File.

Module:	Application							
TEST CASE ID	TEST UNIT/ CLASS	TEST CASE	PRE-CONDITION	TEST STEP	TEST DATA	EXPECTED RESULT	ACTUAL RESULT	STATUS (PASS/ FAIL)
1	Application (Open on Windows)	Application Compatibility Testing	JVM Should be installed on system and Database should be configured.	Run Application.jar file	-	Open and runs as expected	open and executed as expected	pass

4.6 Resource and Environment Testing

4.6.1 Testing Tools

Process	Tools
Testcase Creation	Google Sheets, Eclipse (Juite)
Testcase Tracking	Google Sheets
Testcase Execution	Manual
Test Reporting	PDF and XML
Check list Creation	Google Sheets

4.6.2 Test Environment

- Support level 1 (OS): Windows, Linux
- Support level 2 (Devices): Laptop, Desktops

4.7 Test Deliverable

Execution based testing has a set of deliverable that includes the test plan along with its associated test design specifications , test procedures and test cases. The latter describe the actual test inputs and expected outputs. Deliverable may also include other documents that result from testing such as test logs, test transmittal reports, test incident reports and a test summary report. These documents are described in subsequent sections of this plan. Preparing and storing these documents requires considerable resources. Each organization should decide which of these documents is required for a given project.

4.8 Responsibilities

The staff that will be responsible for following test related tasks

- Transmitting the software-under-test;
- Developing test design specifications and test cases;
- Executing the tests and recording results;
- Tracking and monitoring the test efforts;
- Checking results;
- Interacting with developers;
- Managing and providing equipment;

- Developing the test harnesses;
- Interacting with the users/customers;

This group may include developers and testers.

4.9 Suspension and Resumption criteria

Criteria to suspend and resume testing are described. In the simplest of cases testing is suspended at the end of a working day and resumed the following morning. For some test items this condition may not apply and additional details need to be provided by the test planner. The test plan should also specify conditions to suspend testing based on the effects or critical level of the failures /defects observed. Conditions for resuming the test after a suspension should be specified. For some test items resumption may require certain tests to be repeated.

4.10 Pass/fail criteria

Given a test and a test case, the tester must have a set of criteria to decide on whether the test has been passed or failed upon execution. The master test plan should provide a general description of these criteria. In the test design specification section more specific details are given for each item or group of items under test with that specification.

5 SCREENSHOTS

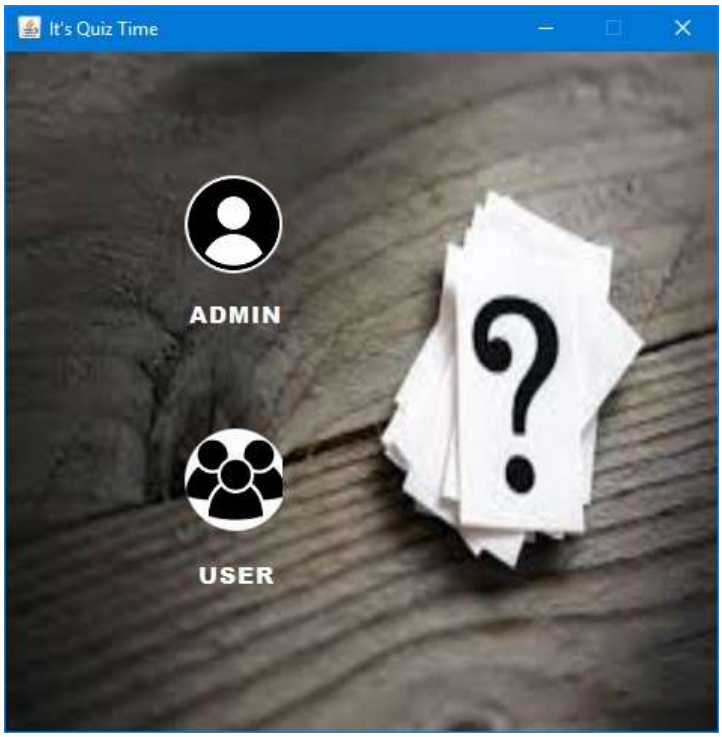

Figure 5: Module Choice

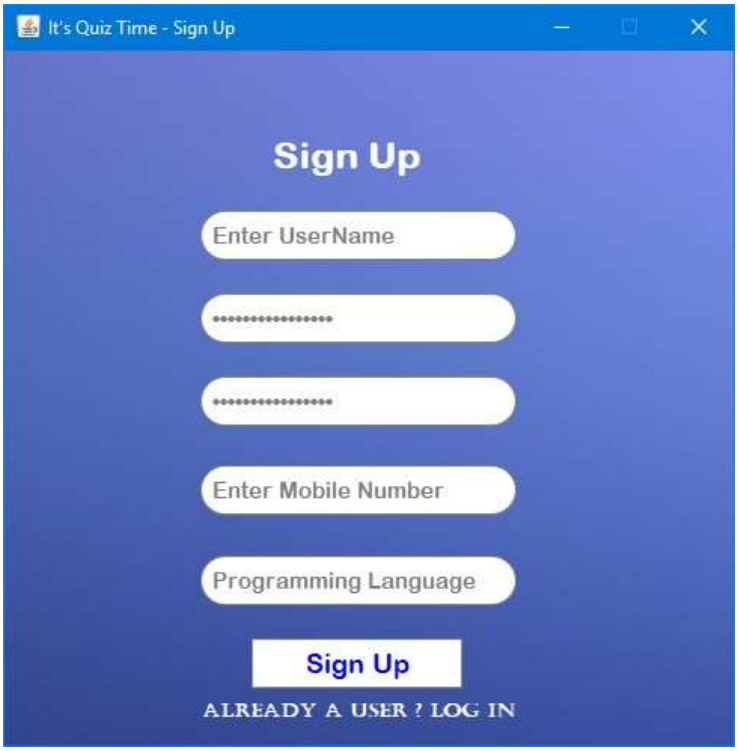

Figure 6: Admin Signup

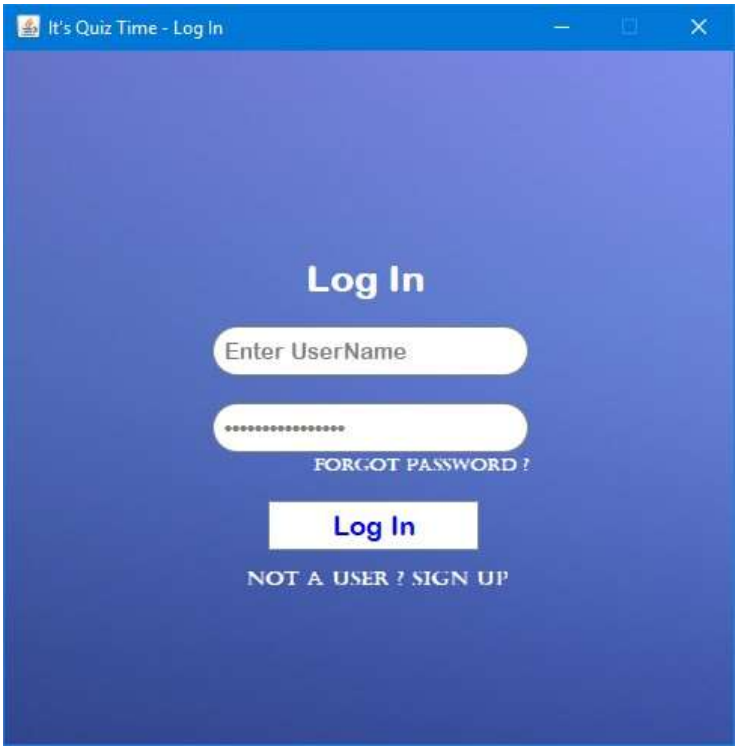

Figure 7: Login

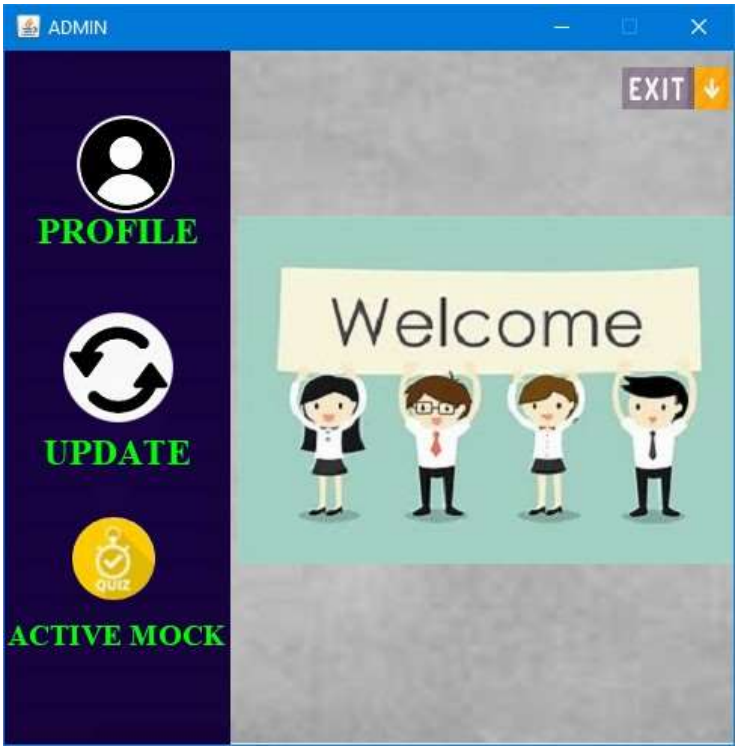

Figure 8: Admin Dashboard

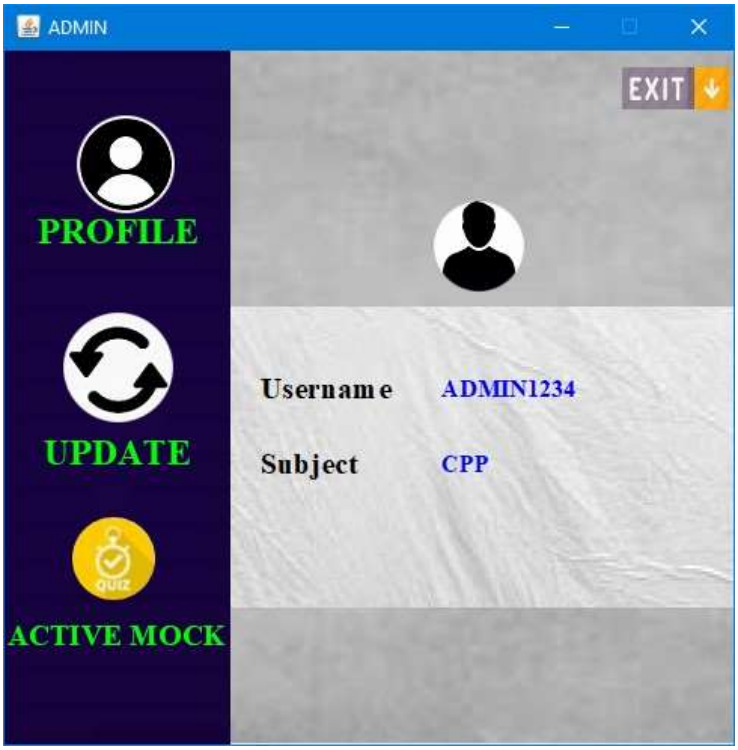

Figure 9: Admin Profile

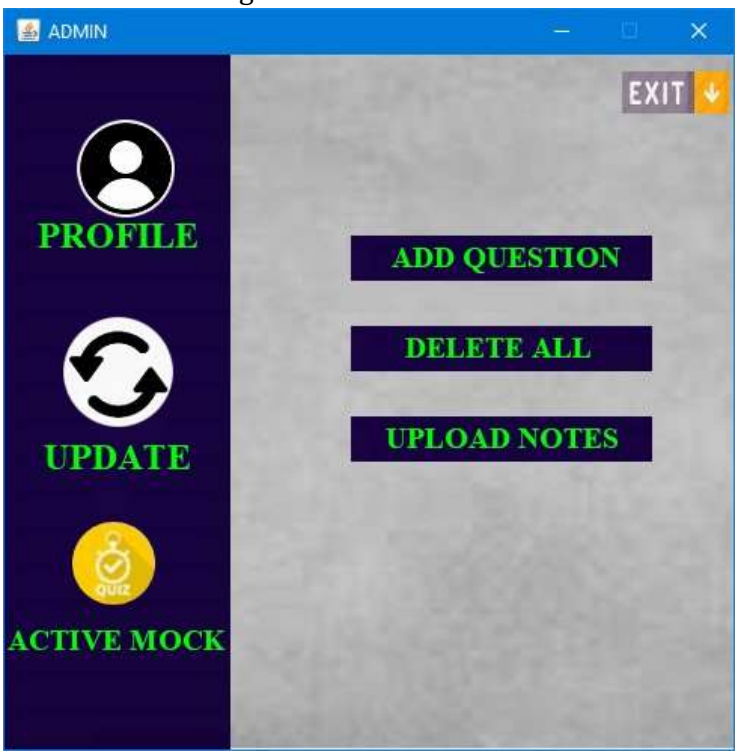

Figure 10: Update Section

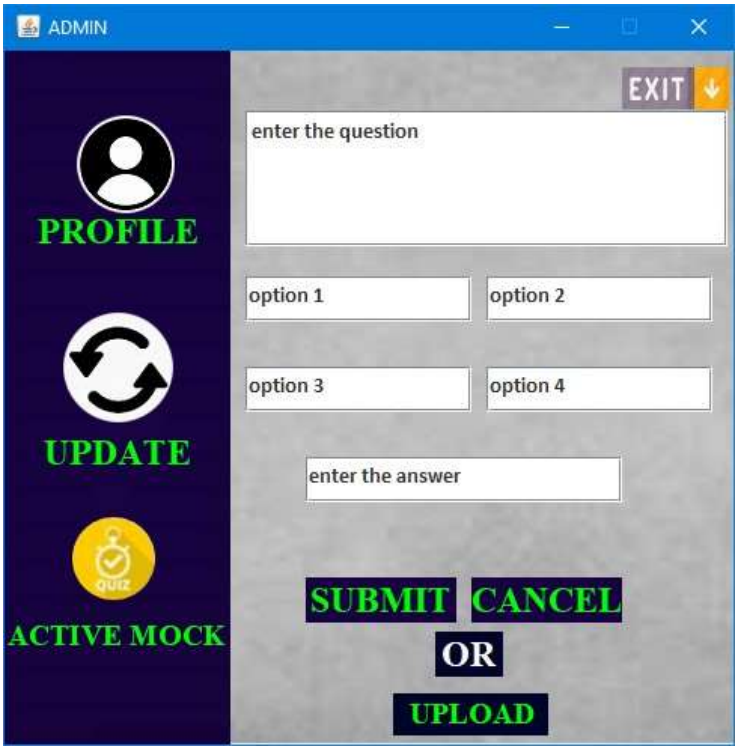

Figure 11: Add Question

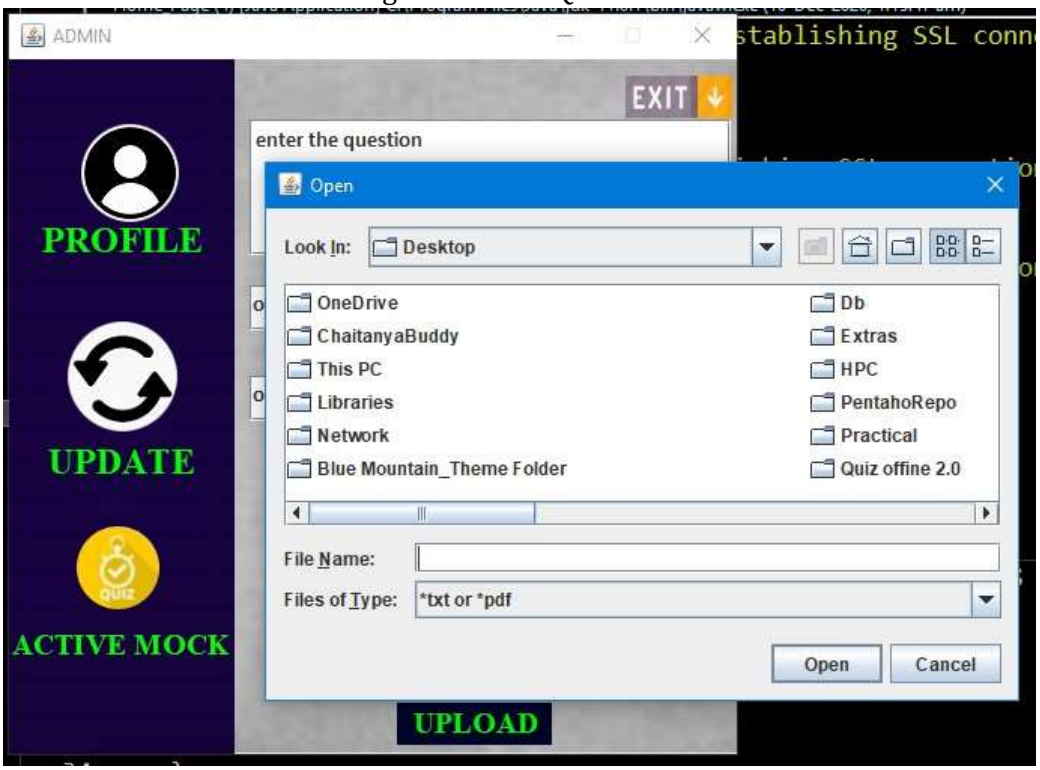

Figure 12: Upload Question

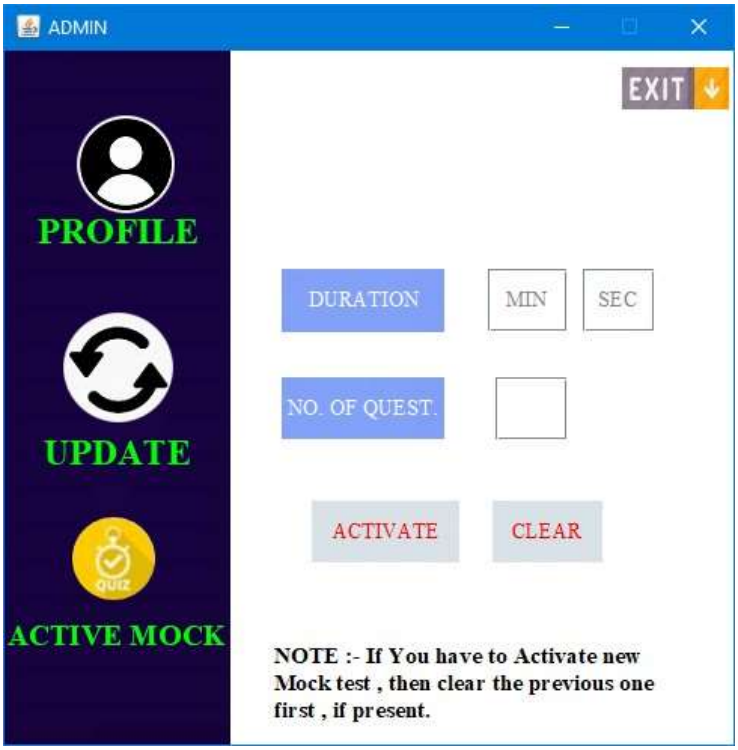

Figure 13: Active Mock Test

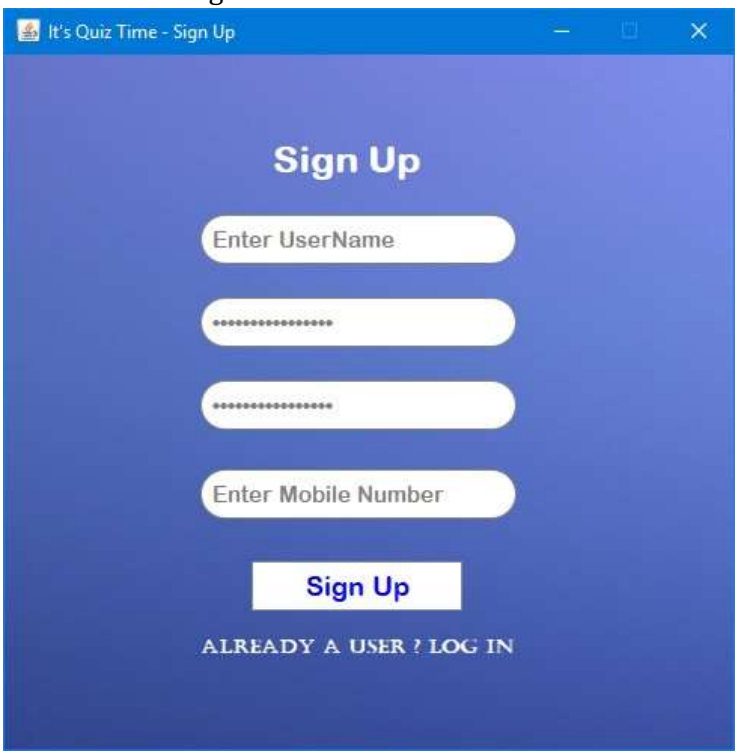

Figure 14: User Signup

Figure 15: User Dashboard

Figure 16: User Profile

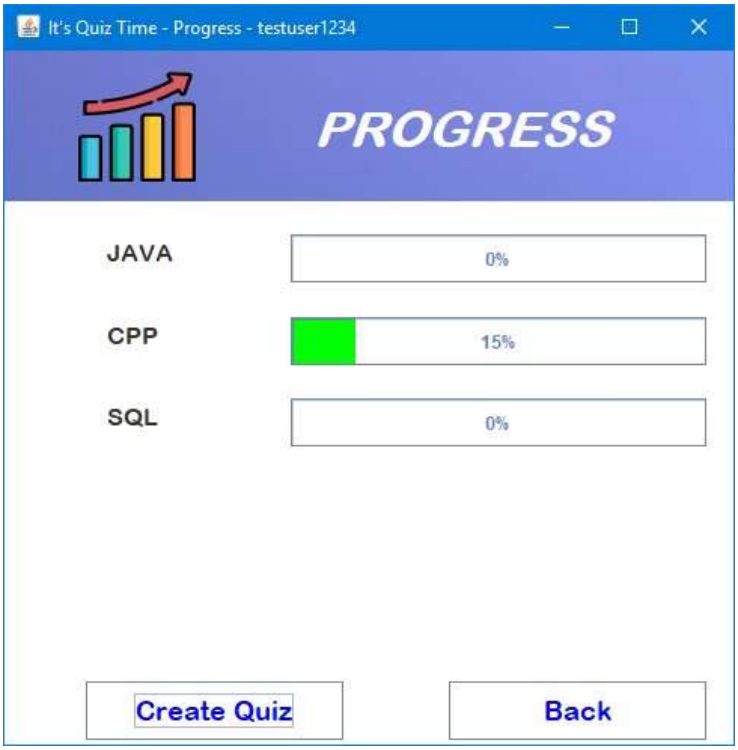

Figure 17: User Progress

Figure 18: Discussion Section

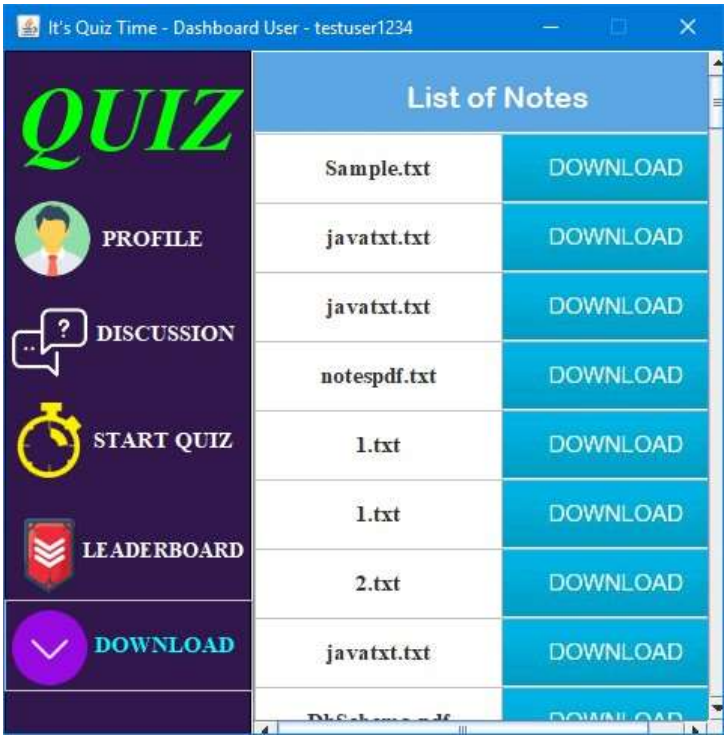

Figure 19: Download File

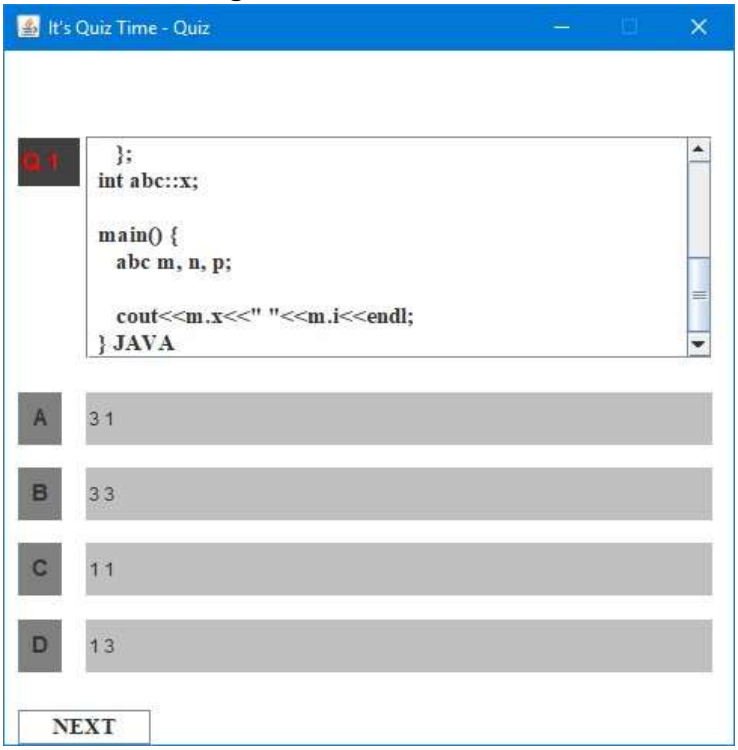

Figure 20: Quiz

Figure 21: User Leaderboard

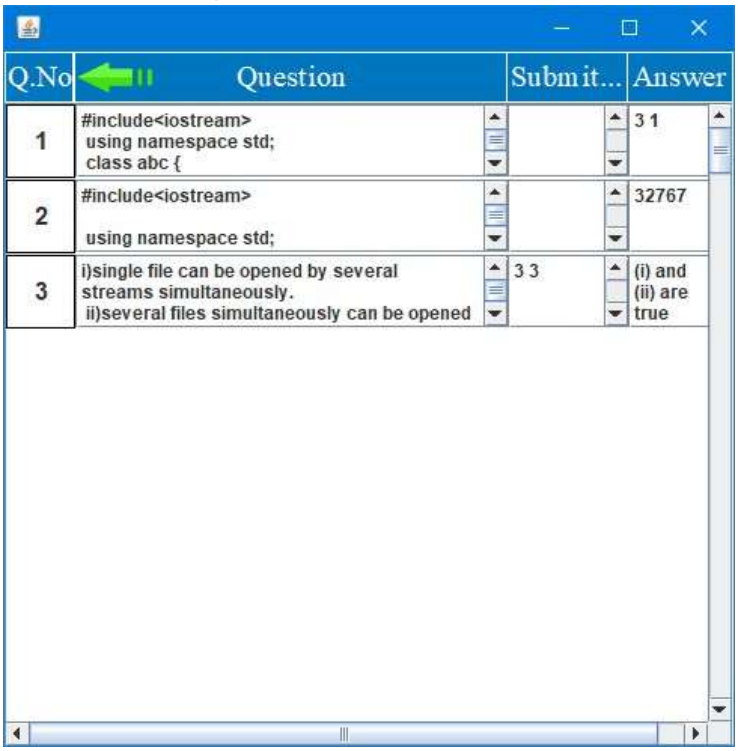

Figure 22: User Quiz After Submit

6 CONCLUSION

Project was successfully designed and is tested for accuracy and quality. During this project I have accomplished all the objectives and this project meets the needs of the organization. Its quiz time is a desktop application. The key concept is to minimize the use of paper and convert all forms of documentation into digital form. It can observe that the information required can be obtained with ease and accuracy in the computerized system. The user with minimum knowledge about computer can operate the system easily.

The "its quiz time" is a great improvement over the manual system like hand Written exams. The Computerization of the system has speed up the process and it is less time consuming. It is difficult to keep answer paper and all such things. This System was thoroughly tested with dummy data. The system avoids data redundancy and inconsistency. It provides security and integrity. Data is easily retrieved. Thus system is User Friendly.

7 FUTURE SCOPE AND REFERENCES

7.1 Future Scope

The main aim of our project is create a good interaction between the student and teacher.

- We are trying to do the project at best level to satisfy all the end users (i.e.student/faculty).
- In our future we are decided to provide more security to our application which may not be hacked.
- And we give the choice to student to add their name under the faculty who they wish and get advice for their betterment.

7.2 References

- https://www.javatpoint.com/example-to-connect-to-the-mysql-database
- https://stackoverflow.com/questions/12848341/how-do-i-add-an-image-to-alabel
- https://www.photoshopessentials.com/basics/crop-image-circle-photoshop/