

# Business Oriented Program (BOP) Project Report on **ONLINE QUIZ APPLICATION**

Submitted to:  
Mr. Valan Arasu



**Submitted by:**

<b>Pankaj Yadav</b>	<b>20099031</b>
<b>Surya Saini</b>	<b>20098973</b>
<b>Devika S</b>	<b>40034072</b>
<b>Vaibhavi N V</b>	<b>20099147</b>
<b>Shreya Powar</b>	<b>20099140</b>
<b>Manish Kumar Sharma</b>	<b>20099032</b>
<b>Roja Rose Thomas</b>	<b>40033441</b>

## **ABSTRACT**

It is good source of interactivities among students and between the teacher and students. It is done in order to improve student's comprehension levels and learning motivation. As one of their tools, online test tools are quite effective. However, in order to use the online test tool, a teacher is generally required a great deal of labor. For example, a teacher needs to create quizzes and input them in the online test tool. In order to solve these problems, we have developed a Web-based online test system which can create quizzes competitively and collaboratively by students for the purpose of reducing the load required for a teacher and promoting interactions among students and between the teacher and students.

## INTRODUCTION

The ONLINE QUIZ APPLICATION is a web application for to take online test in an efficient manner and no time wasting for checking the paper. The main objective of ONLINE QUIZ APPLICATION is to efficiently evaluate the candidate thoroughly through a fully automated system that not only saves lot of time but also gives fast results. For students they give papers according to their convenience and time and there is no need of using extra thing like paper, pen etc. This can be used in educational institutions as well as in corporate world. Can be used anywhere any time as it is a web based application (user location doesn't matter). No restriction that examiner has to be present when the candidate takes the test.

This Web Application provides facility to conduct online examination worldwide.

It saves time as it allows number of students to give the exam at a time and displays the results as the test gets over, so no need to wait for the result. It is automatically generated by the server. Administrator has a privilege to create, modify and delete the test

papers and its particular questions. User can register, login and give the test with his specific id, and can see the results as well.

## TECHNOLOGY/ SOFTWARE USED

1. **Eclipse Software:** Eclipse software is used in the project to make the quiz application. It includes use of applications such as HTML, CSS, JSP, Servlet, and JavaScript.
2. **MySQL:** Database is created, stored and updated using MySQL. The relevant queries are executed in MySQL using JDBC.
3. **MVC design Pattern** is used in the entire project to maintain the folders throughout the project.

## PROJECT DETAILS

**Home-Page:** The home-page consists of navigation bar to toggle through different pages of the online quiz application. The navigation bar consists of Home, About Us, Login, Register, and Contact Us. Clicking on any one button in the navigation bar, the page will scroll to different sections of the page. Clicking on the Login button will redirect the application to the login page.

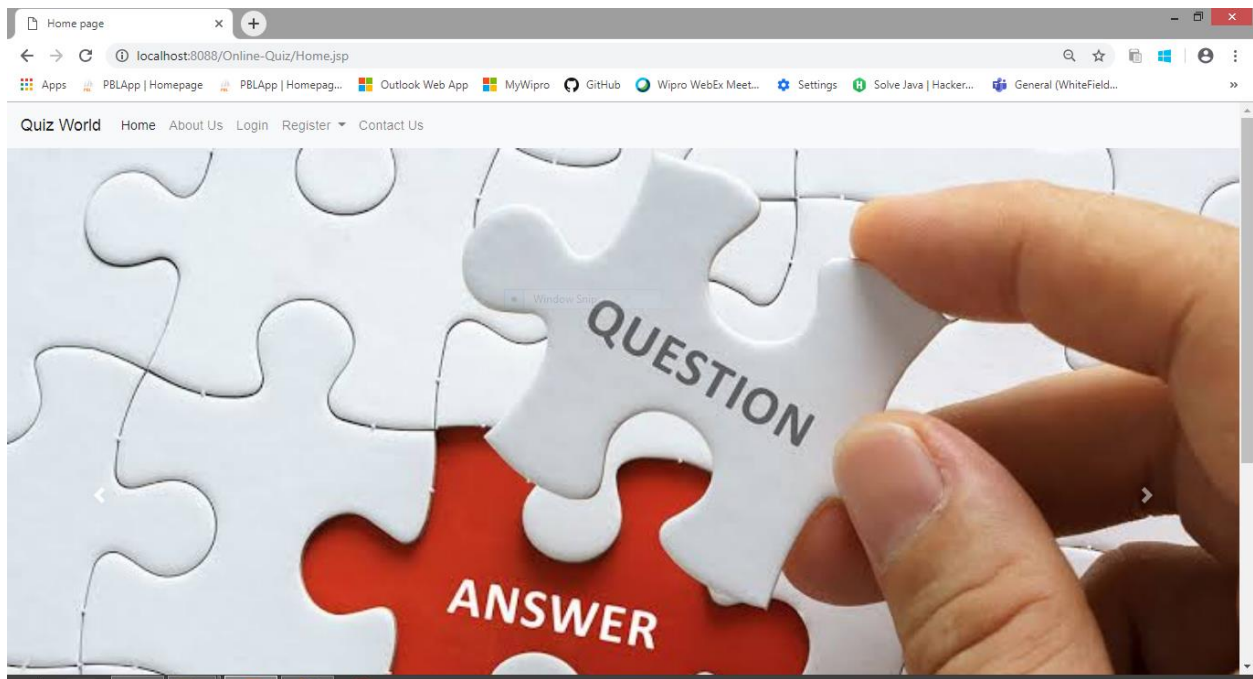
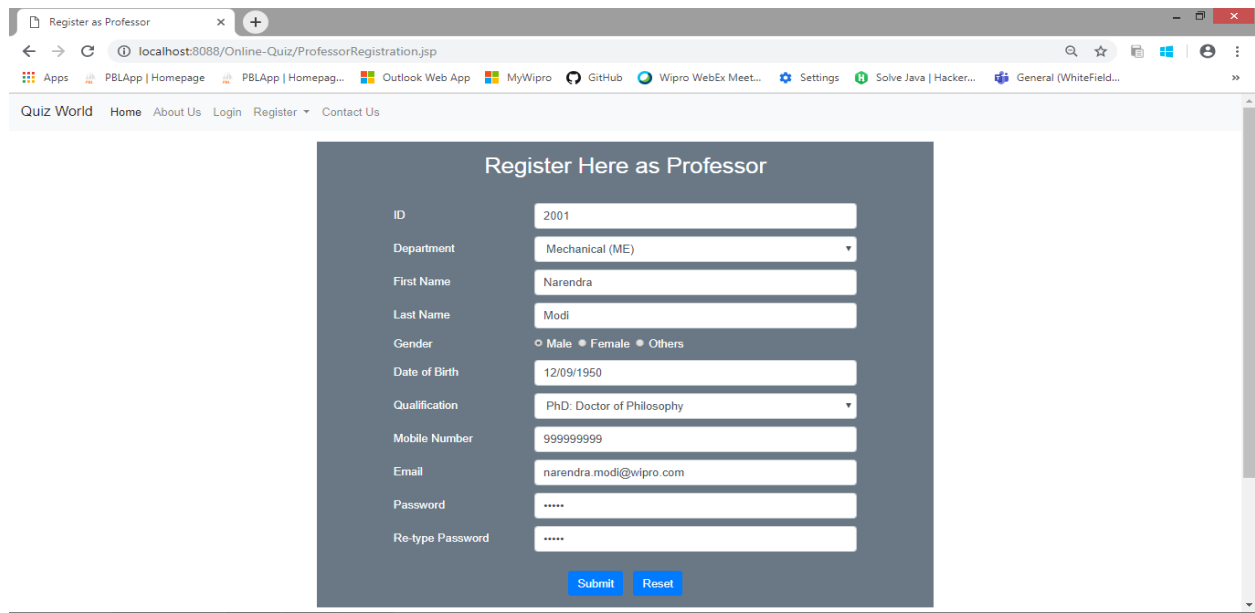


Figure1: Online Quiz Application Home Page.

**Login:** This page will give the user, the choice to select his/her type (student or professor) and separate database will be maintained for student and professor.

If the user will click on the professor login button, then the user will be redirected to login/signup page where he/she can fill up the required credentials if signing in. If the user has not registered already, he/she will have to sign up to access the application. The sign Up and Log In contains required validations. For eg. In sign up, the user will have to fill up all required personal details to register in the quiz application. The password contains required specifications (Uppercase letters, lowercase letters, numbers, special characters and it must be 12-characters long).

**Professor Login:** Once the professor has logged in, the professor is able to do changes like add or delete topics, add or view or edit questions, can view student details. Clicking on the profile button, the user can view his profile containing the details, he/she has entered while registering (signing up), and also can change the password in the quiz application. The “profile” page has various validations like the new password and confirm password must be same, user must fill out all the fields in the form, user must provide correct email Id and old password. The password entered by the user will be checked with the password in the database

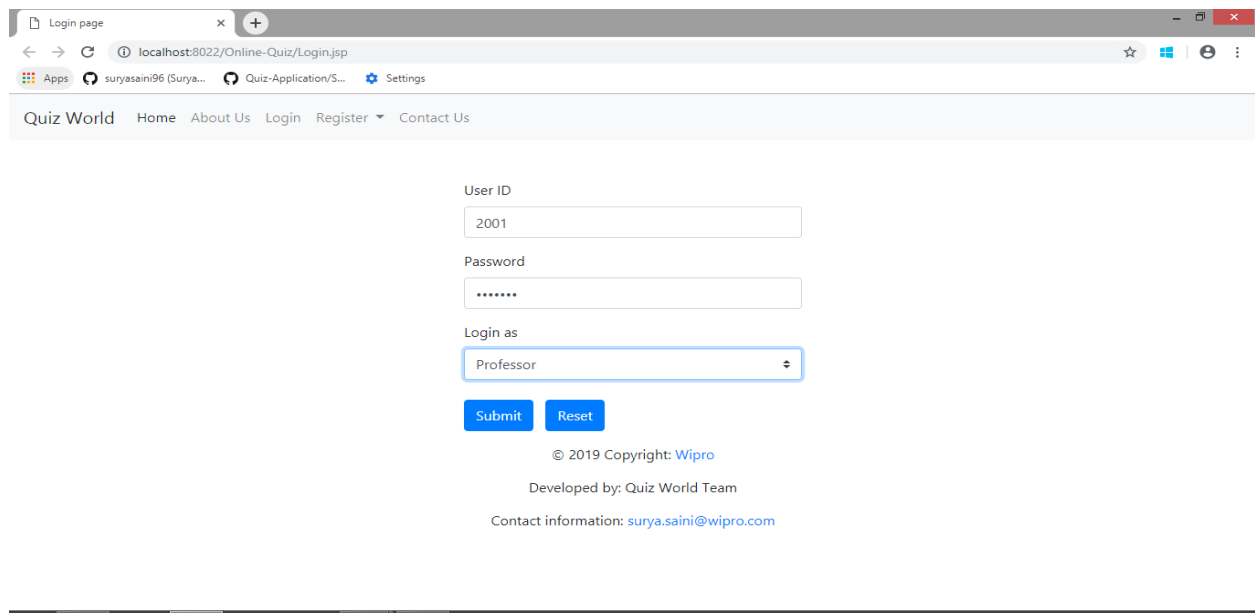


The screenshot shows a web browser window with the address bar displaying 'localhost:8088/Online-Quiz/ProfessorRegistration.jsp'. The page title is 'Register as Professor'. The navigation bar includes links for 'Quiz World', 'Home', 'About Us', 'Login', 'Register', and 'Contact Us'. The main content area features a registration form titled 'Register Here as Professor' with the following fields and values:

Field	Value
ID	2001
Department	Mechanical (ME)
First Name	Narendra
Last Name	Modi
Gender	<input checked="" type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Others
Date of Birth	12/09/1950
Qualification	PhD: Doctor of Philosophy
Mobile Number	999999999
Email	narendra.modi@wipro.com
Password	*****
Re-type Password	*****

At the bottom of the form are two buttons: 'Submit' and 'Reset'.

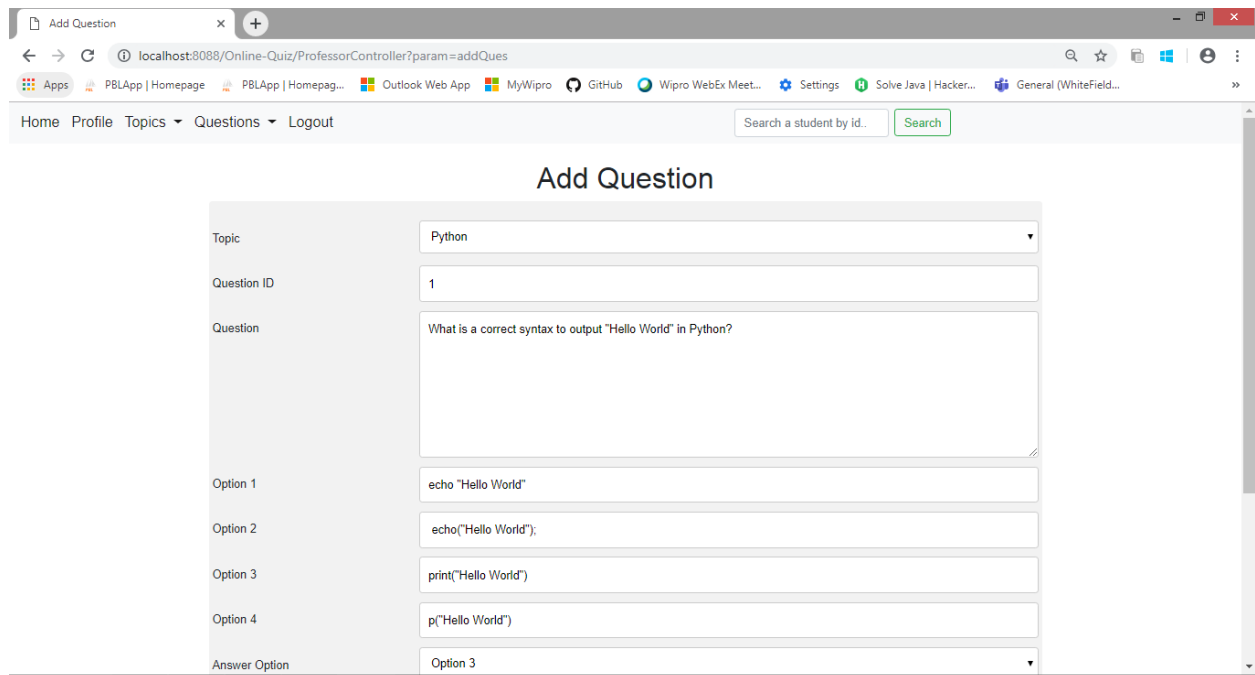
Figure 2: Professor Registration Page



The screenshot shows a web browser window with the address bar displaying 'localhost:8022/Online-Quiz/Login.jsp'. The page has a navigation bar with links: Quiz World, Home, About Us, Login, Register, and Contact Us. The main content area contains a login form with the following fields: 'User ID' with the value '2001', 'Password' with masked characters '\*\*\*\*\*', and 'Login as' with a dropdown menu set to 'Professor'. Below the form are 'Submit' and 'Reset' buttons. At the bottom, there is a copyright notice '© 2019 Copyright: Wipro', the text 'Developed by: Quiz World Team', and contact information 'Contact information: surya.saini@wipro.com'.

Figure 3: Professor Login Page

After the professor clicks on “Add and View Question” button provided, the professor can edit, view, delete the questions in the quizzes present in the database, else he/she can only view the quizzes provided by other professors. The professor can also delete the whole quiz, provided in any subject. The professor can also change the name of the title of the quiz



The screenshot shows a web browser window with the address bar displaying 'localhost:8088/Online-Quiz/ProfessorController?param=addQues'. The page has a navigation bar with links: Home, Profile, Topics, Questions, and Logout. A search bar is present with the text 'Search a student by id...' and a 'Search' button. The main content area is titled 'Add Question' and contains a form with the following fields: 'Topic' with a dropdown menu set to 'Python', 'Question ID' with the value '1', 'Question' with the text 'What is a correct syntax to output "Hello World" in Python?', 'Option 1' with the text 'echo "Hello World"', 'Option 2' with the text 'echo("Hello World");', 'Option 3' with the text 'print("Hello World")', 'Option 4' with the text 'p("Hello World")', and 'Answer Option' with a dropdown menu set to 'Option 3'.

Figure 4: Add Question Page

#	Question	Option 1	Option 2	Option 3	Option 4	Answer	Operation
1	What is the value of "d" after this line of code has been executed? <code>double d = Math.round ( 2.5 + Math.random() );</code>	2	3	4	2.5	op2	<a href="#">Edit</a> <a href="#">Delete</a>
2	Which of the following would compile without error?	<code>int a = Math.abs(-5);</code>	<code>int b = Math.abs(5.0);</code>	<code>int c = Math.abs(5.5F);</code>	<code>int d = Math.abs(5L);</code>	op1	<a href="#">Edit</a> <a href="#">Delete</a>
3	Which of the following are valid calls to <code>Math.max</code> ? <code>Math.max(1,4)</code> <code>Math.max(2.3, 5)</code> <code>Math.max(1, 3, 5, 7)</code> <code>Math.max(-1.5, -2.8f)</code>	1, 2 and 4	2, 3 and 4	1, 2 and 3	3 and 4	op1	<a href="#">Edit</a> <a href="#">Delete</a>
4	<pre>public class Myfile {     public static void main (String[] args)     {         String bilz = args[1];         String baz = args[2];         String rip = args[3];         System.out.println("Arg is " + rip);     } }</pre> Select how you would start the program to cause it to print: Arg is 2	java Myfile 222	java Myfile 1 2 2 3 4	java Myfile 1 3 2 2	java Myfile 0 1 2 3	op3	<a href="#">Edit</a> <a href="#">Delete</a>
5	What will be the output of the program? <code>String x = new String("xyz");</code> <code>String y = "abc";</code>	2	3	4	5	op3	<a href="#">Edit</a> <a href="#">Delete</a>

Figure 5: View Question Page.

**Student Login:** Once the student has logged in, the following student home page will appear on the screen.

### Register Here As Student

ID

First Name

Last Name

Gender

☐ Male
 ☐ Female
 ☐ Others

Date of Birth

Mobile Number

Email

Password

Re-type Password

Figure 6: Student Registration Page



Browser: Login page  
URL: localhost:8022/Online-Quiz/Login.jsp

Apps suryasaini96 (Surya... Quiz-Application/S... Settings

Quiz World Home About Us Login Register Contact Us

User ID

Password

Login as

© 2019 Copyright: Wipro

Developed by: Quiz World Team

Contact information: [surya.saini@wipro.com](mailto:surya.saini@wipro.com)

Figure 7: Student Login Page



Figure 8: Student Home Page

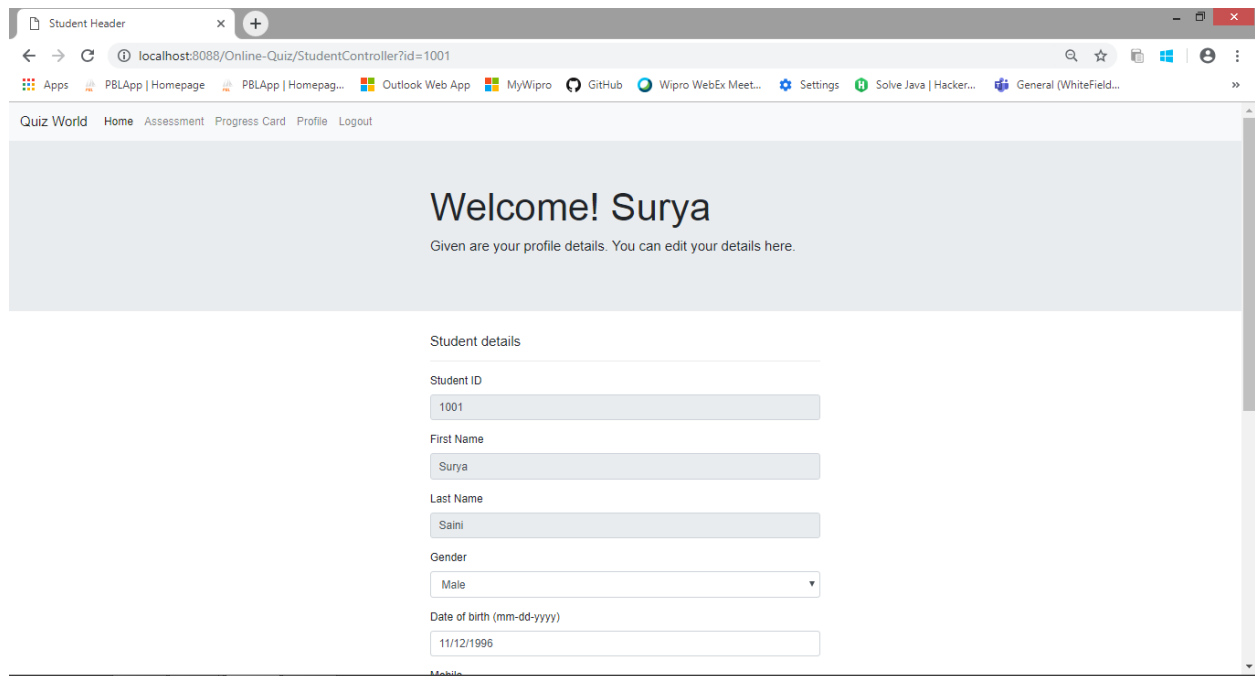


Figure 9: Student Profile Page

Clicking on the “Assessment” button provided, the student is provided with various quizzes, the different professors have uploaded along with the name of the topics. The student can choose any one quiz and start the test.

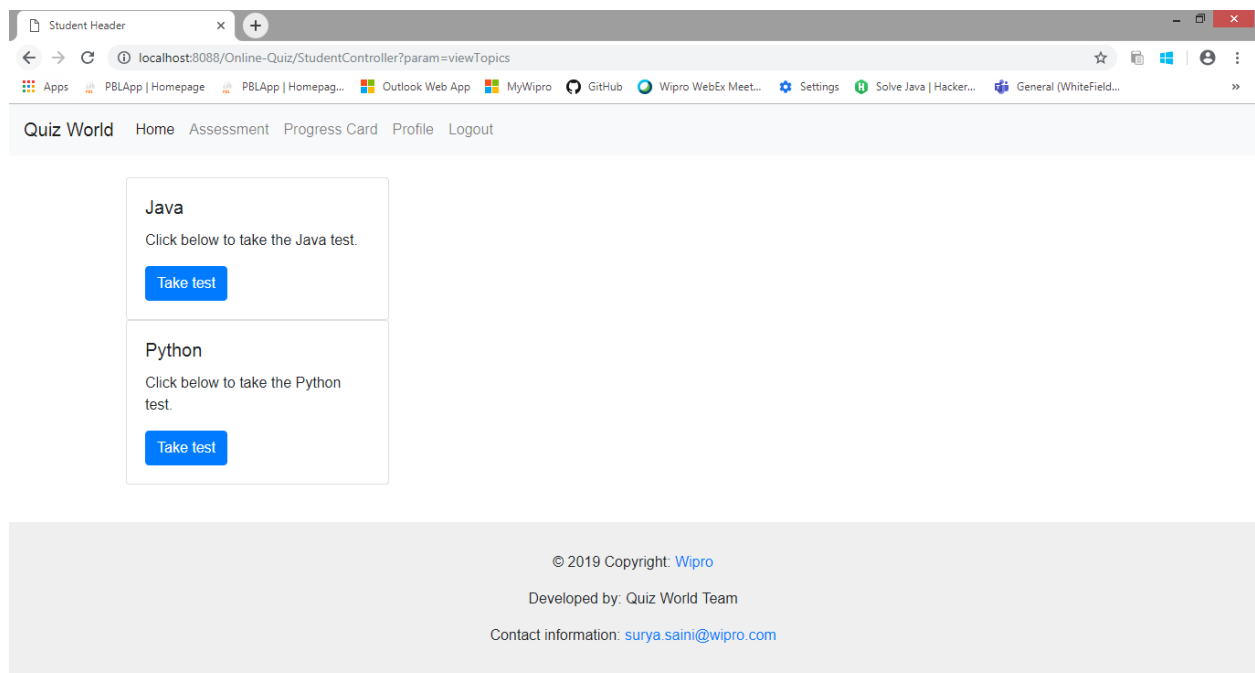


Figure 10: Topic Page

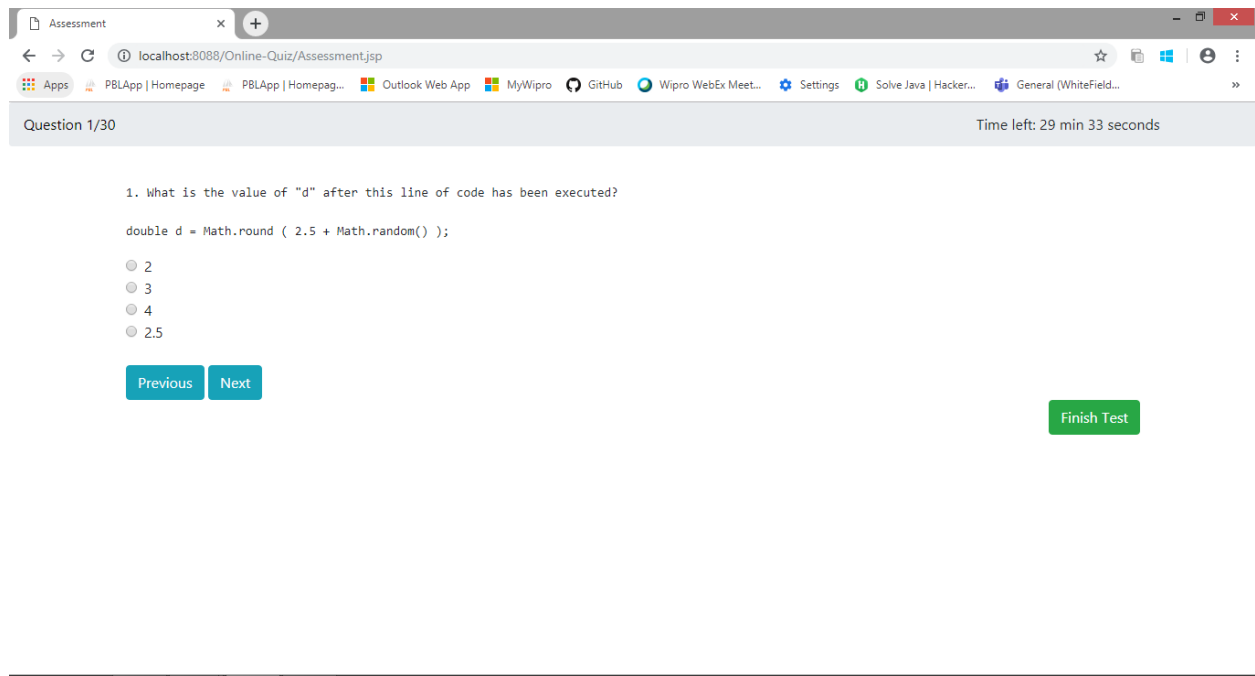


Figure 11: Assessment Page.

Once the test begins, the student has to give answer to all the question within 30 minutes and clicking on finish button student can finish the test.

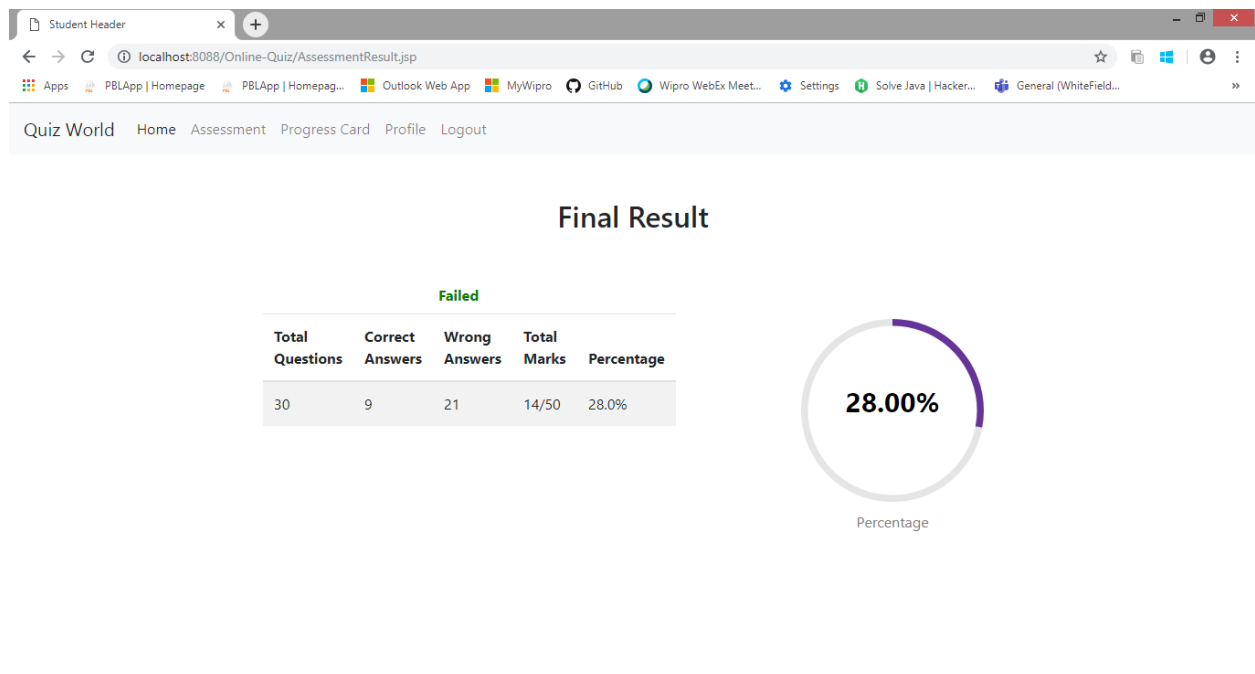


Figure 12: Result Page

As the student precedes with his test, a progress report is provided at the navigation bar to enable the user to check the report. After completion of the test, the student will be provided with test summary, the percentage of marks secured, the number of correct answers, the number of wrong answers and the table containing the user's input and the correct answer.

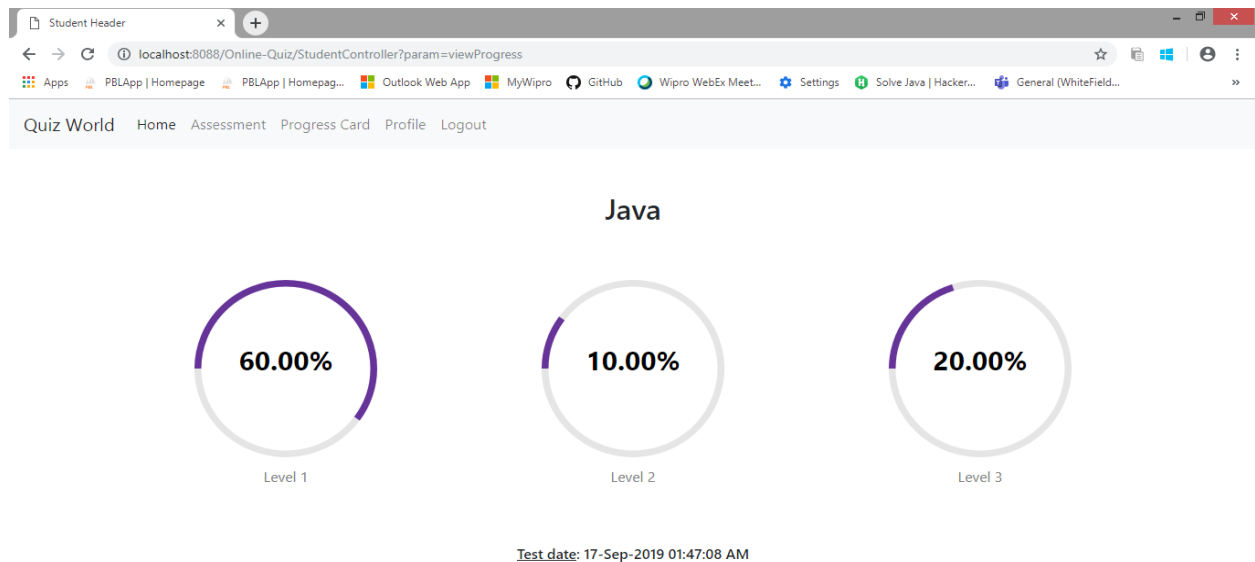


Figure 13: Report Page

All the results will be saved in the database of the student and these results can be viewed by the student by clicking on his/her Progress card option.

# TABLES

The screenshot shows the Oracle SQL Developer interface with the 'PROFESSOR' table selected in the 'Columns' tab. The table structure is displayed in a grid format with the following columns:

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 ID	NUMBER (10, 0)	No	(null)	1 (null)	
2 DEPT	VARCHAR2 (50 BYTE)	No	(null)	2 (null)	
3 FNAME	VARCHAR2 (50 BYTE)	No	(null)	3 (null)	
4 LNAME	VARCHAR2 (50 BYTE)	No	(null)	4 (null)	
5 GENDER	VARCHAR2 (6 BYTE)	Yes	(null)	5 (null)	
6 DOB	DATE	No	(null)	6 (null)	
7 QUALIFICATION	VARCHAR2 (10 BYTE)	Yes	(null)	7 (null)	
8 MOBILE	NUMBER (10, 0)	Yes	(null)	8 (null)	
9 EMAIL	VARCHAR2 (50 BYTE)	Yes	(null)	9 (null)	
10 PASSWORD	VARCHAR2 (50 BYTE)	Yes	(null)	10 (null)	

Figure 14: Table for Professor Details

The screenshot shows the Oracle SQL Developer interface with the 'STUDENT' table selected in the 'Columns' tab. The table structure is displayed in a grid format with the following columns:

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 ID	NUMBER (10, 0)	No	(null)	1 (null)	
2 FNAME	VARCHAR2 (50 BYTE)	No	(null)	2 (null)	
3 LNAME	VARCHAR2 (50 BYTE)	No	(null)	3 (null)	
4 GENDER	VARCHAR2 (6 BYTE)	Yes	(null)	4 (null)	
5 DOB	DATE	No	(null)	5 (null)	
6 MOBILE	NUMBER (10, 0)	Yes	(null)	6 (null)	
7 EMAIL	VARCHAR2 (50 BYTE)	Yes	(null)	7 (null)	
8 PASSWORD	VARCHAR2 (50 BYTE)	Yes	(null)	8 (null)	

Figure 15: Table for Student details

The screenshot shows the Oracle SQL Developer interface with the 'QUESTIONS' table structure displayed in the 'Columns' tab. The table has 7 columns: QUESID, QUES, OP1, OP2, OP3, OP4, and ANS. The data types are NUMBER(3,0) for QUESID and VARCHAR2(1000 BYTE) for the others. All columns are nullable and have a default value of null. The column IDs are 1 through 7 respectively.

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 QUESID	NUMBER (3, 0)	No	(null)	1	(null)
2 QUES	VARCHAR2 (1000 BYTE)	Yes	(null)	2	(null)
3 OP1	VARCHAR2 (1000 BYTE)	Yes	(null)	3	(null)
4 OP2	VARCHAR2 (1000 BYTE)	Yes	(null)	4	(null)
5 OP3	VARCHAR2 (1000 BYTE)	Yes	(null)	5	(null)
6 OP4	VARCHAR2 (1000 BYTE)	Yes	(null)	6	(null)
7 ANS	VARCHAR2 (1000 BYTE)	Yes	(null)	7	(null)

Figure 16: Table for Java Questions

The screenshot shows the Oracle SQL Developer interface with the 'RESULTS' table structure displayed in the 'Columns' tab. The table has 6 columns: STUID, TOPIC, LEVEL1, LEVEL2, LEVEL3, and TIME. The data types are NUMBER(5,0) for STUID, VARCHAR2(50 BYTE) for TOPIC, and NUMBER(3,0) for the levels. All columns are nullable and have a default value of null. The column IDs are 1 through 6 respectively.

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 STUID	NUMBER (5, 0)	No	(null)	1	(null)
2 TOPIC	VARCHAR2 (50 BYTE)	No	(null)	2	(null)
3 LEVEL1	NUMBER (3, 0)	Yes	(null)	3	(null)
4 LEVEL2	NUMBER (3, 0)	Yes	(null)	4	(null)
5 LEVEL3	NUMBER (3, 0)	Yes	(null)	5	(null)
6 TIME	VARCHAR2 (50 BYTE)	No	(null)	6	(null)

Figure 16: Table for Result storage

Oracle SQL Developer

File Edit View Navigate Run Team Tools Window Help

Connections

My Database

Columns Data Model Constraints Grants Statistics Triggers Flashback Dependencies Details Partitions Indexes SQL

Columns: TOPICS

COLUMN_NAME	DATA_TYPE	NULLABLE	DATA_DEFAULT	COLUMN_ID	COMMENTS
1 TOPIC	VARCHAR2 (50 BYTE)	Yes	(null)	1	(null)

Reports

All Reports

Analytic View Reports

Data Dictionary Reports

Data Modeler Reports

OLAP Reports

TimesTen Reports

User Defined Reports

Messages - Log

Messages Logging Page Statements

Figure 17: Table for Topic details

## **ADVANTAGES AND DISADVANTAGES OF ONLINE QUIZ APPLICATION**

### **Advantages:**

- The ultimate aim of this project is to help the quiz analysis and facilitate the faculties for easy evaluation of the students and generation of the automatic score cards.
- The system shall display the set of questions. It also displays the category for which the students wish to answer.
- Once the student has completed choosing the category starts answering the questions. The mark is given and report is generated based on the correct answers.
- The scope of this project gives immense opportunity for the students to know their levels in quiz.
- It provides effective software so as to help the students as well as the evaluators who are involved in evaluating the student's performance.
- The data in this project are maintained in the tabular form using MYSQL in the form of database. It provides easy access to the user. Easy category questions are maintained in the database which provides easy for the user to access and choose the category.
- No data loss occurs in the quiz system.
- It is very much protected in such a way that it gives permission to the students to access only when the user id and password is correct.
- The results are produced electronically so that nobody is prone to mistakes.
- We assure that the project is completely authenticated in order to enhance security and corruptions of database as well as the software. The person is given access only if he/she has a valid username and password.

### **Disadvantages:**

- It becomes a problem in itself to find space to keep the sheets of paper being generated as a result of the ongoing discussion. The documents being generated are too important to be ill-treated.
- Adding Questions in the documents categorically is a time consuming and tedious exercise.



- It becomes hard to filter relevant documents for the irrelevant ones if the count of the same crosses a certain manageable number.
- All the process done manually at the centres and all the records are maintained on the papers. So the maintenance of the record is very difficult in the departments and as well as it's very difficult for the workers to check the record.
- It is slow due to paper work and requirement of staff.

## **CONCLUSION**

The online quiz application is executed successfully using eclipse and MySQL software. The quiz application maintains all the database in MYSQL when queries are executed from eclipse using JDBC. Model View Controller (MVC) is used throughout the project to maintain the sequence of folders in the project. In this system, an educational institute can make their examination procedure automated. It gives the opportunity to the authority to register teachers for different subjects and also give the facility to the students to register their courses for the examinations

## **FUTURE SCOPE**

This system is designed basically for the educational institute but also can be developed for other examination systems like job interview, quiz contest and for other criteria.