

**A
Project Report
On
"QUIZ SYSTEM"**

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CERTIFICATE

This is to certify that the report entitled “**QUIZ SYSTEM**” is a bonafied work carried out by **SMIT PATEL (19DCS103) & YASH PATEL (19DCS106)** under the guidance and supervision of **Assistant Prof. Rima Patel** for the subject CE251 – **JAVA Mini Project-I** (CSE) of 3rd Semester of Bachelor of Technology in **DEPSTAR** at Faculty of Technology & Engineering – CHARUSAT, Gujarat.

To the best of my knowledge and belief, this work embodies the work of candidate himself, has duly been completed, and fulfills the requirement of the ordinance relating to the B.Tech. Degree of the University and is up to the standard in respect of content, presentation and language for being referred to the examiner.

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DECLARATION BY THE CANDIDATE

I hereby declare that the project report entitled “Quiz System” submitted by me to Devang Patel Institute of Advanced Technology and Research, Changa in partial fulfilment of the requirement for the award of the degree of B.Tech in Computer Science and Engineering, from Department of Computer Science and Engineering, DEPSTAR/FTE, is a record of bonafide CE251 JAVA Mini Project (project work) carried out by me under the guidance of Prof. Rima Patel. I further declare that the work carried out and documented in this project report has not been submitted anywhere else either in part or in full and it is the original work, for the award of any other degree or diploma in this institute or any other institute or university.

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ABSTRACT

Quiz System is a Test Management Software, which offers a complete solution for Computer Based Test (CBT). This is used to set up multiple choice questions for set time periods that when submitted are automatically corrected and the results are logged beside the student's name.

Online Quiz System not only replaces paperwork but also releases the workload of faculties. It fulfils the requirements of institutes to conduct the exams online.

Students can give exam without the need of going to any physical destination and they can also view the result at the same time.

ACKNOWLEDGEMENT

We, the developers of “Quiz System”, with immense pleasure and commitment would like to present the project assignment. The development of this project has given me wide opportunity to think, implement and interact with various aspects of management skills as well as the new emerging technologies.

Every work that one completes successfully stands on the constant encouragement, good will and support of the people around. We hereby avail this opportunity to express my gratitude to number of people who extended their valuable time, full support and cooperation in developing the project.

We express deep sense of gratitude towards our project guide Prof. Rima Patel for the support during the whole session of study and development. It is because of her, that we were prompted to do hard work, adopting new technologies.

We would also like to thank our friend Pratik Gupta for his guidelines throughout the development phase of the project. He helped me, whenever I was stuck in the Java concepts.

They altogether provided me valuable inputs and guidance, and without them it would not have been possible to achieve my goal.

Thanks,

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1. INTRODUCTION:

Online examinations contents providers to focus on creating effective assessment questions and focusing on exam's feedback delivery to students. In the paper we present techniques that are pertinent to the elements of assessment process: answers submission, computerized grading, and feedback after submission. As the modern organizations are automated and computers are working as per the instructions, it becomes essential for the coordination of human beings, commodity and computers in a modern organization. The administrators, Instructor, Students who are attending for online examination can communicate with the system through this project, thus facilitating effective implementation and monitoring of various activities of Online Examinations like conducting Exams as per scheduled basis and delivering result to that particular user or student and the details of students who attempted Online Examination are maintained at administrator.

1.1 Existing System & Need of the System

Existing system is a manual one in which users are maintaining books to store the information like Student Details, Instructor Details, Schedule Details and feedbacks about students who attempted exam as per schedule. It is very difficult to maintain historical data.

1.2 Scope of Work

Technological advancements in this era of digitization along with being a boon to the world have been advantageous to the educational sector too. The introduction of online exam software replaced the conventional system of assessment. The various examination conducting agencies are now able to evaluate the test takers freely and cost-effectively through computer-based tests. Today's article discusses the scope and objectives of an online examination system. Before proceeding further let us understand the concept of online examination software. Exam software allows users to take online tests and automatically generate results based on the answers marked by the users.

Let's now discuss the reasons for the introduction of online examination in the modes of conducting an assessment.

□ Conduct exams effortless:

Computer-based tests as a method of conducting an assessment enable users to manage an exam easily. The functionalities of an exam software such as user-friendly dashboard, multiple languages, support for multiple question types and formats, detailed reporting, automatic instant results help in smooth conduction.

☐ **Reduce exam anxiety Amongst test takers:**

The flexibility associated with computer-based tests reduces exam anxiety among test takers as they can take the exam at any time of the day that coincides with their preferred sleep/ wake cycle.

☐ **Promote social interaction between the test taker and experts:**

An online environment promotes exam preparation with experts or peers as they can review the course content together. Online assessment possible through exam software lays the real foundation of academic teaching as it facilitates discussion with teachers or other students.

☐ **Prevents cheatings:**

Cheating amongst the test-takers in the examination hall is one of the major drawbacks of pen paper-based assessment. Online examination managed avoids the possibilities of secretly using unfair means to get the right answers. The presence of various functionalities in exam software prevents cheating irrespective of the test taker's location.

☐ **Safe and secure data:**

Various tools offered by exam software have enabled the assessment conducting agencies to manage the crucial data related to examination questions and test-takers safely.

☐ **Reduce administrative burden:**

Organizing and running exams online not only reduces an organization's administrative burden but also saves cost and time. Online examination with its objective to make evaluation massive but simple, cost-effective and faster has replaced the pen paper-based assessment. The examination managing agencies have started preferring computer-based test to instill their lost faith in the method of conducting an evaluation. Thus, online examination software offered by Pesofts is one of the most advanced software for conducting tests.

2. PROPOSED SYSTEM:

2.1 Proposed System

This application is used to conduct online examination. The students can sit at individual terminals and login to write the exam in the given duration. The questions have to already been given to the students. This GUI application will display the result immediately and also store user login data in the database. This application provides the administrator with a facility to add new exams if he/she has the basic understanding of Java language. This application takes care of authentication of the student.

2.2 Objectives of Proposed system

The objective of the Online Examination Tool is to provide better information for the users of this system for better results for their maintenance in student examination schedule details and grading details.

2.3 User Requirement

1. User must be computer literate.
2. Each user should have a Login ID and Password to access the Quiz.

3. PROJECT DEFINATION & DESCRIPTION:

To design an Online Quiz System in Java with JDBC using Swing.

We have designed an Online Quiz System with Student Registration and Login Window. It is also equipped with a Quiz Timer to complete the Quiz in a given amount of time frame. If a student fails to complete in that time frame then student is directly taken to his/her Result Window. A student needs to first Register himself/herself and then only he/she can proceed further with giving the Quiz. The Registered credentials are stored in the SQL database server and are compared during the time the student enters his/her login information. Upon completion of the quiz the student also gets to check the correct answer to each question.

4. OPERATING ENVIRONMENT:

4.1 Hardware Specification

HARDWARE SPECIFICATION	
RAM	4 GB or higher
Processor	Intel Core i3 or higher

4.2 Software Specification

SOFTWARE SPECIFICATION	
Operating System	Windows 7 & above, MacOS, Linux.
Database Server	SQL Server 2008 & above

4.3 Detail Description of Technology Used

Following is the brief description about various technologies used while designing this system:

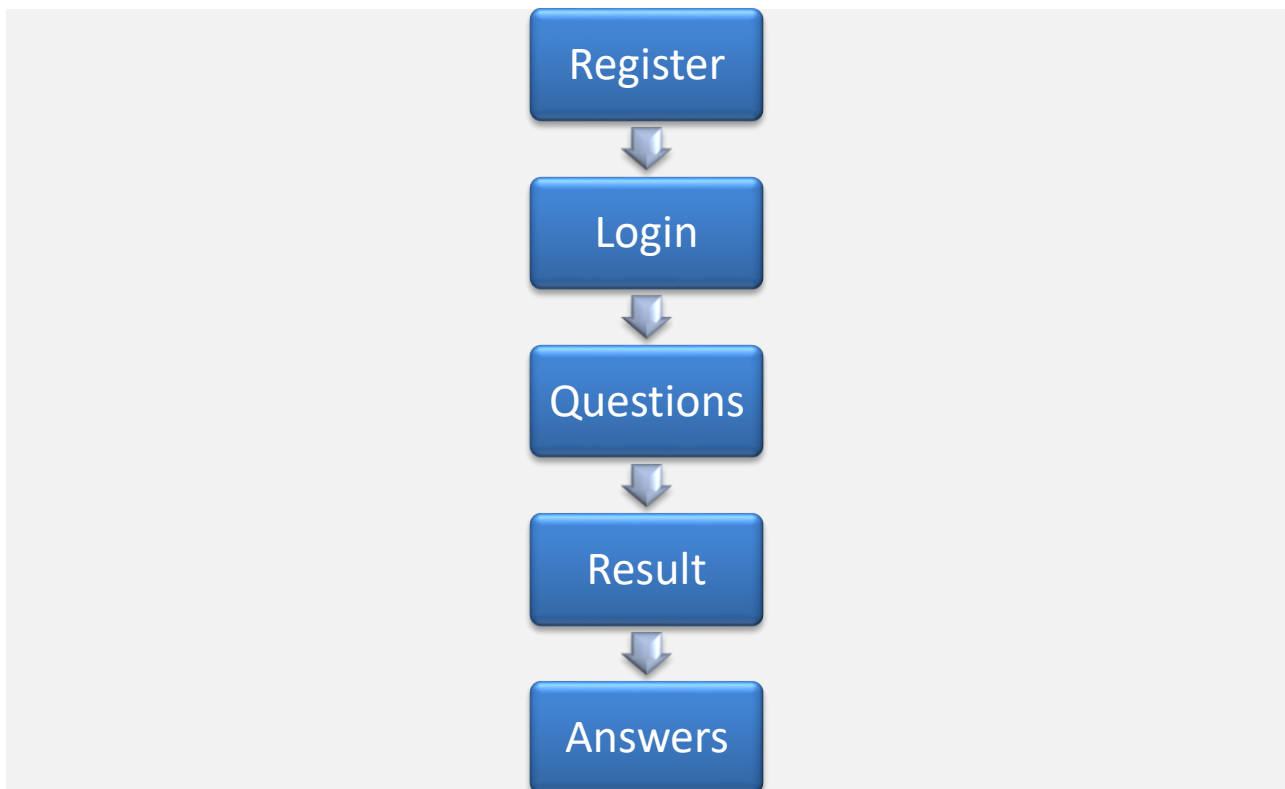
★ JAVA:

Java is a class-based, object-oriented programming language that is designed to have as few implementation dependencies as possible. It is a general-purpose programming language intended to let application developers write once, run anywhere (WORA), meaning that compiled Java code can run on all platforms that support Java without the need for recompilation. Java applications are typically compiled to bytecode that can run on any Java virtual machine (JVM) regardless of the underlying computer architecture. The syntax of Java is similar to C and C++, but it has fewer low-level facilities than either of them. As of 2019, Java was one of the most popular programming languages in use according to GitHub, particularly for client-server web applications, with a reported 9 million developers.

★ MICROSOFT SQL SERVER:

Microsoft SQL Server is a relational database management system developed by Microsoft. As a database, it is a software product whose primary function is to store and retrieve data as requested by other software applications, be it those on the same computer or those running on another computer across a network (including the Internet). There are at least a dozen different editions of Microsoft SQL Server aimed at different audiences and for workloads ranging from small single-machine applications to large Internet-facing applications with many concurrent users. Its primary query languages are T-SQL and ANSI-SQL.

5. FUNCTIONAL BLOCK DIAGRAM:



1. Register Window:

The student first enters his/her basic details and the details are been stored in the SQL database server.

2. Login Window:

The student then enters the same details as entered in registration window to start the quiz. If these details do not match the details in the database server then the quiz will not start.

3. Questions Window:

This Window contains all the questions for the quiz and each student is required to tick the correct option through the use of radio buttons beside each option.

4. Result Window:

This window displays the result of the student.

5. Answer Window:

This window displays the answers to each question for reference.


6. IMPLEMENTATION SCREENSHOTS:

× *Register Window:*



The screenshot shows a window titled "Welcome to the QUIZ: Connected to database successfully". The window has a light gray background and a blue border. At the top center, the text "SIGN UP" is displayed in red. Below this, there are four input fields with labels to their left: "Full Name", "E-Mail", "User Name", and "Password". At the bottom, there are two buttons: "Login" (with blue text) and "SignUp" (with black text).

× *Login Window:*



The screenshot shows a window titled "QUIZ SYSTEM: Connected to database successfully". The window has a light gray background and a blue border. At the top center, the text "LOGIN" is displayed in blue. Below this, there are two input fields with labels to their left: "User Name" and "Password". Below the input fields, there is a button labeled "Continue". At the bottom, there is a button labeled "New User? Please SignUp" in red text.

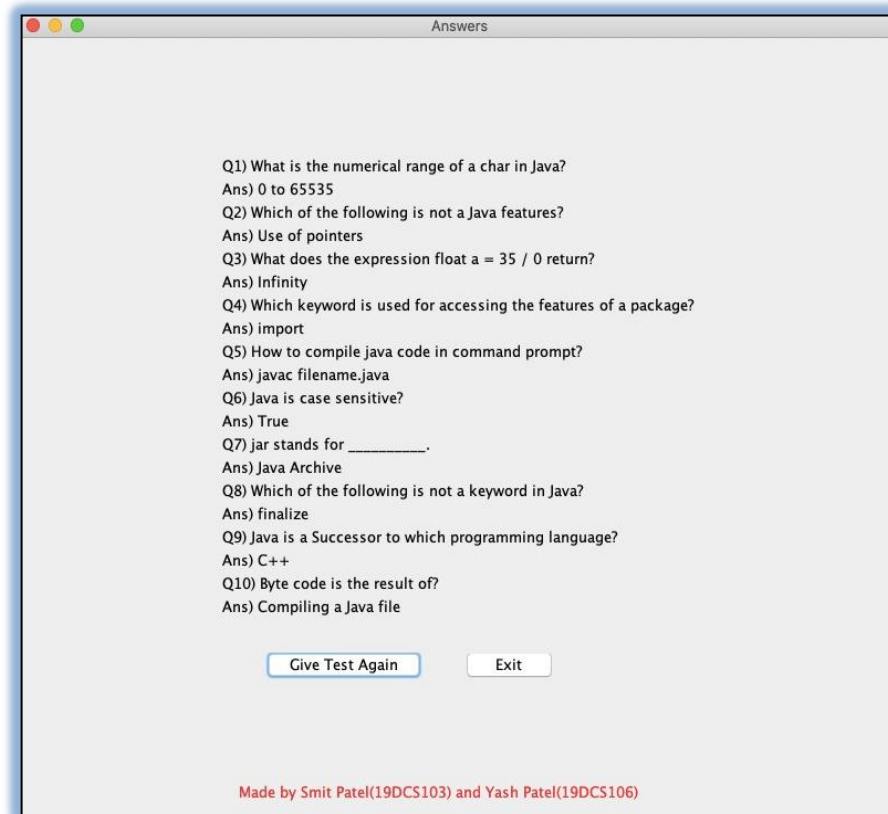
× **Questions Window:**

The screenshot shows a window titled "Complete these 10 MCQ's in 2 Minutes". In the top left, it says "Student: SY Patel". In the top right, there is a "Next" button. On the left side, a timer shows "01:47". In the center, the question is "Q1) What is the numerical range of a char in Java?". On the right side, there is a "Back" button. Below the question, there are four radio button options: "-128 to 127", "0 to 256", "0 to 32767", and "0 to 65535".

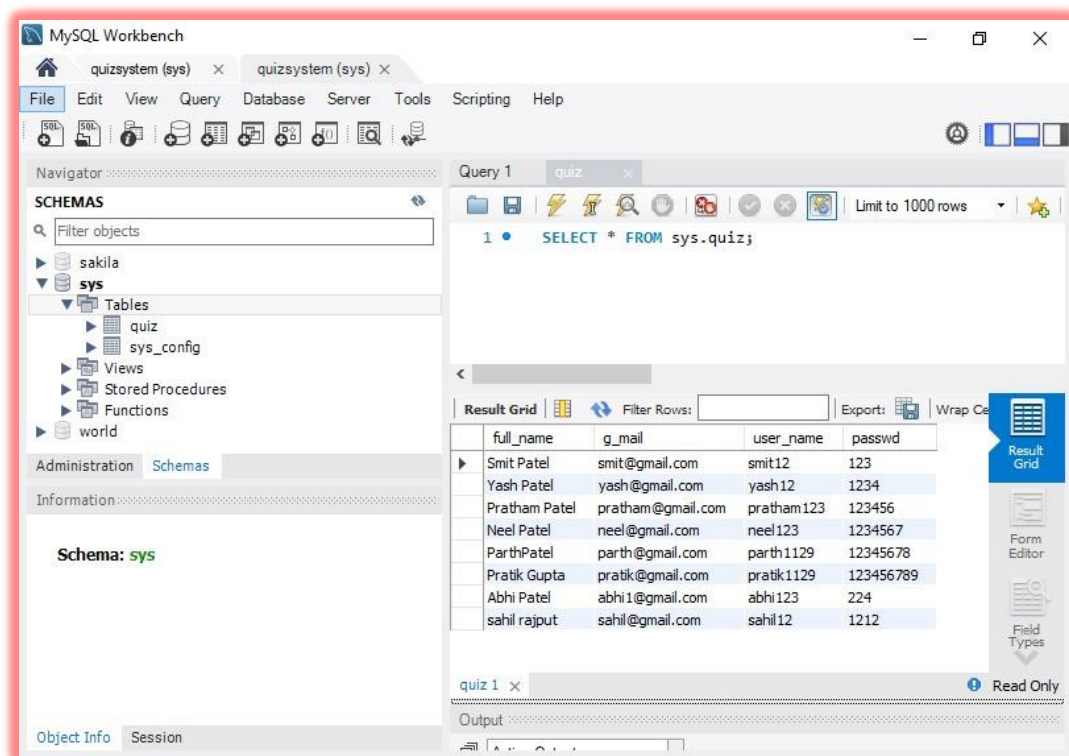
× **Result Window:**

The screenshot shows a window titled "Results". In the center, it says "Hey..SY Patel!". Below this, it displays the following statistics: "Your FinalScore is:0", "Total Right Answers: 0", and "Total Wrong Answers: 10". At the bottom, there are three buttons: "Re-Test", "Exit", and "Answers".

× **Answer Window:**



× **Database:**



7. ADVANTAGES

- ✓ Physical presence at a given location is absolutely not necessary.
- ✓ No time is spent on evaluation question Paper.
- ✓ Being an integrated online examination system, it will reduce paper work.
- ✓ The result will be shown immediately to the participating students.

8. LIMITATIONS

- × User must be computer literate.
- × Internet connectivity must be provided.
- × Less secure.

9. FUTURE ENHANCEMENTS

- ★ We can make it more secure by recording voice and video through mic and videocam respectively.

10. CONCLUSION

- ❖ Automation of the entire system improves the efficiency
- ❖ It provides a friendly graphical user interface which proves to be better when compared to the existing system.
- ❖ It gives appropriate access to the authorized users depending on their permissions.
- ❖ It effectively overcomes the delay in communications.
- ❖ Updating of test scores becomes so easier.
- ❖ System security, data security and reliability are the striking features.
- ❖ Reduced paper work and eco-friendly.

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