

Quiz Portal: for Students and Faculty using Java

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ABSTRACT

Instead of the regular pen paper examinations held by various institutions, one can make use of the Quiz Portal. Quiz Portal makes education fun and easier. This system is useful for conducting multiple choice question examinations, which can be conducted regularly or for surprise tests as well. It provides immediate results saving time. Administrator will have the privilege to create, modify and delete the test papers and its particular questions. The candidate can register, login and give the test with his unique id and can see the result as well. The data in the project is planned to be maintained in the tabular form using SQL* Plus in the form of database. It would provide easy access to the user. Each category questions are to be maintained in the database. This would form the backend of the project. The front end of the project is planned to be implemented using the Java language on the JAVA NetBeans IDE platform. This platform has a lot of advantages, from being able to create simple interface with certain components to connecting database to it directly.

Keywords : candidate, administrator, JAVA NetBeans, SQL* plus

I. INTRODUCTION

The Online Quiz is a sort of web application for the students to emerge for an online examination in an efficient way and there is no failure of time to verify the paper. The main intend of Online Quiz is to successfully approximate the applicant entirely via a totally computerized structure which besides preserving time, offers swifter outcomes. Normally, pupils are provided with paper, pen etc. for taking the examination but the Online Quiz does not necessitate all these. This application is primarily developed in Dreamweaver, which is web software that can be engaged to build up a wonderful website or a blog. The benefit of this software is that it is at no cost as well as inexpensive. [4]

The QUIZ PORTAL is an application that helps in taking tests in an effective manner and there is no

wastage of time for checking the paper. The main objective of this project is to efficiently evaluate the candidate's performance thoroughly through a completely automated system that not only saves a lot of precious time but also generates the result way quicker than the manual system. For students, the biggest advantage is that they get to give papers according to their convenience and time and wastage of materials like pen, paper etc is thoroughly reduced. This can be used in educational institutions as well as in corporate world. There is no requirement of the presence of an invigilator during exam session.

II. EXISTING SYSTEM

One of the many problems that we face with the existing system of manual examination that is prevalent in our country and many others is the generation of a huge amount of hard-copied

documents, i.e. the answer sheets of the students along with the question papers. This again sparks the age-old debate of keeping information in the form of databases versus keeping the same in sheets of papers in the form of files. [5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30] Keeping the information in the form of hard-copied documents creates the following problems.

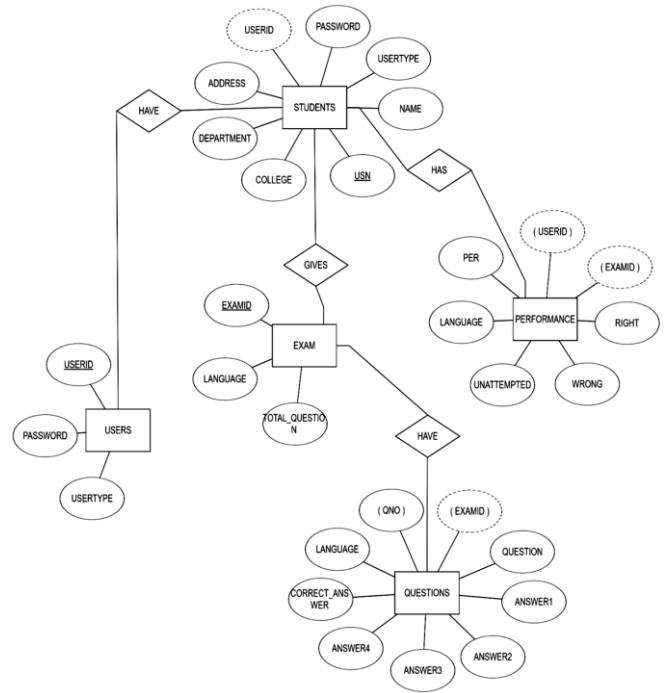
III. PROPOSED SYSTEM

The proposed application provides the facility to conduct the examinations with much less hassle. It gives an opportunity to multiple students to take up the examination simultaneously thus helping to save time and displays the result as soon as the test gets completed, so there is no need to wait for the result. The server automatically generates the result. Administrator has the privilege to form, alter and remove the test papers and the corresponding questions. With the unique id, the candidate can register, login, give the test, and view the result as well.

IV. SYSTEM ARCHITECTURE

E-R Diagram: The entity-relationship diagram is a very detailed and logical representation of the entities, attributes and all the data elements of an organization. This technique is used in a database that helps to establish relationship between attributes. There are 3 types of E-R diagram:

1. One to one: There is one to one relationship between two entities.
2. One to many: This type of relationship exists when one entity is related to one or more other entity.
3. Many to many: It describes when entities have many relationships with each other.



The project includes the following phases:

ADMIN

1. Authentication Phase
2. Question generation Phase
3. Report generation Phase

STUDENT

1. Authentication phase
2. Registration phase
3. Rules and category selection phase
4. Question bank phase
5. Result generation phase

ADMIN

1. Authentication Phase

The proposed system is fully authenticated in order to enhance security and prevent corruptions of database as well as software. A person is given permission to access the system via the valid username and password i.e. the administrator. Hence, this authentication module includes 2 fields where the administrator is asked to enter the username and the password.

2. Question Generation Phase

This phase includes the various categorised question generation. In this phase, the administrator can perform add, modify and delete operations. It is one of the most important phases.

3. Result Generation Phase

This phase carries the task of various report generation related to our system such as administrator report, participant report, rank etc.

STUDENT

1. Authentication Phase

The proposed system is fully authenticated in order to enhance security and prevent corruptions of database as well as software. A person is given permission to access the system via the valid username and password i.e. the administrator. Hence, this authentication module includes 2 fields where the administrator is asked to enter the username and the password.

2. Registration Phase

This phase is to register students by filling in all the details Semester etc so that students can login using their respective User ID and Password. If the student is an existing user then he can enter into the system, using his valid username and password. If the student is a new one then he has to fill the registration form. Now valid username and password will assign to the user. Using that he can enter into the system. like Name, USN, Student ID, Password, College.

3. Subject Selection Phase

This phase provides the students with a set of subjects (say C, C++, JAVA and Python). The student has to choose one amongst them to give an examination.

4. Question Bank Phase

This phase provides the students a set of multiple-choice questions and a set of answers below the specific question. Once the candidate is done answering the current question it automatically makes a move to the second question with their corresponding answers. This module is provided with the following fields: Question No., Question Field, Options.

5. Result Generation Phase

The result of the corresponding student is generated based on his, her performance in the test. The result is generated at the end of the quiz. The result is generated with the help of following field: Username, Subject, Percentage.

V. IMPLEMENTATION

Below are the implementations of the project Quiz Portal: for Students and Faculty.



Fig 1: User Login Screen of the Quiz Portal which contains Username and Password followed by 2 options Login or Quit as either an Admin or Student.

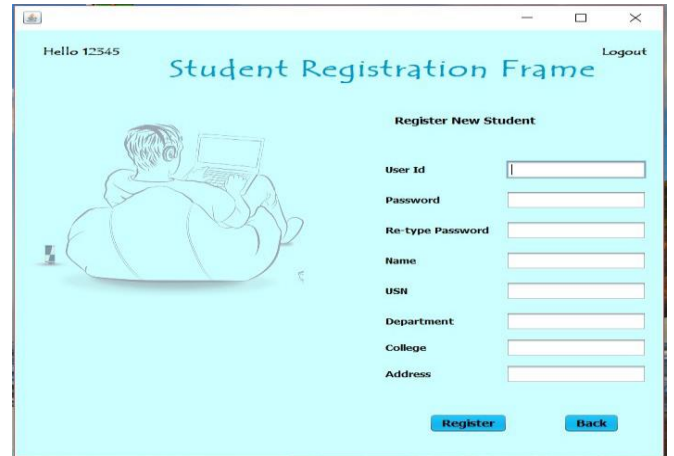


Fig 3: Student Registration Frame that is used for registering a new student.

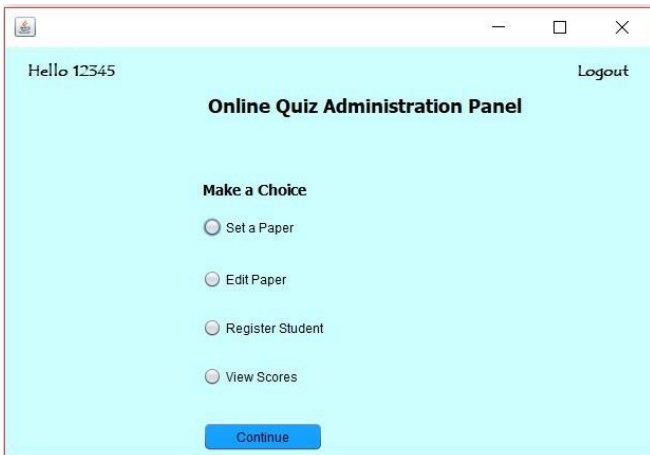


Fig 2: The Quiz Administration Panel consisting of choices such as Set a Paper, Edit Paper, Register Student and View Scores.

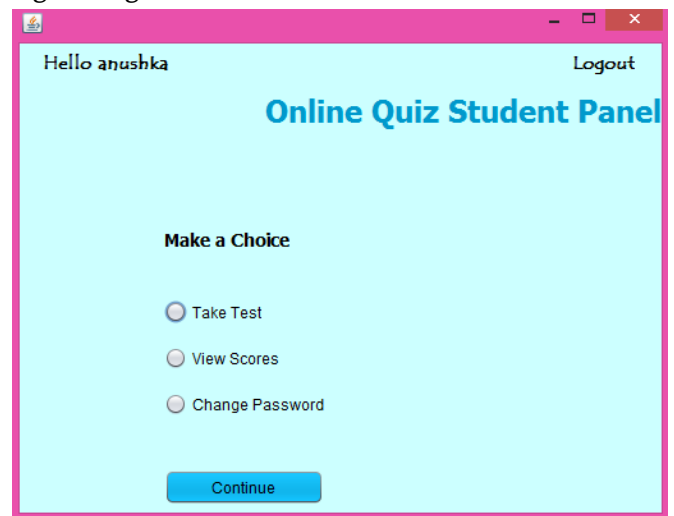


Fig 12: Quiz Panel for a Student under which we have Take Test, View Scores, Change Password

VI. CONCLUSION

The project Quiz Portal: for Students and Faculty is a very effective way of conducting examinations in an institution. This method saves a lot of time and allows multiple students to take the exam simultaneously. This application also displays the results along with the score on spot, after completion of examination. The server automatically generates it. In addition, the huge amount of labour to conduct the manual method of examination is hugely reduced. The administrator can form, alter and remove the test papers and its questions. With his/her unique id, the user (i.e. the students) can register, login and give the examination and can access the results as well.

VII. FUTURE ENHANCEMENTS

This Quiz Portal system provides facility to conduct examinations worldwide without any hassle. It gives an opportunity to multiple students to take up the examination simultaneously thus helping to save time and displays the result as soon as the test gets completed, so there is no need to wait for the result. The server automatically generates it. Administrator has the privilege to set, edit and delete the test papers and its particular questions, for various different subjects. Candidate can register, login and give the test with his unique id, and can view the results as well.

The main aim of our project is to create a healthy and inclusive interaction between the student and faculty.

We are trying to implement the project with the best outcomes to satisfy all the end users(i.e., student/faculty).

For future implementations, we will try to make our portal more secure, so that it is not hacked.

For future implementation, we would also want to give a choice to the students to add their names under the faculty they wish to get mentored from, for their betterment. It is aimed to empower.

We are also aiming at providing some online tutorial like classes in our website.

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