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Batch – F2

Topic – EduQuiz Webpage

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Summary

Overview:

The EduQuiz Webpage is a comprehensive online tool designed to facilitate quiz management in educational institutions. This platform caters to the needs of teachers for creating and managing quizzes and students for attempting quizzes and tracking their performance.

Objectives:

- Develop a user-friendly web interface for both teachers and students.
 - Implement secure login features that differentiate user roles.
 - Enable seamless quiz creation, management, and assessment.
 - Use robust database systems for efficient data storage and retrieval.
-

Introduction

Background and Context:

Education in the digital era necessitates advanced tools for effective teaching and assessment. The traditional method of managing quizzes is labour-intensive and lacks scalability. This project aims to create a web-based system to replace manual processes, ensuring efficiency, accuracy, and accessibility.

Problem Statement:

Teachers spend significant time preparing quizzes and grading responses manually. Similarly, students face delays in receiving feedback. This calls for an automated solution that simplifies the process while providing instant and accurate results.

Project Objectives:

- Design an intuitive interface for quiz management.
- Ensure secure and differentiated access for teachers and students.
- Develop a reliable backend for storing and processing quiz-related data.
- Generate detailed performance reports for students and teachers.

Scope of the Project:

The EduQuiz Webpage is tailored for educational institutions, focusing on quiz creation, execution, and result analysis. It supports role-based access and secure data handling, making it a scalable solution for institutions of varying sizes.

System Requirements

Hardware Requirements

- Processor: Dual-core processor (Intel i3 or AMD equivalent) or higher.
- RAM: Minimum 4 GB (8 GB recommended for smoother multitasking).
- Storage: 10 GB free disk space (for project files, databases, and server software).
- Display: 1024x768 resolution or higher.

Software Requirements

Operating System:

- **Development:**
 - Windows 10 or later / macOS 10.14 or later / Linux (Ubuntu 18.04 or later).

Web Server:

- **Apache** (Recommended; included in XAMPP, WAMP, LAMP).

Database Server:

- **MySQL** or **MariaDB** (for storing users, tests, answers, and results).

Programming Languages:

- **PHP:** Version 7.4 or later (preferably PHP 8.x for performance and security).
- **JavaScript:** Modern browser-compatible JavaScript (ES6+).

Server Software Stack:

- **XAMPP** (Windows/macOS/Linux): Includes Apache, PHP, and MySQL.

Browser Requirements

- **Google Chrome** (latest version recommended).

Development Tools

IDE/Text Editors:

- **Visual Studio Code** (Recommended; supports PHP, HTML, CSS, and JavaScript).
 - **Sublime Text** (Lightweight alternative).
-

Functional Requirements:

- **Admin Dashboard:**
 - Manage user accounts (teachers and students): Add, remove, or modify users.
 - Monitor system activities: Track quiz attempts and responses.
 - **Teacher Dashboard:**
 - Create, edit, and delete quizzes.
 - View students' performance.
 - Analyse quiz statistics.
 - **Student Dashboard:**
 - Access available quizzes.
 - Attempt quizzes and receive immediate feedback.
 - Track past performances.
 - **Database:** Efficient storage and management of user credentials, quiz data, responses, and results.
 - **Reports and Analytics:** Generate performance reports and quiz analysis.
-

Database Design and Implementation

Server(student_registration)

- students(id varchar(100) primary key, first_name varchar(100), last_name varchar(100), email varchar(100) unique, password varchar(255), dob date, gender enum('Male', 'Female', 'Other'), phone varchar(15), address text)
- teachers(id varchar(100) primary key, first_name varchar(100), last_name varchar(100), email varchar(100) unique, password varchar(255), subject enum('Physics', 'Maths', 'Biology', 'Chemistry', 'Literature'), phone_no

varchar(15), address text, dob date, gender
enum('Male', 'Female', 'Other'), hire_date date)

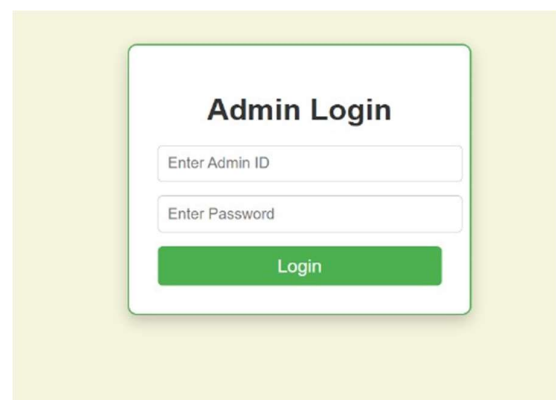
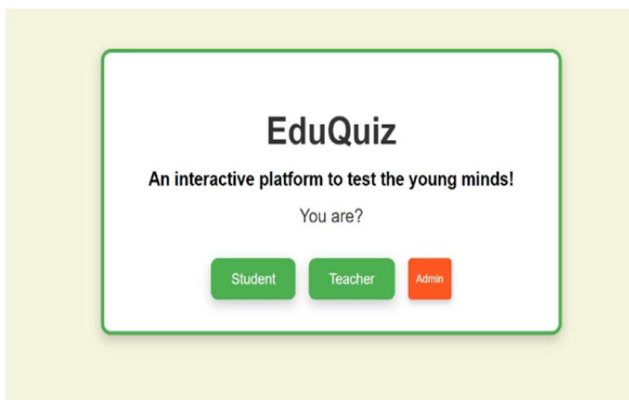
admin

- admins(id varchar(100), password varchar(100))

test_management

- tests (test_id int auto_increment primary key, teacher_id varchar(50) not null, subject varchar(100) not null, created_at timestamp default current_timestamp)
- questions (question_id int auto_increment primary key, test_id int foreign key not null, question_text text not null)
- choices(choice_id int auto_increment primary key, question_id int foreign key not null, choice_text text not null, is_correct boolean)
- answers (answer_id int auto_increment primary key, student_id varchar(50) not null, question_id int foreign key not null, test_id int foreign key not null, selected_option text not null, is_correct boolean not null)

Screenshots:



Admin Dashboard

Logout

Add Teacher

Go to Add Teacher

Drop Teacher

Go to Drop Teacher

Add Student

Go to Add Student

Drop Student

Go to Drop Student

Change Password

Go to Change Password

Delete Test

Go to Delete Quiz

Teacher Login

Enter Teacher ID

Enter Password

Login

For any issues, please contact the admin.

View Profile

Logout

Teacher Dashboard

Create New Test

Go to Create New Test

View All Tests

Go to View All Tests

View Test Results

Go to View Test Results

View All Tests Attempted by a Student

Go to View Student Tests

Create a Test

Teacher ID:

Subject:

Select a subject

Question 1:

Enter your question

Add Choice

Remove Question

Add Question

Save Test

Create a Test

Teacher ID:

Pragya123

Subject:

Physics

Question 1:

What is power

VI

☐ Correct

[Remove](#)

I^2R

☐ Correct

[Remove](#)

V^2/R

☐ Correct

[Remove](#)

All of the above

☒ Correct

[Remove](#)

View Attempted Tests

Tests Attempted by Student ID: Drashti2002

Test ID: 115 | Subject: Chemistry | Date: 2024-11-26 09:00:41

Question: What is H₂O

Your Answer: water (Correct)

Correct Answer: water

Change Password

Select User Type

Select...

User ID

User Name

New Password

Confirm Password

[Change Password](#)

Student Login

Drashti2002

....

[Login](#)

Don't have an ID?

[Register Here](#)

Welcome to Your Dashboard

Select a Subject to Take Test



Mathematics



Chemistry



Physics



Literature



Biology

If you encounter any issues, please contact your instructor or admin.

Student Registration

Create ID::

Kush33

First Name:

Kush

Last Name:

Verma

Email Address:

kushverma@mail.jit.ac.in

Password:

Confirm Password:

Your Profile

Student ID: Drashti2002

First Name: Drashti

Last Name: Varshney

Email: varshneydrashti2000@gmail.com

Date of Birth: 2002-07-29

Gender: female

Phone: 9756501026

Address: Jaipur

[Back to Dashboard](#)

Attempt Test

Enter Student ID:

22=3

- ☐ false
☐ true
☐ no idea

[Submit Test](#)

Conclusion

Summary:

The EduQuiz Webpage will provide a streamlined, user-friendly platform for educational institutions to manage quizzes online. Teachers will benefit from the ease of quiz creation and automated grading, while students will enjoy a clear, straightforward interface for attempting quizzes and viewing results. The project will also emphasize data security, ensuring that user information and quiz data are handled safely and efficiently.

Achievement of Objectives:

- Developed a user-friendly web interface.
- Implemented role-based access with secure login.
- Automated quiz management and performance tracking.

Future Work and Recommendations:

- Expand the platform to include multimedia question types (images, videos).
- Integrate with existing Learning Management Systems (LMS) for seamless adoption.
- Enhance analytics for deeper insights into student performance.

References

- Course Slides
- W3Schools: <https://www.w3schools.com/>
- GeeksforGeeks: <https://www.geeksforgeeks.org/>