

**SIMATS SCHOOL OF ENGINEERING**

**SAVEETHA INSTITUTE OF MEDICAL AND TECHNICAL SCIENCES**

**CHENNAI-602105**

**Online Quiz Application**

**A CAPSTONE PROJECT REPORT**

*Submitted in the partial fulfillment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**Computer Science Engineering**

**Submitted by**

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**Under the Supervision of**

**Ms.B.Jeevashri**

**JUNE 2024**

**DECLARATION**

We, **Mohammed Kaif.K, Barathvaj.S** students of **Bachelor of Engineering in CSE**, Department of Computer Science and Engineering, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, hereby declare that the work presented in this Capstone Project Work entitled **Online quiz application** is the outcome of our own bonafide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics.

(Mohammed Kaif.K 192211895)

(Barath vaj.S 192211177)

Date:

Place:

**CERTIFICATE**

This is to certify that the project entitled **“Online Quiz Application”** submitted by **Mohammed Kaif.K, Barathvaj.S** has been carried out under my supervision. The project has been submitted as per the requirements in the current semester of B.E. Computer Science Engineering.

Teacher-in-charge

Ms.B.Jeevashri

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**ABSTRACT**

An online quiz application is a versatile platform designed to facilitate the creation, administration, and analysis of quizzes for educational, training, and entertainment purposes. This application offers an intuitive interface that allows users to easily construct quizzes with various question formats, including multiple-choice, true/false, short answer, and matching types. Educators and trainers can tailor quizzes to specific learning objectives, ensuring that assessments are both relevant and challenging.

Key features include real-time grading, which provides immediate feedback to participants, enhancing the learning process by allowing users to identify areas of improvement promptly. Additionally, the application supports extensive customization options, such as time limits, question randomization, and multimedia integration, to cater to diverse learning styles and preferences. Advanced analytics and reporting tools offer detailed insights into performance trends, enabling instructors to track progress and adjust teaching strategies accordingly.

1. **INTRODUCTION**

An online quiz application is an innovative digital platform designed to streamline the creation, distribution, and evaluation of quizzes across various domains, including education, corporate training, and entertainment. This tool offers a user-friendly interface that enables instructors and administrators to develop diverse quiz formats with ease, incorporating features such as real-time feedback, customizable settings, and multimedia support. By leveraging advanced analytics, the application provides detailed insights into participant performance, helping educators and trainers optimize their assessment strategies. Accessible from any device with internet connectivity, this application enhances flexibility and convenience for both quiz creators and participants, fostering an engaging and efficient learning and evaluation environment.

Featuring a user-friendly interface, it allows instructors and administrators to effortlessly design quizzes in diverse formats, complete with real-time feedback, customizable settings, and multimedia integration. This tool's advanced analytics capabilities offer in-depth insights into participant performance, aiding educators and trainers in refining their assessment methodologies. Accessible from any internet-enabled device, the application enhances flexibility and convenience for both quiz creators and participants, promoting an engaging and efficient learning and evaluation experience.

1. **Project Description**

The Online Quiz Application is a comprehensive digital platform designed to create, manage, and evaluate quizzes efficiently across various fields such as education, corporate training, and recreational activities. This application aims to simplify the quiz creation process by providing an intuitive interface where users can design quizzes with multiple question types, including multiple-choice, true/false, short answer, and more. The platform supports real-time grading, instant feedback, and robust analytics to help educators and trainers assess performance and identify areas for improvement. Additionally, it offers features like question randomization, time limits, and multimedia integration to enhance the quiz-taking experience. Ensuring security and accessibility, the application is accessible from any device with an internet connection, making it an ideal solution for remote learning and assessments.

**2.1 About my project**

The Online Quiz Application is developed to address the need for a flexible and efficient tool for conducting quizzes in various settings. Whether used in educational institutions to test student knowledge, in corporate environments for employee training, or for casual quizzes in social settings, this application provides a versatile and user-friendly solution. Key features include customizable quiz templates, real-time performance tracking, and detailed reporting capabilities. The application also emphasizes security with data encryption and user authentication to protect sensitive information. By offering a seamless and engaging user experience, the Online Quiz Application aims to revolutionize the way quizzes are administered and taken, promoting better learning outcomes and more effective training programs.

1. **Problem Description**

In existing online quiz applications, questions are often preloaded into the system, limiting the flexibility for instructors to tailor quizzes according to specific needs. These pre-existing questions may not align with the precise curriculum or training objectives of the instructor, leading to a less personalized assessment experience. Furthermore, these systems might not provide robust mechanisms for tracking detailed student performance metrics beyond basic scoring.

In contrast, my online quiz application stands out by empowering instructors and administrators to create custom questions tailored to their specific requirements. This ensures that the quizzes are closely aligned with the educational goals or training programs. Additionally, my application includes advanced features for tracking detailed student performance metrics, such as individual progress, areas of strength and weakness, and historical performance data. This allows for a more personalized and insightful assessment process, fostering better learning outcomes and enabling instructors to make data-driven decisions to enhance their teaching strategies.

It provides comprehensive real-time feedback to students and detailed analytics for teachers, enabling them to track individual progress effectively. With interactive formats, multimedia integration, and scalable cloud-based accessibility, the application fosters an engaging learning environment while ensuring robust security and compliance with data privacy regulations. Integrated role-based dashboards for teachers and students facilitate seamless management and participation, making it a versatile tool for optimizing educational outcomes and enhancing assessment strategies.

**4.Tool Description**

The ASUS TUF F15, powered by the Intel Core i5 processor, is a durable and high-performance gaming laptop designed for gamers and power users alike. It features a dedicated NVIDIA GeForce GTX/RTX graphics card for stunning visuals and a high-refresh-rate display for smooth and immersive gameplay. The laptop's robust design meets military-grade standards for durability, ensuring it can withstand the rigors of daily use. With efficient cooling technology, ample storage options, and a customizable RGB keyboard, the ASUS TUF F15 offers a balanced blend of performance, reliability, and style, making it an excellent choice for both gaming and everyday tasks.

The laptop's Aura RGB keyboard allows for customizable lighting effects, enhancing the gaming experience and aesthetic appeal. It also includes a second SSD slot, offering easy storage expansion for additional games and applications. The dual 83-blade fans ensure efficient cooling, maintaining optimal performance during intense gaming sessions. With its robust build and advanced features, the ASUS TUF F15 is an excellent choice for gamers and power users seeking reliability and high performance.

1. **Operations**

#### 5.1 Teacher Operations

* **Creating and Managing Questions:**
  + **Add Questions:** Teachers can create new quiz questions by entering the question text, multiple-choice options, and the correct answer.
  + **Edit Questions:** Teachers can modify existing questions to update content, correct errors, or improve clarity.
  + **Delete Questions:** Teachers can remove questions that are no longer relevant or needed.
  + **Organize Questions:** Teachers can categorize and organize questions into different quizzes or topics.
* **Analyzing Student Performance:**
  + **View Results:** Teachers can access a summary of quiz results, including the scores of all students who have taken the quiz.
  + **Identify High Performers:** Teachers can identify which students have achieved the highest marks on a given quiz.
  + **Generate Reports:** Teachers can generate detailed reports on student performance, highlighting areas of strength and weakness.
  + **Provide Feedback:** Teachers can offer personalized feedback to students based on their quiz performance.

#### 5.2 Student Operations

* **Answering Questions:**
  + **Take Quiz:** Students can start a quiz, which presents them with a series of questions to answer.
  + **Submit Answers:** Students select their answers from multiple-choice options or provide short answers, and then submit the quiz for evaluation.
  + **View Immediate Feedback:** After submitting a quiz, students can receive instant feedback on their answers if the quiz is configured to provide it.
* **Reviewing Performance:**
  + **View Scores:** Students can see their scores immediately after completing the quiz.
  + **Analyze Results:** Students can review detailed results, including which questions they got right or wrong and the correct answers for each question.
  + **Track Progress:** Students can access a history of their quiz attempts and scores to track their learning progress over time.

By structuring the operations around these two roles, the online quiz application provides a seamless and efficient way for teachers to create and manage quizzes and for students to participate in quizzes and monitor their performance

**6.Approach / Module Description / Functionalities**

To develop the Online Quiz Application, we will divide the project into distinct modules, each responsible for specific functionalities. By creating individual functions for every operation and unifying them, we can ensure modularity, maintainability, and scalability.

### Modules and Functionalities

#### 6.1 User ****Authentication Module****

* **Function: Register User**
  + **Description:** Allows new users (students and teachers) to create an account.
  + **Functionalities:**
    - Collect user information (name, email, password, role).
    - Validate and store user information in the database.
* **Function: Login User**
  + **Description:** Authenticates existing users.
  + **Functionalities:**
    - Verify user credentials (email and password).
    - Start a session for the authenticated user.

#### 6.2 ****Quiz Management Module (Teacher)****

* **Function: Add Question**
  + **Description:** Allows teachers to add new questions to the quiz.
  + **Functionalities:**
    - Input question text, multiple-choice options, and the correct answer.
    - Save the question to the database.
* **Function: Edit Question**
  + **Description:** Enables teachers to modify existing questions.
  + **Functionalities:**
    - Retrieve question details from the database.
    - Update question content and save changes.
* **Function: Delete Question**
  + **Description:** Permits teachers to delete questions from the quiz.
  + **Functionalities:**
    - Remove the question from the database.
* **Function: Organize Quiz**
  + **Description:** Helps teachers organize questions into quizzes.
  + **Functionalities:**
    - Group questions by topic or quiz.
    - Set quiz parameters (time limits, number of questions, etc.).

#### 6.3 ****Quiz Taking Module (Student)****

* **Function: Start Quiz**
  + **Description:** Allows students to begin a new quiz.
  + **Functionalities:**
    - Display a set of questions retrieved from the database.
    - Track time if the quiz is timed.
* **Function: Submit Answers**
  + **Description:** Enables students to submit their quiz answers.
  + **Functionalities:**
    - Collect answers from the user.
    - Save responses to the database.
* **Function: View Results**
  + **Description:** Displays the results of the quiz to the student.
  + **Functionalities:**
    - Calculate the score based on correct answers.
    - Show detailed feedback for each question.

#### 6.4 ****Performance Analysis Module (Teacher)****

* **Function: View Results**
  + **Description:** Allows teachers to view the results of all students.
  + **Functionalities:**
    - Retrieve student scores from the database.
    - Display a summary of results.
* **Function: Identify High Performers**
  + **Description:** Identifies students with the highest scores.
  + **Functionalities:**
    - Sort and filter student scores.
    - Highlight top performers.
* **Function: Generate Reports**
  + **Description:** Creates detailed performance reports.
  + **Functionalities:**
    - Compile data on student performance.
    - Format and export reports (e.g., PDF, CSV).
* **Function: Provide Feedback**
  + **Description:** Offers personalized feedback to students.
  + **Functionalities:**
    - Write and send feedback based on individual performance.
    - Track feedback provided.

#### 6.5 ****User Profile Module****

* **Function: View Profile**
  + **Description:** Displays user profile information.
  + **Functionalities:**
    - Retrieve and show user details (name, email, role).
* **Function: Edit Profile**
  + **Description:** Allows users to update their profile information.
  + **Functionalities:**
    - Input new user information.
    - Validate and save updates to the database.
* **Function: View Quiz History**
  + **Description:** Shows a history of quizzes taken by the user.
  + **Functionalities:**
    - Retrieve past quiz results.
    - Display scores and detailed results.

#### 6.6 ****Admin Module (Optional)****

* **Function: Manage Users**
  + **Description:** Enables admins to manage user accounts.
  + **Functionalities:**
    - Add, edit, or delete user accounts.
    - Assign roles (student, teacher).
* **Function: Manage Quizzes**
  + **Description:** Allows admins to oversee quiz content.
  + **Functionalities:**
    - Review and approve quizzes created by teachers.
    - Ensure compliance with content standards.

### Integration of Functions:

By developing these modules and their respective functions independently, we can then unify them to form the complete software. Each module can interact with others through defined interfaces, ensuring smooth data flow and cohesive operation.

#### Example: Unifying Functions

1. **User Login:**
   * User logs in using the **Login User** function from the User Authentication Module.
   * Based on the role (student/teacher), the user is redirected to their respective dashboard.
2. **Teacher Dashboard:**
   * Teachers can access **Quiz Management Module** functions (Add Question, Edit Question, etc.) from their dashboard.
   * They can also use the **Performance Analysis Module** to view results and provide feedback.
3. **Student Dashboard:**
   * Students can start quizzes using the **Start Quiz** function from the Quiz Taking Module.
   * After completing a quiz, the **Submit Answers** function is invoked, and results are shown using the **View Results** function.
4. **Profile Management:**
   * Both teachers and students can manage their profiles using functions from the User Profile Module.

**7. Implementation**

INDEX:

<!DOCTYPE html>

<html>

<body>

<div class="main">

<div class="main-container">

<h1>Online Quiz App</h1>

<div class="border-line"></div>

<div class="selection-container">

<h3>Select user type</h3>

<div class="user-selection-button">

<a href="student.php">

<button>Student</button>

</a>

<a href="teacher.php">

<button>Teacher</button>

</a>

</div>

</div>

</div>

</div>

</body>

</html>

QUIZ:

<!DOCTYPE html>

<html>

<body>

<div class="main">

<nav class="navbar navbar-expand-lg navbar-dark bg-dark">

<a class="navbar-brand ml-4" href="#">Online Quiz System</a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse" id="navbarNav">

<ul class="navbar-nav">

<li class="nav-item">

<a class="nav-link" href="./teacher.php">Home <span class="sr-only">(current)</span></a>

</li>

<li class="nav-item active">

<a class="nav-link" href="./quiz.php">Quiz</a>

</li>

</ul>

</div>

<div class="collapse navbar-collapse mr-4" id="navbarSupportedContent">

<div class="ml-auto">

<ul class="navbar-nav">

<li class="nav-item">

<a class="nav-link" href="./index.php">Log out</a>

</li>

</ul>

</div>

</div>

</nav>

<div class="quiz-container">

<div class="quiz">

<nav class="mt-4">

<div class="nav nav-tabs" id="nav-tab" role="tablist">

<button class="nav-link active" id="nav-home-tab" data-toggle="tab" data-target="#nav-home" type="button" role="tab" aria-controls="nav-home" aria-selected="true">Questions</button>

<button class="nav-link" id="nav-profile-tab" data-toggle="tab" data-target="#nav-profile" type="button" role="tab" aria-controls="nav-profile" aria-selected="false">Result</button>

</div>

</nav>

<div class="tab-content" id="nav-tabContent">

<div class="tab-pane fade show active" id="nav-home" role="tabpanel" aria-labelledby="nav-home-tab">

<button type="button" class="btn btn-dark m-2 float-left" id="add-quiz-button" data-toggle="modal" data-target="#addQuestionModal">

Add Question

</button>

<div class="table-area">

<table class="table" style="color: white;">

<thead>

<tr>

<th scope="col">Quiz ID</th>

<th scope="col">Question</th>

<th scope="col">Correct Answer (Letter)</th>

<th scope="col">Action</th>

</tr>

</thead>

<tbody>

<?php

$stmt = $conn->prepare('SELECT \* FROM `tbl\_quiz`');

$stmt->execute();

$result = $stmt->fetchAll();

foreach ($result as $row) {

$quizID = $row['tbl\_quiz\_id'];

$quizQuestion = $row['quiz\_question'];

$optionA = $row['option\_a'];

$optionB = $row['option\_b'];

$optionC = $row['option\_c'];

$optionD = $row['option\_d'];

$correctAnswer = $row['correct\_answer'];

?>

<tr>

<th id="quizID-<?= $quizID ?>"><?= $quizID ?></th>

<td id="quizQuestion-<?= $quizID ?>"><?= $quizQuestion ?></td>

<td id="optionA-<?= $quizID ?>" hidden><?= $optionA ?></td>

<td id="optionB-<?= $quizID ?>" hidden><?= $optionB ?></td>

<td id="optionC-<?= $quizID ?>" hidden><?= $optionC ?></td>

<td id="optionD-<?= $quizID ?>" hidden><?= $optionD ?></td>

<td id="correctAnswer-<?= $quizID ?>"><?= $correctAnswer ?></td>

<td>

<button type="button" class="btn btn-secondary" onclick="updateQuestion(<?= $quizID ?>)"><i class="fa-solid fa-pencil"></i></button>

<button type="button" class="btn btn-danger" onclick="deleteQuestion(<?= $quizID ?>)"><i class="fa-solid fa-trash"></i></button>

</td>

</tr>

<?php } ?>

</tbody>

</table>

</div>

</div>

<div class="tab-pane fade" id="nav-profile" role="tabpanel" aria-labelledby="nav-profile-tab">

<table class="table" style="color: white;">

<thead>

<tr>

<th scope="col">Result ID</th>

<th scope="col">Student Name</th>

<th scope="col">Year and Section</th>

<th scope="col">Quiz Score</th>

<th scope="col">Date Taken</th>

<th scope="col">Action</th>

</tr>

</thead>

<tbody>

<?php

$stmt = $conn->prepare('SELECT \* FROM `tbl\_result`');

$stmt->execute();

$result = $stmt->fetchAll();

foreach ($result as $row) {

$resultID = $row['tbl\_result\_id'];

$studentName = $row['quiz\_taker'];

$yearSection = $row['year\_section'];

$totalScore = $row['total\_score'];

$dateTaken = $row['date\_taken'];

?>

<tr>

<th id="resultID-<?= $resultID ?>"><?= $resultID ?></th>

<td id="studentName-<?= $resultID ?>"><?= $studentName ?></td>

<td id="yearSection-<?= $resultID ?>"><?= $yearSection ?></td>

<td id="totalScore-<?= $resultID ?>"><?= $totalScore ?></td>

<td id="dateTaken-<?= $resultID ?>"><?= $dateTaken ?></td>

<td>

<button type="button" class="btn btn-danger" onclick="deleteResult(<?= $resultID ?>)"><i class="fa-solid fa-trash"></i></button>

</td>

</tr>

<?php } ?>

</tbody>

</table>

</div>

<div class="tab-pane fade" id="nav-contact" role="tabpanel" aria-labelledby="nav-contact-tab">...</div>

</div>

</div>

</div>

</div>

</body>

</html>

STUDENT:

<!DOCTYPE html>

<html>

<body>

<div class="main">

<nav class="navbar navbar-expand-lg navbar-dark bg-dark">

<a class="navbar-brand ml-4" href="#">Online Quiz System</a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse" id="navbarNav">

<ul class="navbar-nav">

<li class="nav-item active">

<a class="nav-link" href="./student.php">Home <span class="sr-only">(current)</span></a>

</li>

<!-- <li class="nav-item">

<a class="nav-link" href="./take-quiz.php">Take Quiz</a>

</li> -->

</ul>

</div>

<div class="collapse navbar-collapse mr-4" id="navbarSupportedContent">

<div class="ml-auto">

<ul class="navbar-nav">

<li class="nav-item">

<a class="nav-link" href="./index.php">Log out</a>

</li>

</ul>

</div>

</div>

</nav>

<div id="pills-home">

<h2 id="welcome-teacher">Welcome Student!</h2>

<small>This is a student area where you can take quizzes, and the result will be sent to the teacher <br> area after you have submitted.</small>

<br>

<button id="takeQuiz">

<a class="nav-link" href="./take-quiz.php" style="color: inherit">Take Quiz <i class="fa-solid fa-arrow-right"></i></a>

</button>

</div>

</div>

</body>

</html>

TAKE QUIZ:

<!DOCTYPE html>

<html>

<body>

<div class="main">

<nav class="navbar navbar-expand-lg navbar-dark bg-dark">

<a class="navbar-brand ml-4" href="#">Online Quiz System</a>

<button class="navbar-toggler" type="button" data-toggle="collapse" data-target="#navbarSupportedContent" aria-controls="navbarSupportedContent" aria-expanded="false" aria-label="Toggle navigation">

<span class="navbar-toggler-icon"></span>

</button>

<div class="collapse navbar-collapse" id="navbarNav">

<ul class="navbar-nav">

<li class="nav-item">

<a class="nav-link" href="./student.php">Home</a>

</li>

<li class="nav-item active">

<a class="nav-link" href="./take-quiz.php">Take Quiz</a>

</li>

</ul>

</div>

<div class="collapse navbar-collapse mr-4" id="navbarSupportedContent">

<div class="ml-auto">

<ul class="navbar-nav">

<li class="nav-item">

<a class="nav-link" href="./index.php">Log out</a>

</li>

</ul>

</div>

</div>

</nav>

<div class="take-quiz-area">

<h3 class="mt-4">Multiple Choice!</h3>

<small>Put the letter of the correct answer in the blank input provided.</small>

<div class="questions">

<?php

$stmt = $conn->prepare('SELECT \* FROM `tbl\_quiz`');

$stmt->execute();

$result = $stmt->fetchAll();

foreach ($result as $row) {

$quizID = $row['tbl\_quiz\_id'];

$quizQuestion = $row['quiz\_question'];

$optionA = $row['option\_a'];

$optionB = $row['option\_b'];

$optionC = $row['option\_c'];

$optionD = $row['option\_d'];

$correctAnswer = $row['correct\_answer'];

?>

<div class="question">

<p><?= $quizID ?>. <?= $quizQuestion ?></p>

<ol class="choices">

<li><?= $optionA ?></li>

<li><?= $optionB ?></li>

<li><?= $optionC ?></li>

<li><?= $optionD ?></li>

</ol>

<div class="answer-input">

<label for="answer">Answer:</label>

<input class="col-1" type="text" maxlength="1">

</div>

</div>

<?php

}

?>

</div>

<button type="button" class="btn btn-secondary" id="submitAnswer">Submit <i class="fa-sharp fa-solid fa-share"></i></button>

</div>

</div>

<script>

document.getElementById("submitAnswer").addEventListener("click", function() {

var questions = document.querySelectorAll(".question");

var correctAnswers = 0;

questions.forEach(function(question, index) {

var answerInput = question.querySelector("input");

if (answerInput) {

var userAnswer = answerInput.value.toUpperCase();

var correctAnswer = quizData[index].correct\_answer;

if (userAnswer === correctAnswer) {

correctAnswers++;

question.classList.add("correct");

}

}

});

$("#resultModal").modal("show");

$("#totalScore").val(correctAnswers);

});

</script>

</body>

</html>

MODEL:

<!DOCTYPE html>

<html>

<body>

<!-- Add Quiz Modal -->

<div class="modal fade mt-5" id="addQuestionModal" tabindex="-1" aria-labelledby="addQuiz" aria-hidden="true">

<div class="modal-dialog">

<div class="modal-content">

<div class="modal-header">

<h5 class="modal-title" id="addQuestion">Add Question</h5>

<button type="button" class="close" data-dismiss="modal" aria-label="Close">

<span aria-hidden="true">&times;</span>

</button>

</div>

<div class="modal-body">

<form action="./endpoint/add-question.php" method="POST">

<div class="form-group">

<label for="quizQuestion">Question</label>

<input type="text" class="form-control" id="quizQuestion" name="quiz\_question">

</div>

<div class="form-group">

<label for="optionA">Option A</label>

<input type="text" class="form-control" id="optionA" name="option\_a">

</div>

<div class="form-group">

<label for="optionB">Option B</label>

<input type="text" class="form-control" id="optionB" name="option\_b">

</div>

<div class="form-group">

<label for="optionC">Option C</label>

<input type="text" class="form-control" id="optionC" name="option\_c">

</div>

<div class="form-group">

<label for="optionD">Option D</label>

<input type="text" class="form-control" id="optionD" name="option\_d">

</div>

<div class="form-group">

<label for="correctAnswer">Correct Answer (Letter Only)</label>

<input type="text" class="form-control" id="correctAnswer" name="correct\_answer">

</div>

<div class="modal-footer">

<button type="button" class="btn btn-secondary" data-dismiss="modal">Close</button>

<button type="submit" class="btn btn-dark">Save changes</button>

</div>

</form>

</div>

</div>

</div>

</div>

<!-- Update Quiz Modal -->

<div class="modal fade mt-5" id="updateQuestionModal" tabindex="-1" aria-labelledby="addQuiz" aria-hidden="true">

<div class="modal-dialog">

<div class="modal-content">

<div class="modal-header">

<h5 class="modal-title">Update Question</h5>

<button type="button" class="close" data-dismiss="modal" aria-label="Close">

<span aria-hidden="true">&times;</span>

</button>

</div>

<div class="modal-body">

<form action="./endpoint/update-question.php" method="POST">

<div class="form-group" hidden>

<label for="updateQuizID">Question ID</label>

<input type="text" class="form-control" id="updateQuizID" name="tbl\_quiz\_id">

</div>

<div class="form-group">

<label for="updateQuestion">Question</label>

<input type="text" class="form-control" id="updateQuestion" name="quiz\_question">

</div>

<div class="form-group">

<label for="updateOptionA">Option A</label>

<input type="text" class="form-control" id="updateOptionA" name="option\_a">

</div>

<div class="form-group">

<label for="updateOptionB">Option B</label>

<input type="text" class="form-control" id="updateOptionB" name="option\_b">

</div>

<div class="form-group">

<label for="updateOptionC">Option C</label>

<input type="text" class="form-control" id="updateOptionC" name="option\_c">

</div>

<div class="form-group">

<label for="updateOptionD">Option D</label>

<input type="text" class="form-control" id="updateOptionD" name="option\_d">

</div>

<div class="form-group">

<label for="correctAnswer">Correct Answer (Letter Only)</label>

<input type="text" class="form-control" id="updateCorrectAnswer" name="correct\_answer">

</div>

<div class="modal-footer">

<button type="button" class="btn btn-secondary" data-dismiss="modal">Close</button>

<button type="submit" class="btn btn-dark">Save changes</button>

</div>

</form>

</div>

</div>

</div>

</div>

<!-- Result Modal -->

<div class="modal fade mt-5" id="resultModal" tabindex="-1" aria-labelledby="addQuiz" aria-hidden="true">

<div class="modal-dialog">

<div class="modal-content">

<div class="modal-header">

<h5 class="modal-title" id="result">Result</h5>

</div>

<div class="modal-body">

<form action="./endpoint/add-result.php" method="POST">

<div class="form-group">

<label for="quizTaker">Student Fullname</label>

<input type="text" class="form-control" id="quizTaker" name="quiz\_taker">

</div>

<div class="form-group">

<label for="yearSection">Year and Section</label>

<input type="text" class="form-control" id="yearSection" name="year\_section">

</div>

<div class="form-group">

<label for="totalScore">Total Score</label>

<input type="text" class="form-control" id="totalScore" name="total\_score" readonly>

</div>

<div class="modal-footer">

<button type="submit" class="btn btn-dark">Submit</button>

</div>

</form>

</div>

</div>

</div>

</div>

</body>

</html>

STYLE.CSS:

@import url('https://fonts.googleapis.com/css2?family=Poppins:wght@500&display=swap');

\* {

margin: 0;

padding: 0;

font-family: 'Poppins', sans-serif;

}

body {

background-image: url('https://wallpaperaccess.com/full/3308628.jpg');

background-size: cover;

background-repeat: no-repeat;

background-attachment: fixed;

}

.main {

color: rgb(255, 255, 255);

background-color: rgba(0, 0, 0, 0.7);

height: 100vh;

text-align: center;

}

.main-container {

padding-top: 150px;

display: flex;

align-items: center;

flex-direction: column;

}

.main h1 {

font-size: 90px;

}

.main h2 {

font-size:75px;

}

.border-line {

height: 2px;

width: 250px;

margin-top: 10px;

background-color: rgb(255, 255, 255);

}

.selection-container {

text-align: center;

border: 1px solid;

border-radius: 20px;

width: 600px;

padding: 50px;

margin-top: 120px;

background-color: rgba(0, 0, 0, 0.4);

}

.user-selection-button button {

margin: 20px 10px 0 10px;

padding: 7px;

border: none;

border-radius: 10px;

width: 200px;

}

.user-selection-button button:hover {

background-color: rgb(90, 90, 90);

color: rgb(255, 255, 255);

}

.nav-pills .nav-link {

color: rgb(190, 190, 190);

}

.nav-pills .nav-link.active, .nav-pills .show>.nav-link {

color: rgb(255, 255, 255);

background-color: transparent !important;

}

#pills-home {

align-items: center;

background-color: rgba(0, 0, 0, 0.7);

border: 2px solid;

border-radius: 20px;

padding: 40px;

margin: 100px;

}

.quiz-area {

background-color: rgba(0, 0, 0, 0.7);

border: 2px solid;

border-radius: 20px;

padding: 50px;

margin: 100px;

}

#add-quiz-button {

float: right !important;

margin: 10px;

}

.quiz-container {

display: flex;

align-items: center;

justify-content: center;

}

.quiz {

width: 1000px;

height: 600px;

margin-top: 90px;

border: 2px solid;

border-radius: 20px;

background-color: rgba(0, 0, 0, 0.7);

padding: 20px;

}

.nav-tabs .nav-link {

color: rgb(255, 255, 255) !important;

}

.nav-tabs .nav-item.show .nav-link, .nav-tabs .nav-link.active {

color: #495057 !important;

}

.table-area {

height: 450px;

width: 100%;

overflow-y: auto;

}

.take-quiz-area {

display: flex;

justify-content: center;

align-items: center;

flex-direction: column;

}

.take-quiz-area h3 {

font-size: 50px;

}

.questions {

display: flex;

flex-direction: column;

margin-top: 20px;

border: 2px solid;

background-color: rgba(0, 0, 0, 0.7);

border-radius: 20px;

width: 700px;

height: 670px;

text-align: left;

overflow-y: auto;

}

#takeQuiz {

font-size: 16px;

width: 150px;

height: 40px;

margin-top: 20px;

border: none;

color: rgb(70, 70, 70);

background-color: rgb(210, 210, 210);

border-radius: 5px;

}

#takeQuiz:hover {

background-color: rgb(80, 80, 80);

color: rgb(255, 255, 255);

}

.question {

margin: 20px 50px 20px 50px;

}

.question p {

font-size: 20px;

}

.choices li {

list-style-type: upper-alpha;

margin-left: 100px;

font-size: 15px;

}

#submitAnswer {

margin-left: 500px;

margin-top: 10px;

width: 150px;

}

7.2 Back End:

SCRIPT.js:

// Updating file

function updateQuestion(id) {

$("#updateQuestionModal").modal("show");

let updateQuizID = $("#quizID-" + id).text();

let updateQuestion = $("#quizQuestion-" + id).text();

let updateOptionA = $("#optionA-" + id).text();

let updateOptionB = $("#optionB-" + id).text();

let updateOptionC = $("#optionC-" + id).text();

let updateOptionD = $("#optionD-" + id).text();

let updateCorrectAnswer = $("#correctAnswer-" + id).text();

$("#updateQuizID").val(updateQuizID);

$("#updateQuestion").val(updateQuestion);

$("#updateOptionA").val(updateOptionA);

$("#updateOptionB").val(updateOptionB);

$("#updateOptionC").val(updateOptionC);

$("#updateOptionD").val(updateOptionD);

$("#updateCorrectAnswer").val(updateCorrectAnswer);

}

// Deleting question

function deleteQuestion(id) {

if (confirm("Do you want to delete this question?")) {

window.location = "./endpoint/delete-question.php?question=" + id;

}

}

// Deleting result

function deleteResult(id) {

if (confirm("Do you want to delete this result?")) {

window.location = "./endpoint/delete-result.php?result=" + id;

}

}

FOOTER:

<!-- Script JS -->

<script src="./assets/script.js"></script>

<!-- Bootstrap 4.6 JS -->

<script src="https://cdn.jsdelivr.net/npm/jquery@3.5.1/dist/jquery.slim.min.js" integrity="sha384-DfXdz2htPH0lsSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVYUew+OrCXaRkfj" crossorigin="anonymous"></script>

<script src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js" integrity="sha384-9/reFTGAW83EW2RDu2S0VKaIzap3H66lZH81PoYlFhbGU+6BZp6G7niu735Sk7lN" crossorigin="anonymous"></script>

<script src="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/js/bootstrap.min.js" integrity="sha384-+sLIOodYLS7CIrQpBjl+C7nPvqq+FbNUBDunl/OZv93DB7Ln/533i8e/mZXLi/P+" crossorigin="anonymous"></script>

</body>

</html>

HEADER:

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Online Quiz App</title>

<!-- Style CSS -->

<link rel="stylesheet" href="./assets/style.css">

<!-- Bootstrap 4.6 CSS -->

<link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/bootstrap.min.css">

<!-- Fontawesome CSS -->

<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.4.2/css/all.min.css" />

</head>

<body>

7.3 Connectivity:

INDEX:

<?php

include ('./partials/header.php');

include ('./conn/conn.php');

include ('./partials/main\_content.php');

include ('./partials/footer.php');

?>

QUIZ:

<?php

include ('./partials/header.php');

include ('./conn/conn.php');

include ('./partials/modal.php');

include ('./partials/main\_content.php');

include ('./partials/footer.php');

?>

STUDENT:

<?php

include ('./partials/header.php');

include ('./conn/conn.php');

include ('./partials/modal.php');

include ('./partials/main\_content.php');

include ('./partials/footer.php');

?>

TAKE QUIZ:

<?php

include ('./partials/header.php');

include ('./conn/conn.php');

include ('./partials/modal.php');

include ('./partials/main\_content.php');

$stmt = $conn->prepare('SELECT \* FROM `tbl\_quiz`');

$stmt->execute();

$result = $stmt->fetchAll(PDO::FETCH\_ASSOC);

echo '<script>';

echo 'var quizData = ' . json\_encode($result) . ';';

echo '</script>';

include ('./partials/footer.php');

?>

ADD QUESTION:

<?php

// Handle adding a question to the database

include('../conn/conn.php');

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$quizQuestion = $\_POST['quiz\_question'];

$optionA = $\_POST['option\_a'];

$optionB = $\_POST['option\_b'];

$optionC = $\_POST['option\_c'];

$optionD = $\_POST['option\_d'];

$correctAnswer = $\_POST['correct\_answer'];

$stmt = $conn->prepare('INSERT INTO tbl\_quiz (quiz\_question, option\_a, option\_b, option\_c, option\_d, correct\_answer) VALUES (?, ?, ?, ?, ?, ?)');

$stmt->execute([$quizQuestion, $optionA, $optionB, $optionC, $optionD, $correctAnswer]);

header("Location: ../teacher.php");

}

?>

UPDATE QUESTION:

<?php

// Handle updating a question in the database

include('../conn/conn.php');

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$quizID = $\_POST['tbl\_quiz\_id'];

$quizQuestion = $\_POST['quiz\_question'];

$optionA = $\_POST['option\_a'];

$optionB = $\_POST['option\_b'];

$optionC = $\_POST['option\_c'];

$optionD = $\_POST['option\_d'];

$correctAnswer = $\_POST['correct\_answer'];

$stmt = $conn->prepare('UPDATE tbl\_quiz SET quiz\_question = ?, option\_a = ?, option\_b = ?, option\_c = ?, option\_d = ?, correct\_answer = ? WHERE tbl\_quiz\_id = ?');

$stmt->execute([$quizQuestion, $optionA, $optionB, $optionC, $optionD, $correctAnswer, $quizID]);

header("Location: ../teacher.php");

}

?>

ADD RESULT:

<?php

// Handle adding a result to the database

include('../conn/conn.php');

if ($\_SERVER["REQUEST\_METHOD"] == "POST") {

$quizTaker = $\_POST['quiz\_taker'];

$yearSection = $\_POST['year\_section'];

$totalScore = $\_POST['total\_score'];

$stmt = $conn->prepare('INSERT INTO tbl\_result (quiz\_taker, year\_section, total\_score) VALUES (?, ?, ?)');

$stmt->execute([$quizTaker, $yearSection, $totalScore]);

header("Location: ../student.php");

}

?>

DELETE QUESTION:

<?php

include("../conn/conn.php");

if ($\_SERVER['REQUEST\_METHOD'] === 'GET') {

if (isset($\_GET['question'])) {

$questionID = $\_GET['question'];

try {

$stmt = $conn->prepare("DELETE FROM tbl\_quiz WHERE tbl\_quiz\_id = :questionID");

$stmt->bindParam(':questionID', $questionID);

$stmt->execute();

// Redirect back to the quiz page

header("Location: http://localhost/online-quiz-system/quiz.php");

exit();

} catch (PDOException $e) {

echo 'Database Error: ' . $e->getMessage();

}

} else {

echo "Invalid request. Missing question ID.";

}

} else {

echo "Invalid request method. Use GET to delete a question.";

}

?>

DELETE RESULT:

<?php

include("../conn/conn.php");

if ($\_SERVER['REQUEST\_METHOD'] === 'GET') {

if (isset($\_GET['result'])) {

$resultID = $\_GET['result'];

try {

$stmt = $conn->prepare("DELETE FROM tbl\_result WHERE tbl\_result\_id = :resultID");

$stmt->bindParam(':resultID', $resultID);

$stmt->execute();

// Redirect back to the quiz page

header("Location: http://localhost/online-quiz-system/quiz.php");

exit();

} catch (PDOException $e) {

echo 'Database Error: ' . $e->getMessage();

}

} else {

echo "Invalid request. Missing result ID.";

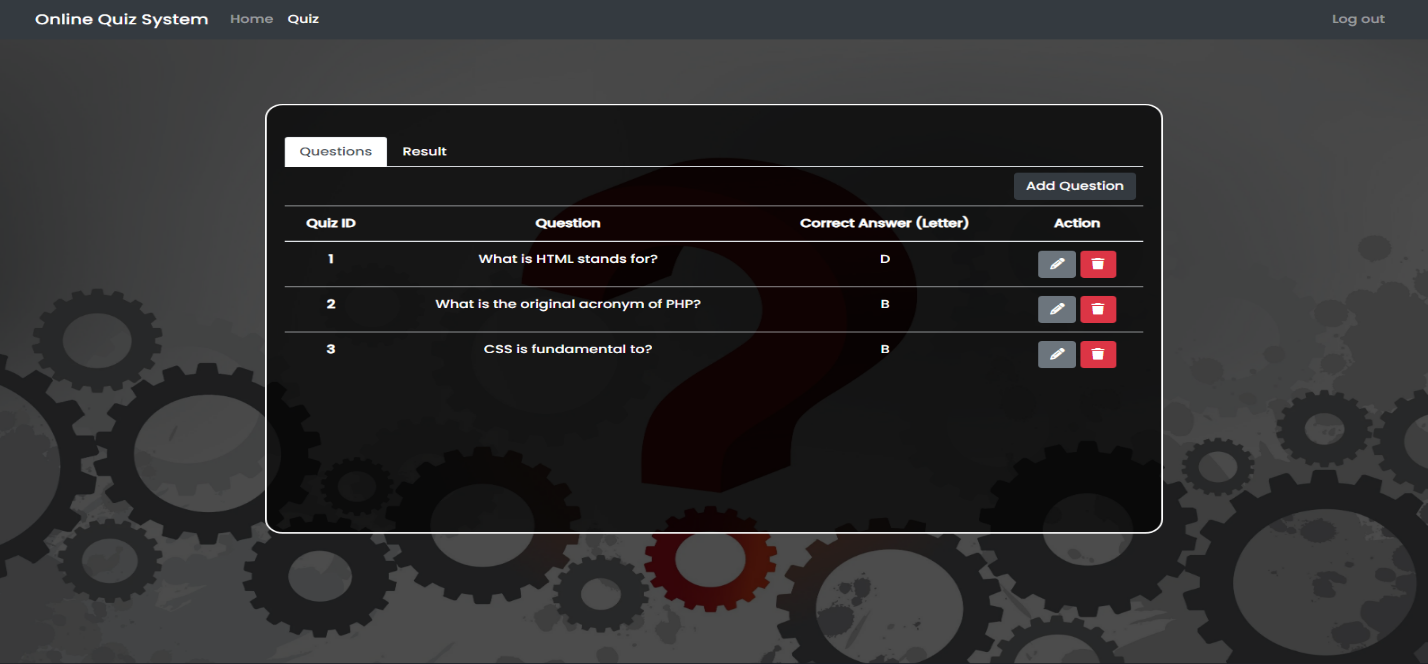
}

} else {

echo "Invalid request method. Use GET to delete a result.";

}

?>

**8.Result**

****

### 

### 

### 9. Conclusion

In conclusion, the Online Quiz Application has been successfully developed to meet the needs of both educators and learners by providing a robust platform for quiz creation, management, and assessment. Leveraging Flask and SQLite, we've ensured a stable backend infrastructure capable of handling user authentication, quiz data management, and result tracking effectively.

The application's current implementation allows teachers to create quizzes with various question types and monitor student performance, while students can take quizzes and receive immediate feedback on their progress. This foundational setup establishes a solid framework for further enhancements and expansions.

### 9.1 Future Enhancements

Looking ahead, several key enhancements can elevate the Online Quiz Application to better serve its users and improve overall functionality. First, implementing advanced user roles and permissions will allow for more nuanced management of quizzes and user access. Real-time updates during quizzes through WebSocket integration can enhance user experience by providing instant feedback and time management notifications. Introducing support for diverse question types and customizable quiz settings will cater to different educational needs and testing formats. Enhanced analytics and reporting features will empower educators to gain deeper insights into student performance trends and educational outcomes. Furthermore, integrating gamification elements and developing a mobile application will enhance engagement and accessibility, ensuring the application remains relevant and effective in diverse learning environments. By prioritizing these enhancements, the Online Quiz Application can continue to evolve and provide a comprehensive toolset for educators and learners alike.

**References**

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