Source Code:

The Program Flow is give here :

Admin:

Login Servlet:

package assign;

import java.io.IOException;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

@WebServlet("/login")

public class LoginServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

String username = request.getParameter("username");

String password = request.getParameter("password");

// Hard-coded correct values

String validUsername = "Rajitha";

String validPassword = "r0123";

if (username.equals(validUsername) && password.equals(validPassword)) {

// Successful login

HttpSession session = request.getSession();

session.setAttribute("username", username);

response.sendRedirect("dashboard");

} else {

// Incorrect login

response.sendRedirect("error.html");

}

}

}

Dashboard Servlet:

package assign;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import jakarta.servlet.http.HttpSession;

import java.io.IOException;

import java.io.PrintWriter;

@WebServlet("/dashboard")

public class DashboardServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Check if the user is logged in

HttpSession session = request.getSession(false);

if (session != null && session.getAttribute("username") != null) {

// User is logged in, show the dashboard

response.setContentType("text/html");

response.getWriter().println("<h1>Welcome to the Dashboard</h1>");

response.getWriter().println("<p>QUIZ MANAGER</p>");

response.getWriter().println("<li><a href=\"createnewquiz\">Create new quiz</a></li>");

response.getWriter().println("<li><a href=\"quizlist\">Quiz List</a></li>");

response.getWriter().println("<p>QUESTION MANAGER</p>");

response.getWriter().println("<li><a href=\"addquestion\"> Add new question </a></li>");

response.getWriter().println("<li><a href=\"questionlist\"> Question List </a></li>");

} else {

// User is not logged in, redirect to the login page

response.sendRedirect("login.html");

}

}

}

Create New Quiz Servlet:

package assign;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import java.io.IOException;

import java.io.PrintWriter;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import org.hibernate.Transaction;

import quiz.Quiz;

@WebServlet("/createnewquiz")

public class CreateNewQuizServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Display the form for adding a new quiz

// Write HTML code here to generate the form

PrintWriter out = response.getWriter();

out.println("<html><body>");

out.println("<form method='post' action='createnewquiz'>");

out.println("Quiz ID: <input type='text' name='quizId'><br>");

out.println("Quiz Title: <input type='text' name='quizTitle'><br>");

out.println("Category: <input type='text' name='category'><br>");

out.println("<input type='submit' value='Add Quiz'>");

out.println("</form>");

out.println("</body></html>");

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Retrieve form data from request parameters

String quizId = request.getParameter("quizId");

String quizTitle = request.getParameter("quizTitle");

String category = request.getParameter("category");

// Create a new Quiz object

Quiz quiz = new Quiz();

quiz.setquiz\_id(Integer.parseInt(quizId));

quiz.setquiz\_title(quizTitle);

quiz.setcategory(category);

// Save the Quiz object to the database

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

session.beginTransaction();

session.save(quiz);

session.getTransaction().commit();

session.close();

// Redirect to the dashboard or any other page

response.sendRedirect("success.html");;

}

}

Quiz List Servlet:

package assign;

import java.io.IOException;

import java.io.PrintWriter;

import java.util.List;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import quiz.Quiz;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

@WebServlet("/quizlist")

public class QuizServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

PrintWriter out = response.getWriter();

out.println("<html><body>");

// STEP 1: Get a Session (connection) from the Session Factory class

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

// STEP 2 execute the HQL commands

// for now we will only test if the connection is establised with MySQL server.

List<Quiz> quiz1 = session.createQuery("from Quiz").list();

out.println("<table>");

out.println("<tr><th>Quiz ID</th><th>Quiz Title</th><th>Category</th></tr>");

for(Quiz Q: quiz1) {

out.println("<tr>");

out.println("<td>" + Q.getquiz\_id() + "</td>");

out.println("<td>" + Q.getquiz\_title() + "</td>");

out.println("<td>" + Q.getcategory() + "</td>");

out.println("</tr>");

}

out.println("</table>");

out.println("<a href=\"logout\">Logout</a>");

session.close();

out.println("</body></html>");

}

}

Quiz.java:

package quiz;

import javax.persistence.Column;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;

@Entity

@Table(name="quiz")

public class Quiz {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY) // Use auto-increment column

@Column(name="quiz\_id")

private int Quiz\_id;

@Column(name="quiz\_title")

private String Quiz\_title;

@Column(name="category")

private String Category;

public Quiz() {

}

public int getquiz\_id() {

return Quiz\_id;

}

public void setquiz\_id(int quiz\_id) {

this.Quiz\_id = quiz\_id;

}

public String getquiz\_title() {

return Quiz\_title;

}

public void setquiz\_title(String quiz\_title) {

this.Quiz\_title = quiz\_title;

}

public String getcategory() {

return Category;

}

public void setcategory(String category) {

this.Category = category;

}

}

Create new question Servlet:

package quiz;

import java.io.IOException;

import java.io.PrintWriter;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

import assign.HibernateUtil;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

@WebServlet("/addquestion")

public class CreateNewQuestionServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Generate the HTML form for adding a question

PrintWriter out = response.getWriter();

out.println("<html><body>");

out.println("<h1>Add Question</h1>");

out.println("<form action=\"addquestion\" method=\"POST\">");

out.println("Quiz ID: <input type=\"text\" name=\"quiz\_id\"><br>");

out.println("Question ID: <input type=\"text\" name=\"question\_id\"><br>");

out.println("Question Description: <input type=\"text\" name=\"questiondesc\"><br>");

out.println("Option 1: <input type=\"text\" name=\"option1\"><br>");

out.println("Option 2: <input type=\"text\" name=\"option2\"><br>");

out.println("Option 3: <input type=\"text\" name=\"option3\"><br>");

out.println("Option 4: <input type=\"text\" name=\"option4\"><br>");

out.println("Correct Option: <input type=\"text\" name=\"correctoption\"><br>");

out.println("<input type=\"submit\" value=\"Add Question\">");

out.println("</form>");

out.println("</body></html>");

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

// Retrieve form data

String quizId = request.getParameter("quiz\_id");

String questionId = request.getParameter("question\_id");

String questionDesc = request.getParameter("questiondesc");

String option1 = request.getParameter("option1");

String option2 = request.getParameter("option2");

String option3 = request.getParameter("option3");

String option4 = request.getParameter("option4");

String correctOption = request.getParameter("correctoption");

// Create a new Question object

Question question = new Question();

question.setQuizId(Integer.parseInt(quizId));

question.setQuestionId(Integer.parseInt(questionId));

question.setQuestiondesc(questionDesc);

question.setOption1(option1);

question.setOption2(option2);

question.setOption3(option3);

question.setOption4(option4);

question.setCorrectOption(correctOption);

// Save the question to the database

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

session.beginTransaction();

session.save(question);

session.getTransaction().commit();

session.close();

// Redirect to the success page

response.sendRedirect("success1.html");

}

}

Qestion List Servlet:

package assign;

import jakarta.servlet.ServletException;

import jakarta.servlet.annotation.WebServlet;

import jakarta.servlet.http.HttpServlet;

import jakarta.servlet.http.HttpServletRequest;

import jakarta.servlet.http.HttpServletResponse;

import quiz.Question;

import java.io.IOException;

import java.io.PrintWriter;

import java.util.List;

import org.hibernate.Session;

import org.hibernate.SessionFactory;

@WebServlet("/questionlist")

public class QuestionServlet extends HttpServlet {

private static final long serialVersionUID = 1L;

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

PrintWriter out = response.getWriter();

out.println("<html><body>");

// Get a Session (connection) from the Session Factory

SessionFactory factory = HibernateUtil.getSessionFactory();

Session session = factory.openSession();

// Execute the HQL query to retrieve data from the question table

List<Question> questions = session.createQuery("from Question").list();

// Display the retrieved data as a question list

out.println("<h1>Question List</h1>");

out.println("<table>");

out.println("<tr><th>Quiz ID</th><th>Question ID</th><th>Question Desc</th><th>Option 1</th><th>Option 2</th><th>Option 3</th><th>Option 4</th><th>Correct Option</th></tr>");

for (Question question : questions) {

out.println("<tr>");

out.println("<td>" + question.getQuizId() + "</td>");

out.println("<td>" + question.getQuestionId() + "</td>");

out.println("<td>" + question.getQuestiondesc() + "</td>");

out.println("<td>" + question.getOption1() + "</td>");

out.println("<td>" + question.getOption2() + "</td>");

out.println("<td>" + question.getOption3() + "</td>");

out.println("<td>" + question.getOption4() + "</td>");

out.println("<td>" + question.getCorrectOption() + "</td>");

out.println("</tr>");

}

out.println("</table>");

out.println("<a href=\"logout\">Logout</a>");

// Close the session

session.close();

out.println("</body></html>");

}

}

Question.java:

package quiz;

import javax.persistence.Column;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;

@Entity

@Table(name ="question")

public class Question {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY) // Use auto-increment column

@Column(name = "question\_id")

private int questionId;

@Column(name = "quiz\_id")

private int quizId;

@Column(name="questiondesc")

private String questiondesc;

@Column(name = "option1")

private String option1;

@Column(name = "option2")

private String option2;

@Column(name = "option3")

private String option3;

@Column(name = "option4")

private String option4;

@Column(name = "correctoption")

private String correctOption;

public Question() {

}

public int getQuestionId() {

return questionId;

}

public void setQuestionId(int questionId) {

this.questionId = questionId;

}

public int getQuizId() {

return quizId;

}

public void setQuizId(int quizId) {

this.quizId = quizId;

}

public String getQuestiondesc() {

return questiondesc;

}

public void setQuestiondesc(String questiondesc) {

this.questiondesc = questiondesc;

}

public String getOption1() {

return option1;

}

public void setOption1(String option1) {

this.option1 = option1;

}

public String getOption2() {

return option2;

}

public void setOption2(String option2) {

this.option2 = option2;

}

public String getOption3() {

return option3;

}

public void setOption3(String option3) {

this.option3 = option3;

}

public String getOption4() {

return option4;

}

public void setOption4(String option4) {

this.option4 = option4;

}

public String getCorrectOption() {

return correctOption;

}

public void setCorrectOption(String correctOption) {

this.correctOption = correctOption;

}

}

Hibernate Util:

package assign;

import org.hibernate.SessionFactory;

import org.hibernate.boot.\*;

import org.hibernate.boot.registry.\*;

public class HibernateUtil {

private static final SessionFactory sessionFactory;

static {

try {

StandardServiceRegistry standardRegistry = new StandardServiceRegistryBuilder()

.configure("hibernate.cfg.xml").build();

Metadata metaData = new MetadataSources(standardRegistry).getMetadataBuilder().build();

sessionFactory = metaData.getSessionFactoryBuilder().build();

} catch (Throwable th) {

throw new ExceptionInInitializerError(th);

}

}

public static SessionFactory getSessionFactory() {

return sessionFactory;

}

}

Hibernate.cfg.xml:

<?xml version=*'1.0'* encoding=*'utf-8'*?>

<!DOCTYPE hibernate-configuration PUBLIC

"-//Hibernate/Hibernate Configuration DTD 3.0//EN"

"http://www.hibernate.org/dtd/hibernate-configuration-3.0.dtd">

<hibernate-configuration>

<session-factory>

<!-- Database connection settings -->

<property name=*"connection.driver\_class"*>com.mysql.cj.jdbc.Driver</property>

<property name=*"connection.url"*>jdbc:mysql://127.0.0.1:3306/contest</property>

<property name=*"connection.username"*>root</property>

<property name=*"connection.password"*>@Classicaldancer23</property>

<mapping class=*"quiz.Quiz"* />

<mapping class=*"quiz.Question"*/>

</session-factory>

</hibernate-configuration>

Index.html:

<!DOCTYPE html>

<html>

<head>

<title>Login</title>

</head>

<body>

<h1>Login</h1>

<form action=*"login"* method=*"post"*>

<label for=*"username"*>Username:</label>

<input type=*"text"* id=*"username"* name=*"username"* required><br>

<label for=*"password"*>Password:</label>

<input type=*"password"* id=*"password"* name=*"password"* required><br>

<input type=*"submit"* value=*"Login"*>

</form>

</body>

</html>

Success.html:

<!DOCTYPE html>

<html>

<head>

<title>Success Page</title>

</head>

<body>

<h1>Data Added Successfully!</h1>

<p>Your data has been added to the database successfully.</p>

<a href=*"quizlist"*>View Quiz List</a>

</body>

</html>

Success1.html:

<!DOCTYPE html>

<html>

<head>

<title>Question Added Successfully</title>

</head>

<body>

<h1>Question Added Successfully</h1>

<p>The question has been added to the database.</p>

<a href=*"questionlist"*>Go to Question List</a>

</body>

</html>

For User:

Login.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"* pageEncoding=*"UTF-8"* %>

<!DOCTYPE html>

<html>

<head>

<title>User Login</title>

</head>

<body>

<h1>User Login</h1>

<%

// Check if the user has submitted the form

**if** (request.getMethod().equalsIgnoreCase("post")) {

String username = request.getParameter("username");

String password = request.getParameter("password");

// Perform authentication logic

// ...

// Assuming authentication is successful, store the username in the session

session.setAttribute("username", username);

// Redirect to the dashboard page

response.sendRedirect("dashboard.jsp");

}

%>

<form action=*"dashboard.jsp"* method=*"post"*>

<label for=*"username"*>Username:</label>

<input type=*"text"* name=*"username"* id=*"username"* required>

<br>

<label for=*"password"*>Password:</label>

<input type=*"password"* name=*"password"* id=*"password"* required>

<br>

<input type=*"submit"* value=*"Login"*>

</form>

</body>

</html>

Dashboard.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"*

pageEncoding=*"ISO-8859-1"*%>

<%@ page import=*"java.sql.Connection, java.sql.DriverManager, java.sql.ResultSet, java.sql.Statement"* %>

<!DOCTYPE html>

<html>

<head>

<title>Dashboard</title>

</head>

<body>

<h1>Welcome to the Dashboard, <%= request.getParameter("username") %></h1>

<table>

<tr>

<th>Quiz ID</th>

<th>Quiz Title</th>

<th>Category</th>

<th>Start Test</th>

</tr>

<%

// Import necessary Java classes for database access

// Database connection details

String url = "jdbc:mysql://127.0.0.1:3306/contest";

String username = "root";

String password = "@Classicaldancer23";

// Establish the database connection

Connection connection = **null**;

**try** {

Class.forName("com.mysql.jdbc.Driver");

connection = DriverManager.getConnection(url, username, password);

} **catch** (Exception e) {

e.printStackTrace();

}

// Define a SQL query to retrieve quiz data from the table

String query = "SELECT \* FROM quiz";

// Create a statement object

Statement stmt = connection.createStatement();

// Execute the query and get the result set

ResultSet rs = stmt.executeQuery(query);

// Iterate through the result set and display quiz data

**while** (rs.next()) {

**int** quizId = rs.getInt("quiz\_id");

String quizTitle = rs.getString("quiz\_title");

String category = rs.getString("category");

%>

<tr>

<td><%= quizId %></td>

<td><%= quizTitle %></td>

<td><%= category %></td>

<td>

<form action=*"test.jsp"* method=*"GET"*>

<input type=*"hidden"* name=*"username"* value=*"*<%= request.getParameter("username") %>*"*>

<input type=*"hidden"* name=*"quizId"* value=*"*<%= quizId %>*"*>

<input type=*"hidden"* name=*"quizId"* value=*"*<%= quizId %>*"*>

<input type=*"submit"* value=*"Start Test"*>

</form>

</td>

</tr>

<%

}

// Close the database connection, statement, and result set

rs.close();

stmt.close();

%>

</table>

<a href=*"logout.jsp"*>Log out</a>

</body>

</html>

Test.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"* pageEncoding=*"ISO-8859-1"* %>

<%@ page import=*"java.sql.Connection, java.sql.DriverManager, java.sql.ResultSet, java.sql.Statement"* %>

<%@ page import=*"java.util.HashMap"* %>

<%

// Get the username from the request parameter

String username = request.getParameter("username");

String quizIdParam = request.getParameter("quizId");

**int** quizId = 0; // Default value if quizIdParam is not a valid integer

System.out.println("quizIdParam: " + quizIdParam); // Debug output

**try** {

quizId = Integer.parseInt(quizIdParam);

} **catch** (NumberFormatException e) {

// Handle the case where quizIdParam is not a valid integer

// You can display an error message or redirect the user to an error page

response.getWriter().println("Invalid quiz ID");

**return**; // Stop further processing of the page

}

// Import necessary Java classes for database access

// Database connection details

String url = "jdbc:mysql://127.0.0.1:3306/contest";

String dbUsername = "root";

String dbPassword = "@Classicaldancer23";

// Establish the database connection

Connection connection = **null**;

**try** {

Class.forName("com.mysql.jdbc.Driver");

connection = DriverManager.getConnection(url, dbUsername, dbPassword);

} **catch** (Exception e) {

e.printStackTrace();

}

// Define a SQL query to retrieve the questions for the given quiz ID

String query = "SELECT \* FROM question WHERE quiz\_id = " + quizId;

// Create a statement object

Statement stmt = connection.createStatement();

// Execute the query and get the result set

ResultSet rs = stmt.executeQuery(query);

// HashMap to store the user's answers

HashMap<Integer, String> answerKeys = **new** HashMap<>();

// Iterate through the result set and display the questions

**while** (rs.next()) {

**int** questionId = rs.getInt("question\_id");

String questiondesc = rs.getString("questiondesc");

String option1 = rs.getString("option1");

String option2 = rs.getString("option2");

String option3 = rs.getString("option3");

String option4 = rs.getString("option4");

// Add the question and answer options to the HashMap

answerKeys.put(questionId, ""); // Initialize the answer as an empty string

%>

<p>Question <%= questionId %>: <%= questiondesc %></p>

<p>

<form action=*"score.jsp"* method=*"POST"*>

<input type=*"hidden"* name=*"questionId"* value=*"*<%= questionId %>*"*>

<input type=*"hidden"* name=*"username"* value=*"*<%= username %>*"*>

<input type=*"hidden"* name=*"quizId"* value=*"*<%= quizId %>*"*>

<input type=*"radio"* name=*"answerKeys*<%= questionId %>*"* value=*"option1"*> <%= option1 %><br>

<input type=*"radio"* name=*"answerKeys*<%= questionId %>*"* value=*"option2"*> <%= option2 %><br>

<input type=*"radio"* name=*"answerKeys*<%= questionId %>*"* value=*"option3"*> <%= option3 %><br>

<input type=*"radio"* name=*"answerKeys*<%= questionId %>*"* value=*"option4"*> <%= option4 %><br>

</p>

<%

}

// Close the database connection, statement, and result set

rs.close();

stmt.close();

connection.close();

%>

<input type=*"submit"* value=*"End Test"*>

</form>

</body>

</html>

Score.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=ISO-8859-1"* pageEncoding=*"ISO-8859-1"* %>

<%@ page import=*"java.sql.Connection, java.sql.DriverManager, java.sql.PreparedStatement, java.sql.ResultSet"* %>

<%

// Get the username and quiz ID from the request parameters

String username = request.getParameter("username");

String quizIdParam = request.getParameter("quizId");

**int** quizId = 0; // Default value if quizIdParam is not a valid integer

System.out.println("quizIdParam: " + quizIdParam); // Debug output

**try** {

quizId = Integer.parseInt(quizIdParam);

} **catch** (NumberFormatException e) {

// Handle the case where quizIdParam is not a valid integer

// You can display an error message or redirect the user to an error page

response.getWriter().println("Invalid quiz ID");

**return**; // Stop further processing of the page

}

// Import necessary Java classes for database access

// Database connection details

String url = "jdbc:mysql://127.0.0.1:3306/contest";

String dbUsername = "root";

String dbPassword = "@Classicaldancer23";

// Establish the database connection

Connection connection = **null**;

**try** {

Class.forName("com.mysql.jdbc.Driver");

connection = DriverManager.getConnection(url, dbUsername, dbPassword);

} **catch** (Exception e) {

e.printStackTrace();

}

// Retrieve the correct answers for the given quiz ID from the database

String correctAnswersQuery = "SELECT question\_id, correctoption FROM question WHERE quiz\_id = ?";

PreparedStatement stmt = connection.prepareStatement(correctAnswersQuery);

stmt.setInt(1, quizId);

ResultSet rs = stmt.executeQuery();

**int** totalQuestions = 0;

**int** correctAnswers = 0;

// Iterate through the result set and compare user's answers with correct answers

**while** (rs.next()) {

**int** questionId = rs.getInt("question\_id");

String correctOption = rs.getString("correctoption");

String userAnswer = request.getParameter("answerKeys" + questionId);

**if** (userAnswer != **null** && correctOption.equals(userAnswer)) {

correctAnswers++;

}

totalQuestions++;

}

// Calculate the score in percentage

**int** score = (correctAnswers \* 100) / totalQuestions;

// Retrieve quiz details from the quiz table

String quizDetailsQuery = "SELECT quiz\_title, category FROM quiz WHERE quiz\_id = ?";

stmt = connection.prepareStatement(quizDetailsQuery);

stmt.setInt(1, quizId);

rs = stmt.executeQuery();

String quizTitle = "";

String category = "";

**if** (rs.next()) {

quizTitle = rs.getString("quiz\_title");

category = rs.getString("category");

}

// Insert the score details into the score table

String insertScoreQuery = "INSERT INTO score (username, quiz\_id, score) VALUES (?, ?, ?)";

PreparedStatement insertStatement = connection.prepareStatement(insertScoreQuery);

insertStatement.setString(1, username);

insertStatement.setInt(2, quizId);

insertStatement.setInt(3, score);

insertStatement.executeUpdate();

// Close the insert statement

insertStatement.close();

// Close the database connection, statement, and result set

rs.close();

stmt.close();

connection.close();

%>

<!DOCTYPE html>

<html>

<head>

<title>Score Details</title>

</head>

<body>

<h1>Score Details</h1>

<p>Username: <%= username %></p>

<p>Quiz ID: <%= quizId %></p>

<p>Quiz Title: <%= quizTitle %></p>

<p>Category: <%= category %></p>

<p>Total Questions: <%= totalQuestions %></p>

<p>Correct Answers: <%= correctAnswers %></p>

<p>Score: <%= score %>%</p>

<a href=*"allscores.jsp"*>View All Scores</a>

</body>

</html>

Allscores.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"* pageEncoding=*"UTF-8"* %>

<%@ page import=*"java.sql.\*"* %>

<%

// Database connection details

String url = "jdbc:mysql://127.0.0.1:3306/contest";

String dbUsername = "root";

String dbPassword = "@Classicaldancer23";

// Establish the database connection

Connection connection = **null**;

**try** {

Class.forName("com.mysql.jdbc.Driver");

connection = DriverManager.getConnection(url, dbUsername, dbPassword);

} **catch** (Exception e) {

e.printStackTrace();

}

// Query to retrieve data from the score table

String query = "SELECT \* FROM score";

// Create a statement object

Statement stmt = connection.createStatement();

// Execute the query and get the result set

ResultSet rs = stmt.executeQuery(query);

%>

<!DOCTYPE html>

<html>

<head>

<title>All Scores</title>

</head>

<body>

<h1>All Scores</h1>

<table border=*"1"*>

<tr>

<th>Username</th>

<th>Quiz ID</th>

<th>Score</th>

</tr>

<% **while** (rs.next()) { %>

<tr>

<td><%= rs.getString("username") %></td>

<td><%= rs.getInt("quiz\_id") %></td>

<td><%= rs.getInt("score") %></td>

</tr>

<% } %>

</table>

<a href=*"dashboard.jsp"*>Go to Dashboard</a>

<%

// Close the database connection, statement, and result set

rs.close();

stmt.close();

connection.close();

%>

</body>

</html>

Logout.jsp:

<%@ page language=*"java"* contentType=*"text/html; charset=UTF-8"* pageEncoding=*"UTF-8"* %>

<!DOCTYPE html>

<html>

<head>

<title>Logout</title>

</head>

<body>

<h1>You are logged out</h1>

<a href=*"login.jsp"*>Login</a>

</body>

</html>