Name – Pradeep Uid – 22BCS10530 Experiment - 8

Que - Develop web applications using Servlets and JSP for user input handling, database integration.

Easy Level: Write a servlet to accept user credentials through an HTML form and display a personalized welcome message if the login is successful. Medium Level: Create a servlet integrated with JDBC to display a list of employees from a database. Include a search form to fetch employee details by ID. Hard Level: Develop a JSP-based student portal. Include a form for entering attendance details and save them to the database using a servlet.

Code :-

import java.io.\*;

import java.sql.\*;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("/PortalServlet")

public class PortalServlet extends HttpServlet {

private final String JDBC\_URL = "jdbc:mysql://localhost:3306/yourdb";

private final String DB\_USER = "root";

private final String DB\_PASS = "password";

protected void doGet(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

showLoginForm(response);

}

protected void doPost(HttpServletRequest request, HttpServletResponse response)

throws ServletException, IOException {

response.setContentType("text/html");

PrintWriter out = response.getWriter();

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

if ("login".equals(action)) {

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

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

if ("admin".equals(username) && "admin123".equals(password)) {

showDashboard(out, username);

} else {

out.println("<h2>Invalid credentials. <a href='PortalServlet'>Try again</a></h2>");

}

} else if ("searchEmployee".equals(action)) {

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

try {

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

Connection con = DriverManager.getConnection(JDBC\_URL, DB\_USER, DB\_PASS);

PreparedStatement ps = con.prepareStatement("SELECT \* FROM employee WHERE id = ?");

ps.setInt(1, Integer.parseInt(id));

ResultSet rs = ps.executeQuery();

if (rs.next()) {

out.println("<h3>Employee Found:</h3>");

out.println("ID: " + rs.getInt("id") + "<br/>");

out.println("Name: " + rs.getString("name") + "<br/>");

out.println("Department: " + rs.getString("department") + "<br/>");

} else {

out.println("<h3>No employee found with ID: " + id + "</h3>");

}

con.close();

} catch (Exception e) {

out.println("Error: " + e.getMessage());

}

showBackButton(out);

} else if ("submitAttendance".equals(action)) {

try {

int studentId = Integer.parseInt(request.getParameter("student\_id"));

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

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

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

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

Connection con = DriverManager.getConnection(JDBC\_URL, DB\_USER, DB\_PASS);

PreparedStatement ps = con.prepareStatement(

"INSERT INTO attendance (student\_id, name, date, status) VALUES (?, ?, ?, ?)");

ps.setInt(1, studentId);

ps.setString(2, name);

ps.setString(3, date);

ps.setString(4, status);

int result = ps.executeUpdate();

if (result > 0) {

out.println("<h3>Attendance recorded successfully!</h3>");

} else {

out.println("<h3>Error saving attendance.</h3>");

}

con.close();

} catch (Exception e) {

out.println("Error: " + e.getMessage());

}

showBackButton(out);

}

}

private void showLoginForm(HttpServletResponse response) throws IOException {

PrintWriter out = response.getWriter();

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

out.println("<h2>Login</h2>");

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

out.println("<input type='hidden' name='action' value='login' />");

out.println("Username: <input type='text' name='username' /><br/>");

out.println("Password: <input type='password' name='password' /><br/>");

out.println("<input type='submit' value='Login' />");

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

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

}

private void showDashboard(PrintWriter out, String username) {

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

out.println("<h2>Welcome, " + username + "!</h2>");

// Employee search form

out.println("<h3>Search Employee</h3>");

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

out.println("<input type='hidden' name='action' value='searchEmployee' />");

out.println("Employee ID: <input type='text' name='id' /><br/>");

out.println("<input type='submit' value='Search' />");

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

// Attendance form

out.println("<h3>Student Attendance</h3>");

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

out.println("<input type='hidden' name='action' value='submitAttendance' />");

out.println("Student ID: <input type='text' name='student\_id' /><br/>");

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

out.println("Date: <input type='date' name='date' /><br/>");

out.println("Status: <select name='status'>");

out.println("<option value='Present'>Present</option>");

out.println("<option value='Absent'>Absent</option>");

out.println("</select><br/>");

out.println("<input type='submit' value='Submit Attendance' />");

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

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

}

private void showBackButton(PrintWriter out) {

out.println("<br/><a href='PortalServlet'>Back to Dashboard</a>");

}

}

**Output**

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