

//Problem 1: User Login with Servlet**login.html**

```
<!DOCTYPE html>
<html>
<head>
  <title>User Login</title>
</head>
<body>
  <h2>Login</h2>
  <form action="LoginServlet" method="post">
    Username: <input type="text" name="username" /><br>
    Password: <input type="password" name="password" /><br>
    <input type="submit" value="Login" />
  </form>
</body>
</html>
```

LoginServlet.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;

public class LoginServlet extends HttpServlet {
  protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
    String username = request.getParameter("username");
    String password = request.getParameter("password");

    if ("admin".equals(username) && "admin123".equals(password)) {
      response.sendRedirect("welcome.jsp");
    } else {
      response.getWriter().println("Invalid login, please try again.");
    }
  }
}
```

welcome.jsp

```
<!DOCTYPE html>
<html>
```

```
<head>
  <title>Welcome</title>
</head>
<body>
  <h2>Welcome to the system!</h2>
  <p>You have logged in successfully.</p>
</body>
</html>
```

```
Welcome to the system!
You have logged in successfully.
```

//Problem 2: Employee Directory with JDBC

```
<!DOCTYPE html>
<html>
<head>
  <title>Employee Directory</title>
</head>
<body>
  <h2>Employee Directory</h2>
  <form action="EmployeeServlet" method="get">
    Search Employee by ID: <input type="text" name="employeeId" /><br>
    <input type="submit" value="Search" />
  </form>

  <h3>Employee List:</h3>
  <table border="1">
    <tr>
      <th>ID</th>
      <th>Name</th>
      <th>Department</th>
      <th>Email</th>
    </tr>
    <!-- Employee list will be displayed here -->
  </table>
</body>
</html>
```

EmployeeServlet.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;
import java.util.*;

public class EmployeeServlet extends HttpServlet {
  protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
    String employeeId = request.getParameter("employeeId");
    List<String> employees = new ArrayList<>();
    String dbURL = "jdbc:mysql://localhost:3306/yourdb";
    String dbUser = "root";
    String dbPass = "password";

    try {
      Connection conn = DriverManager.getConnection(dbURL, dbUser, dbPass);
      Statement stmt = conn.createStatement();
      String query = (employeeId == null || employeeId.isEmpty()) ? "SELECT *
```

```

FROM employees" : "SELECT * FROM employees WHERE id=" + employeeId;
ResultSet rs = stmt.executeQuery(query);

while (rs.next()) {
    employees.add(rs.getInt("id") + " - " + rs.getString("name") + " - " +
rs.getString("department") + " - " + rs.getString("email"));
}

request.setAttribute("employees", employees);
RequestDispatcher dispatcher =
request.getRequestDispatcher("/employeeList.jsp");
dispatcher.forward(request, response);
} catch (SQLException e) {
    e.printStackTrace();
}
}
}

```

employeeList.jsp

```

<% @ page import="java.util.*" %>
<!DOCTYPE html>
<html>
<head>
    <title>Employee Directory</title>
</head>
<body>
    <h2>Employee List</h2>
    <table border="1">
        <tr>
            <th>ID</th>
            <th>Name</th>
            <th>Department</th>
            <th>Email</th>
        </tr>
        <%
            List<String> employees = (List<String>) request.getAttribute("employees");
            for (String employee : employees) {
        %>
            <tr>
                <td><%= employee.split(" - ")[0] %></td>
                <td><%= employee.split(" - ")[1] %></td>
                <td><%= employee.split(" - ")[2] %></td>
                <td><%= employee.split(" - ")[3] %></td>
            </tr>
            <% } %>
        </table>

```

```
</body>
</html>
```

id	name	department	email
1	Alice	HR	alice@example.com
2	Bob	IT	bob@example.com
3	Charlie	Sales	charlie@example.com

Problem 3: JSP-Based Student Attendance Portal

```
<!DOCTYPE html>
<html>
<head>
  <title>Attendance Portal</title>
</head>
<body>
  <h2>Mark Attendance</h2>
  <form action="AttendanceServlet" method="post">
    Student Name: <input type="text" name="studentName" /><br>
    Date: <input type="date" name="attendanceDate" /><br>
    Status:
    <select name="status">
      <option value="Present">Present</option>
      <option value="Absent">Absent</option>
    </select><br>
    <input type="submit" value="Submit" />
  </form>
</body>
</html>
```

AttendanceServlet.java

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
import java.sql.*;

public class AttendanceServlet extends HttpServlet {
  protected void doPost(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
    String studentName = request.getParameter("studentName");
    String attendanceDate = request.getParameter("attendanceDate");
    String status = request.getParameter("status");

    String dbURL = "jdbc:mysql://localhost:3306/attendanceDB";
    String dbUser = "root";
    String dbPass = "password";

    try {
```

```

        Connection conn = DriverManager.getConnection(dbURL, dbUser,
dbPass);
        String query = "INSERT INTO student_attendance (name, date,
status) VALUES (?, ?, ?)";
        PreparedStatement stmt = conn.prepareStatement(query);
        stmt.setString(1, studentName);
        stmt.setString(2, attendanceDate);
        stmt.setString(3, status);
        int rows = stmt.executeUpdate();
        if (rows > 0) {
            response.sendRedirect("attendance-success.jsp");
        }
    } catch (SQLException e) {
        e.printStackTrace();
    }
}

```

attendance-success.jsp

```

<!DOCTYPE html>
<html>
<head>
    <title>Attendance Submitted</title>
</head>
<body>
    <h2>Attendance Submitted Successfully!</h2>
    <p>Your attendance has been recorded.</p>
</body>
</html>

```

```

Attendance Submitted Successfully!
Your attendance has been recorded.

```