Experiment -8

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7.1.1. Aim: To develop a servlet that accepts user credentials from an HTML form and displays a personalized welcome message on successful login.

7.1.2 Objective: Learn from handling with Servlets Understand HTTP request/response handling Practice doPost() method

7.1.3 Code:

```
<!DOCTYPE html>
<html>
<head><title>Login</title></head>
<body>
  <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>
```

```
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 user = request.getParameter("username");
       String pass = request.getParameter("password");
       response.setContentType("text/html"); PrintWriter out
       = response.getWriter();

       if ("admin".equals(user) && "1234".equals(pass)) {
          out.println("<h2>Welcome, " + user + "!</h2>");
```

```
        } else { out.println("<h2>Login Failed. Invalid
        credentials.</h2>"); }
    }
}
```

```
<web-app>
  <servlet>
    <servlet-name>LoginServlet</servlet-name>
    <servlet-class>LoginServlet</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>LoginServlet</servlet-name>
    <url-pattern>/LoginServlet</url-pattern>
  </servlet-mapping>
</web-app>
```

Output:

1) On correct login: Welcome, Manik!
2) On failure: Login Failed. Invalid credentials.

7.2.1 Aim: To build a servlet integrated with JDBC that displays all employees and enables search by employee ID.

Objective: 1) Use JDBC with Servlet

2) Fetch and display records
3) Implement search functionality

7.2.2 Code:

```
<!DOCTYPE html>
<html>
<head><title>Search Employee</title></head>
<body>
  <form action="EmployeeServlet" method="post">
    Enter Employee ID: <input type="text" name="empId">
```

```
    <input type="submit" value="Search">
  </form>
</body>
</html>

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

public class EmployeeServlet extends HttpServlet { protected void
   doPost(HttpServletRequest request, HttpServletResponse response) throws
   ServletException, IOException { String empId = request.getParameter("empId");
   response.setContentType("text/html"); PrintWriter out = response.getWriter();

      try {
         Class.forName("com.mysql.jdbc.Driver");
         Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/company",          "root",
"password");

         String query = "SELECT * FROM employees WHERE emp_id=?";
         PreparedStatement ps = con.prepareStatement(query);
         ps.setString(1, empId); ResultSet
         rs = ps.executeQuery();

         if (rs.next()) {
            out.println("<h2>Employee      Details</h2>");
            out.println("ID: " + rs.getInt(1) + "<br>");
            out.println("Name: " + rs.getString(2) +
            "<br>");      out.println("Department:      " +
            rs.getString(3));
         } else { out.println("No employee found with ID " +
            empId);
         }

         con.close();
      } catch (Exception e) { out.println("Error:
         " + e.getMessage());
```

```
        }
    }
}
```

7.2.3 Output:

1) Enter an employee ID → Shows details if found.

2) Not found → "No employee found with ID X

7.3.1 Aim: To develop a JSP-based student portal that accepts attendance data and saves it to the database using a servlet.

Objective: 1) Combine JSP for UI and Servlets for logic
2) Perform INSERT using JDBC
3) Build a real-world web flow

Code:

```
<%@ page language="java" %>
<html>
<head><title>Student Attendance</title></head>
<body>
  <h2>Mark Attendance</h2>
  <form    action="AttendanceServlet"    method="post">
    Roll No: <input type="text" name="roll"><br> Name:
    <input type="text" name="name"><br> Status: <select
    name="status">
        <option>Present</option>
        <option>Absent</option>
    </select><br>
    <input type="submit" value="Submit">
  </form>
</body> </html>

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

     response.setContentType("text/html");
     PrintWriter out = response.getWriter();

     try {
        Class.forName("com.mysql.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_portal", "root",
"password");


        String query = "INSERT INTO attendance (roll_no, name, status) VALUES (?, ?,
?)";
        PreparedStatement ps = con.prepareStatement(query); ps.setString(1,
        roll);
        ps.setString(2, name);
        ps.setString(3, status);

        int i = ps.executeUpdate(); if
        (i > 0) { out.println("<h3>Attendance marked successfully for " + name +
        "!</h3>"); }

        con.close();
     } catch (Exception e) {
     out.println("Error: " + e.getMessage()); }
  }
}

CREATE TABLE attendance ( id INT
  AUTO_INCREMENT PRIMARY KEY,
```

```
    roll_no
    VARCHAR(20),   name
    VARCHAR(100),
    status VARCHAR(10)
);
```

OUTPUT:

Form submission → "Attendance marked successfully for Manik !" And the data is stored in the database.