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 form 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, Sarthak !
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 John!" And the data is stored in the database.