# 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();
```

```
        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:**

```
Output

On correct login: Welcome, Nikhil !
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:**

```html
<!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>
```

```java
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);
```

```java
            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());
        }
    }
}
```

**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:**

```jsp
<%@ 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");
```

```java
        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**

```
Output

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

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