



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

Experiment -8

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Branch: BE-CSE

Semester: 6th

Subject Name: Project-Based Learning
in Java with Lab

UID: 22BCS16405

Section/Group: DL_901-A

Date of Performance: 17/03/2025

Subject Code: 22CSH-359

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

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

8.1.3 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)) {
```



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```
        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.

8.2.1 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

8.2.2 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);
```



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

8.2.3 Output:

- 1) Enter an employee ID → Shows details if found.
- 2) Not found → "No employee found with ID X"

8.3.1 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");
```



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```
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.