



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

Experiment -8

Student Name: Nikhil Joshi

Branch: CSE

Semester: 6th

Subject Name: Project-Based Learning in
Java with Lab

UID: 22BCS11042

Section/Group: IOT -639(B)

Date of Performance: 08/04/2025

Subject Code: 22CSH-359

3.1.1.

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

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

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)
```



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

```
&& "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:

```
User opens:  
  
bash  
  
http://localhost:8080/YourApp/index.html
```

Case 1: Correct Credentials

Case 2: Invalid Credentials

```
Form POST Data:
ini

username=admin
password=1234

Servlet Output:
html

Content-Type: text/html

<h2>Welcome, admin!</h2>
```

```
Form POST Data:
ini

username=admin
password=wrong

Servlet Output:
html

Content-Type: text/html

<h2>Login Failed. Invalid credentials.</h2>
```

3.1.2

Aim: To build a servlet integrated with JDBC that displays a list of all employees from a database. Include a search form to fetch employee details by ID.

Objective:

- 1) Use JDBC with Servlet
- 2) Fetch and display records
- 3) Implement search functionality **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 {

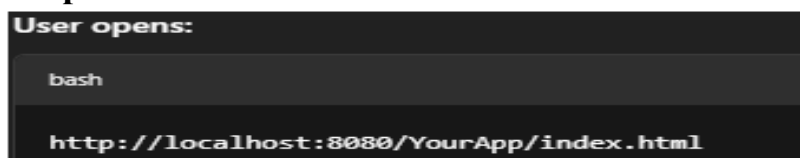
    String empId = request.getParameter("empId");
    response.setContentType("text/html");
    PrintWriter out = response.getWriter();

    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()); }
    }
}
```

Output:



```
User opens:
bash
http://localhost:8080/YourApp/index.html
```

MySQL table employees has:



DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

| emp_id | name | department |
|--------|-----------|------------|
| 101 | John Doe | HR |
| 102 | Alice Roy | IT |

Case 1: Employee Found

```
POST Request:
ini
empId=101

Simulated Server Execution:
sql
> Received POST request at /EmployeeServlet
> Parameter empId = 101
> Connecting to database...
> Running query: SELECT * FROM employees WHERE emp_id=101
> Match found!

Output:
html
Content-Type: text/html

<h2>Employee Details</h2>
ID: 101<br>
Name: John Doe<br>
Department: HR
```

Case 2: Employee Not Found

```
POST Request:
ini
empId=999

Simulated Server Execution:
shell
> Received POST request at /EmployeeServlet
> Parameter empId = 999
> Connecting to database...
> Running query: SELECT * FROM employees WHERE emp_id=999
> No results found.

Output:
html
Content-Type: text/html

No employee found with ID 999
```

Learning Outcomes:

1. Understand how to create and deploy Java Servlets to handle user input from HTML forms.
2. Implement conditional logic in Servlets to validate user credentials and provide dynamic responses.
3. Learn to integrate Servlets with JDBC to perform database operations like searching and fetching data.
4. Develop interactive web applications using Servlets and JSP that connect front-end forms with backend databases.



DEPARTMENT OF **COMPUTER SCIENCE & ENGINEERING**

Discover. Learn. Empower.