



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

## Experiment 8

**Student Name** Vaibhav Lohani

**Branch:** CSE

**Semester:** 5<sup>th</sup>

**Subject Name:** PBLJ

**UID** 23BCS11415

**Section/Group:** KRG\_2B

**Date of Performance:** 08/10/25

**Subject Code:** 23CSH-304

### **1. Aim:**

To design and develop web applications using **Servlets and JSP** for user input handling, database integration, and data management through HTML interfaces and JDBC connectivity.

- To understand the use of **HTTP methods (GET, POST)** for form handling.
- To perform **database operations (CRUD)** through servlets.
- To integrate **Servlets and JSP** for dynamic web application development.

### **2. Objective:**

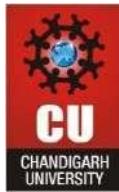
- ✓ To implement servlet-based user authentication using form inputs.
- ✓ To connect a servlet with a database using **JDBC** for fetching and displaying data.
- ✓ To build a **JSP–Servlet integrated application** for student attendance management using MVC principles.

### **3.JAVA script and output:**

#### EASY-LEVEL PROBLEM

##### **File 1 – login.html**

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



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

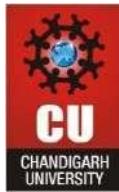
Discover. Learn. Empower.

```
<body>
<form action="LoginServlet" method="post">
<h3>Login Page</h3>
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.annotation.*;
import javax.servlet.http.*;
```

## File 2: Loginservelet.java

```
@WebServlet("/LoginServlet")
public class LoginServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String user = request.getParameter("username");
        String pass = request.getParameter("password");
        if (user.equals("admin") && pass.equals("1234")) {
            out.println("<h2>Welcome, " + user + "! Login Successful.</h2>");
        } else {
            out.println("<h3>Invalid Credentials. Try again.</h3>");
```



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

```
}
```

```
}
```

```
}
```

## SAMPLE OUTPUT:

Welcome, admin! Login Successful.

## MEDIUM LEVEL PROBLEM:

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

```
@WebServlet("/EmployeeServlet")
public class EmployeeServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String id = request.getParameter("empid");
        try {
            Class.forName("com.mysql.cj.jdbc.Driver");
            Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/company", "root", "password");
            PreparedStatement ps;
            if (id == null || id.isEmpty())
                ps = con.prepareStatement("SELECT * FROM Employee");
            else {
                ps = con.prepareStatement("SELECT * FROM Employee WHERE EmpID=?");
                ps.setInt(1, Integer.parseInt(id));
            }
            ResultSet rs = ps.executeQuery();
            out.println("<h3>Employee List:</h3>");
            while (rs.next()) {
                out.println("ID: " + rs.getInt(1) + " | Name: " + rs.getString(2) + " | Department: " +
rs.getString(3) + "<br>");
            }
        }
    }
}
```



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

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

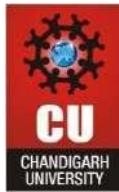
## SAMPLE OUTPUT:

Employee List:  
ID: 101 | Name: Akshara | Department: HR  
ID: 102 | Name: Binod | Department: IT

## HARD LEVEL PROBLEM

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

@WebServlet("/AttendanceServlet")
public class AttendanceServlet extends HttpServlet {
    protected void doPost(HttpServletRequest request, HttpServletResponse response) throws
IOException, ServletException {
        String id = request.getParameter("sid");
        String date = request.getParameter("date");
        String status = request.getParameter("status");
        String msg;
        try {
```



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Discover. Learn. Empower.

```
Class.forName("com.mysql.cj.jdbc.Driver");

Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/studentdb", "root", "password");

PreparedStatement ps = con.prepareStatement("INSERT INTO attendance
VALUES(?, ?, ?)");

ps.setString(1, id);
ps.setString(2, date);
ps.setString(3, status);
ps.executeUpdate();

msg = "Attendance recorded successfully for Student ID: " + id;
con.close();

} catch (Exception e) {
    msg = "Error: " + e.getMessage();
}

request.setAttribute("msg", msg);

RequestDispatcher rd = request.getRequestDispatcher("attendance.jsp");
rd.forward(request, response);

}
```

}

#### **SAMPLE OUTPUT:**

Attendance recorded successfully for Student ID: 23BCS11410