



## Experiment 8

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**Branch:** CSE

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

**Subject Name:** PBLJ

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**Section/Group:** KRG\_2B

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**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>
```



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```
<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>");
        }
    }
}
```



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```
}  
}  
}
```

## 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>");  
            }  
        }  
    }  
}
```



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```
    }  
    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 {
```



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```
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