

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment -8

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Subject Name: Project-Based Learning
in Java with Lab

Subject Code: 22CSH-359

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) && "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)

```
Enter username: admin
Enter password: 1234
Welcome, admin!
```

2)

```
Enter username: user
```

```
Enter password: password
Login Failed. Invalid credentials.
```



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Experiment -8.2

Aim: To build a servlet integrated with JDBC that displays all employees and enables search by employeeID.

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 {
```

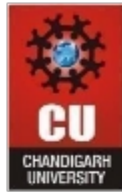
```
        String empId = request.getParameter("empId");
```

```

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");

```



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```

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:

1)

```
Employee Details
```

```
ID: 101
```

```
Name: John Doe
```

```
Department: HR
```

Department: HIK

2)

No employee found with ID 999



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Experiment -8.3

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
```

```
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:

```
Attendance marked successfully for John Doe!
```