

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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Experiment -8

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Branch: BCS-IT

Semester: 6th

Subject Name: Project-Based Learning
in Java with Lab

UID: 22BCS14943

Section/Group: BCS_KRG_IOT-3B

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Subject Code: 22CSH-359

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

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

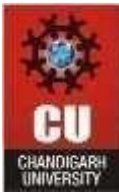
7.1.3 Code:

```
<!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)) {
    out.println("<h2>Welcome, " + user + "!</h2>");
```



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```
        } 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, Manik!
- 2) On failure: Login Failed. Invalid credentials.

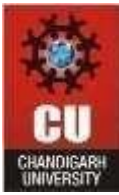
7.2.1 Aim: To build a servlet integrated with JDBC that displays all employees and enables search by employee ID.

Objective: 1) Use JDBC with Servlet

- 2) Fetch and display records
- 3) Implement search functionality

7.2.2 Code:

```
<!DOCTYPE html>  
<html>  
  <head><title>Search Employee</title></head>  
  <body>  
    <form action="EmployeeServlet" method="post">  
      Enter Employee ID: <input type="text" name="empId">
```



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```
<input type="submit" value="Search">
</form>
</body>
</html>
```

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

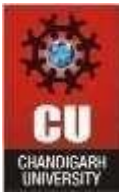
```
public class EmployeeServlet extends HttpServlet { protected void
doPost(HttpServletRequest request, HttpServletResponse response) throws
ServletException, IOException { String empId = request.getParameter("empId");
response.setContentType("text/html"); PrintWriter out = response.getWriter();
```

```
    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());
```



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```
}  
}  
}
```

7.2.3 Output:

1) Enter an employee ID → Shows details if found.

2) Not found → "No employee found with ID X"

7.3.1 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

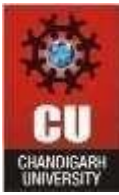
2) Perform INSERT using JDBC

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.*;
```



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```
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");
    PrintWriter out = response.getWriter();

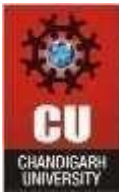
    try {
        Class.forName("com.mysql.jdbc.Driver");
        Connection con =
DriverManager.getConnection("jdbc:mysql://localhost:3306/student_portal", "root",
"password");

        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,
```



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```
roll_no  
VARCHAR(20), name  
VARCHAR(100),  
status VARCHAR(10)  
);
```

OUTPUT:

Form submission → "Attendance marked successfully for Manik !" And the data is stored in the database.