Experiment 8

Student Name: Keshav   **UID: 22BCS14552**
Branch: B.E. CSE   **Section/Group: KRG - 2 B**
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1. Aim: To develop a servlet that accepts user credentials from an HTML form and displays a personalized welcome message on successful login.

2. Implementation/Code:

```html
<!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>
```

```java
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("Welcome, " + user + "!");
      } else {
        out.println("Login Failed. Invalid credentials.");
      }
    }
}
```

```
<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>
```

3. Output:

1)

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

2)

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

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

2. Implementation/Code:

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

3. Output:

1)

```
Employee Details
ID: 101
Name: John Doe
Department: HR
```

2)

```
No employee found with ID 999
```

1. **Aim:** To develop a JSP-based student portal that accepts attendance data and saves it to the database using a servlet.

2. Implementation/Code:

```jsp
<%@ 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>
```

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

```java
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");
        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)
);
```

3. Output:

Attendance marked successfully for John Doe!