Experiment-8

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in Java withLab	

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

> **Objective:**LearnformhandlingwithServlets
> Understand HTTP request/response
> handling Practice doPost() method

Code:

```html
<!DOCTYPEhtml>
<html>
<head><title>Login</title></head>
<body>
 <form action="LoginServlet" method="post">
  Username:<inputtype="text"name="username"><br>
  Password:<inputtype="password"name="password"><br>
  <inputtype="submit"value="Login">
 </form>
</body>
</html>
```

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

publicclassLoginServletextendsHttpServlet{
    protectedvoiddoPost(HttpServletRequestrequest,HttpServletResponseresponse) throws
        ServletException, IOException {
      Stringuser=request.getParameter("username");
      Stringpass = request.getParameter("password");

      response.setContentType("text/html");
      PrintWriterout=response.getWriter();

      if("admin".equals(user)&&"1234".equals(pass)){
```

```java
        out.println("<h2>Welcome,"+user+"!</h2>");
    }else{
        out.println("<h2>LoginFailed.Invalidcredentials.</h2>");
    }
  }
}
```

```xml
<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, Sarthak!
2) Onfailure:LoginFailed.Invalidcredentials.

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

Objective:1)UseJDBCwithServlet

2) Fetchanddisplayrecords

3) Implementsearchfunctionality

Code:

```html
<!DOCTYPEhtml>
<html>
<head><title>SearchEmployee</title></head>
<body>
 <formaction="EmployeeServlet"method="post">
  EnterEmployeeID:<inputtype="text"name="empId">
  <inputtype="submit"value="Search">
 </form>
</body>
</html>
```

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

publicclassEmployeeServletextendsHttpServlet{
   protectedvoiddoPost(HttpServletRequestrequest,HttpServletResponseresponse) throws
       ServletException, IOException {

     StringempId=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");

       Stringquery="SELECT*FROMemployeesWHEREemp_id=?";
```

```
PreparedStatement ps = con.prepareStatement(query);
```

```
        ps.setString(1,empId);
        ResultSetrs=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("NoemployeefoundwithID"+empId);
        }

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

Output:

1) EnteranemployeeID→Showsdetailsiffound.

2) Notfound→"NoemployeefoundwithIDX

Aim: TodevelopaJSP-basedstudentportalthatacceptsattendancedataandsavesitto the database using a servlet.

Objective: 1)CombineJSPforUIandServletsforlogic

2) PerformINSERTusingJDBC

3) Buildareal-worldwebflow

Code:

```jsp
<%@pagelanguage="java"%>
<html>
<head><title>StudentAttendance</title></head>
<body>
  <h2>MarkAttendance</h2>
  <formaction="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>
    <inputtype="submit"value="Submit">
  </form>
</body>
</html>
```

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

publicclassAttendanceServletextendsHttpServlet{
    protectedvoiddoPost(HttpServletRequestrequest,HttpServletResponseresponse) throws
        ServletException, IOException {
      String roll = request.getParameter("roll");
      String name = request.getParameter("name");
      Stringstatus=request.getParameter("status");

      response.setContentType("text/html");
```

```java
        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());
        }
    }
}
```

```sql
CREATE TABLE attendance(
    id INT AUTO_INCREMENT PRIMARY KEY,
    roll_no VARCHAR(20),
    name VARCHAR(100),
    status VARCHAR(10)
);
```

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