

## **UCS1611---Internet Programming Lab**

### **Exercise 4: Profile Servlet using Session and MySQL**

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#### **LEARNING OBJECTIVES:**

##### **SPECIFICATIONS:**

Implement Profile Servlet using Http Sessions. The specifications are given below.

- 1.The login page should contain username, password, login button and logout button. On clicking login button, invoke the LoginServlet.
2. The LoginServlet should authenticate the user and store the username in session for viewing his profile and display a message "Welcome username".
3. The LoginServlet should also display a link "View Profile in Detail". The link when clicked, should invoke ProfileServlet.
4. ProfileServlet should display the username retrieved from the session with the message "Welcome username to the profile page". Also retrieve and display the detail information of the user from the database in that page. It also displays a link to the Login page to logout.
5. When Logout button is pressed, invoke the LogoutServlet.
6. LogoutServlet should invalidate the user session and display "Successfully Logged out

## CSS CODE : style1.css

```
::placeholder{
  color: #fff;
}

body{
  margin: 0px;
  padding: 0px;
  font-family: Sans-Serif;
  background-size: cover;
}

.box{
  position: absolute;
  top: 50%;
  left: 50%;
  transform: translate(-50%, -50%);
  width: 400px;
  padding: 40px;
  background: rgb(0,0,0,0.5);
  box-sizing: border-box;
  box-shadow: 0 15px 25px rgba(0,0,0,0.4);
  border-radius: 10px;
}

.box img{
  transform: translateX(60%);
}

.box h2{
  margin: 0 0 30px;
  padding: 0;
  color: #fff;
  text-align: center;
}

.inputBox{
  position: relative;
}
```

```
.inputBox input{
  width: 100%;
  padding: 10px 0;
  font-size: 16px;
  margin-bottom: 15px;
  color: #fff;
  border: none;
  border-bottom: 2px solid #fff;
  outline: none;
  background: transparent;
}

.box .inputBox label{
  position: absolute;
  top: 0;
  left: 0;
  padding: 10px 0;
  font-size: 16px;
  color: #fff;
  cursor:pointer;
}

.submit-btn{
  transform: translateX(150%);
  background: transparent;
  border: none;
  outline: none;
  color: #fff;
  background-color: #03a9f4;
  padding: 10px 20px;
}
```

## CSS CODE : style2.css

```
button{
  border-radius: 7px;
  display: inline-flex;
  margin-right: 0px;
  height: 40px;
}

table, td, th{
  margin-top: 30px;
  margin-left: auto;
  margin-right: auto;
  width: 80%;
  border: 1px solid white;
}

table{
  background: rgba(148, 147, 147, 0.493);
}

th{
  font-weight: bold;
  font-size: 20px;
  padding: 20px;
  text-align: center;
  width: 40%;
}

td{
  font-style: italic;
  font-size: 18px;
  padding: 30px;
  text-align: left;
  width: 60%;
}
```

## HTML CODE: index.html

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-
scale=1, shrink-to-fit=no">

    <!--Bootstrap CSS-->
    <link rel="stylesheet" href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/
dist/css/bootstrap.min.css" integrity="sha384-
TX8t27EcRE3e/ihU7zmQxVncDAY5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2" crossorigin=
"anonymous">

    <title>Profile HTML</title>

    <link rel="stylesheet" href="static/style1.css">

  </head>

  <body>

    <div class="box">
      </img>
      <h2>Login</h2>
      <form action="http://localhost:8080/Project4/login" method="POST">

        <div class="inputBox">
          <!--<label for="Name">User Name</label> -->
          <input type="text" id="name" name="name" autofocus="autofocus" place
holder="USER NAME" autocomplete="off" required><br><br>
        </div>

        <div class="inputBox">
          <!--<label for="pass">Password </label> -->
          <input type="password" id="pass" name="pass" placeholder="PASSWORD"
autocomplete="off" required><br><br>
        </div>
        <input type="submit" class="submit-btn" value="Login">
      </form>
    </div>

  </body>

</html>
```

### ***SERVLET CODE: login .java***

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

public class login extends HttpServlet{
    public void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException{
        String JDBC_DRIVER = "com.mysql.jdbc.Driver";
        String DB_URL = "jdbc:mysql://localhost:3306/profile";

        String USER = "root";
        String PASS = "Sharan0276!";

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

        String uname = (String)request.getParameter("name");
        String pass = request.getParameter("pass");

        Connection conn = null;
        int flag = 0;

        try{
            conn = DriverManager.getConnection(DB_URL,USER,PASS);

            String search = "SELECT pass FROM users WHERE username='"+uname+"'";
            Statement stmt = conn.createStatement();

            ResultSet rs = stmt.executeQuery(search);

            if(rs.next()){
                String password = rs.getString("pass");
                if(password.equals(pass)){
                    flag = 1;
                    HttpSession session = request.getSession();
                    session.setAttribute("name", uname);
                    response.sendRedirect("/Project4/Welcome");
                }
            }
        }

        if(flag == 0){
            pw.println("<script>");
            pw.println("alert(\"Wrong UserName or Password!!!\")");
        }
    }
}
```

```

        pw.println("location='http://localhost:8080/Project4/'");
        pw.println("</script>");
    }
}
catch(Exception E){
    E.printStackTrace();
}

pw.close();

}
}

```

### ***SERVLET CODE: welcome.java***

```

import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;
import java.lang.*;
import java.io.*;

public class welcome extends HttpServlet{
    public void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException{
        response.setContentType("text/html");
        PrintWriter pw = response.getWriter();

        pw.println("<html><head><meta charset='utf-8'><meta name='viewport' content='width=device-width, initial-scale=1, shrink-to-fit=no'>");
        pw.println("<title>Welcome</title>");
        pw.println("<style>h1{color:black; margin-left:auto; margin-right:auto; text-align:center; font-size: 3em;}</style></head>");
        pw.print("<body><h1>");

        HttpSession session = request.getSession(false);
        String user = (String)session.getAttribute("name");

        pw.print("Welcome "+user);
        pw.print("</h1><br><br><br>");
        pw.println("<center><button style='justify-content: center; align-content: center; margin-left: auto; margin-right: auto;'><a href ='/Project4/Profile'>View Profile in Detail</a></button><center>");
        pw.print("</body></html>");
        pw.close();
    }
}

```

### ***SERVLET CODE: profile.java***

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

public class profile extends HttpServlet{
    public void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException{

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

        HttpSession session = request.getSession();
        String user = (String)session.getAttribute("name");

        pw.println("<html><head><meta charset='utf-8'><meta name='viewport' content='width=device-width, initial-scale=1, shrink-to-fit=no'>");
        pw.println("<title>Profile</title>");
        pw.println("<style>h1{color:black; margin-left:auto; margin-right:auto; text-align:center; font-size: 3em; justify-content: space-between;}</style><link rel='stylesheet' href='static/style2.css'></head>");
        pw.print("<body><center><h1>");
        pw.print("Profile Page");
        pw.println("<button style='width:10%; justify-content: center; margin-right: 0px; margin-left:80%;'><a href='/Project4/Logout'>Log Out</a></button></h1></center>");

        if(user != null)
        {
            String JDBC_DRIVER="com.mysql.jdbc.Driver";
            String PASS="Sharan0276!";
            String USER="root";
            String DB_URL="jdbc:mysql://localhost:3306/profile";

            Connection conn = null;

            try{

                conn = DriverManager.getConnection(DB_URL,USER,PASS);
                String search = "SELECT * FROM user_profile WHERE name='"+user+"'";

                Statement stmt = conn.createStatement();
```



```

        ResultSet rs = stmt.executeQuery(search);

        rs.next();

        pw.print("<table><tr><th>Name</th><td>" + rs.getString("name") + "</td></tr><tr><th>Age</th><td>" + rs.getString("age") + "</td></tr><tr><th>About</th><td>" + rs.getString("About") + "</td></tr><tr><th>Hometown</th><td>" + rs.getString("hometown") + "</td></tr><tr><th>Date Of Birth</th><td>" + rs.getDate("dob") + "</td></tr><tr><th>Marital Status</th><td>" + rs.getString("Mstatus") + "</td></tr><tr><th>Gender</th><td>" + rs.getString("gender") + "</td></tr><tr><th>Contact</th><td>" + rs.getString("Contact") + "</td></tr></table>");

    } catch (Exception E) {
        E.printStackTrace();
    }

}

else {
    pw.println("<script>");
    pw.println("alert('Session information not available')");
    pw.println("location='http://localhost:8080/Project4/'");
    pw.println("</script>");
}
pw.print("</body></html>");
pw.close();
}
}

```

### ***SERVLET CODE: logout.java***

```

import javax.servlet.*;
import javax.servlet.http.*;
import java.util.*;
import java.lang.*;
import java.io.*;

public class logout extends HttpServlet{
    public void doGet(HttpServletRequest request, HttpServletResponse response) throws ServletException, IOException{

```

```

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

        pw.println("<html><head><meta charset='utf-8'><meta name='viewport' content='width=device-width, initial-scale=1, shrink-to-fit=no'>");
        pw.println("<title>Welcome</title>");
        pw.println("<style>h1{color:black; margin-left:auto; margin-right:auto; text-align:center; font-size: 1em; font-weight: bold;}</style></head>");
        pw.print("<body><h1>");

        HttpSession session = request.getSession(false);
        String user = (String)session.getAttribute("name");
        session.invalidate();

        pw.print("<center>..... Sucessfully Logged Out "+user+" .....<center>");
        pw.print("</body></html>");
        pw.close();

    }
}

```

#### ***XML CODE: web.xml***

```

<web-app>

<servlet>
<servlet-name>Login</servlet-name>
<servlet-class>login</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Login</servlet-name>
<url-pattern>/login</url-pattern>
</servlet-mapping>

<servlet>
<servlet-name>Welcome</servlet-name>
<servlet-class>welcome</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Welcome</servlet-name>
<url-pattern>/Welcome</url-pattern>
</servlet-mapping>

```

```

<servlet>
<servlet-name>Profile</servlet-name>
<servlet-class>profile</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Profile</servlet-name>
<url-pattern>/Profile</url-pattern>
</servlet-mapping>

```

```

<servlet>
<servlet-name>Logout</servlet-name>
<servlet-class>logout</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>Logout</servlet-name>
<url-pattern>/Logout</url-pattern>
</servlet-mapping>
</web-app>

```

## SNAPSHOTS:

## DATABASE AND TABLES PRESENT:

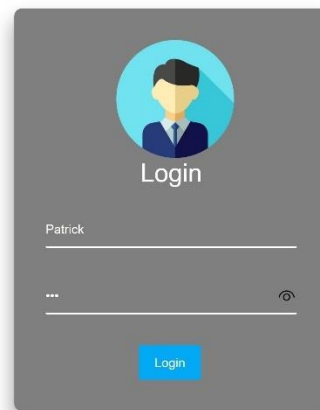
```

mysql> use profile
Database changed
mysql> show tables;
+-----+
| Tables_in_profile |
+-----+
| user_profile      |
| users             |
+-----+
2 rows in set (0.00 sec)

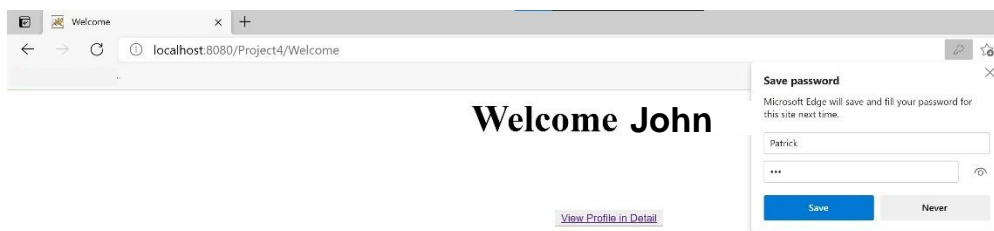
mysql> describe users;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| username   | varchar(255)  | NO   | PRI | NULL    |       |
| pass       | varchar(50)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> describe user_profiles;
ERROR 1146 (42S02): Table 'profile.user_profiles' doesn't exist
mysql> describe user_profile;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| name       | varchar(255)  | NO   | PRI | NULL    |       |
| age        | int           | YES  |     | NULL    |       |
| gender     | varchar(20)   | YES  |     | NULL    |       |
| Mstatus    | varchar(20)   | YES  |     | NULL    |       |
| about      | varchar(1500) | YES  |     | NULL    |       |
| Hometown   | varchar(100)  | YES  |     | NULL    |       |
| dob        | date          | YES  |     | NULL    |       |
| contact    | varchar(10)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
8 rows in set (0.01 sec)

```



*Login.*



**Welcome John**

[View Profile in Detail](#)

*Welcome Page. (Successful Login).*

## Profile Page

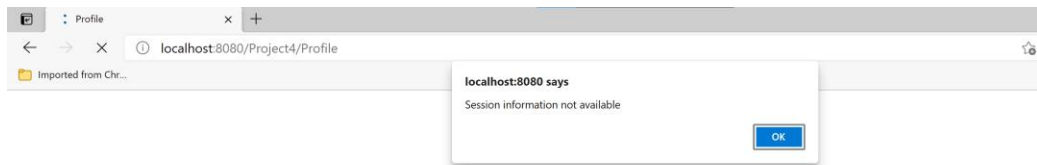
[Log Out](#)

Name	Patrick
Age	20
About	<i>I graduated in May from the University of Pennsylvania with a degree in accounting, but my passion for numbers goes back much further than that. Even as a kid, I loved tax season. My parents used to think it was funny, and it definitely didn't endear me to other fifth graders. When I was 11, my mom let me do her taxes, and I just can't describe the satisfaction I felt when I saved her money. Wisely, she had an accountant check my work, and she came back shocked that I hadn't made any mistakes. She used the money from her refund to buy me books on accounting. For as long as I can remember, I've dreamt of working at H&amp;R Block, and this internship opportunity is that dream come true.</i>
Hometown	Philadelphia, PA
Date Of Birth	1986-02-10
Marital Status	Single
Gender	Male
Contact	8940321289

*Profile Page of the User.*



*Log Out*



---

*Session Deleted.*