

INTERNET PROGRAMMING LAB

Ex5

Profile Servlet using Session and MySQL

Name : Vikraman S

Reg No : 185001195

Learning Objective:

To implement Profile Servlet using Http Sessions.

Specifications:

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"

Code:

login.html

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <link rel="stylesheet" href="style.css">
    <title>Login</title>
  </head>

  <body>
    <center><h1>Login</h1></center>
    <form method="post" action="http://localhost:8080/Ex5/Login">
      <br><label for="uname">User Name:</label>
      <input type="text" id="uname" name="uname" placeholder="Enter User
Name" value="" required><br>

      <br><label for="password">Password :</label>
      <input type="password" id="password" name="password" value=""
required><br>

      <br><input id="login" type="submit" value="Login">
    </form>
  </body>
</html>
```

style.css

```
form{
  margin-left: 30%;
  font-size:17px;
  font-family:arial;
  font-weight:bold;
  color:darkblue;
  background-color:lavender;
  padding:30px;
  border:5px solid black;
  border-radius: 20px;
  width:35%;
  box-shadow: 10px 10px 5px grey;
}

input,select,textarea{
  font-size:17px;
  font-family:arial;
  padding: 12px 20px;
  margin: 8px 0;
}

input[type=submit]{
  border-radius: 8px;
}

#login{
  width:20%;
  font-weight: bold;
}
```

```

    background-color:lightgreen;
    position:relative;
    left:200px;
}

#logout{
    width:20%;
    font-weight: bold;
    background-color:lightblue;
}

input[type=submit]:hover{
    color:blue;
}

table,th,td {
    border: 2px solid black;
    border-collapse: collapse;
    padding: 10px;
}

th {
    background-color: #65af79;
    font-size: 23px;
    color: blue;
}

td {
    background-color: #656da0;
    color: gold;
    font-size: 20px;
    list-style-type: none;
}

table {
    margin-left: auto;
    margin-right: auto;
    text-align: center;
    width: 50%;
    border-radius: 20px;
    box-shadow: 10px 10px 5px grey;
}

body {
    background-color: #A0DAA9;
    height: auto;
    background-image: linear-gradient(to right,#0072B5,white,#CD212A);
}

```

Login.java

```

import java.io.*;
import java.util.*;
import javax.servlet.*;
import javax.servlet.http.*;
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/profile";

        String USER = "root";
        String PASS = "9500";

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

        String user_name=request.getParameter("uname");
        String pwd=request.getParameter("password");

        try {
            // Register JDBC driver
            Class.forName("com.mysql.jdbc.Driver");

            // Open a connection
            Connection conn = DriverManager.getConnection(DB_URL, USER, PASS);

            // Execute SQL query
            Statement stmt = conn.createStatement();
            String sql="SELECT uname,password FROM details";
            ResultSet rs = stmt.executeQuery(sql);

            out.println("<!DOCTYPE html>"+
                "<html>"+
                "<head>"+
                "<meta charset='utf-8'>"+
                "<meta name='viewport' content='width=device-
width, initial-scale=1.0'>"+
                "<link rel='stylesheet' href='style.css'>"+
                "<title>Login</title>"+
                "</head>"+
                "<body><center><br>");

            // Extract data from result set
            int flag=0;
            while(rs.next())
            {
                //Retrieve by column name
                String uname= rs.getString("uname");
                String password= rs.getString("password");

                if(user_name.equals(uname) && pwd.equals(password))
                {
                    out.println("<h1>Welcome "+user_name+
                        "<br><br><a
href='http://localhost:8080/Ex5/Profile'>Click here to view the profile"+
                        "</center></body>"+
                        "</html>");

                    HttpSession session = request.getSession();
                    session.setAttribute("uname",user_name);
                    session.setAttribute("password",pwd);
                    flag=1;
                    break;
                }
            }
        }
    }
}

```

```

        }
    }

    if(flag==0)
    {
        out.println("<h1>Invalid Login<br><br>Try Again"+
            "</center>" +
            "<script>" +
            "setTimeout(view, 1500);" +
            "function view() "+

"{window.location.replace('http://localhost:8080/Ex5/login.html');}"+"
            "</script>" +
            "</body>" +
            "</html>");

    }

    // Clean-up environment
    rs.close();
    stmt.close();
    conn.close();
    out.close();
} catch(SQLException se) {
    //Handle errors for JDBC
    se.printStackTrace();
} catch(Exception e) {
    //Handle errors for Class.forName
    e.printStackTrace();
}
}
}
}

```

Profile.java

```

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

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

        String USER = "root";
        String PASS = "9500";

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

        HttpSession session = request.getSession();
        String user_name=(String)session.getAttribute("uname");
        String pwd=(String)session.getAttribute("password");
        try {
            // Register JDBC driver

```

```

Class.forName("com.mysql.jdbc.Driver");

// Open a connection
Connection conn = DriverManager.getConnection(DB_URL, USER, PASS);

// Execute SQL query
Statement stmt = conn.createStatement();
String sql="SELECT name,age,gender,phone FROM details WHERE
uname='"+user_name+"'AND password='"+pwd+"'";
ResultSet rs = stmt.executeQuery(sql);
rs.next();
String name= rs.getString("name");
String age= rs.getString("age");
String gender= rs.getString("gender");
String phone= rs.getString("phone");

out.println("<!DOCTYPE html>"+
"<html>"+
"<head>"+
"<meta charset='utf-8'>"+
"<meta name='viewport' content='width=device-
width, initial-scale=1.0'>"+
"<link rel='stylesheet' href='style.css'>"+
"<title>Profile</title>"+
"</head>"+
"<body><center><br>"+
"<h1>Welcome "+user_name+" to the profile
page</h1><br><br>"+
"<table>"+
"<tr>"+
"<th>Name</th>"+
"<td>"+name+"</td>"+
"</tr>"+
"<tr>"+
"<th>Age</th>"+
"<td>"+age+"</td>"+
"</tr>"+
"<tr>"+
"<th>Gender</th>"+
"<td>"+gender+"</td>"+
"</tr>"+
"<tr>"+
"<th>Phone</th>"+
"<td>"+phone+"</td>"+
"</tr>"+
"</table><br><br>"+
"<input type='button' id='logout'
value='Logout'
onclick=window.location.replace('http://localhost:8080/Ex5/Logout')>"+
"</body>"+
"</html>");

// Clean-up environment
rs.close();
stmt.close();
conn.close();
out.close();
} catch(SQLException se) {
//Handle errors for JDBC

```

```

        se.printStackTrace();
    } catch (Exception e) {
        //Handle errors for Class.forName
        e.printStackTrace();
    }
}
}

```

Logout.java

```

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

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

        HttpSession session = request.getSession();
        session.invalidate();
        out.println("<!DOCTYPE html>"+
            "<html>"+
            "<head>"+
            "<meta charset='utf-8'>"+
            "<meta name='viewport' content='width=device-width,"
initial-scale=1.0'>"+
            "<link rel='stylesheet' href='style.css'>"+
            "<title>Logout</title>"+
            "</head>"+
            "<body><center><br>"+
            "<h1>Successfully Logged out</h1>"+
            "<script>"+
            "    setTimeout(view, 1500);"+
            "    function view() "+
            "{window.location.replace('http://localhost:8080/Ex5/login.html');}"
            "</script>"+
            "</body>"+
            "</html>");
    }
}

```

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>
</web-app>

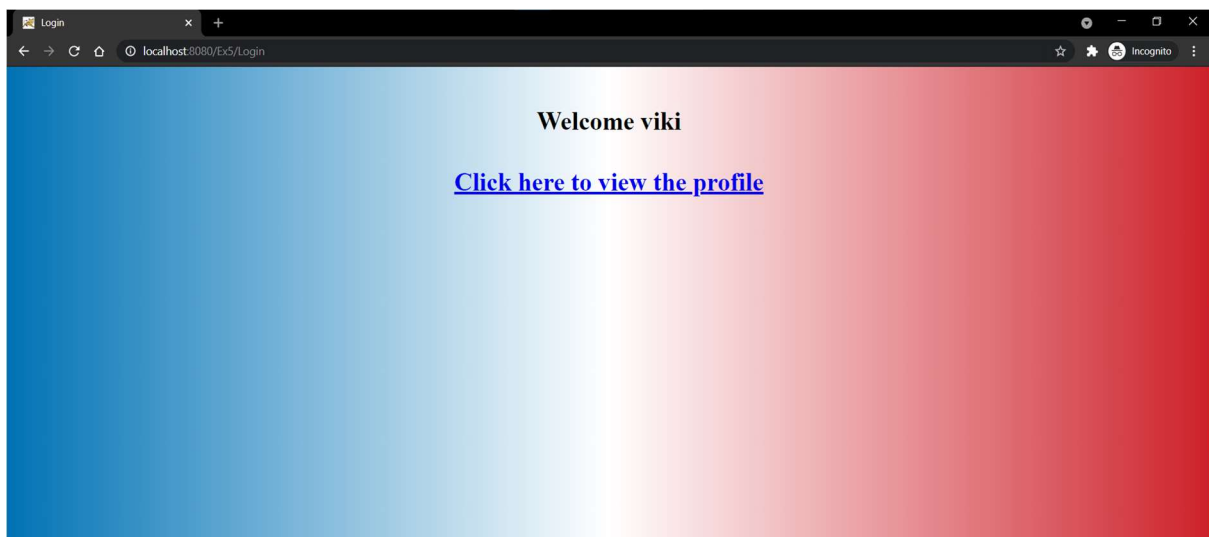
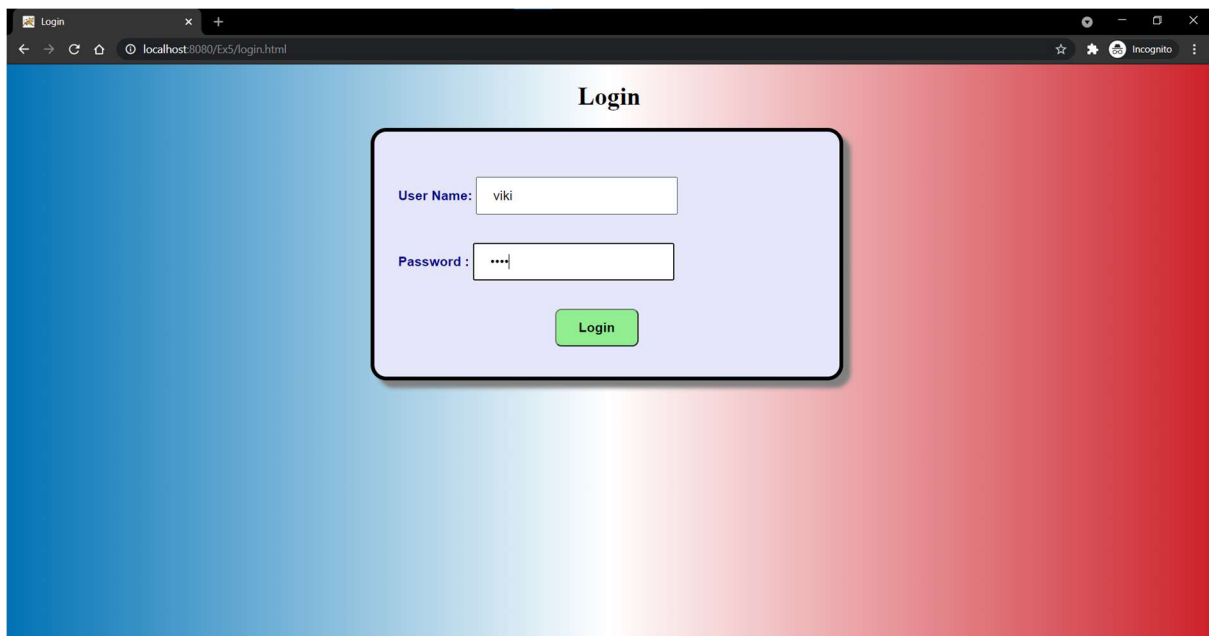
```

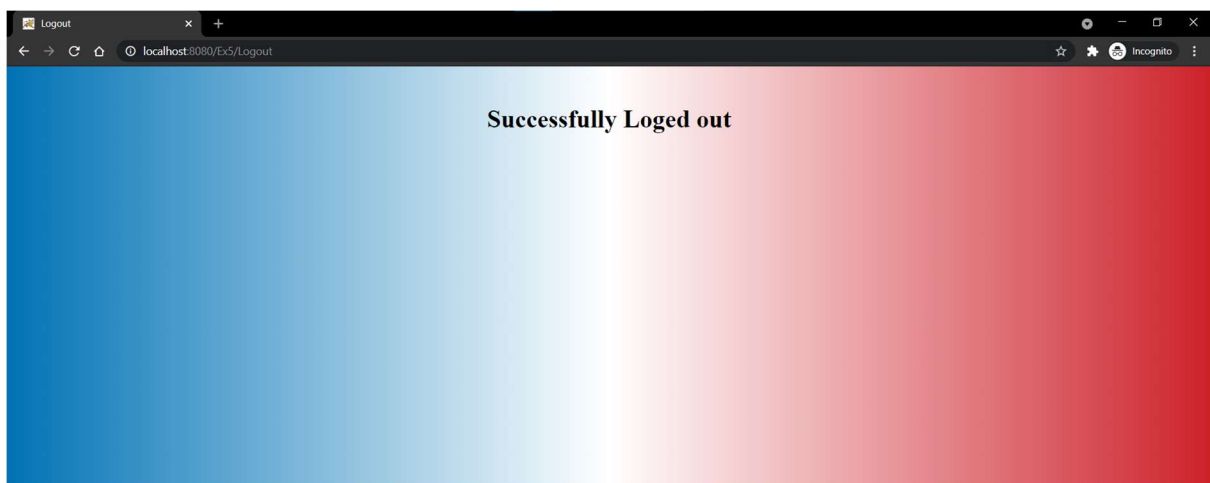
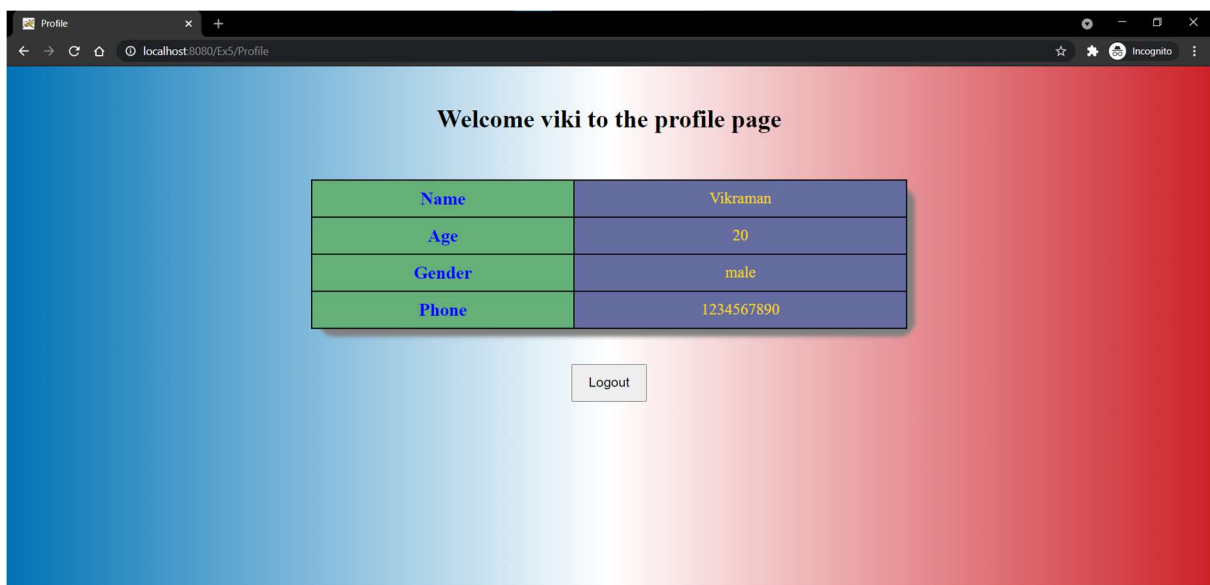
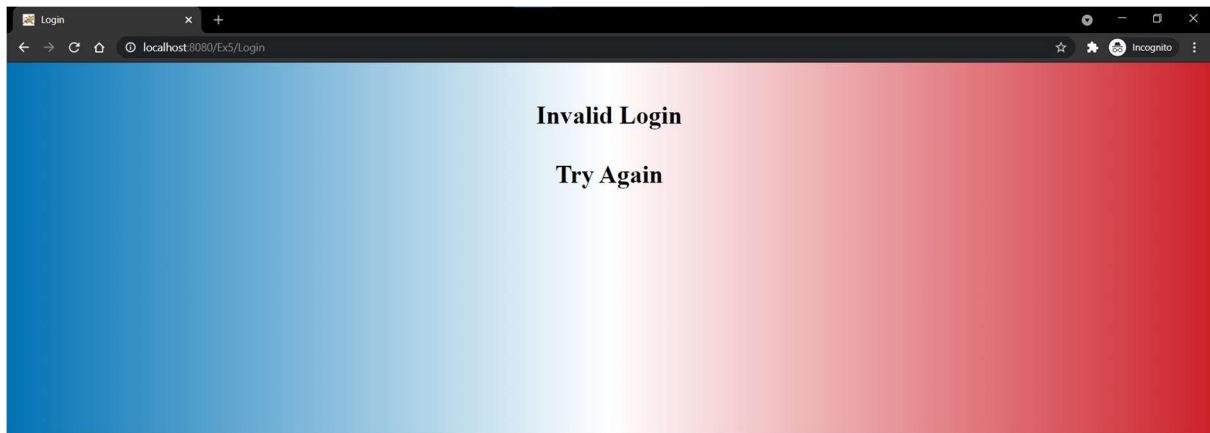
```

        <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>

```

Screenshots:





Learning Outcomes:

- I have understood the working of servlet and difference between GET and POST methods.
- I have learnt how to generate dynamic html response using servlet programming.
- I have learnt about Http sessions and understood session methods.
- I have learnt the database operations in MySQL and session tracking code.
- I have understood the code for connecting database and servlet part.