# Experiment 6

## Write a Servlet to demonstrate session tracking using HttpSession. Implement a simple login system where the user's session is tracked.

**AIM:** Write a Java Servlet program to demonstrate session tracking using `HttpSession` by implementing a simple login system where the user's session is tracked.

## CODE:

## login.html

```html
<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <title>Login Page</title>

</head>

<body style="background: linear-gradient(to right, #8300e9, #d47fff); text-align: center; padding-top: 100px;">

    <h2 style="color: white;">Login</h2>

    <form action="login" method="post" style="background: white; padding: 30px; border-radius: 10px; display: inline-block;">

        <input type="text" name="username" placeholder="Username" required><br><br>

        <input type="password" name="password" placeholder="Password" required><br><br>

        <button type="submit" style="padding: 10px 20px; background-color: #8b00e8; color: white; border: none; border-radius: 5px;">Login</button>
```

```html
        </form>

    </body>

    </html>
```

## LoginServelt.java

```java
import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;


@WebServlet("/login")
public class LoginServlet extends HttpServlet {


    protected void doPost(HttpServletRequest request, HttpServletResponse response)

        throws ServletException, IOException {


        String username = request.getParameter("username");

        String password = request.getParameter("password");


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

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


        // Static username and password validation

        if ("admin".equals(username) && "password".equals(password)) {

            // Create session

            HttpSession session = request.getSession();

            session.setAttribute("username", username);


            out.println("<h2>Login Successful!</h2>");

            out.println("<p>Welcome, " + username + "</p>");

            out.println("<a href='profile'>Go to Profile</a><br>");

            out.println("<a href='logout'>Logout</a>");

        } else {

            out.println("<h2>Invalid Credentials!</h2>");

            out.println("<a href='login.html'>Try Again</a>");

        }


        out.close();

    }

}
```

## profileServlet.java

```java
import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;
```

```java
import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;


@WebServlet("/profile")
public class ProfileServlet extends HttpServlet {


    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {


        response.setContentType("text/html");

        PrintWriter out = response.getWriter();


        HttpSession session = request.getSession(false);


        if (session != null && session.getAttribute("username") != null) {
            String username = (String) session.getAttribute("username");
            out.println("<h2>Welcome to your Profile, " + username + "!</h2>");
            out.println("<a href='logout'>Logout</a>");
        } else {
            out.println("<h2>You are not logged in!</h2>");
            out.println("<a href='login.html'>Login Here</a>");
```

```java
        }

        out.close();

    }

}
```

## LogoutServelet.java:

```java
import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

import javax.servlet.http.HttpSession;


@WebServlet("/logout")

public class LogoutServlet extends HttpServlet {


    protected void doGet(HttpServletRequest request, HttpServletResponse response)

            throws ServletException, IOException {


        response.setContentType("text/html");

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

```java
        HttpSession session = request.getSession(false);

        if (session != null) {

            session.invalidate();

        }


        out.println("<h2>You have been successfully logged out!</h2>");

        out.println("<a href='login.html'>Login Again</a>");


        out.close();

    }

}
```
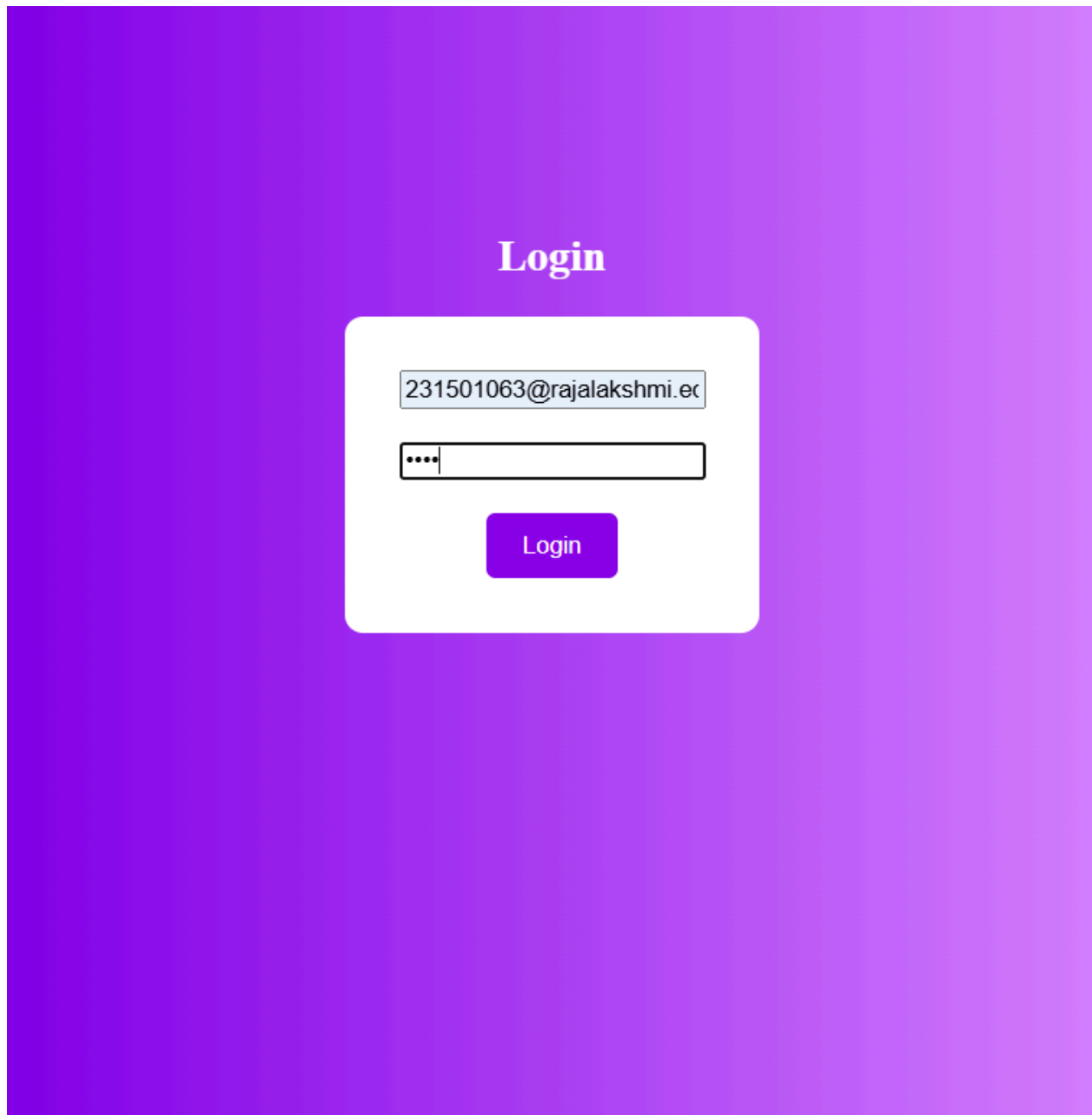
**Output**



Login

231501063@rajalakshmi.ec

••••

Login

## Result:

Successfully created a simple login system using HttpSession.

User's session was tracked after login.

Upon logout, the session was invalidated and the user had to log in again.

Demonstrat.ed session handling using Java Servlets and HTML frontend