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**PRACTICAL-15**

**Aim: Create a web form which processes servlet and demonstrates use of cookies and sessions.  [Create an html page login that fetches username and password. Create two servlets "ReadParameter.java" and "Display.java". ReadParameter should pass Username and Password to display servlet using session and cookies]**

1. **Using session:**

Login.html:

<!DOCTYPE html>

<html>

<body>

<form action=*"ReadParameter"*>

UserName : <input type=*"text"* name=*"nm"*><br>

Password : <input type=*"password"* name=*"pass"*><br>

<input type=*"submit"*>

</form>

</body>

</html>

ReadParameter.java:

**package** pr\_15;

**import** java.io.IOException;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**import** javax.servlet.http.HttpSession;

**public** **class** ReadParameter **extends** HttpServlet{

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

String n=req.getParameter("nm");

String p=req.getParameter("pass");

HttpSession session=req.getSession();

session.setAttribute("n", n);

session.setAttribute("p", p);

res.sendRedirect("Display");

}

}

Display.java:

**package** pr\_15;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**import** javax.servlet.http.HttpSession;

**public** **class** Display **extends** HttpServlet{

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

HttpSession session=req.getSession();

String nm=(String) session.getAttribute("n");

String pass=(String) session.getAttribute("p");

PrintWriter out=res.getWriter();

out.println("UserName is :"+nm);

out.println("Password is : "+pass);

}

}

Web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xmlns=*"http://xmlns.jcp.org/xml/ns/javaee"* xsi:schemaLocation=*"http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app\_3\_1.xsd"* id=*"WebApp\_ID"* version=*"3.1"*>

<servlet>

<servlet-name>s1</servlet-name>

<servlet-class>pr\_15.ReadParameter</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s1</servlet-name>

<url-pattern>/ReadParameter</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>s2</servlet-name>

<servlet-class>pr\_15.Display</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s2</servlet-name>

<url-pattern>/Display</url-pattern>

</servlet-mapping>

</web-app>

**b)Using Cookie:**

Login.html:

<!DOCTYPE html>

<html>

<body>

<form action=*"ReadParameter"*>

UserName : <input type=*"text"* name=*"nm"*><br>

Password : <input type=*"password"* name=*"pass"*><br>

<input type=*"submit"*>

</form>

</body>

</html>

ReadParameter.java:

**package** pr\_15;

**import** java.io.IOException;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**public** **class** ReadParameter **extends** HttpServlet{

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

String n=req.getParameter("nm");

String p=req.getParameter("pass");

Cookie ck=**new** Cookie("n",n);

Cookie ck1=**new** Cookie("p",p);

res.addCookie(ck);

res.addCookie(ck1);

res.sendRedirect("Display");

}}

Display.java:

**package** pr\_15;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**public** **class** Display **extends** HttpServlet{

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

String nm = **null**,pass=**null**;

Cookie cks[]=req.getCookies();

**for**(Cookie c:cks) {

**if**(c.getName().equals("n")) {

nm=c.getValue();

}

}

Cookie cks1[]=req.getCookies();

**for**(Cookie c:cks1) {

**if**(c.getName().equals("p")) {

pass=c.getValue();

}

}

PrintWriter out=res.getWriter();

out.println("UserName is :"+nm);

out.println("Password is : "+pass);

}

}

Web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xmlns=*"http://xmlns.jcp.org/xml/ns/javaee"* xsi:schemaLocation=*"http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app\_3\_1.xsd"* id=*"WebApp\_ID"* version=*"3.1"*>

<servlet>

<servlet-name>s1</servlet-name>

<servlet-class>pr\_15.ReadParameter</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s1</servlet-name>

<url-pattern>/ReadParameter</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>s2</servlet-name>

<servlet-class>pr\_15.Display</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s2</servlet-name>

<url-pattern>/Display</url-pattern>

</servlet-mapping>

</web-app>

**Exercise:**

1. **Create a web form that demonstrates the use of URL Rewriting.**

addsq.html :

<!DOCTYPE html>

<html>

<body>

<form action=*"add"*>

Enter first number:<input type=*text* name=*no1*><br><br>

Enter second number:<input type=*text* name=*no2*><br><br>

<input type=*submit*>

</form>

</body>

</html>

add.java:

**package** urlrewriting;

**import** java.io.IOException;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**public** **class** add **extends** HttpServlet{

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

**int** i=Integer.*parseInt*(req.getParameter("no1"));

**int** j=Integer.*parseInt*(req.getParameter("no2"));

**int** k=i+j;

res.sendRedirect("square?k="+k);

}

}

square.java:

**package** urlrewriting;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**public** **class** square **extends** HttpServlet {

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

**int** k=Integer.*parseInt*(req.getParameter("k"));

k=k\*k;

PrintWriter out=res.getWriter();

out.println("Square is : "+k);

}

}

Web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xmlns=*"http://xmlns.jcp.org/xml/ns/javaee"* xsi:schemaLocation=*"http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app\_3\_1.xsd"* id=*"WebApp\_ID"* version=*"3.1"*>

<servlet>

<servlet-name>s1</servlet-name>

<servlet-class>urlrewriting.add</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s1</servlet-name>

<url-pattern>/add</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>s2</servlet-name>

<servlet-class>urlrewriting.square</servlet-class>

</servlet>

<servlet-mapping>

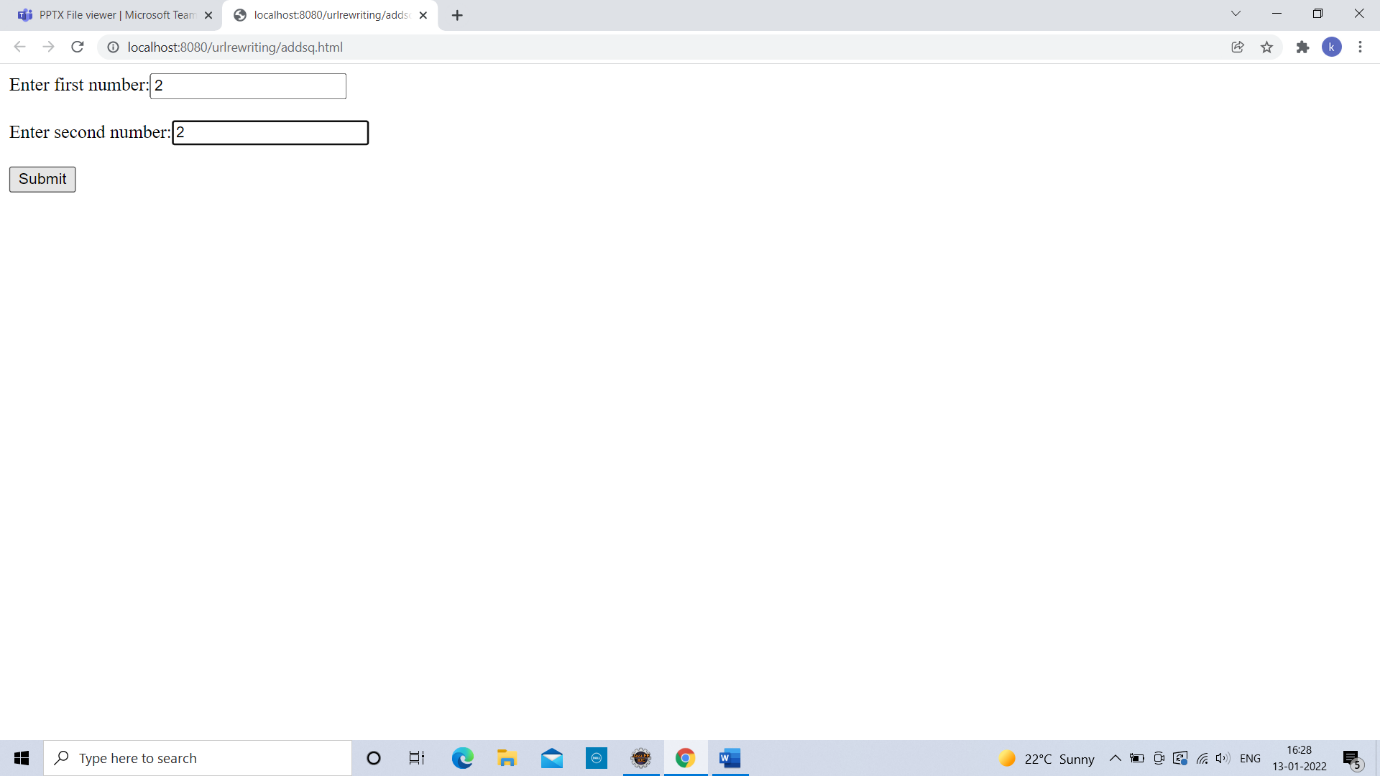
<servlet-name>s2</servlet-name>

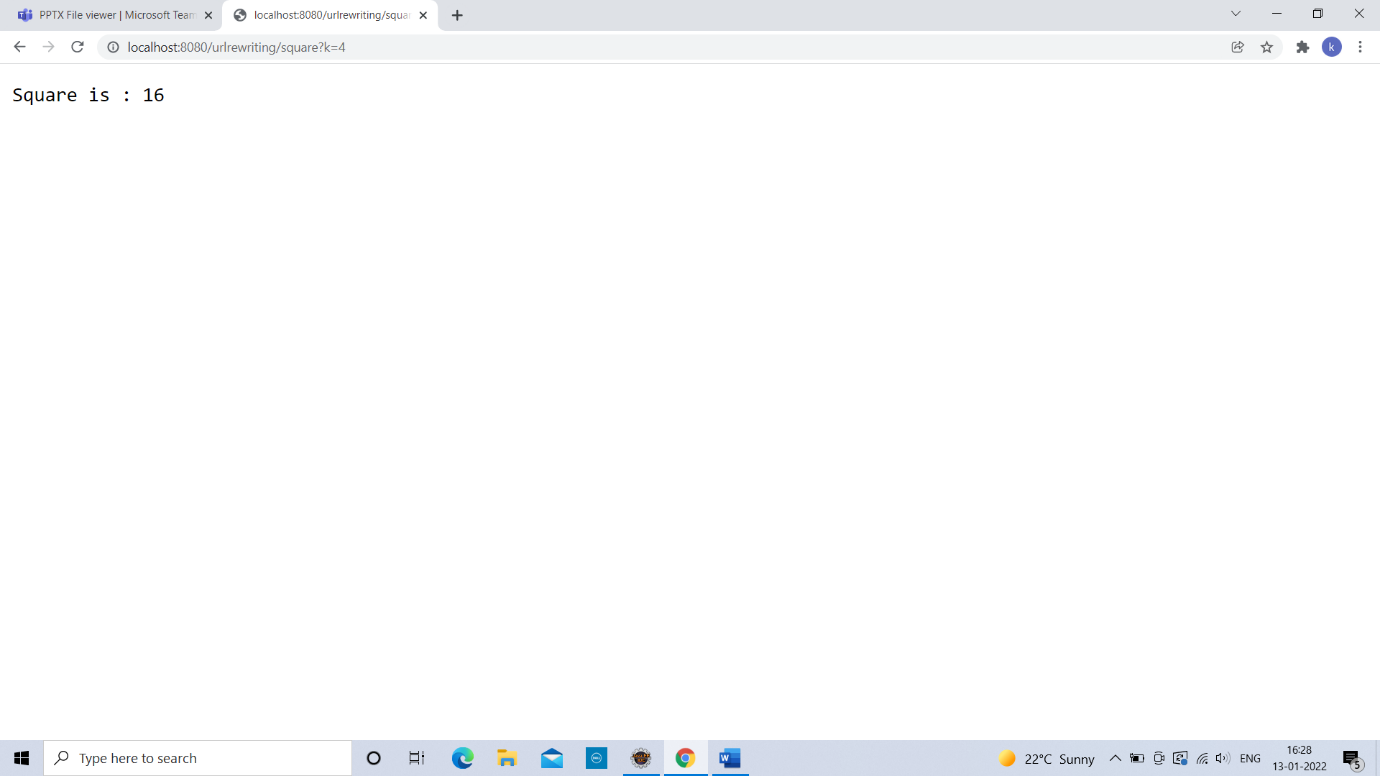
<url-pattern>/square</url-pattern>

</servlet-mapping>

</web-app>

**OUTPUT:**

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****

**2)Create a web form that demonstrates the use of Hidden form field.**

index.html:

<!DOCTYPE html>

<html>

<body>

<form action=*"first"*>

Name : <input type=*text* name=*nm*><br>

<input type=*submit*>

</form>

</body>

</html>

first.java:

**package** hiddenfield;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**public** **class** first **extends** HttpServlet{

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

res.setContentType("text/html");

String n=req.getParameter("nm");

PrintWriter out=res.getWriter();

out.println("Welcome "+n);

out.print("<form action='second'>");

out.print("<input type='hidden' name='uname' value='"+n+"'>");

out.print("<input type='submit' value='go'>");

out.print("</form>");

out.close();

}

}

second.java:

**package** hiddenfield;

**import** java.io.IOException;

**import** java.io.PrintWriter;

**import** javax.servlet.http.HttpServlet;

**import** javax.servlet.http.HttpServletRequest;

**import** javax.servlet.http.HttpServletResponse;

**public** **class** second **extends** HttpServlet{

**public** **void** service(HttpServletRequest req,HttpServletResponse res) **throws** IOException {

res.setContentType("text/html");

String n=req.getParameter("uname");

PrintWriter out=res.getWriter();

out.println("Welcome "+n);

}

}

web.xml:

<?xml version=*"1.0"* encoding=*"UTF-8"*?>

<web-app xmlns:xsi=*"http://www.w3.org/2001/XMLSchema-instance"* xmlns=*"http://xmlns.jcp.org/xml/ns/javaee"* xsi:schemaLocation=*"http://xmlns.jcp.org/xml/ns/javaee http://xmlns.jcp.org/xml/ns/javaee/web-app\_3\_1.xsd"* id=*"WebApp\_ID"* version=*"3.1"*>

<servlet>

<servlet-name>s1</servlet-name>

<servlet-class>hiddenfield.first</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s1</servlet-name>

<url-pattern>/first</url-pattern>

</servlet-mapping>

<servlet>

<servlet-name>s2</servlet-name>

<servlet-class>hiddenfield.second</servlet-class>

</servlet>

<servlet-mapping>

<servlet-name>s2</servlet-name>

<url-pattern>/second</url-pattern>

</servlet-mapping>

</web-app>

Thanks mam!!