

## ASSIGNMENT 4

### 1. WRITE A SERVLET PROGRAM TO DEMONSTRATE GENERIC SERVLET.

#### CODE

##### .HTML

```
<a href="./hello"> Generic Servlet</a>
```

##### .JAVA

```
import java.io.*;
import jakarta.servlet.*;

public class First extends GenericServlet {
    public void service(ServletRequest req, ServletResponse res)
        throws IOException, ServletException {

        res.setContentType("text/html");

        PrintWriter out = res.getWriter();
        out.print("<html><body>");
        out.print("<h1>hello generic servlet</h1>");
        out.print("</body></html>");

    }
}
```

##### .XML

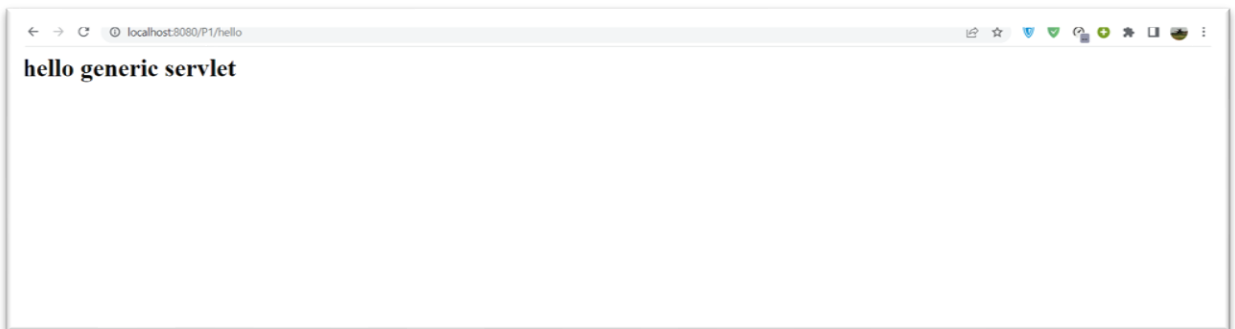
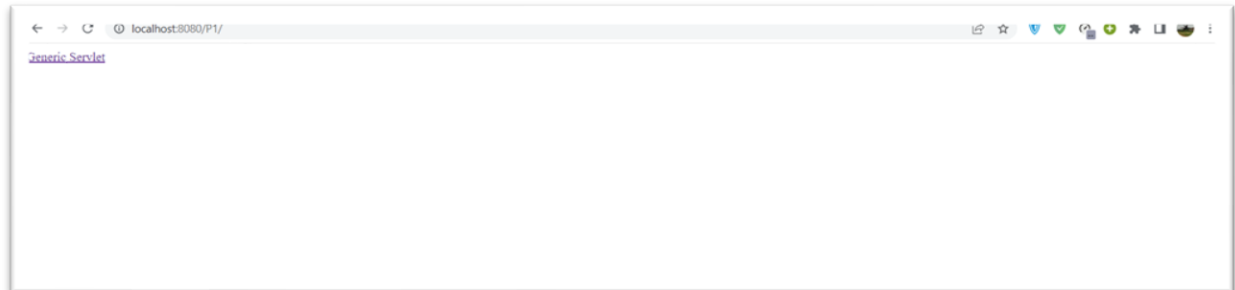
```
<web-app>
<servlet>
<servlet-name>s1</servlet-name>
<servlet-class>First</servlet-class>
</servlet>

<servlet-mapping>
<servlet-name>s1</servlet-name>
<url-pattern>/hello</url-pattern>

</servlet-mapping>
```

```
</web-app>
```

## OUTPUT



## 2. WRITE A SERVLET PROGRAM TO DEMONSTRATE HTTP SERVLET.

### CODE

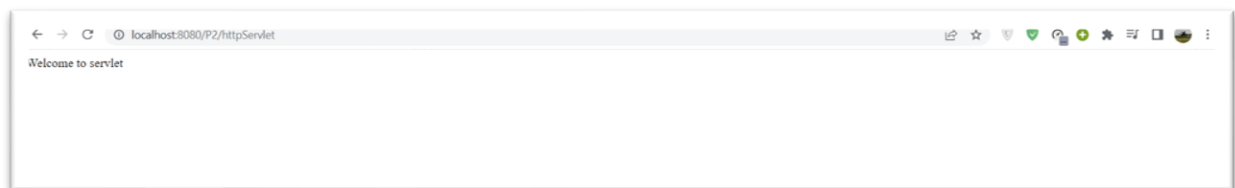
#### .JAVA

```
import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
public class DemoServlet extends HttpServlet{
    public void doGet(HttpServletRequest req,HttpServletResponse res) throws
    ServletException,IOException
    {
        res.setContentType("text/html");//setting the content type
        PrintWriter pw=res.getWriter();//get the stream to write the data
        pw.println("<html><body>");    //writing html in the stream
        pw.println("Welcome to servlet");
        pw.println("</body></html>");
        pw.close();//closing the stream
    } }
```

## .XML

```
<web-app>
<servlet>
  <servlet-name>s1</servlet-name>
  <servlet-class>DemoServlet</servlet-class>
</servlet>
<servlet-mapping>
  <servlet-name>s1</servlet-name>
  <url-pattern>/httpServlet</url-pattern>
</servlet-mapping>
</web-app>
```

## OUTPUT



## 3. DISPLAY YOUR NAME USING SERVLET.

### CODE

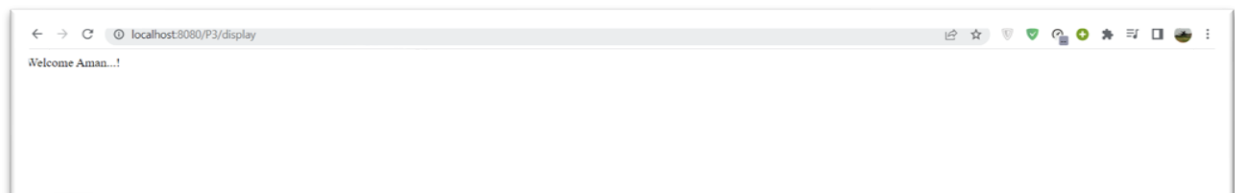
#### .JAVA

```
import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
public class name extends HttpServlet{
public void doGet(HttpServletRequest req,HttpServletResponse res) throws
ServletException,IOException
{
res.setContentType("text/html");//setting the content type
PrintWriter pw=res.getWriter();//get the stream to write the data
pw.println("<html><body>"); //writing html in the stream
pw.println("Welcome Aman...!");
pw.println("</body></html>");
pw.close();//closing the stream
} }
```

## .XML

```
<web-app>
<servlet>
  <servlet-name>s1</servlet-name>
  <servlet-class>name</servlet-class>
</servlet>
<servlet-mapping>
  <servlet-name>s1</servlet-name>
  <url-pattern>/display</url-pattern>
</servlet-mapping>
</web-app>
```

## OUTPUT



**4. WRITE SERVLET PROGRAM THAT TAKES YOUR NAME, ROLL NO AND ADDRESS FROM AN HTML FORM AND DISPLAYS IT.**

## CODE

### .HTML

```
<html>
<body> <form action="./details" method="POST">
Enter Name:<input type="text" name="name"/><br>
Enter Rollno:<input type="text" name="roll"/><br>
Enter Address:<input type="text" name="addr"/><br>
<input type="submit" value="Submit"/>
</form>
</body>
</html>
```

### .JAVA

```
import jakarta.servlet.http.*;
```

```

import jakarta.servlet.*;
import java.io.*;
public class details extends HttpServlet{
    public void doPost(HttpServletRequest req,HttpServletResponse
res) throws ServletException,IOException
    {
        res.setContentType("text/html");//setting the content type
        PrintWriter pw=res.getWriter();//get the stream to write the data

        String nme = req.getParameter("name");
        String rlno = req.getParameter("roll");
        String add = req.getParameter("addr");
        pw.println("<html><body>"); //writing html in the stream
        pw.println("Name:"+ nme);
        pw.println("<br>");
        pw.println("Roll no:"+ rlno);
        pw.println("<br>");
        pw.println("\nAddresss:"+ add);
        pw.println("<br>");
        pw.println("</body></html>");
        pw.close();//closing the stream
    } }

```

## .XML

```

<web-app>
<servlet>
    <servlet-name>s1</servlet-name>
    <servlet-class>details</servlet-class>
</servlet>
<servlet-mapping>
    <servlet-name>s1</servlet-name>
    <url-pattern>/details</url-pattern>
</servlet-mapping>
</web-app>

```

## OUTPUT

← → ↻ localhost:8080/P4/detail.html

Enter Name: Aman  
Enter Rollno: 22mcf1r02  
Enter Address: Warangal  
Submit

← → ↻ localhost:8080/P4/details

Name: Aman  
Roll no: 22mcf1r02  
Address: Warangal

## 5. WRITE SERVLET PROGRAM TO READ TWO NUMBERS AND RETURN THEIR SUM.

### CODE

#### .HTML

```
<html>
<body> <form action="./First">
Enter n1 Value:<input type="text" name="t1"/><br>
Enter n2 Value:<input type="text" name="t2"/><br>
<input type="submit" value="click me"/>
</form>
</body>
</html>
```

#### .JAVA

```
import java.io.IOException;
import jakarta.servlet.GenericServlet;
import jakarta.servlet.ServletException;
import jakarta.servlet.ServletRequest;
import jakarta.servlet.ServletResponse;

public class First extends GenericServlet {
```

```

public void service(ServletRequest request, ServletResponse response)
throws ServletException, IOException {

    int a=Integer.parseInt(request.getParameter("t1"));
    int b=Integer.parseInt(request.getParameter("t2"));
    int c=a+b;

    response.getWriter().print("Sum="+c);
}

}

```

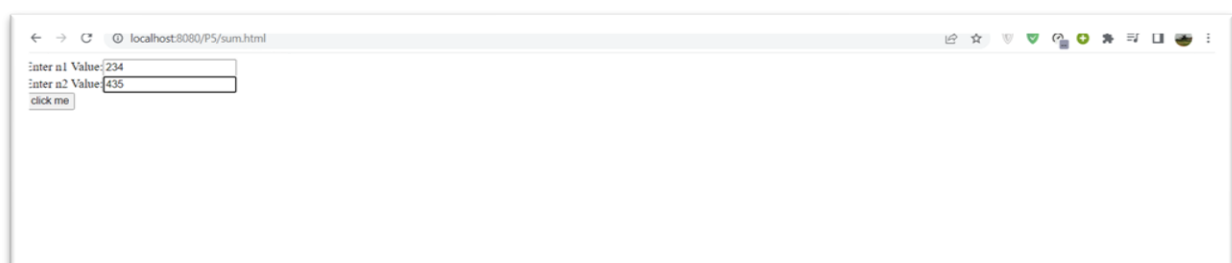
## .XML

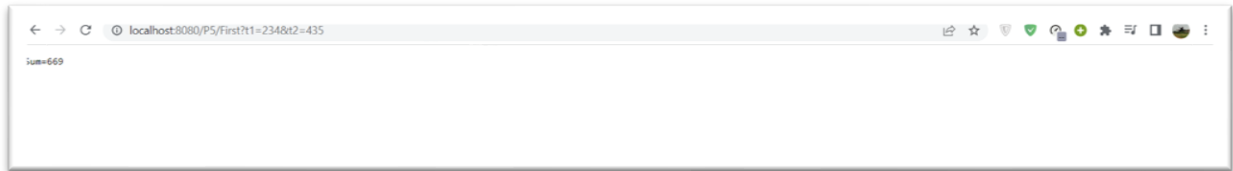
```

<web-app>
  <welcome-file-list>
    <welcome-file>index.html</welcome-file>
  </welcome-file-list>
  <servlet>
    <servlet-name>First</servlet-name>
    <servlet-class>First</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>First</servlet-name>
    <url-pattern>/First</url-pattern>
  </servlet-mapping>
</web-app>

```

## OUTPUT





## 6. WRITE A SERVLET PROGRAM TO DEMONSTRATE COOKIES.

### CODE

#### .HTML

```
<html>
<body>
<center>
<form action="addCookie"><pre>
<br><br><br><br><br>
Name:<input type="text" name="cname"/><br><br>
Value:<input type="text" name="cvalue"/><br>
<input type="submit" value="AddCookie"/>
</pre>
</form>
</center>
</body>
</html>
```

#### .JAVA

#### ADDCOOKIES

```
import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
public class AddCookieServlet extends HttpServlet
{
    public void service(HttpServletRequest req, HttpServletResponse
res)throws ServletException, IOException
    {
        String name=req.getParameter("cname");
        String value=req.getParameter("cvalue");
        Cookie c=new Cookie(name,value);
        res.addCookie(c);
        res.setContentType("text/html");
        PrintWriter out=res.getWriter();
        String output="<html><body>";
```



```

        output+="Cookie Added Successfully <br/>";
        output+="<a href='viewcookies'>View Cookies</a>";
        output+="</body></html>";
        out.println(output);
    }
}

```

## GETCOOKIES

```

import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;
public class GetCookieServlet extends HttpServlet
{
    public void service(HttpServletRequest req, HttpServletResponse
res)throws ServletException, IOException
    {
        res.setContentType("text/html");
        PrintWriter out=res.getWriter();
        out.println("<html><body><table border=1>");
        out.println("<tr><th>Name</th><th>Value</th></tr>");
        Cookie []c=req.getCookies();
        if(c!=null)
        {
            for(int i=0;i<c.length;i++)
            {
                out.println("<tr><td>"+c[i].getName()+"</td>");
                out.println("<td>"+c[i].getValue()+"</td></tr>");
            }
        }
        out.println("</table><br><br>");
        out.println("</body></html>");
    }
}

```

## .XML

```

<?xml version="1.0"?>
<web-app>
<servlet>
<servlet-name>AddCookieServlet</servlet-name>
<servlet-class>AddCookieServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>AddCookieServlet</servlet-name>
<url-pattern>/addCookie</url-pattern>
</servlet-mapping>
<servlet>
<servlet-name>GetCookieServlet</servlet-name>


```

```

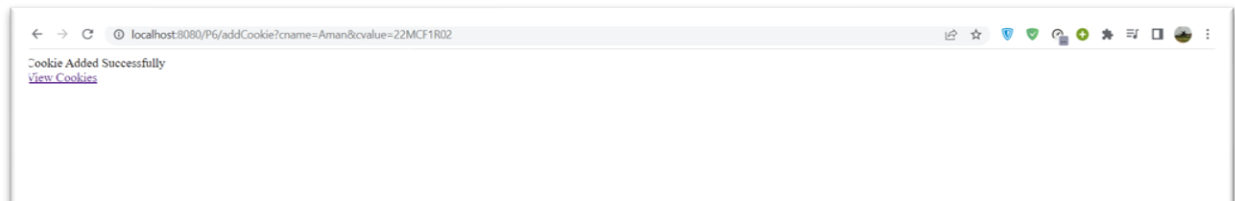
<servlet-class>GetCookieServlet</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>GetCookieServlet</servlet-name>
<url-pattern>/viewcookies</url-pattern>
</servlet-mapping>
<welcome-file-list>
<welcome-file>htmlfiles/Home.html</welcome-file>
</welcome-file-list>
</web-app>

```

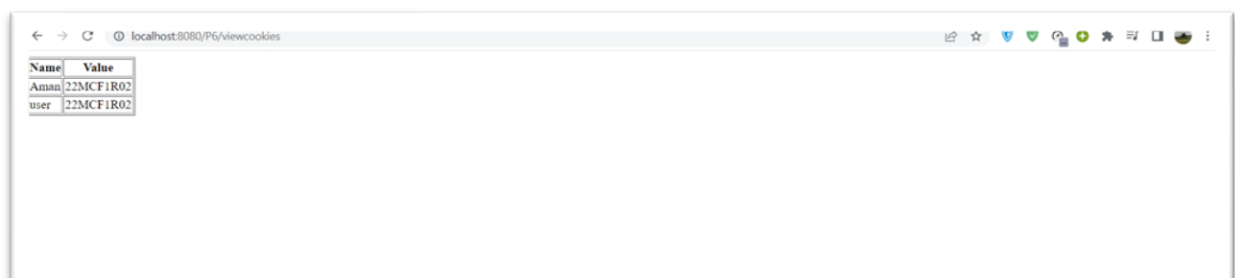
## OUTPUT



Name: 
 Value:



Cookie Added Successfully  
[View Cookies](#)



Name	Value
Aman	22MCF1R02
user	22MCF1R02

**7. WRITE A SERVLET PROGRAM THAT DISPLAYS CURRENT DATE AND TIME. YOUR SERVLET SHOULD**

**ALSO INDICATE THE NUMBER OF TIMES IT HAS BEEN ASSESSED SINCE IT HAS BEEN LOADED.**

## CODE

### .JAVA

```
import jakarta.servlet.*;
import java.io.*;
public class date extends GenericServlet
{
    private int hitCount;

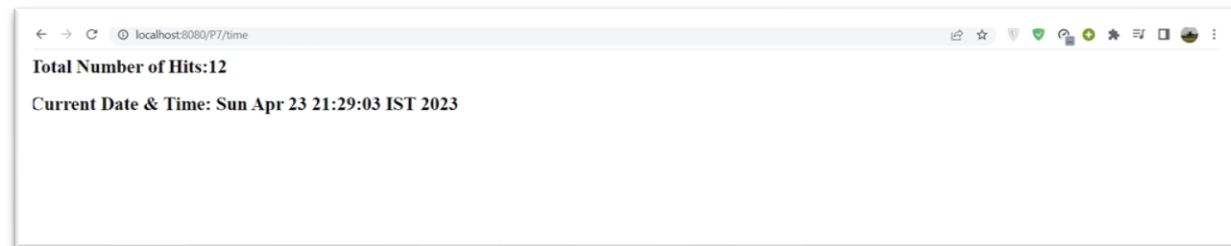
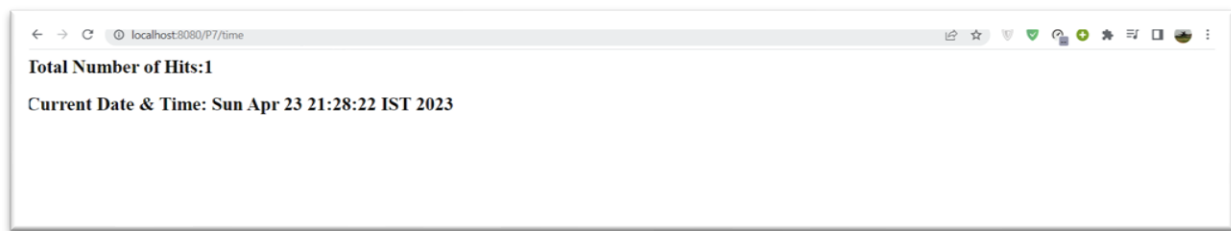
    public void init() {
        hitCount = 0;
    }

    public void service(ServletRequest req, ServletResponse res) throws
IOException, ServletException
    {
        res.setContentType("text/html");
        PrintWriter pw = res.getWriter();
        hitCount++;
        java.util.Date date = new java.util.Date();
        pw.println("<h2>Total Number of Hits:"+hitCount+"\n");
        pw.println("<h2>"+ "Current Date & Time: "
+date.toString()+"</h2>");
        pw.close();
    }
}
```

### .XML

```
<?xml version="1.0"?>
<web-app>
<servlet>
<servlet-name>calendar</servlet-name>
<servlet-class>date</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>calendar</servlet-name>
<url-pattern>/time</url-pattern>
</servlet-mapping>
</web-app>
```

## OUTPUT



## 8. WRITE A SERVLET PROGRAM TO TRACK THE SESSION USING URL REWRITING.

### CODE

#### .HTML

```
<html>
<body>
  <form action="servlet1">
    Name:<input type="text" name="userName" /><br />
    <input type="submit" value="submit" />
  </form>
</body>
</html>
```

#### .JAVA

#### FIRST

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

public class first extends HttpServlet {
    public void doGet(HttpServletRequest request, HttpServletResponse
response) {
        try {
```

```

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String n = request.getParameter("userName");
        out.print("Welcome " + n);
        out.print("<a href='servlet2?uname=" + n + "'>visit</a>");
        out.close();
    } catch (Exception e) {
        System.out.println(e);
    }
}
}

```

## SECOND

```

import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;

public class second extends HttpServlet {
    public void doGet(HttpServletRequest request, HttpServletResponse
response) {
        try {
            response.setContentType("text/html");
            PrintWriter out = response.getWriter();
            String n = request.getParameter("uname");
            out.print("Hello " + n);
            out.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}
}

```

## .XML

```

<web-app>
  <servlet>
    <servlet-name>s1</servlet-name>
    <servlet-class>first</servlet-class>
  </servlet>
  <servlet-mapping>
    <servlet-name>s1</servlet-name>
    <url-pattern>/servlet1</url-pattern>
  </servlet-mapping>
  <servlet>
    <servlet-name>s2</servlet-name>

```

```

<servlet-class>second</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>s2</servlet-name>
<url-pattern>/servlet2</url-pattern>
</servlet-mapping>
</web-app>

```

## OUTPUT

A screenshot of a web browser window. The address bar shows 'localhost:8080/P8/index.html'. The page content includes a form with a text input field containing the text 'Ayush' and a 'submit' button below it.

A screenshot of a web browser window. The address bar shows 'localhost:8080/P8/servlet1?userName=Ayush'. The page content displays 'Welcome Ayush' followed by a blue 'visit' link.

A screenshot of a web browser window. The address bar shows 'localhost:8080/P8/servlet2?uname=Ayush'. The page content displays 'Hello Ayush'.

## **9. WRITE A SESSION TRACKING PROGRAM IN SERVLET BY USING HIDDEN FORM FIELDS.**

### CODE

#### .HTML

```

<html>
<body>
<form action="servlet1">

```

```

    Name:<input type="text" name="userName" /><br />
    <input type="submit" value="submit" />
</form>
</body>
</html>

```

## .JAVA

### FIRST

```

import java.io.*;
import jakarta.servlet.*;
import jakarta.servlet.http.*;

public class first extends HttpServlet {
    public void doGet(HttpServletRequest request, HttpServletResponse
response) {
        try {
            response.setContentType("text/html");
            PrintWriter out = response.getWriter();
            String n = request.getParameter("userName");
            out.print("Welcome " + n);
            out.print("<form action='servlet2'>");
            out.print("<input type='hidden' name='uname' value='" + n +
">");
            out.print("<input type='submit' value='go'>");
            out.print("</form>");
            out.close();
        } catch (Exception e) {
            System.out.println(e);
        }
    }
}

```

### SECOND

```

import jakarta.servlet.http.*;
import jakarta.servlet.*;
import java.io.*;

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

```

```

        String n = request.getParameter("uname");
        out.print("Hello " + n);
        out.close();
    } catch (Exception e) {
        System.out.println(e);
    }
}
}

```

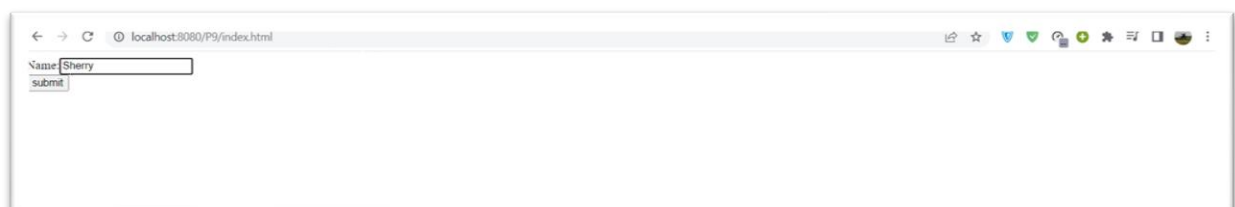
## .XML

```

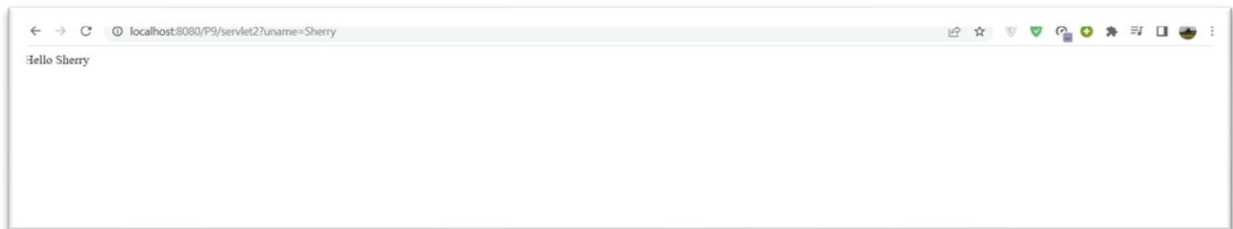
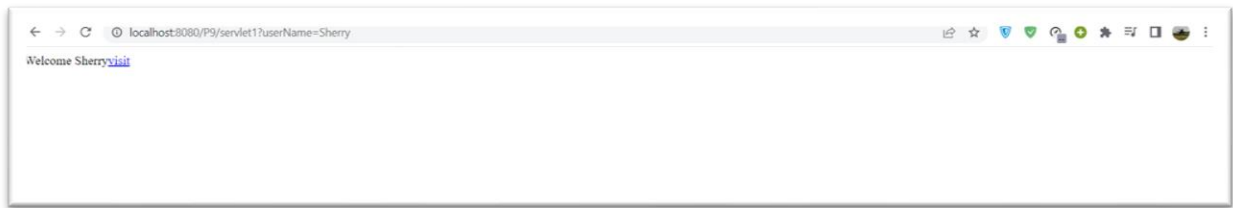
<web-app>
<servlet>
<servlet-name>s1</servlet-name>
<servlet-class>first</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>s1</servlet-name>
<url-pattern>/servlet1</url-pattern>
</servlet-mapping>
<servlet>
<servlet-name>s2</servlet-name>
<servlet-class>second</servlet-class>
</servlet>
<servlet-mapping>
<servlet-name>s2</servlet-name>
<url-pattern>/servlet2</url-pattern>
</servlet-mapping>
</web-app>

```

## OUTPUT







## 10. WRITE A SERVLET PROGRAM TO HANDLE SESSION BY USING HTTPSESSION INTERFACE.

### CODE

#### .HTML

```
<html><body>
<form action="servlet1">
Name:<input type="text" name="userName"/><br/>
<input type="submit" value="go"/>
</form>
</body></html>
```

#### .JAVA

#### FIRSTSERVLET

```
import java.io.*;
import jakarta.servlet.*;
import jakarta.servlet.http.*;
public class FirstServlet extends HttpServlet
{
    public void doGet(HttpServletRequest request, HttpServletResponse
response)
    {
        try{
```

```

        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String n=request.getParameter("userName");
        out.print("Welcome "+n+" ");
        HttpSession session=request.getSession();
        session.setAttribute("uname",n);
        out.print("<a href='servlet2'>visit</a>");
        out.close();
    }
    catch(Exception e){
        System.out.println(e);
    }
}

```

## SECONDSERVLET

```

import java.io.*;
import jakarta.servlet.*;
import jakarta.servlet.http.*;
public class SecondServlet extends HttpServlet {
    public void doGet(HttpServletRequest request, HttpServletResponse
    response) throws ServletException,IOException
    {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        HttpSession session=request.getSession(false);
        String n=(String)session.getAttribute("uname");
        out.print("Hello "+n);
        out.close();
    }
}

```

## .XML

```

<web-app>
  <servlet>
<servlet-name>s1</servlet-name>
<servlet-class>FirstServlet</servlet-class>
</servlet>
  <servlet-mapping>
<servlet-name>s1</servlet-name>
<url-pattern>/servlet1</url-pattern>

```

```
</servlet-mapping>
  <servlet>
<servlet-name>s2</servlet-name>
<servlet-class>SecondServlet</servlet-class>
</servlet>
  <servlet-mapping>
<servlet-name>s2</servlet-name>
<url-pattern>/servlet2</url-pattern>
</servlet-mapping>
</web-app>
```

## OUTPUT

