Assignment 4
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2ND SEMESTER, 1ST YEAR, MCA

****

1. Write a Servlet program to demonstrate Generic servlet.
Code
.html

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

.java

```java
import java.io.*;
import javax.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>");

    }
}
```
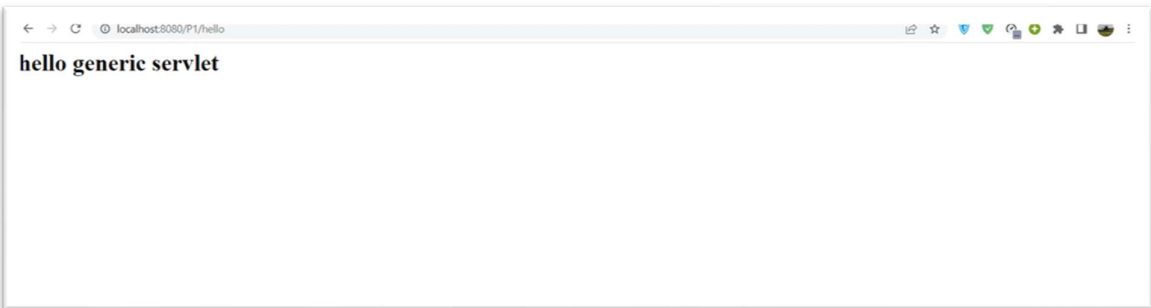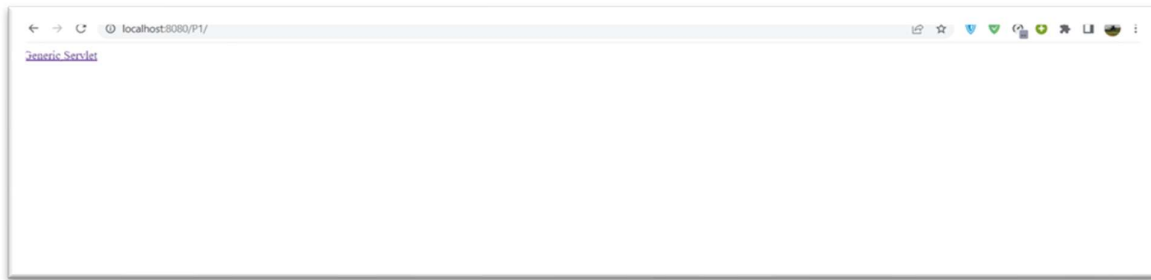
.xml

```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>
```

O utput

2. Write a Servlet program to demonstrate HTTP servlet. Code .java

```java
import javax.servlet.http.*;  import
javax.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

```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

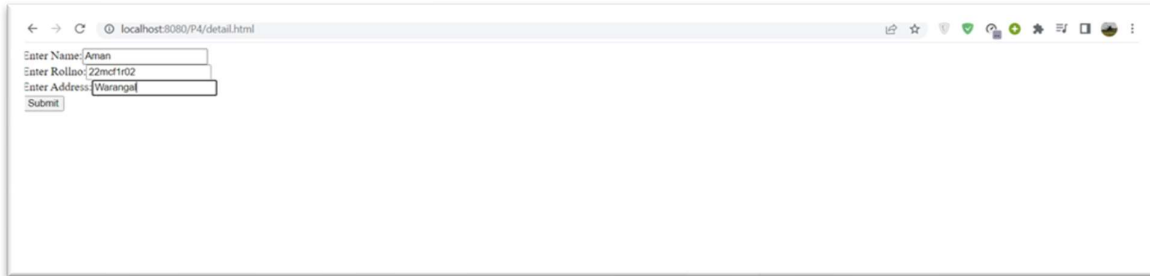## 3. Display your name using Servlet.

Code

.java

```java
import javax.servlet.http.*;  import
javax.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

```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
<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="addrr"/><br>
<input type="submit" value="Submit"/>
</form>
</body>
</html>
```

.java

```java
 import javax.servlet.http.*;
import javax.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("addrr");
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

```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>
```
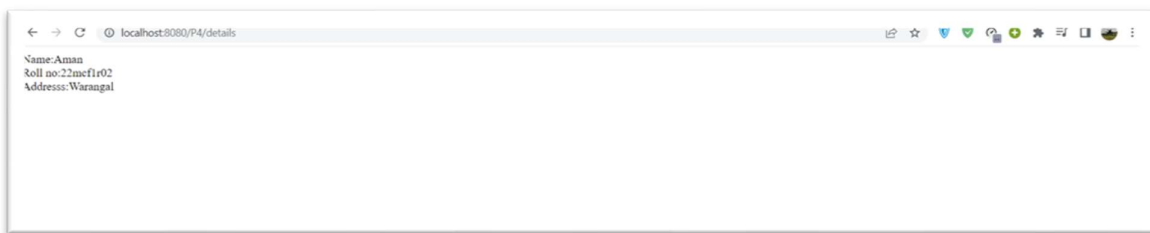
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Output

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

Name:Aman
Roll no:22mcf1r02
Addresss: Warangal

---

5. Write Servlet program to read two numbers and return their sum.

Code
.html

```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>
```
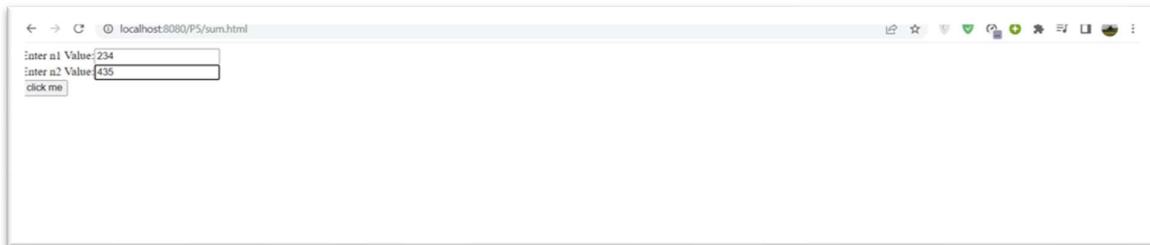
.java

```java
import java.io.IOException; import
javax.servlet.GenericServlet; import
javax.servlet.ServletException; import
javax.servlet.ServletRequest; import
javax.servlet.ServletResponse;
 public class First extends GenericServlet {
```

public void service(ServletRequest request, ServletResponse response)

```java
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

```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>
```
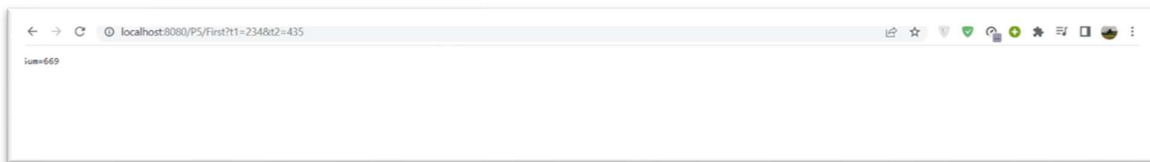
Output

6. Write a Servlet program to demonstrate Cookies.

Code
.html

```html
<html>
<body>
```

```html
<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>
```
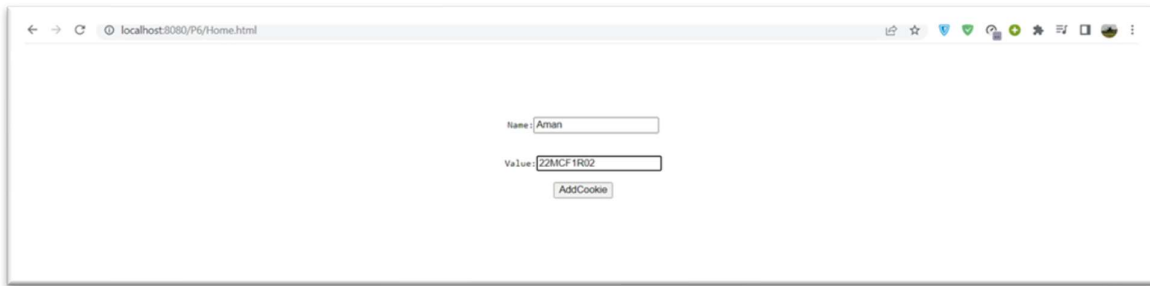
.java

Addcookies

```java
import javax.servlet.http.*; import
javax.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>";
```

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

Getcookies

```java
import javax.servlet.http.*; import
javax.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
<?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

7. Write a Servlet program that displays current date and time. Your servlt should also indicate the number of times it has been assessed since it has been loaded.

Code
.java

```java
import javax.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();
```
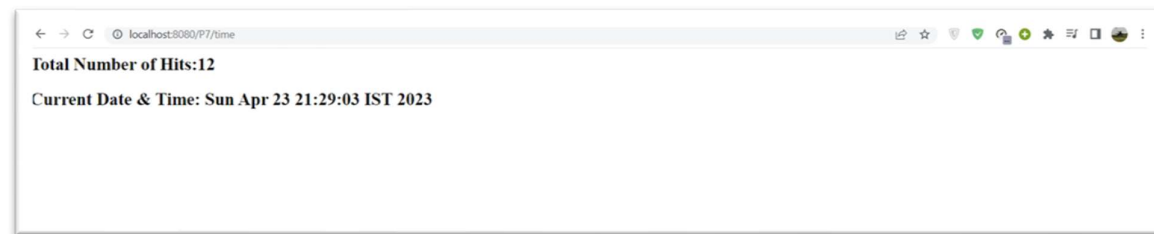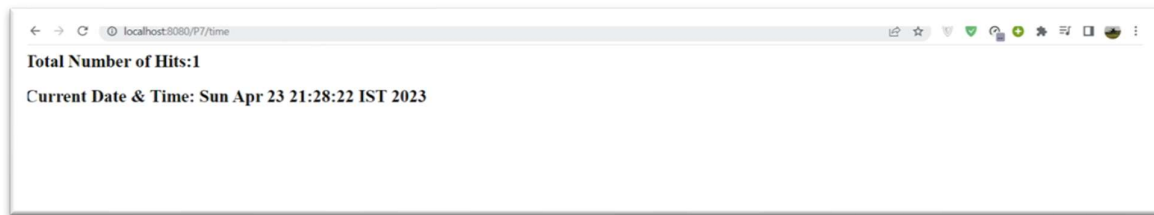
```
    }
}
```

.xml

```xml
<?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

```
←  →  C  ⓘ localhost:8080/P7/time

Total Number of Hits:1

Current Date & Time: Sun Apr 23 21:28:22 IST 2023
```

```
←  →  C  ⓘ localhost:8080/P7/time

Total Number of Hits:12

Current Date & Time: Sun Apr 23 21:29:03 IST 2023
```

8. Write a Servlet program to track the session using URL rewriting.

Code

.html

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

.java

First

```java
import java.io.*; import javax.servlet.*;
import javax.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);
      }
    }
}
```
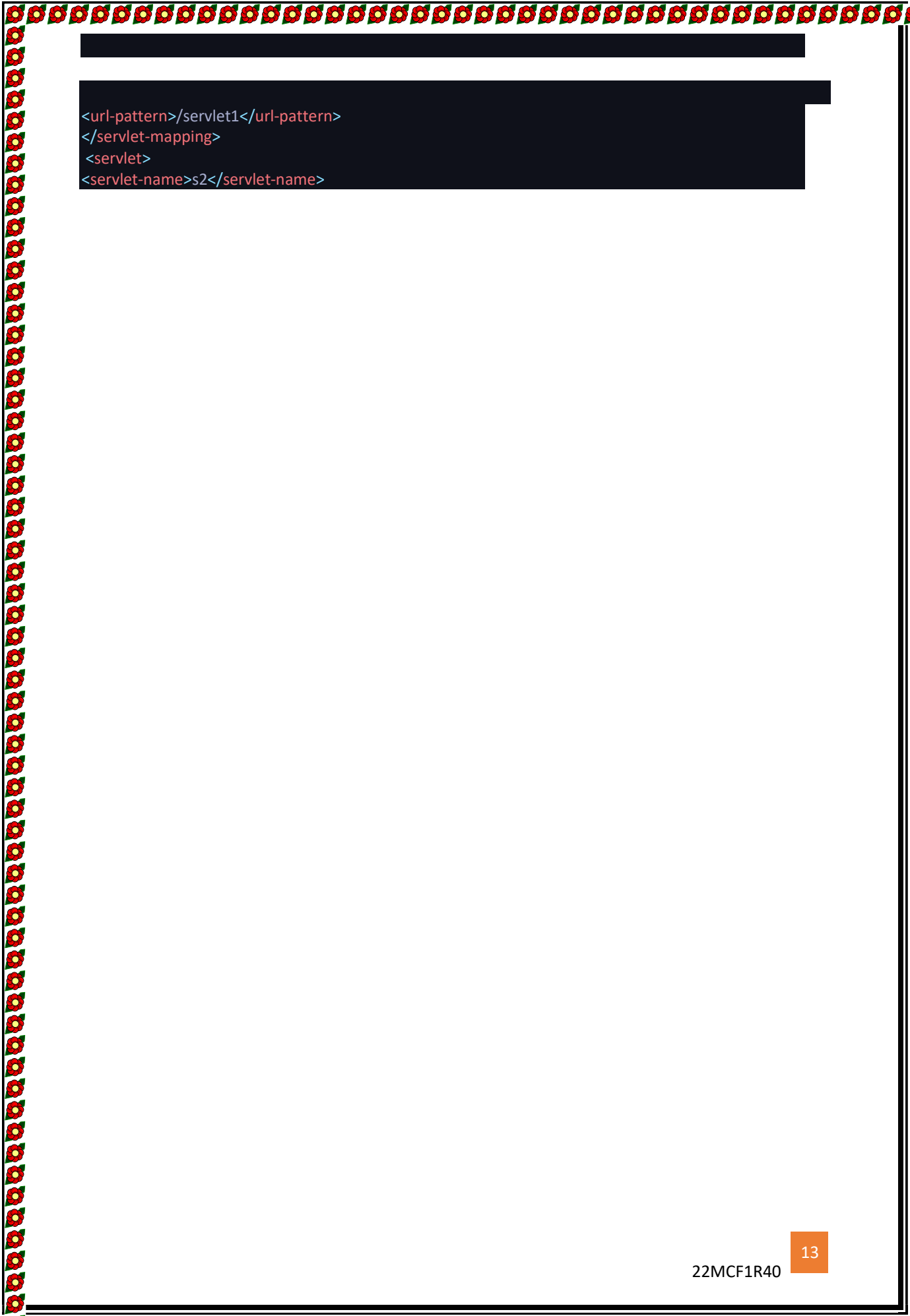
Second

```java
import javax.servlet.http.*; import
javax.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

```xml
<web-app>
 <servlet>
<servlet-name>s1</servlet-name>
<servlet-class>first</servlet-class>
</servlet>
 <servlet-mapping>
<servlet-name>s1</servlet-name>
```

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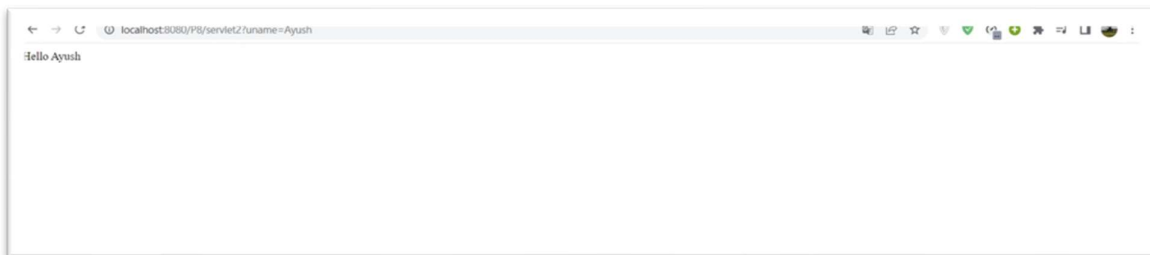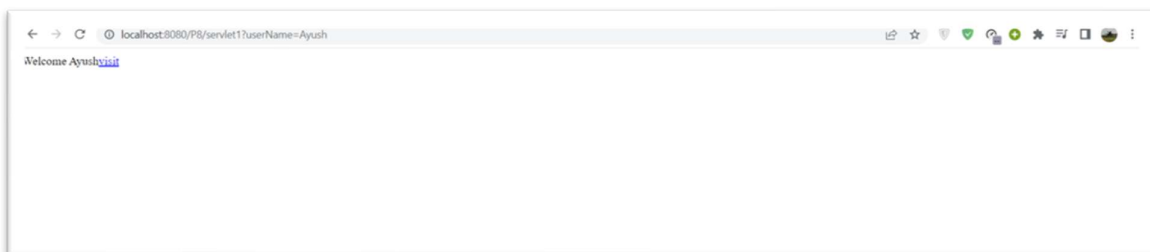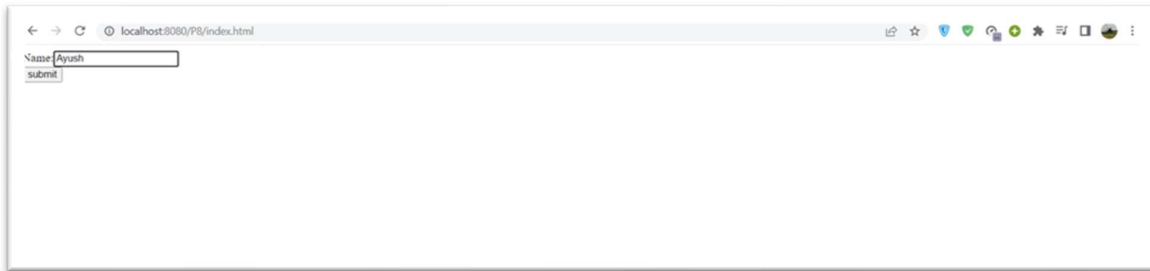
```
<servlet-class>second</servlet-class>
</servlet>
 <servlet-mapping>
<servlet-name>s2</servlet-name>
<url-pattern>/servlet2</url-pattern>
</servlet-mapping>
 </web-app>
```

O utput

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

```java
import java.io.*; import javax.servlet.*;
import javax.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);
     }
   }
}
```
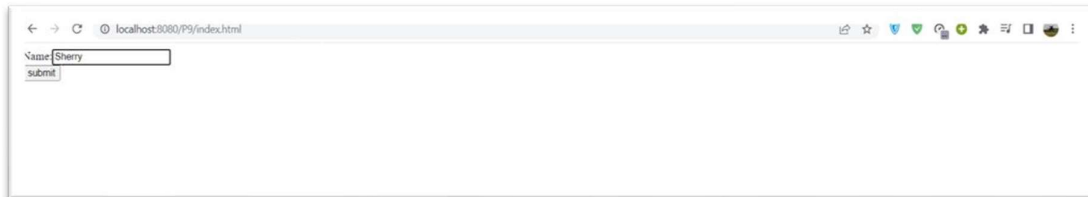
Second

```java
import javax.servlet.http.*; import
javax.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();
```

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

.xml

```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>
```
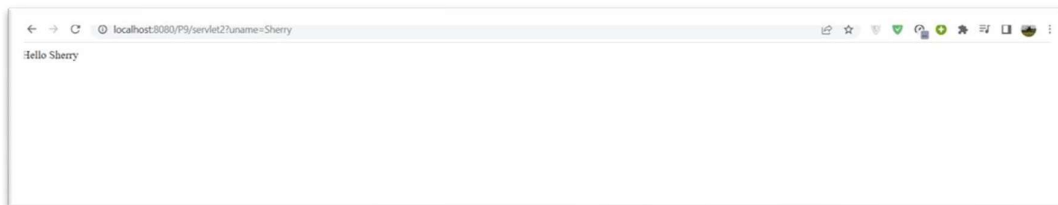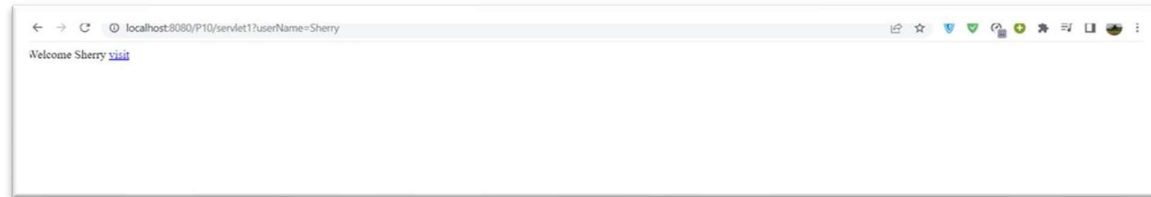
Output

10. Write a Servlet program to handle session by using HttpSession interface.

Code
.html

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

.java

firstservlet

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

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

```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>
```
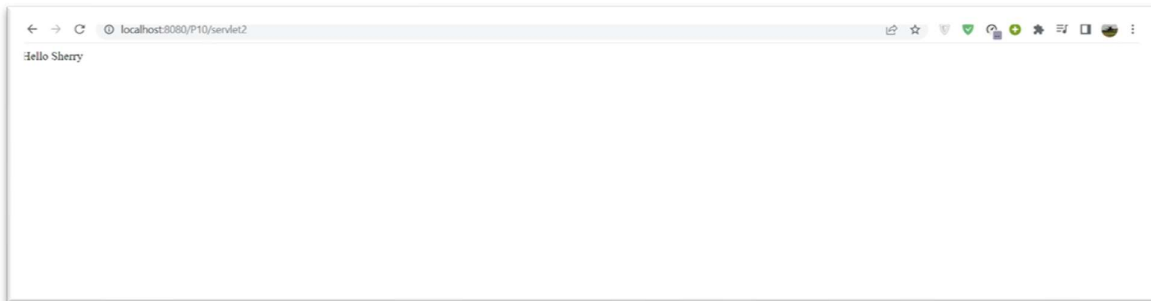
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