Ex.No.: 1 **Date :**

Image Mapping using HTML

Aim:

Develop a web page with image using HTML and hotpot a location to get the information related to the hotpot.

Procedure:

Step 1. Start the HTML page.

Step 2. Create info.html file using GEdit Text Editor.

Step 3. Create a web page to load the tamilnadu map image

Step 4. From the image locate few hotspot to get the information about the location selected.

Step 5. Using the href property of <area> tag to show the information about the place selected by creating the html file ch.html

Step 6. Execute the html file on the browser to get the result

Step 7. Stop

index.html

```
<!DOCTYPE html>
<html>
<head>
<title>MAP PROJECTION</title>
</head>
<body>
<img src="map.jpeg" alt="map" usemap="#tnmap">
<map name="tnmap">
<area shape="rect" coords="411,70,454,45" href="ch.html" alt="Chennai" >
<area shape="circle" coords="184,360,20" href="din.html" alt="Dindigul">
<area shape="circle" coords="130,232,18" href="er.html" alt="Erode">
<area shape="rect" coords="131,401,150,439" href="th.html" alt="Theni">
<area shape="circle" coords="210,222,16" href="sa.html" alt="Salem">
</map>
</body>
</html>
```

ch.html

```
<!DOCTYPE html>
<html>
<head>
<style>
.a{
text-align: justify;
padding-left: 200px;
padding-right: 200px
}
</style>
<title>CHENNAI DETAILS</title>
</head>
<div class=a>
<body><center><h1>ABOUT CHENNAI</h1></center>
<hr>
<p>Chennai district, formerly known as Madras district, is one of the 37 districts in the state of Tamil Nadu in India. It is the smallest and densest of all the districts in the state. Most of the Greater Chennai City comes under this district, erstwhile under Tiruvallur, Kanchipuram and
```

Chengalpattu districts. As of 2011, the district had a population of 8,653,521 with a sex-ratio of 989 females for every 1,000 males.

Chennai is a megacity and local government district that contains the historic centre and the Central business district (CBD) of Chennai metropolitan area. It constituted most of Chennai from its settlement by the peoples in the 1st century AD to the Middle Ages, but the city has since grown much since then. The city forms a small part of the metropolis of Chennai, though it remains a notable part of central Chennai metropolitan area.

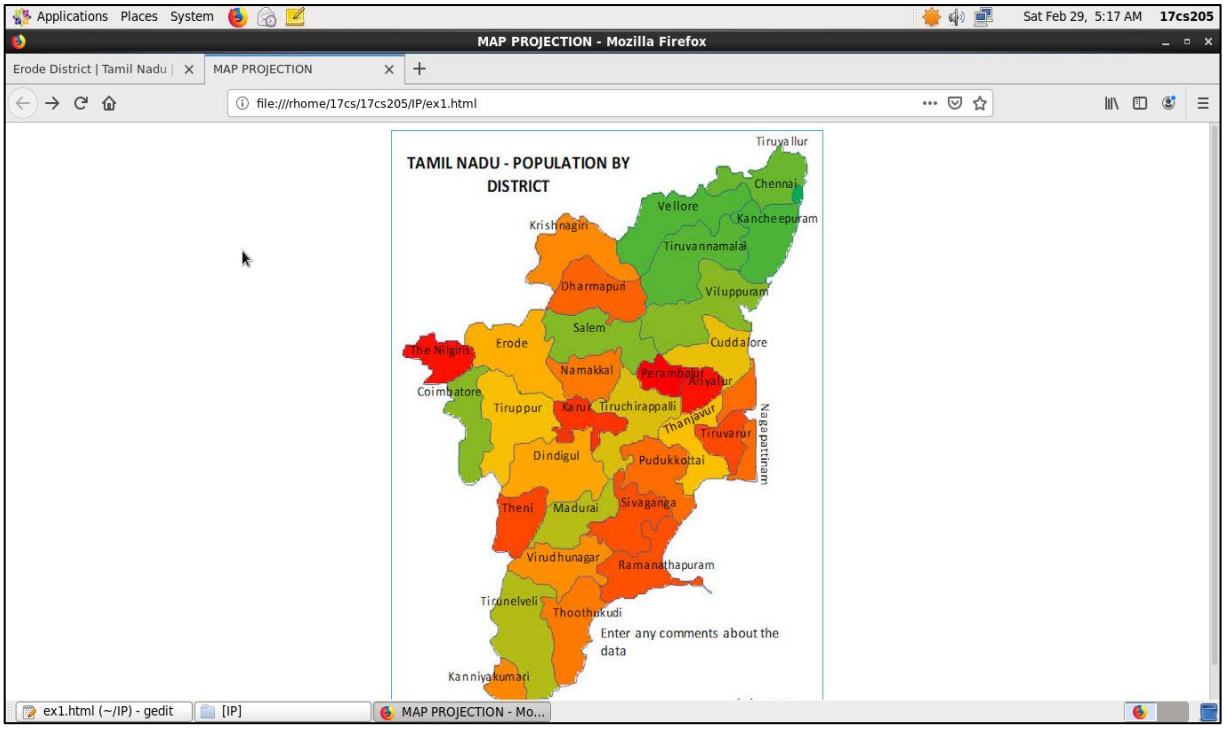
In 2018, the district limits were expanded, aligning with that of the newly formed Greater Chennai Corporation, which resulted in the area being increased from 178 square kilometres (69 sq mi) to 426 square kilometres (164 sq mi).The district has three revenue divisions and ten taluks.</p>

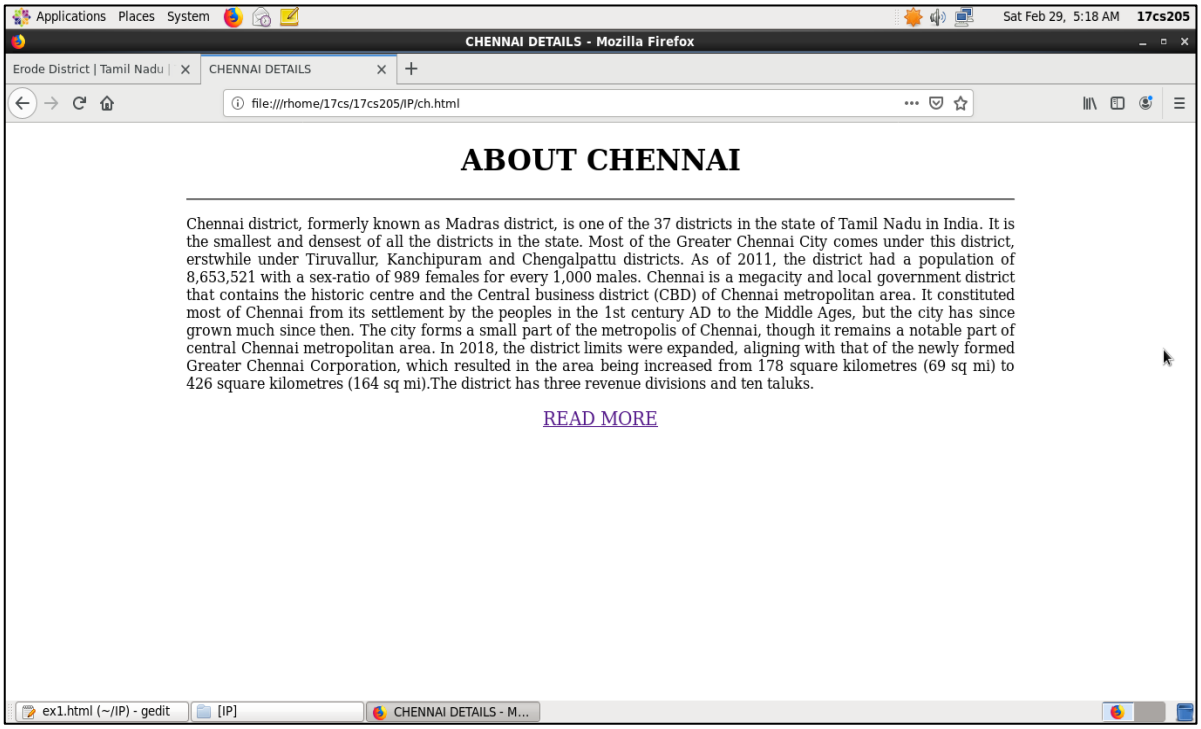
READ MORE

</body>

</html>

Output





Result:

The program to develop a web page with image map and a hotpot has been executed and verified the result.

Ex.No.: 2 **Date :**

Cascading Style Sheets

Aim:

Develop a web page to demonstrate the use of different types of casecading style sheets

Procedure:

Step 1. Start by three ways of employing CSS in your Web pages: Inline styles, Internal styles, and External style sheets.

To create an External style:

Step 2. Create a text file containing style declarations

Step 3. Create a link to that file in each page of the Web site using a <link> tag.

Step 4. Specify the link attributes, such as href, rel, and type.

Step 5. Link a style sheet, the value of the href attribute should be the "URL" of the linked document, the value of the rel attribute should be "stylesheet" and the value of the type attribute should be "text/css".

To create an Internal style:

Step 6. Insert a <style> tag within the head section of HTML file.

Step 7. Within the <style> tag, enclose the style declarations need to the entire Web page.

Step 8. The style sheet language identifies the type of style used in the document.

Step 9. The default and the most common language is "text/css" for use with CSS.

To create an inline style:

Step 10. Add the style attribute to the HTML tag.

Step 11. The style declaration must be enclosed within double quotation marks.

Step 12. Write the source code for the separate style sheet and finally terminate the program.

Step 13. Stop

index.html

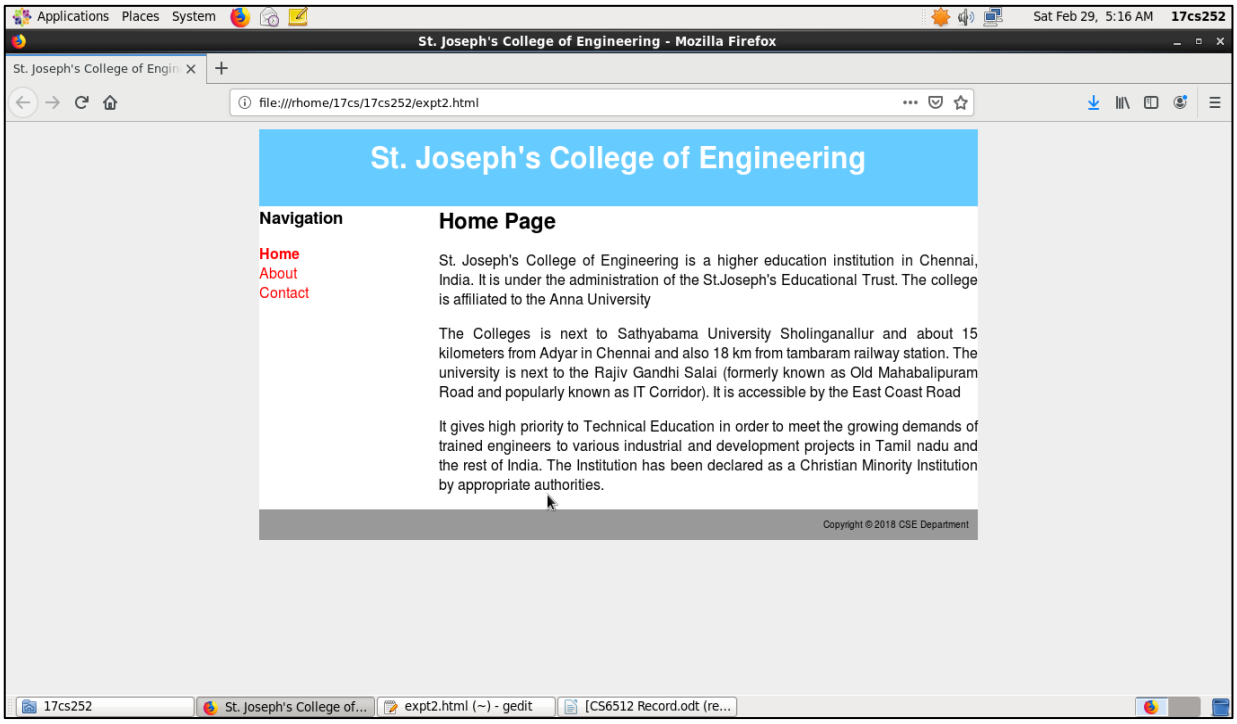
```
<html>
<head>
<title>St. Joseph's College of Engineering</title>
<link rel="stylesheet" type='text/css' href="styles.css" />
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
        body{
            background-color: #eee;
            font-family: helvetica, arial, sans-serif;
        }
        a{
            text-decoration: none;
            color: red;
        }
        p{
            text-align: justify;
        }
</style>
</head>
<body>
<div id='container'>
<header>
<h1 style="margin: 0px">St. Joseph's College of Engineering</h1><br>
</header>
<content>
<nav>
<h3 style="margin:0px">Navigation</h3>
<ul>
<li><a class='selected' href="">Home</a></li>
<li><a href="">About</a></li>
<li><a href="">Contact</a></li>
</ul>
</nav>
<main>
<h2 style="margin: 0px">Home Page</h2>
```

```
<p>St. Joseph's College of Engineering is a higher education institution in Chennai, India. It is under the administration of the St.Joseph's Educational Trust. The college is affiliated to the Anna University</p>
<p>The Colleges is next to Sathyabama University Sholinganallur and about 15 kilometers from Adyar in Chennai and also 18 km from tambaram railway station. The university is next to the Rajiv Gandhi Salai (formerly known as Old Mahabalipuram Road and popularly known as IT Corridor). It is accessible by the East Coast Road</p>
<p>It gives high priority to Technical Education in order to meet the growing demands of trained engineers to various industrial and development projects in Tamil nadu and the rest of India. The Institution has been declared as a Christian Minority Institution by appropriate authorities.</p>

</main>
</content>
<footer style="font-size:10px">
        Copyright &copy; 2020 CSE Department
</footer>
</div>
</body>
</html>
```

styles.css

```
#container{
   background-color: white;
   width: 800px;
   margin-left: auto;
   margin-right: auto;
}
header{
   background-color: #66ccff;
   color: white;
   text-align: center;
   padding: 10px;
}
content{
   padding: 10px;
}
nav{
   width: 180px;
   float: left;
}
nav .selected{
```

```
    font-weight: bold;
}
nav ul{
    list-style-type: none;
    padding: 0px;
}
main{
    width: 600px;
    float: right;
    padding: 0px;
}
footer{
    clear: both;
    padding: 10px;
    background-color: #999999;
    color: black;
    text-align: right;
}
```



Result:

The program to develop a web page to apply the different types of cascading style sheets has been executed and verified the result

Ex.No.: 3 **Date :**

Form Validation with Javascript

Aim:

Develop a web page with form data to validate the form entity using javascript

Procedure:

Step 1. Start.

Step 2. Create a Registration form and Credit card information form

Step 3. Form a regular expression to validate the various form entities.

Step 4. Write a external javascript file such as validate,js and card.js to validate the form entities.

Step 5. Link the javascript file to validate the form into the html page.

Step 6. Open the web browser to execute the program.

Step 7. Stop

Registration.html

```
<html>
<head>
	<title>Registration Form</title>
	<style>
		fieldset{
			margin-left:200px;
			margin-right:200px;
		}
		*{
			font-weight:bold;
		}
	</style>
	<script src="validate.js">
	</script>
</head>
<body>
	<form>
		<header>
			<h1><center>Student Registration Form</center></h1>
		</header>
		<center>
		<fieldset>
		<table>
			<tr><td>Student Name</td><td><input type="text" id="name"></td>
			</tr>
			<tr><td>Roll Number</td><td><input type="text" id="roll"></td></tr>
			<tr><td>Reg Number</td><td><input type="text" id="regno"></td></tr>
			<tr><td>Branch</td><td><select id="dept">
			<option selected>CSE</option>
			<option>IT</option>
			<option>Mechanical</option>
			<option>Civil</option>
			<option>EI</option>
			<option>EEE</option>
			<option>ECE</option>
			<option>Chemical</option>
			</select></td></tr>
			<tr><td>Date of birth</td><td><input type="date" id="dob"></td></tr>
```

```
<tr><td>Email</td><td><input type="email" id="mail"></td></tr>
<tr><td>Semester</td><td><input type="radio" name="semester" id="sem1" value="Semester 1"> Semester 1
<input type="radio" name="semester" id="sem2" value="Semester 2">Semester 2
<input type="radio" name="semester" id="sem3" value="Semester 3">Semester 3
<input type="radio" name="semester" id="sem4" value="Semester 4">Semester 4</td></tr>
<tr><td></td><td><input type="radio" name="semester" id="sem5" value="Semester 5"> Semester 5
<input type="radio" name="semester" id="sem6" value="Semester 6">Semester 6
<input type="radio" name="semester" id="sem7" value="Semester 7">Semester 7
<input type="radio" name="semester" id="sem8" value="Semester 8">Semester 8</td></tr>
<tr><td>Subjects</td><td><input type="checkbox" id="gt" value="GraphTheory">GraphTheory</td></tr>
<tr><td></td><td><input type="Checkbox" id="gis" value="Geographic Information System">Geographic Information System</td></tr>
<tr><td></td><td><input type="checkbox" id="evs" value="Enviroinmental Science">Enviroinmental Science</td></tr>
</table>
<button onclick="validate()">Submit</button>
</center>
</fieldset>
</form>
</body>
</html>
```

Creditcard.html

```
<html>
<head>
    <title>Credit card validation</title>
    <style>
        input{
            float: right;
            margin-right:380px;
        }
        p{
            margin-left: 300px;
            font-weight: bold;
        }
    </style>
```

```
        <script src="card.js">
        </script>
</head>
<body>
        <center><h1>Credit card validation </h1></center>
        <p>Card Holder's Name<input type="text" id="name1"></p>
        <p>Card number<input type="text" id="num"></p>
        <p>Email id <input type="text" id="mail1"></p>
        <p>Exp Month<input type="text" id="mon" ></p>
        <p>Exp Year <input type="text" id="yr" ></p>
        <p>CVV  <input type="text" id="cvv"></p>
        <center><button onclick="validate_creditcard()">Submit</button></center>
</body>
</html>
```

validate.js

```
function validate()
{
        var name=document.getElementById("name").value;
        var rol=document.getElementById("roll").value;
        var reg=document.getElementById("regno").value;
        var dep=document.getElementById("dept").value;
        var db=document.getElementById("dob").value;
        var mail=document.getElementById("mail").value;
        var sem1=document.getElementById("sem1");
        var sem2=document.getElementById("sem2");
        var sem3=document.getElementById("sem3");
        var sem4=document.getElementById("sem4");
        var sem5=document.getElementById("sem5");
        var sem6=document.getElementById("sem6");
        var sem7=document.getElementById("sem7");
        var sem8=document.getElementById("sem8");
        var sub1=document.getElementById("gt");
        var sub2=document.getElementById("gis");
        var sub3=document.getElementById("evs");
        var pattern_name=/^[a-zA-Z]+((['. -][a-zA-Z ])?[a-zA-Z]*)*$/;
        var pattern_roll=/^\d{2}[A-Z]{2}\d{3}$/i;
        var pattern_reg=/^[3123]\d{11}$/;
        var pattern_mail=/^\w+@[a-zA-Z_]+?(\.[a-zA-Z]{2,3})+$/;
```

```
document.write("<h1>STUDENT DETAILS</h1>");
if(pattern_name.test(name))
        document.write("<table><tr><td style='font-weight:bold;'>Student
        Name</td><td> "+name+"</td></tr>");
else
        window.alert("Ivalid Name Format");
if(pattern_roll.test(rol))
        document.writeln("<tr><td style='font-weight:bold;'>Roll Number</td><td>
        "+rol+" </td></tr>");
else
        window.alert("Invalid Roll number Format");
if(pattern_reg.test(reg))
        document.write("<tr><td style='font-weight:bold;'>Register
        Number</td><td>"+reg+" </td></tr>");
else
        window.alert("Invalid Register Number Format");
document.write("<tr><td style='font-weight:bold;'>Department</td><td>"+dep+"</td>
</tr>");
document.write("<tr><td style='font-weight:bold;'>Date of Birth</td><td>"+db+"</td>
</tr>");
if(pattern_mail.test(mail))
        document.write("<tr><td style='font-weight:bold;'>Email
        Id</td><td>"+mail+"</td> </tr>");
else
        window.alert("Invalid Mail Id format");
var sem;
if(sem1.checked)
        sem=sem1.value;
if(sem2.checked)
        sem=sem2.value;
if(sem3.checked)
        sem=sem3.value;
if(sem4.checked)
        sem=sem4.value;
if(sem5.checked)
        sem=sem5.value;
if(sem6.checked)
        sem=sem6.value;
if(sem7.checked)
        sem=sem7.value;
```

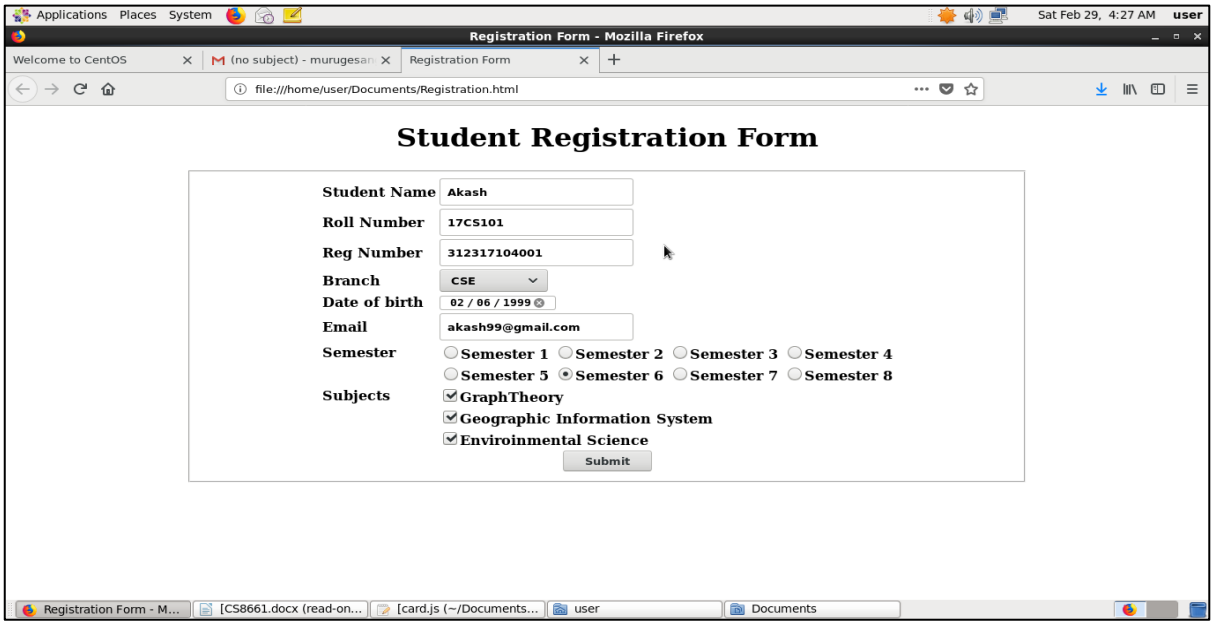
```
        if(sem8.checked)
                sem=sem8.value;
        document.write("<tr><td                                                    style='font-
weight:bold;'>Semester</td><td>"+sem+"</td></tr>");
        document.write("<tr><td style='font-weight:bold;'>Interest Subject</td>");
        if(sub1.checked)
                document.write("<td style='font-weight:bold;'>"+sub1.value+"</td></tr>");
        if(sub2.checked)
                document.write("<tr><td></td><td style='font-weight:bold;'>"+sub2.value+"
                </td> </tr>");
        if(sub3.checked)
                document.write("<tr><td></td><td style='font-weight:bold;'>"+sub3.value+
                "</td> </tr>");
        document.write("</table>");
}
```

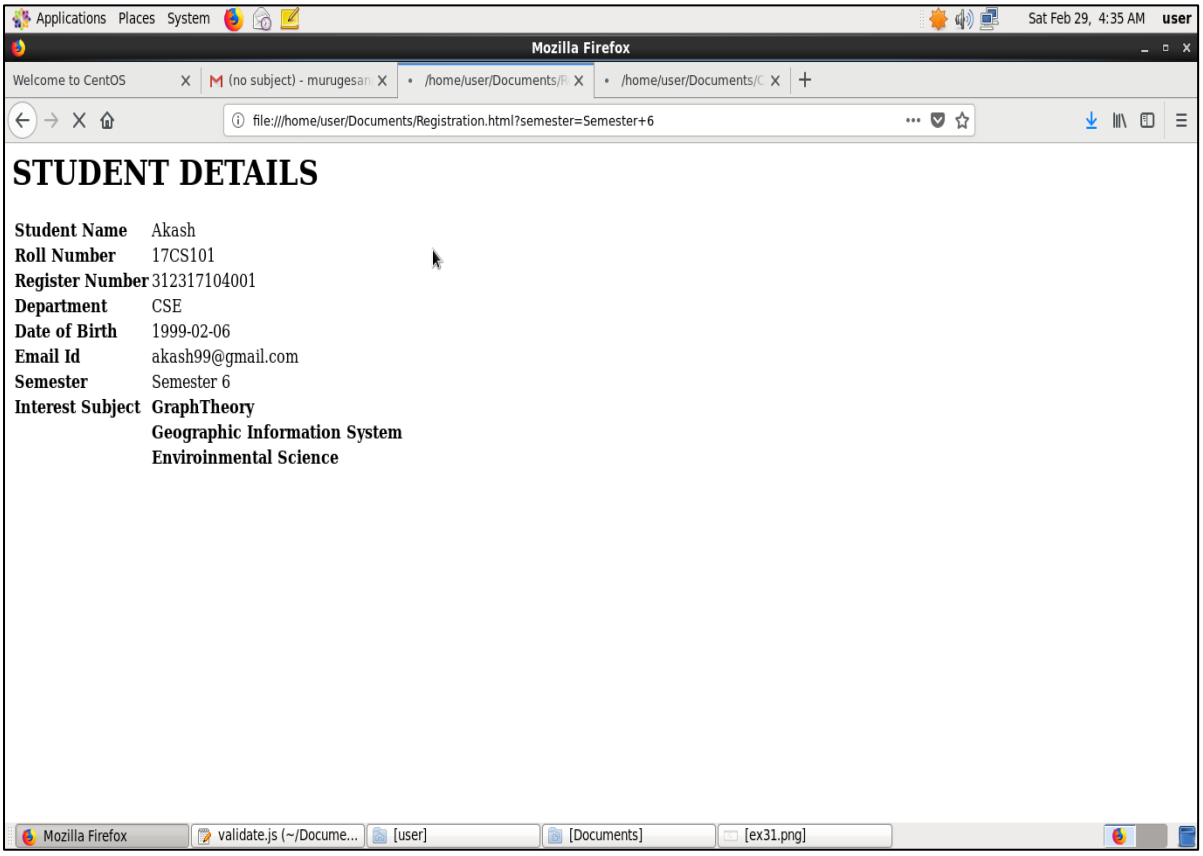
card.js

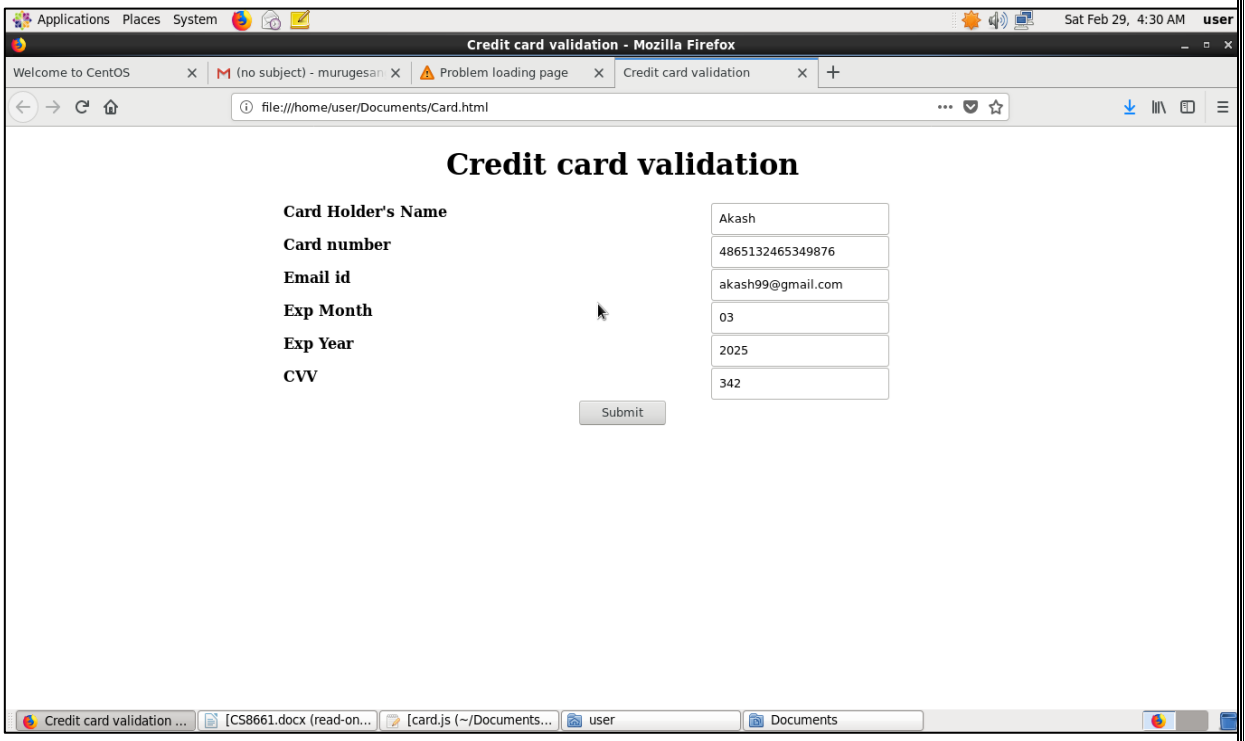
```
function validate_creditcard()
{
        var current=new Date();
        var mon=current.getMonth();
        var yr=current.getFullYear();
        var name=document.getElementById("name1").value;
        var num=document.getElementById("num").value;
        var id=document.getElementById("mail1").value;
        var cvv=document.getElementById("cvv").value;
        var exp_mon=document.getElementById("mon").value;
        var exp_yr=document.getElementById("yr").value;

        var pattern_name=/^[a-zA-Z]+((['. -][a-zA-Z ])?[a-zA-Z]*)*$/;
        var pattern_cvv=/^\d{3}$/;
        var pattern_mail=/^\w+@[a-zA-Z_]+?(\.[a-zA-Z]{2,3})+$/;
        var pattern_acc=/^\d{16}$/;
        document.write("<h1>CREDIT CARD DETILS</h1>");
         if(pattern_name.test(name))
                document.write("<table><tr><tdstyle='font-weight:bold'>Card Holder's
                Name</td> <td> "+name+"</td></tr>");
        else
                window.alert("Ivalid Name");
         if(pattern_acc.test(num))
```

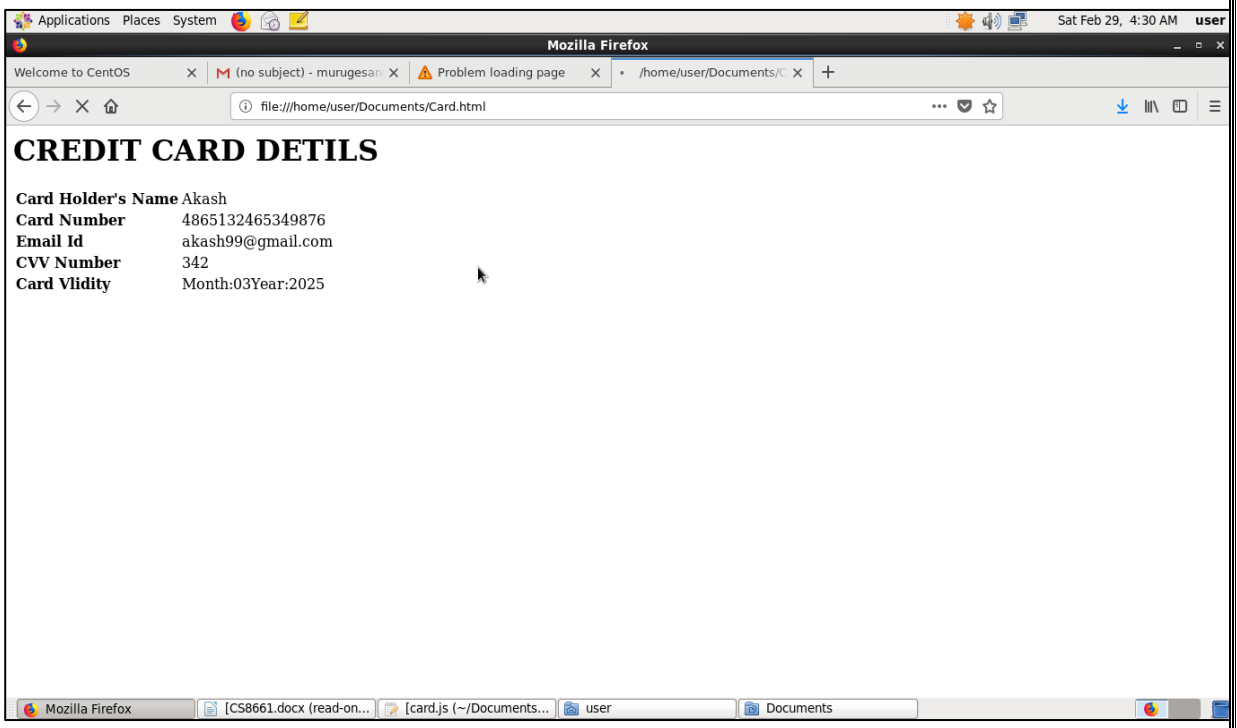
```
            document.write("<tr><td style='font-weight:bold'>Card
            Number</td><td>"+num+" </td></tr>");
        else
            window.alert("Ivalid card Number ");
        if(pattern_mail.test(id))
            document.write("<tr><td style='font-weight:bold'>Email Id</td><td>"+id+"</td>
            </tr>");
        else
            window.alert("Invalid Mail Id");
        if(pattern_cvv.test(cvv))
            document.write("<tr><td style='font-weight:bold'>CVV
            Number</td><td>"+cvv+" </td></tr>");
        else
            window.alert("Invalid CVV");
        if(exp_yr>=yr){
            if(exp_mon>=mon+1)
                document.write("<tr><td style='font-weight:bold'>Card Vlidity</td><td>
                Month:"+exp_mon+"Year:"+exp_yr+"</td></tr>");
            else{
                window.alert("Card validity Expires");
                document.write("<tr><td style='font-weight:bold'>Card Vlidity<td><td>
                Expired </td></tr>");
            }
        }
        else{
            window.alert("Card validity Expires");
            document.write("<tr><td style='font-weight:bold'>Card Vlidity </td><td>
            Expired</td>
            </tr>");
        }
}
```

Output


Applications Places System
Sat Feb 29, 4:27 AM user
Registration Form - Mozilla Firefox
Welcome to CentOS
(no subject) - murugesan
Registration Form
file:///home/user/Documents/Registration.html
Student Registration Form
Student Name Akash
Roll Number 17CS101
Reg Number 312317104001
Branch CSE
Date of birth 02 / 06 / 1999
Email akash99@gmail.com
Semester Semester 1 Semester 2 Semester 3 Semester 4
Semester 5 Semester 6 Semester 7 Semester 8
Subjects GraphTheory
Geographic Information System
Enviroinmental Science
Submit
Registration Form - M...
[CS8661.docx (read-on...
[card.js (~/Documents...
user
Documents


Applications Places System
Sat Feb 29, 4:35 AM user
Mozilla Firefox
Welcome to CentOS
(no subject) - murugesan
/home/user/Documents/R
/home/user/Documents/C
file:///home/user/Documents/Registration.html?semester=Semester+6
STUDENT DETAILS
Student Name Akash
Roll Number 17CS101
Register Number 312317104001
Department CSE
Date of Birth 1999-02-06
Email Id akash99@gmail.com
Semester Semester 6
Interest Subject GraphTheory
Geographic Information System
Enviroinmental Science
Mozilla Firefox
validate.js (~/Docume...
[user]
[Documents]
[ex31.png]





Result:

The program to develop a web page for form validation has been executed and verified the result

Ex.No.: 4a **Date :**

Servlet with HTMLForm

Aim:

Develop a servlet program to retrieve data from HTML form

Procedure:

Step 1. Start.

Step 2. Create a Registration form in HTML

Step 3. Write a HttpServlet program to retrieve the value from the form entities like text box, radio button and check box.

Step 4. Write the output statement to display the retrieved information from the form

Step 5. Configure the servlet and deploy the servlet program to show the result

Step 6. Stop

index.html

```
<!DOCTYPE html>
<html>
<head>
<title>Student Registration</title>
<style>
        fieldset{
                margin-left:200px;
                margin-right:200px;
            }
            *{
                font-weight:bold;
            }
</style>
</head>
<body>
<form action="studentform">
            <header>
                <h1><center>Student Registration Form</center></h1>
            </header>
            <center>
            <fieldset>
            <table>
                <tr><td>Student Name</td><td><input type="text" name="name"></td>
                </tr>
                <tr><td>Roll Number</td><td><input type="text" name="roll"></td>
                </tr>
                <tr><td>Reg Number</td><td><input type="text" name="regno">
                </td></tr>
                <tr><td>Branch</td><td><select name="dept">
                <option selected>CSE</option>
                <option>IT</option>
                <option>Mechanical</option>
                <option>Civil</option>
                <option>EI</option>
                <option>EEE</option>
                <option>ECE</option>
                <option>Chemical</option>
                </select></td></tr>
```

```
                    <tr><td>Date of birth</td><td><input type="date" name="dob"></td>
                    </tr>
                    <tr><td>Email</td><td><input type="email" name="mail"></td></tr>
                    <tr><td>Semester</td>
                    <td><input type="radio" name="semester" id="sem1" value="Semester
                    1">Semester 1
        <input type="radio" name="semester" id="sem2" value="Semester 2">Semester 2
        <input type="radio" name="semester" id="sem3" value="Semester 3">Semester 3
        <input type="radio" name="semester" id="sem4" value="Semester 4">Semester 4</td>
        </tr>
        <tr><td></td><td><input type="radio" name="semester" id="sem5" value="Semester
        5">Semester 5
        <input type="radio" name="semester" id="sem6" value="Semester 6">Semester 6
        <input type="radio" name="semester" id="sem7" value="Semester 7">Semester 7
        <input type="radio" name="semester" id="sem8" value="Semester 8">Semester 8</td>
        </tr>
        <tr><td>Subjects</td><td><input type="checkbox" name="gt" value="GraphTheory"
        checked>GraphTheory</td></tr>
        <tr><td></td><td><input type="Checkbox" name="gis" value="Geographic Information
        System">Geographic Information System</td></tr>
        <tr><td></td><td><input type="checkbox" name="evs" value="Enviroinmental
        Science"> Enviroinmental Science</td></tr>
</table>
<input type="submit" value="Register">
</center>
</fieldset>
</form>
</body>
</html>
```

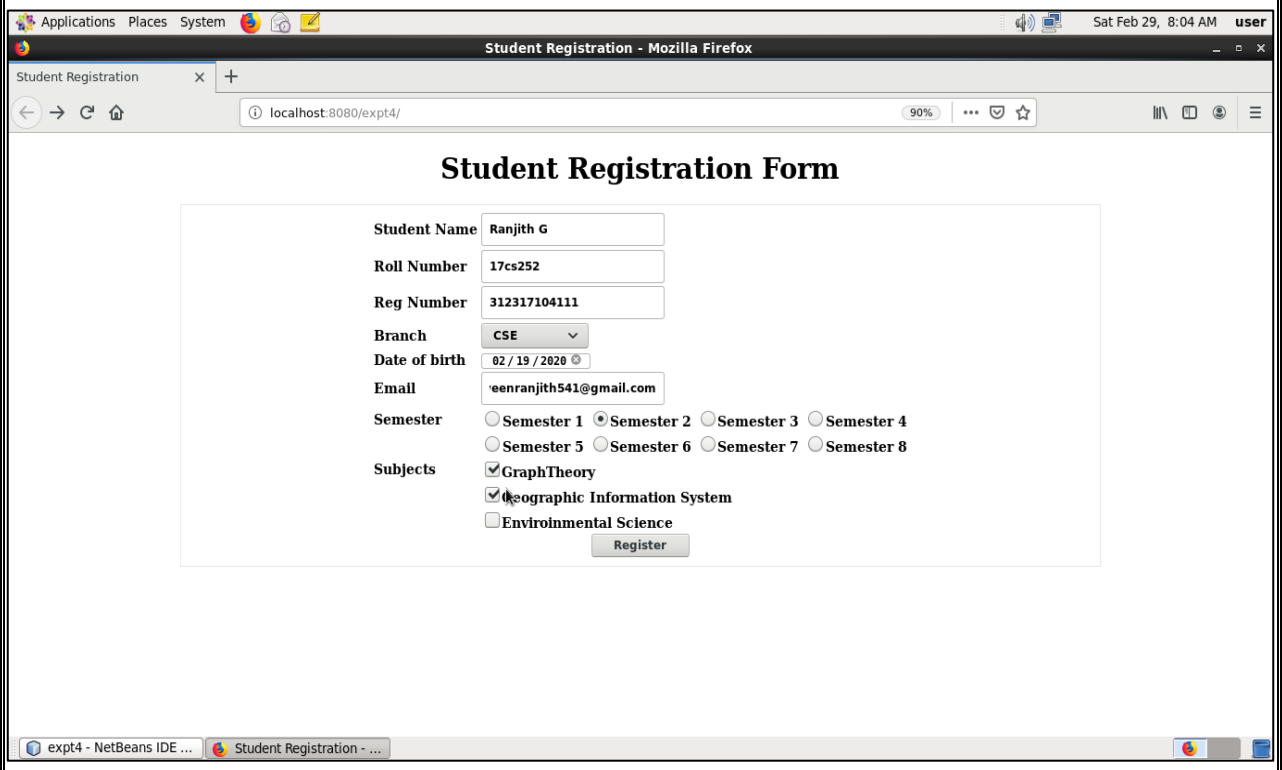
studentform.java

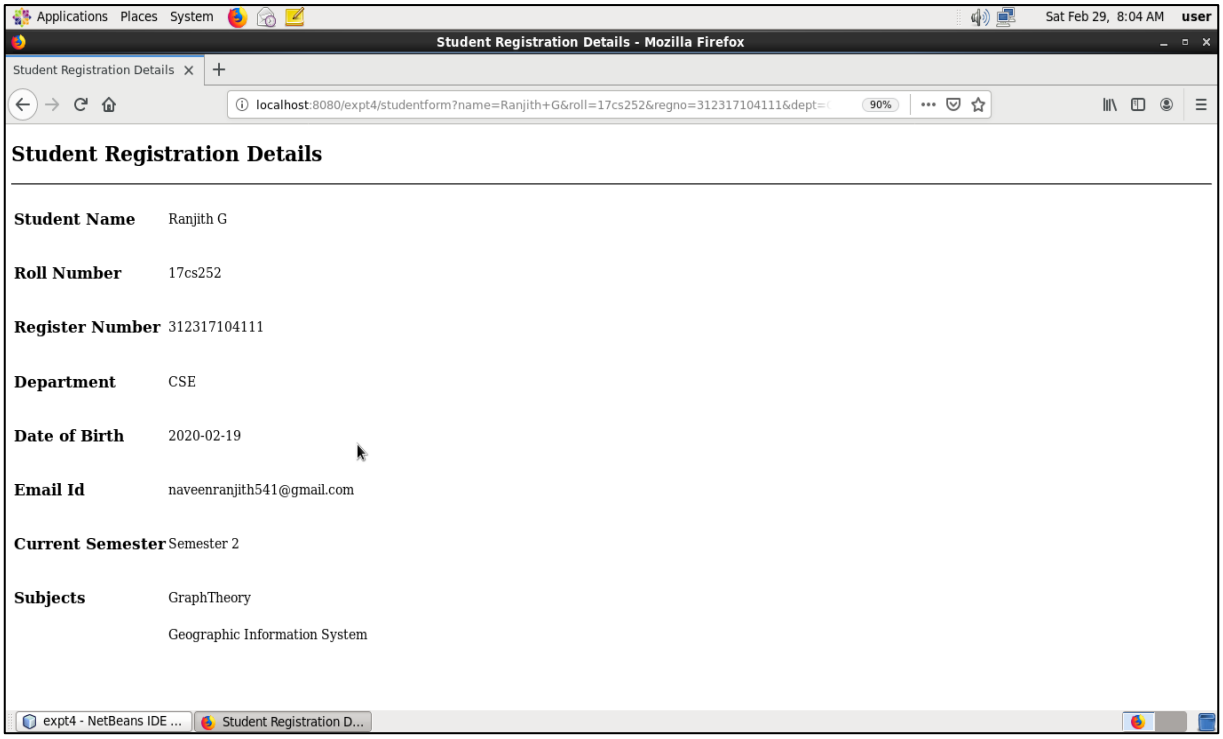
```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class studentform extends HttpServlet {
  protected void processRequest(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
     response.setContentType("text/html;charset=UTF-8");
```

```
    try (PrintWriter out = response.getWriter()) {
        String sub1=null,sub2=null,sub3=null;
        String name=request.getParameter("name");
        String rollno=request.getParameter("roll");
        String regno=request.getParameter("regno");
        String dept=request.getParameter("dept");
        String dob=request.getParameter("dob");
        String sem=request.getParameter("semester");
        String mail=request.getParameter("mail");
        sub1=request.getParameter("gt");
        sub2=request.getParameter("gis");
        sub3=request.getParameter("evs");
        out.println("<!DOCTYPE html>");
        out.println("<html>");
        out.println("<head>");
        out.println("<title>Student Registration Details</title>");
        out.println("</head>");
        out.println("<body>");
        out.println("<h2>Student Registration Details</h2><hr>");
        out.println("<table><tr><td><h3>Student Name</h3></td><td>"+name+"</td></tr>");
        out.println("<tr><td><h3>Roll Number</h3></td><td>"+rollno+"</td></tr>");
        out.println("<tr><td><h3>Register Number</h3></td><td>"+regno+"</td></tr>");
        out.println("<tr><td><h3>Department</td><td></h3>"+dept+"</td></tr>");
        out.println("<tr><td><h3>Date of Birth</h3></td><td>"+dob+"</td></tr>");
        out.println("<tr><td><h3>Email Id</h3></td><td>"+mail+"</td></tr>");
        out.println("<tr><td><h3>Current Semester</h3></td><td>"+sem+"</td></tr>");
        out.println("<tr><td><h3>Subjects</td></h3>");
        if(sub1!=null)
                out.println("<td>"+sub1+"</td></tr>");
       if(sub2!=null)
          out.println("<tr><td></td><td>"+sub2+"</td></tr>");
        if(sub3!=null)
          out.println("<tr><td></td><td>"+sub3+"</td></tr>");
        out.println("</body>");
        out.println("</html>");
    }
}
 protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
```

```
        processRequest(request, response);
    }
protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }
public String getServletInfo() {
        return "Short description";
    }
}
```

Output





Result:

The program to develop a servlet to retrieve data from the HTML form has been executed and verified the result

Ex.No.: 4b **Date :**

Servlet for Webpage Hit Count

Aim:

Develop a servlet program to count the number of visitors for a web page

Procedure:

Step 1. Start.

Step 2. Create a web page to count the number of visitors for that page

Step 3. Create a servlet program to store the cookie value.

Step 4. Execute the servlet to count the number of access for a particular webpage by retrieving the cookie value from the web page.

Step 5. Stop

index.html

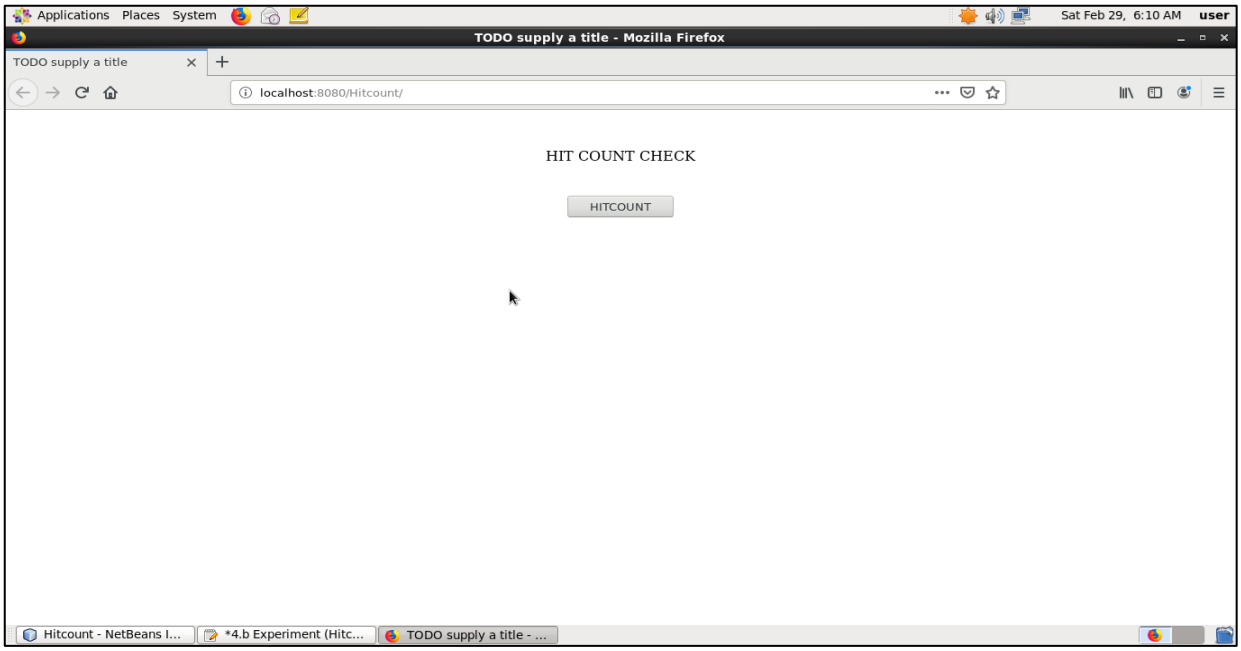
```
<!DOCTYPE html>
<html>
<head>
<title>TODO supply a title</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<br><br>
<center><div>HIT COUNT CHECK</div></center><br><br>
<center><form action="hit">
<input type="submit" value="HITCOUNT">
</form><center>
</body>
</html>
```

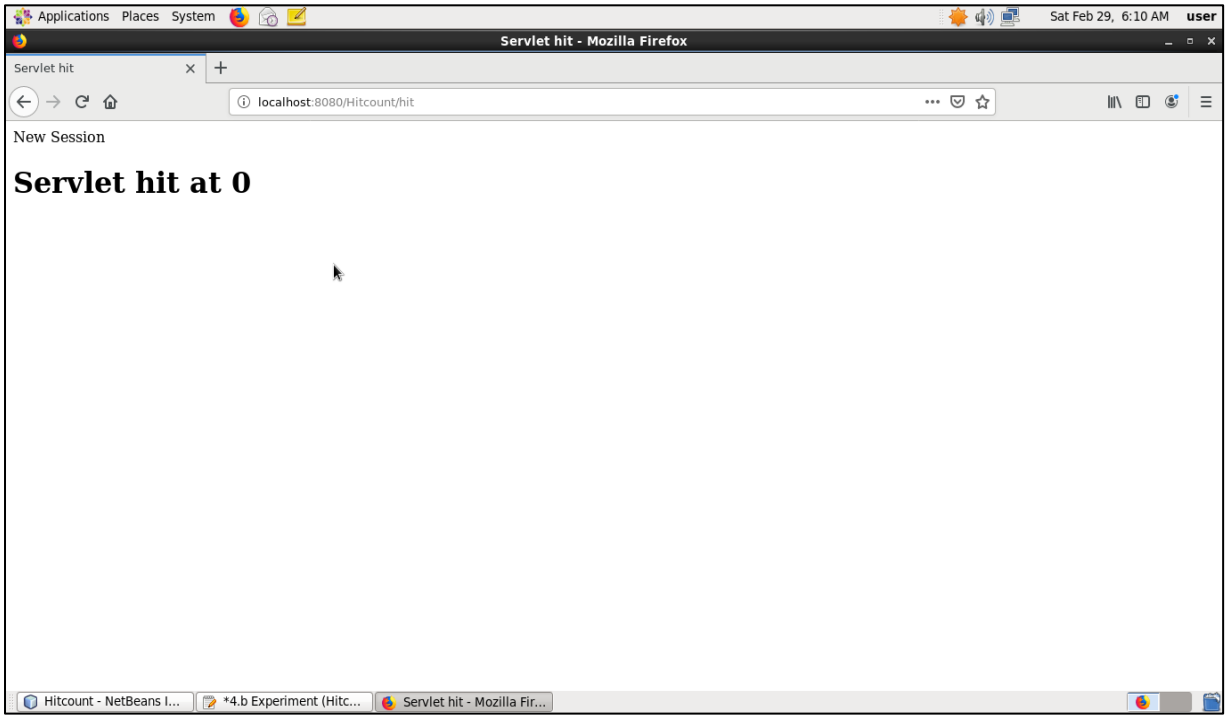
hit.java

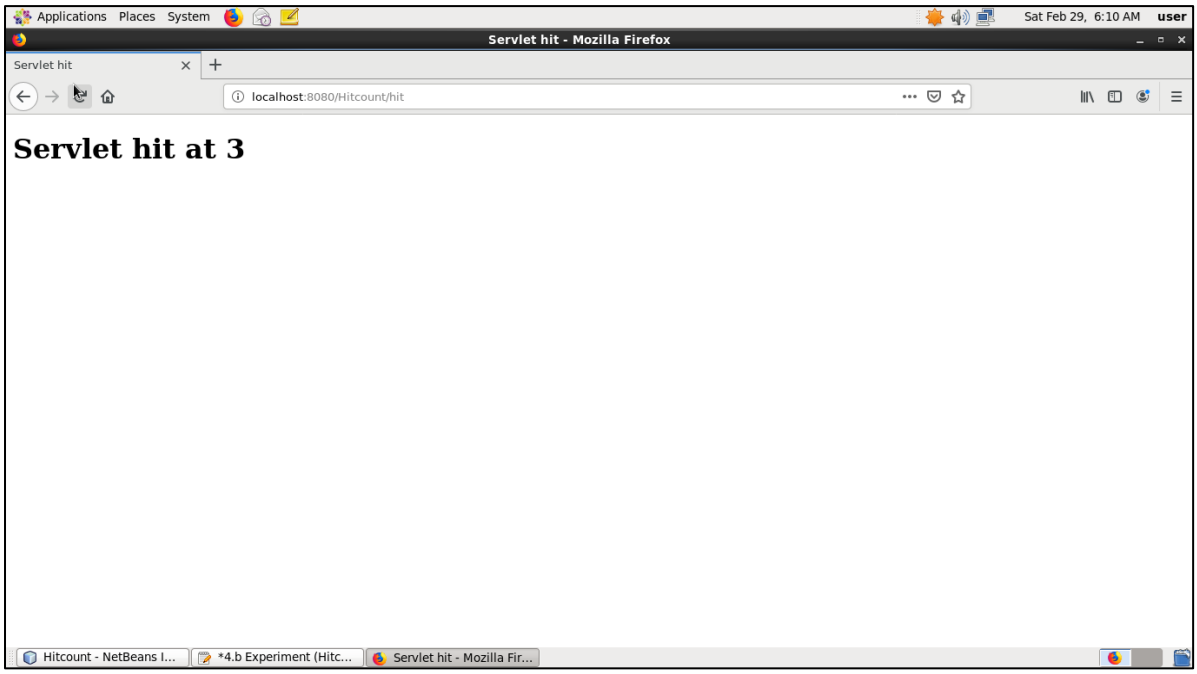
```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.annotation.WebServlet;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;
public class hit extends HttpServlet {
   protected void processRequest(HttpServletRequest request, HttpServletResponse response)
         throws ServletException, IOException {
                response.setContentType("text/html;charset=UTF-8");
                Integer ocount = null;
                 try (PrintWriter out = response.getWriter()){
                        HttpSession session=request.getSession(true);
                        Integer count;
                        count = new Integer(0);
                        if(session.isNew())
                                out.println("New Session");
                        else{
                                ocount=(Integer)session.getAttribute("count");
                                if(ocount!=null)
```

```
                    count=ocount.intValue()+1;
                }
                session.setAttribute("count", count);
                out.println("<!DOCTYPE html>");
                out.println("<html>");
                out.println("<head>");
                out.println("<title>Servlet hit</title>");
                out.println("</head>");
                out.println("<body>");
                out.println("<h1>Servlet hit at " + count + "</h1>");
                out.println("</body>");
                out.println("</html>");
            }
        }
        protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
            processRequest(request, response);
        }
        protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
            processRequest(request, response);
        }
        public String getServletInfo() {
            return "Short description";
        }
}
```

Output


Applications Places System
Sat Feb 29, 6:10 AM user
TODO supply a title - Mozilla Firefox
TODO supply a title
localhost:8080/Hitcount/
HIT COUNT CHECK
HITCOUNT
Hitcount - NetBeans I...
*4.b Experiment (Hitc...
TODO supply a title - ...


Applications Places System
Sat Feb 29, 6:10 AM user
Servlet hit - Mozilla Firefox
Servlet hit
localhost:8080/Hitcount/hit
New Session
Servlet hit at 0
Hitcount - NetBeans I...
*4.b Experiment (Hitc...
Servlet hit - Mozilla Fir...



Result:

The program to develop a servlet to count the number of visitors for a web page has been executed and verified the result

Ex.No.: 4c **Date :**

Servlet with Hidden Form Field

Aim:

Develop a servlet program to retrieve the hidden form field value

Procedure:

Step 1. Start.

Step 2. Create a servlet to create a hidden form field and store a value on the form field

Step 3. Create another servlet to retrieve the form field value.

Step 4. Execute the servlets to realize the use of cookie.

Step 5. Stop

index.html

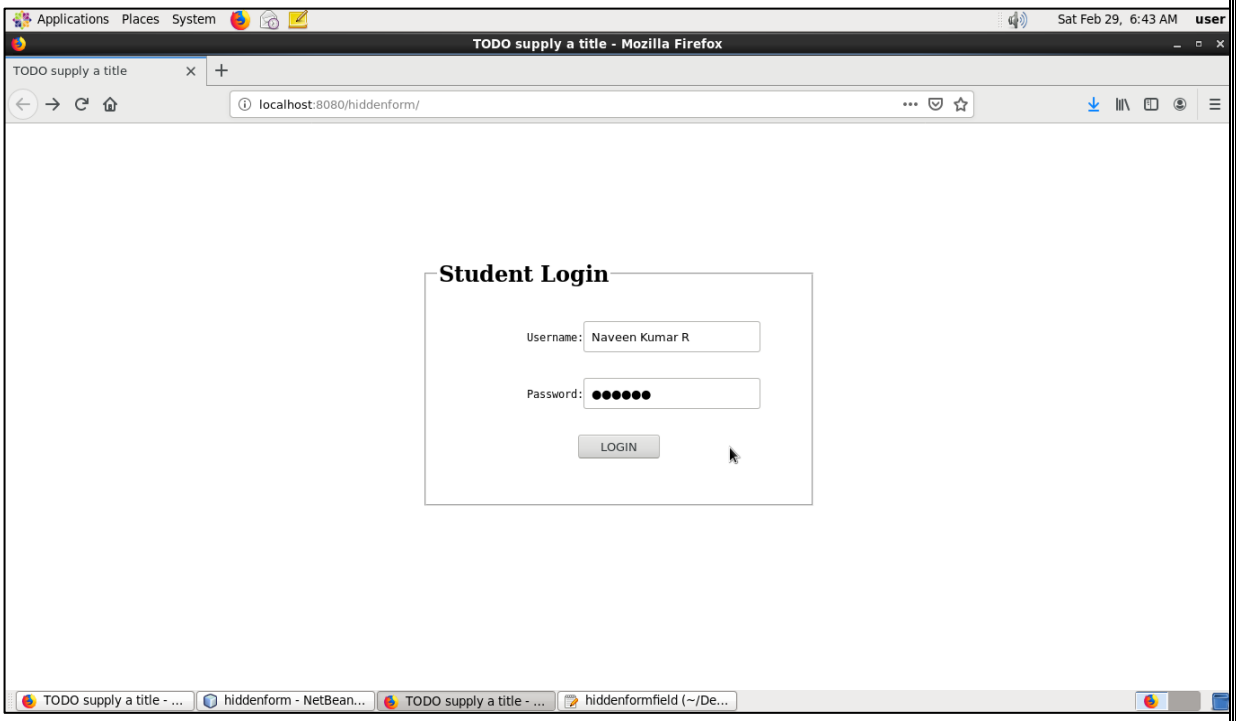
```
<!DOCTYPE html>
<html>
<head>
<title>TODO supply a title</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>
<body>
<form action="hidden1">
<center><fieldset style="width: 30% ;margin-top:130px"><legend><h2>Student Login</h2>
</legend>
<pre>
      Username:<input type="text" name="uname"><br><br>
      Password:<input type="Password" name="pass"><br>
<center><button>LOGIN</button></center>
</pre>
</fieldset></center>
</form>
</body>
</html>
```

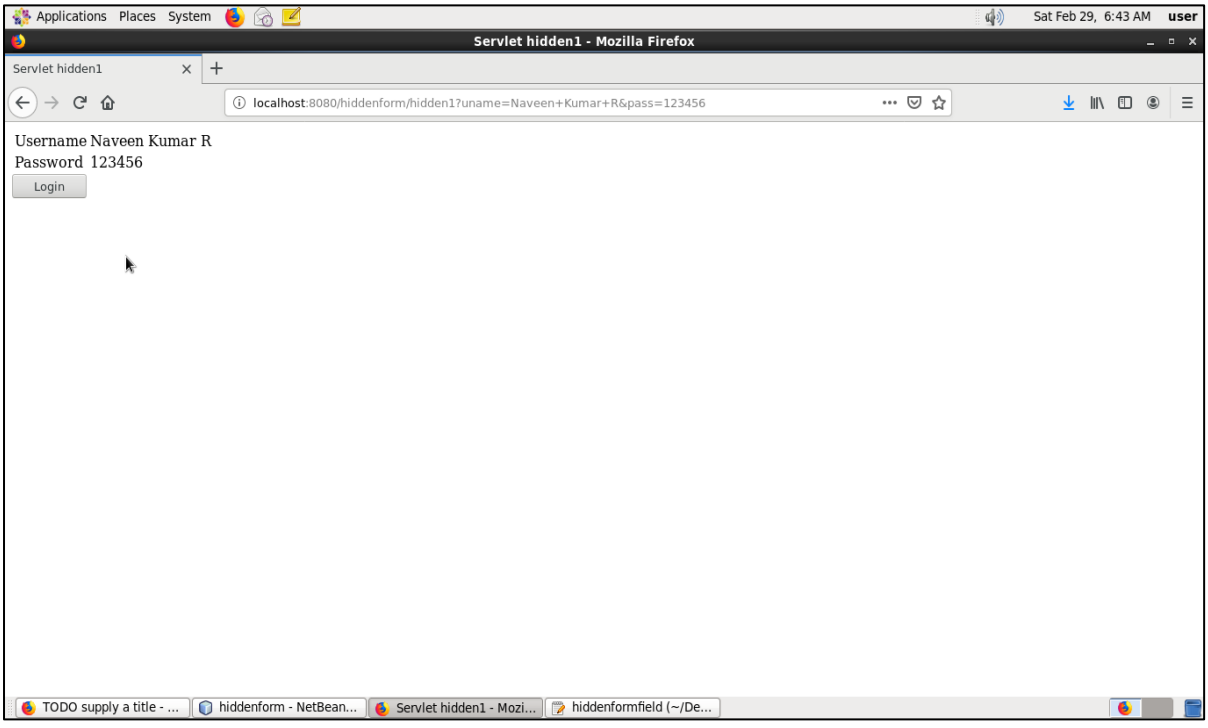
hidden1.java

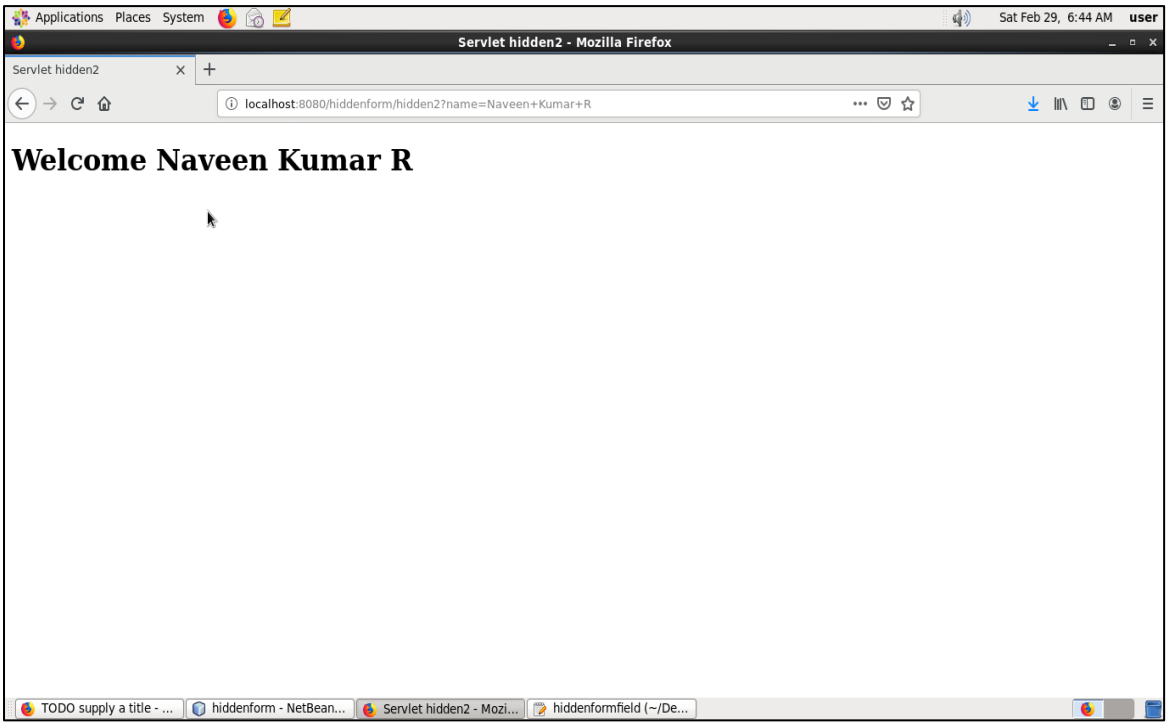
```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class hidden1 extends HttpServlet {
   protected void processRequest(HttpServletRequest request, HttpServletResponse response)
         throws ServletException, IOException {
      response.setContentType("text/html;charset=UTF-8");
      try (PrintWriter out = response.getWriter()) {
         out.println("<!DOCTYPE html>");
         out.println("<html>");
         out.println("<head>");
         out.println("<title>Servlet hidden1</title>");
         out.println("</head>");
         out.println("<body>");
```

```
            String name=request.getParameter("uname");
            String pass=request.getParameter("pass");
            out.println("<table><tr><td>Username</td><td>"+name+"</td></tr>");
            out.println("<tr><td>Password</td><td>"+pass+"</td></tr></table>");
            out.println("<form action='hidden2'>");
            out.println("<input type='hidden' name='name' value='"+name+"'>");
            out.println("<input type='submit' value='Login'>");
            out.println("</form>");
            out.println("</body>");
            out.println("</html>");
        }
    }

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

    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        processRequest(request, response);
    }
    public String getServletInfo() {
        return "Short description";
    }
}
```

Output


Applications Places System
Sat Feb 29, 6:43 AM user
TODO supply a title - Mozilla Firefox
TODO supply a title
localhost:8080/hiddenform/
Student Login
Username: Naveen Kumar R
Password: ●●●●●●
LOGIN
TODO supply a title - ...
hiddenform - NetBean...
TODO supply a title - ...
hiddenformfield (~/De...


Applications Places System
Sat Feb 29, 6:43 AM user
Servlet hidden1 - Mozilla Firefox
Servlet hidden1
localhost:8080/hiddenform/hidden1?uname=Naveen+Kumar+R&pass=123456
Username Naveen Kumar R
Password 123456
Login
TODO supply a title - ...
hiddenform - NetBean...
Servlet hidden1 - Mozi...
hiddenformfield (~/De...



Result:

The program to develop a servlet to retrieve a hidden form field data has been executed and verified the result

Ex.No.: 5 **Date :**

Quiz Program

Aim:

Develop a web page to conduct quiz program and generate the report as three tire architecture using servlet

Procedure:

Step 1. Start.

Step 2. Create a with multiple choice questions

Step 3. Develop a servlet program to conduct quiz program.

Step 4. Develop another servlet to prepare the score list for the quiz program.

Step 5. Execute the servlets to conduct and prepare the result of the quiz program .

Step 6. Stop

index.html

```
<!DOCTYPE html>
<html>
<head>
<title></title>
</head>
<body>
<form action="exam">
<center><fieldset style="width: 30% ;margin-top:150px"><legend><h2>Student Login</h2>
</legend>
<pre>
        Username:<input type="text" name="uname">
        Password:<input type="Password" name="pass">
<center><button>LOGIN</button></center>
</pre>
</fieldset></center>
</form>
</body>
</html>
```

exam.java

```
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.ServletException;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class exam extends HttpServlet {
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
            response.setContentType("text/html;charset=UTF-8");
            String name,pass;
             try (PrintWriter out = response.getWriter()) {
                    name=request.getParameter("uname");
                    pass=request.getParameter("pass");
                    Cookie ck=new Cookie("unmae",name);
                    response.addCookie(ck);
                    if(pass.equals("admin")){
                            out.println("<h1>Welocme "+name+"!!!!</h1>");
```

```
                        out.println("<form action='mcq.html'>");
                        out.println("<input type='submit' value='Take Test'>");
                        out.println("</form>");
                    }
                    else{
                        out.println("<h3>Invalid password</h3>");
                    }
                    out.println("<!DOCTYPE html>");
                    out.println("<html>");
                    out.println("<head>");
                    out.println("<title>Servlet exam</title>");
                    out.println("</head>");
                    out.println("<body>");
                    out.println("</body>");
                    out.println("</html>");
                }
        }
         protected void doGet(HttpServletRequest request, HttpServletResponse response)
                throws ServletException, IOException {
                processRequest(request, response);
        }
        protected void doPost(HttpServletRequest request, HttpServletResponse response)
                throws ServletException, IOException {
                processRequest(request, response);
        }
        public String getServletInfo() {
                return "Short description";
        }
}
```

mcq.html

```
<!DOCTYPE html>
<html>
<head>
<title>Quiz</title>
<style>
 div{
      height: 130px;
      width:50%;
      margin-left: 20px;
```

```
 }
</style>
</head>
<body>
<form action="servletquiz">
<center style="text-transform: uppercase;color: gray;font-size: 50px">Online Examination
</center>
<br>
<div><fieldset><legend>1.Capital Of Tamilnadu</legend>
<input type="radio" name="1" value="Chennai">Chennai<br>
<input type="radio" name="1" value="Mumbai">Mumbai<br>
<input type="radio" name="1" value="Kolkata">Kolkata<br>
<input type="radio" name="1" value="Banglore">Banglore<br>
</fieldset></div><br>
<div><fieldset><legend>2.Language Spoken by Pakistani people</legend>
<input type="radio" name="2" value="Hindi">Hindi<br>
<input type="radio" name="2" value="Palauan">Palauan<br>
<input type="radio" name="2" value="Sindhi">Sindhi<br>
<input type="radio" name="2" value="Nauruan">Nauruan<br>
</fieldset></div><br>
<div><fieldset><legend>3.The World Largest Desert </legend>
<input type="radio" name="3" value="Thar">Thar<br>
<input type="radio" name="3" value="Kalahari">Kalahari<br>
<input type="radio" name="3" value="Sahara">Sahara<br>
<input type="radio" name="3" value="Sonoran">Sonoran<br>
</fieldset></div><br>
<div><fieldset><legend>4.Country that has the highest in Barley Production</legend>
<input type="radio" name="4" value="China">China<br>
<input type="radio" name="4" value="India">India<br>
<input type="radio" name="4" value="Russia">Russia<br>
<input type="radio" name="4" value=" France">France<br>
</fieldset></div><br>
<div><fieldset><legend>5.The metal whose salts are sensitive to light is</legend>
<input type="radio" name="5" value="Zinc">Zinc<br>
<input type="radio" name="5" value="Copper">Copper<br>
<input type="radio" name="5" value="Silver">Silver<br>
<input type="radio" name="5" value="Aluminium">Aluminium<br>
</fieldset></div><br>
<div><fieldset><legend>6.The Central Rice Research Station is situated in</legend>
```

```
<input type="radio" name="6" value="Chennai">Chennai<br>
<input type="radio" name="6" value="Cuttack">Cuttack<br>
<input type="radio" name="6" value="Bangalore">Bangalore<br>
<input type="radio" name="6" value="Quilon">Quilon<br>
</fieldset></div><br>
<div><fieldset><legend>7.Which is considered as the biggest port of India</legend>
<input type="radio" name="7" value="Kolkata">Kolkata<br>
<input type="radio" name="7" value="Cochin">Cochin<br>
<input type="radio" name="7" value="Chennai">Chennai<br>
<input type="radio" name="7" value="Mumbai">Mumbai<br>
</fieldset></div><br>
<div><fieldset><legend>8.Mount Everest is located in</legend>
<input type="radio" name="8" value="India">India<br>
<input type="radio" name="8" value="Nepal">Nepal<br>
<input type="radio" name="8" value="Tibet">Tibet<br>
<input type="radio" name="8" value="China">China<br>
</fieldset></div><br>
<div><fieldset><legend>9.The device used for measuring altitudes is</legend>
<input type="radio" name="9" value="Altimeter">Altimeter<br>
<input type="radio" name="9" value="ammeter">Ammeter<br>
<input type="radio" name="9" value="audiometer">Audiometer<br>
<input type="radio" name="9" value="galvanometer">Galvanometer<br>
</fieldset></div><br>
<div><fieldset><legend>10.The Gate way of India is </legend>
<input type="radio" name="10" value="Kolkata">Kolkata<br>
<input type="radio" name="10" value="New Delhi">New Delhi<br>
<input type="radio" name="10" value="Chennai">Chennai<br>
<input type="radio" name="10" value="Mumbai">Mumbai<br>
</fieldset></div><br>
<center><button>FINISH</button></center>
</form>
</body>
</html>
```

servletquiz.java

```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
```

```
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class servletquiz extends HttpServlet {
        protected void processRequest(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException, ClassNotFoundException, SQLException {
                response.setContentType("text/html;charset=UTF-8");
                String ans1;
                int score=0;
                try (PrintWriter out = response.getWriter()) {
                        Class.forName("org.apache.derby.jdbc.ClientDriver");
                        Connection con=DriverManager.getConnection("jdbc:derby://
                        localhost:1527/ quizdb1", "quiz", "quiz");
                        String ins="INSERT INTO mark values(?,?)";
                        PreparedStatement st=con.prepareStatement(ins);
                        Cookie[] ck=request.getCookies();
                        String nme=ck[0].getValue();
                        ans1 = request.getParameter("1");
                        if(ans1.equals("Chennai")){
                                score=score+1;
                        }
                        ans1 = request.getParameter("2");
                        if(ans1.equals("Sindhi")) {
                                score=score+1;
                        }
                        ans1 = request.getParameter("3");
                        if(ans1.equals("Sahara")) {
                                score=score+1;
                        }
                        ans1 = request.getParameter("4");
                        if(ans1.equals("Russia")){
                                score=score+1;
                        }
                        ans1 = request.getParameter("5");
```

```
            if(ans1.equals("Silver")){
                score=score+1;
            }
            ans1 = request.getParameter("6");
            if(ans1.equals("Cuttack")){
                score=score+1;
            }
            ans1 = request.getParameter("7");
            if(ans1.equals("Mumbai")){
                score=score+1;
            }
            ans1 = request.getParameter("8");
            if(ans1.equals("Nepal")){
                score=score+1;
            }
            ans1 = request.getParameter("9");
            if(ans1.equals("Altimeter")){
                score=score+1;
            }
            ans1 = request.getParameter("10");
            if(ans1.equals("Mumbai")){
                score=score+1;
            }
            out.println("<h1>"+nme+"!!!!! Your score is " + score+ "</h1>");
            st.setString(1,nme);
            st.setInt(2,score);
            st.executeUpdate();
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet servletquiz</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("<form action='report'>");
            out.println("<input type='submit' value='View Report'>");
            out.println("</form>");
            out.println("</body>");
            out.println("</html>");
        }
```

```
    }
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
                try {
                        processRequest(request, response);
                } catch (ClassNotFoundException ex) {
                Logger.getLogger(servletquiz.class.getName()).log(Level.SEVERE,null,
                ex);
                } catch (SQLException ex) {
                Logger.getLogger(servletquiz.class.getName()).log(Level.SEVERE,
                null,ex);
            }
    }
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
                try {
                        processRequest(request, response);
                } catch (ClassNotFoundException ex) {
                Logger.getLogger(servletquiz.class.getName()).log(Level.SEVERE,    null,
                ex);
                } catch (SQLException ex) {
                Logger.getLogger(servletquiz.class.getName()).log(Level.SEVERE,    null,
                ex);
            }
    }
     public String getServletInfo() {
            return "Short description";
    }
}
```

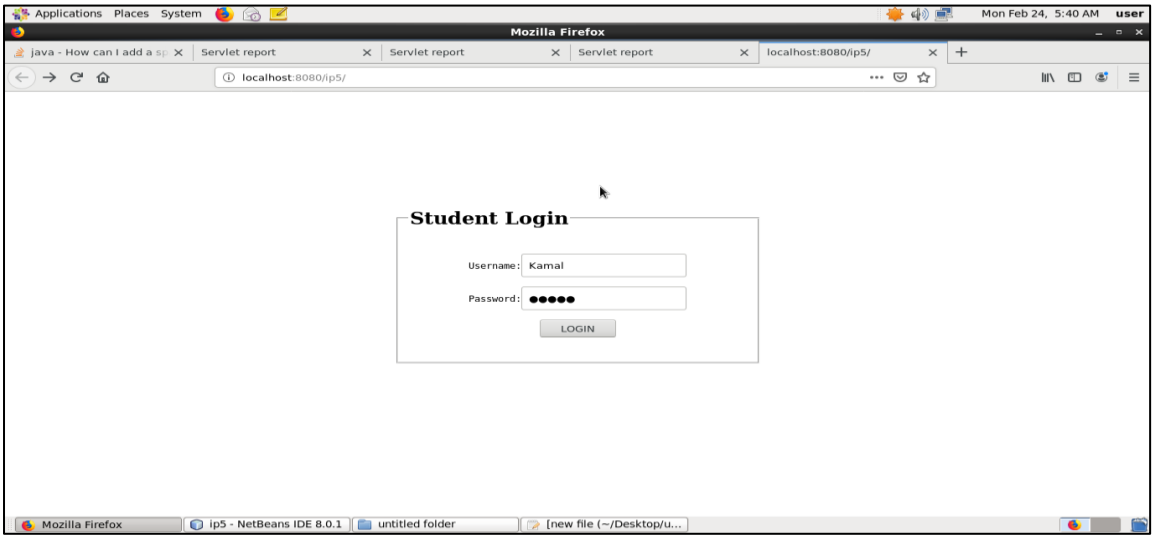
report.java

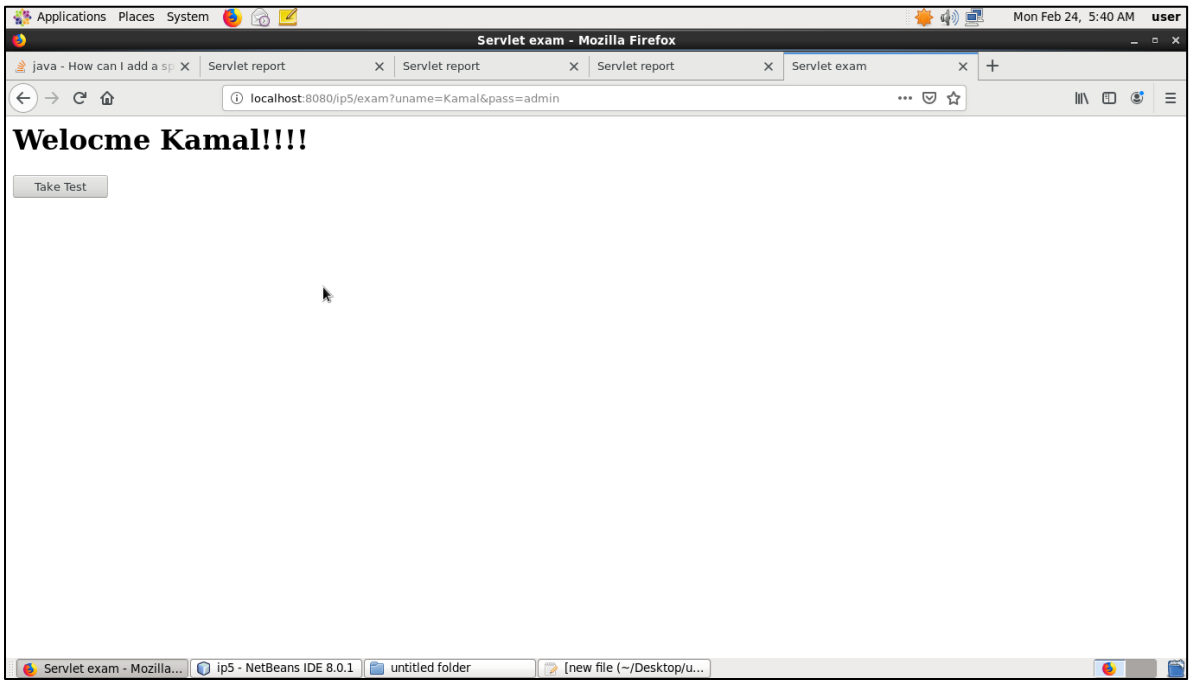
```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;
```

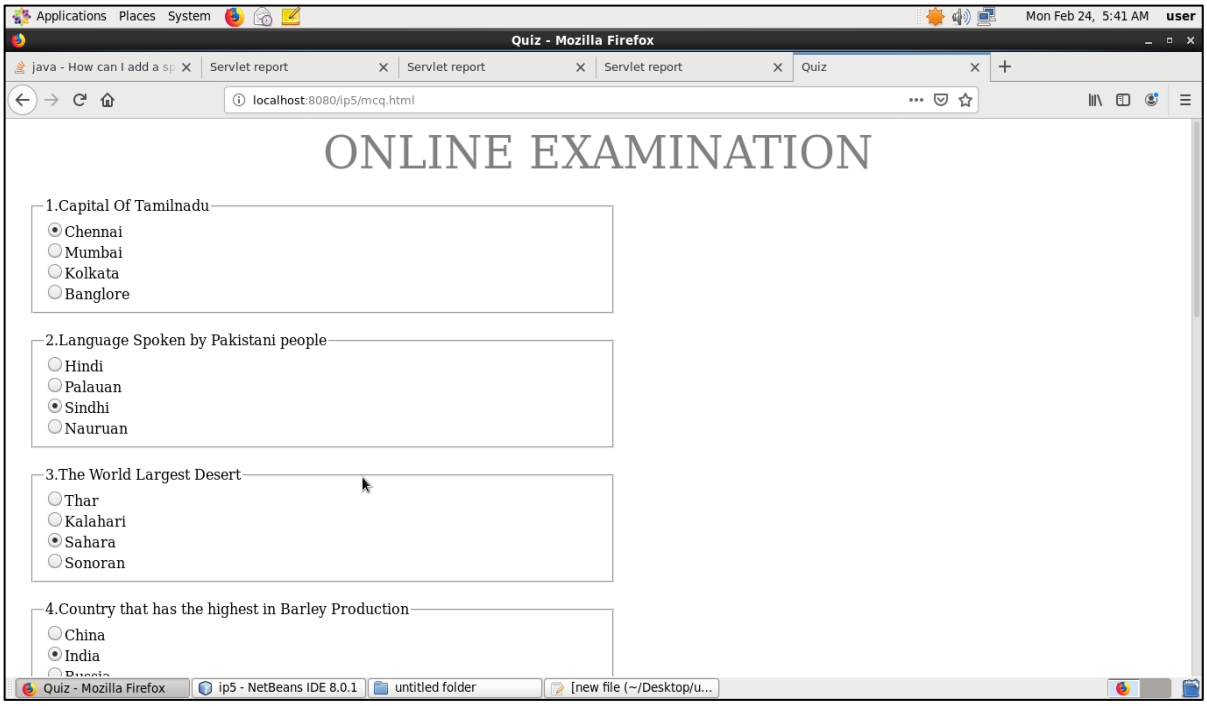
```
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class report extends HttpServlet {
   protected void processRequest(HttpServletRequest request, HttpServletResponse response)
         throws ServletException, IOException, ClassNotFoundException, SQLException {
      response.setContentType("text/html;charset=UTF-8");
      String name1,cs;
      int sc,i=0;
      try (PrintWriter out = response.getWriter()) {
         Class.forName("org.apache.derby.jdbc.ClientDriver");
         Connection     con=DriverManager.getConnection("jdbc:derby://localhost:1527/quizdb1",
         "quiz", "quiz");
         Statement st=con.createStatement();
         String str="Select * from mark";
         ResultSet rs=st.executeQuery(str);

         out.println("<!DOCTYPE html>");
         out.println("<html>");
         out.println("<head>");
         out.println("<title>Servlet report</title>");
         out.println("</head>");
         out.println("<body>");
         out.println("<h1>Quiz Report</h1>");
         out.println("<table border='1'>");
         out.println("<tr><th>Student name</th>");
         out.println("<th>Score</th></tr>");
         out.println("<tr>");
         while(rs.next()) {
            name1=rs.getString("name");
            sc=rs.getInt("Score");
            out.println("<td>"+name1+"</td><td>"+sc+"</td>"+"</tr>");

         }
         out.println("</table>");
         out.println("</body>");
         out.println("</html>");
      }
```

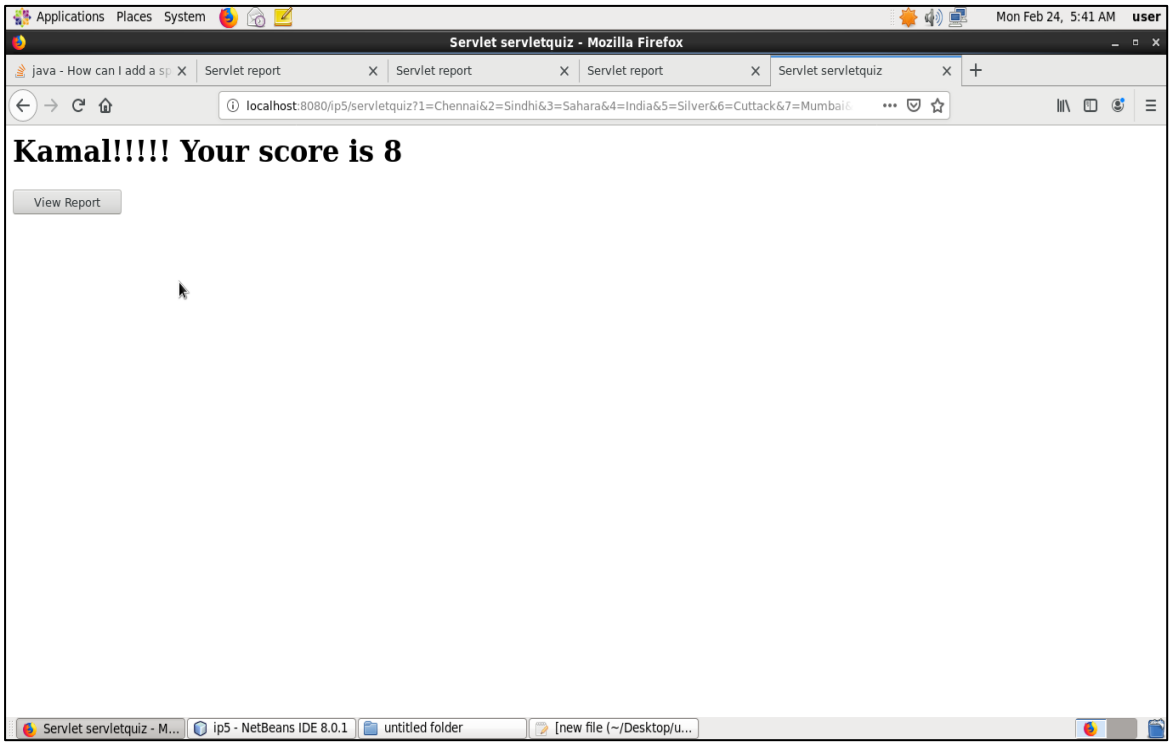
```
    }

    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        try {
            processRequest(request, response);
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(report.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(report.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        try {
            processRequest(request, response);
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(report.class.getName()).log(Level.SEVERE, null, ex);
        } catch (SQLException ex) {
            Logger.getLogger(report.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
    public String getServletInfo() {
            return "Short description";
    }
}
```

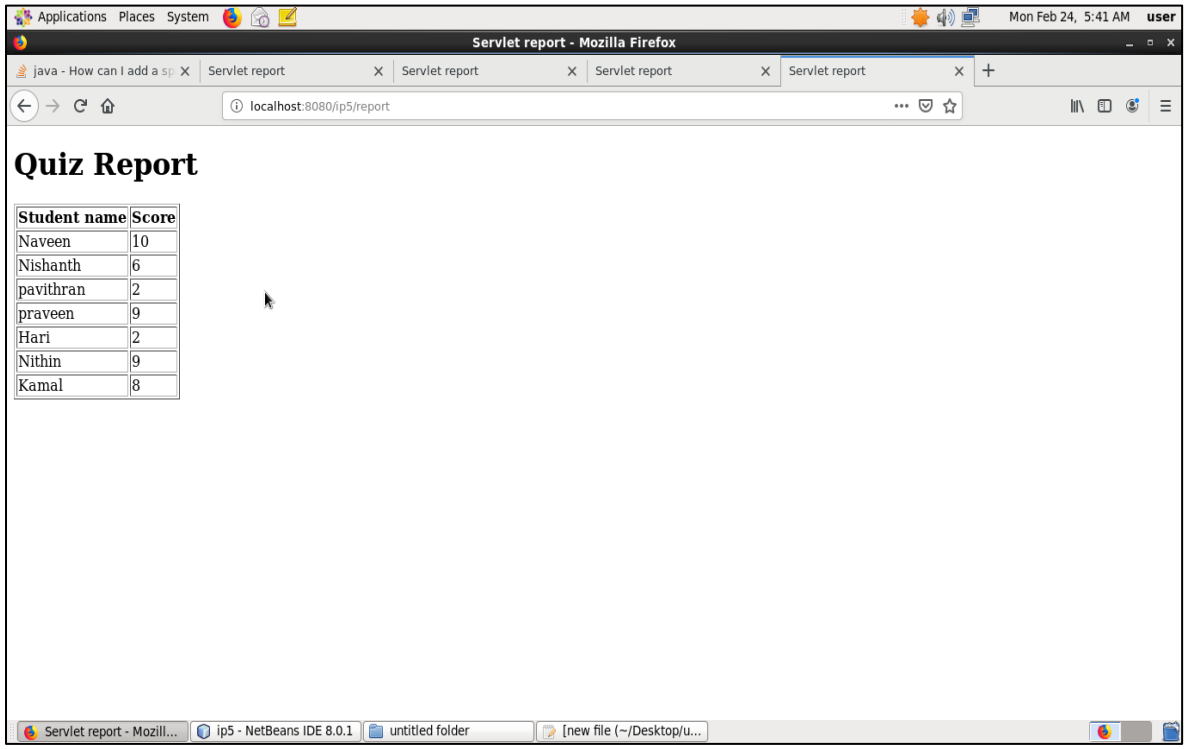
Output




Applications Places System
Mon Feb 24, 5:40 AM user
Servlet exam - Mozilla Firefox
java - How can I add a sp
Servlet report
Servlet report
Servlet report
Servlet exam
localhost:8080/ip5/exam?uname=Kamal&pass=admin
Welocme Kamal!!!!
Take Test
Servlet exam - Mozilla...
ip5 - NetBeans IDE 8.0.1
untitled folder
[new file (~/Desktop/u...


Applications Places System
Mon Feb 24, 5:41 AM user
Quiz - Mozilla Firefox
java - How can I add a sp
Servlet report
Servlet report
Servlet report
Quiz
localhost:8080/ip5/mcq.html
ONLINE EXAMINATION
1.Capital Of Tamilnadu
Chennai
Mumbai
Kolkata
Banglore
2.Language Spoken by Pakistani people
Hindi
Palauan
Sindhi
Nauruan
3.The World Largest Desert
Thar
Kalahari
Sahara
Sonoran
4.Country that has the highest in Barley Production
China
India
Quiz - Mozilla Firefox
ip5 - NetBeans IDE 8.0.1
untitled folder
[new file (~/Desktop/u...





Result:

The program to develop a web page to conduct quiz program and a servlet program to prepare the report of the quiz program has been executed and verified the result

Ex.No.: 6 **Date :**

Shopping Cart Application

Aim:

Develop a web page for shopping cart application with session handling

Procedure:

Step 1. Start.

Step 2. Create a login form for online shopping

Step 3. Create a webpage to display the available product from the database.

Step 4. Create another web page to pick the products from the list.

Step 5. Create a servlet program to calculate the total amount.

Step 6. Create another servlet to display the shopping cart.

Step 7. Execute all the servlet programs to perform online shopping

Step 8. Stop

index.html

```
<!DOCTYPE html>
<html>
<head>
<title>Online Shopping</title>
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1.0">
<style>
        fieldset{
            width: 300px;
            height: 100px;
        }
</style>
</head>
<body>
<h1>Online Shopping</h1>
<form action="login.jsp">
<fieldset>
<legend>Login</legend>
<table>
<tr>
<td>User Name</td>
<td><input type="text" name="uname"/></td>
</tr>
<tr>
<td>Password</td>
<td><input type="password" name="pwd"/></td>
</tr>
</table>
<input type="submit" value="sign in"/>
</fieldset>
</form>
</body>
</html>
```

login.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
```

```
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Login Page</title>
</head>
<body>
<%!
        String uname;
        String pwd;
    %>
<%
        uname=request.getParameter("uname");
        pwd=request.getParameter("pwd");
        if(uname!=null && pwd!=null){
           response.sendRedirect("ShoppingCart");
        }
        else{
        response.sendRedirect("index.html");
        }
    %>
</body>
</html>
```

cart.java

```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.Cookie;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class Cart extends HttpServlet {
   protected void processRequest(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException, SQLException {
      response.setContentType("text/html;charset=UTF-8");
```

```
try (PrintWriter out = response.getWriter()) {
    out.println("<!DOCTYPE html>");
    out.println("<html>");
    out.println("<head>");
    out.println("<title>Servlet Cart</title>");
    out.println("</head>");
    out.println("<body>");
    String pid=request.getParameter("pid");
    String qty=request.getParameter("qty");
    String submit=request.getParameter("submit");
    String list=request.getParameter("list");
    if(submit!=null){
        Cookie ck1=new Cookie(pid,qty);
        response.addCookie(ck1);
        response.sendRedirect("ShoppingCart");
    }
    if(list!=null){
        Cookie ck1[] = request.getCookies();
        out.print("<h1>Your Cart Details</h1>");
        Connection      con=DriverManager.getConnection("jdbc:derby://localhost:1527/tcs04",
    "tcs04",
      "tcs04");
        Statement stmt=con.createStatement();
        ResultSet rs=stmt.executeQuery("select * from product");
        String[][] product=new String[10][3];
        int i=0;
        int j=0;
        while(rs.next()){
            product[i][j++]=rs.getString(1);
            product[i][j++]=rs.getString(2);
            product[i][j]=rs.getString(3);
            i++;
            j=0;
        }
        String price=null;
        String name=null;
        int amount=0;
        out.println("<table border=1>");
        out.println("<tr><th>S.No</th><th>Product ID</th><th>Product Name</th><th>Unit
```

```
            Price</th><th>Quantity</th><th>Amount</th><tr>");
        for( i = 1; i < ck1.length; i++){
            String pname=ck1[i].getName();
            String qtys=ck1[i].getValue();
            for(int k=0;k<4;k++){
                String s1=product[k][0];
                if(s1.equals(pname)){
                    price=product[k][2];
                    name=product[k][1];
                    int q=Integer.parseInt(qtys);
                    int p=Integer.parseInt(price);
                    amount=amount+q*p;
                out.print("<tr><td>" + i+"</td><td>"+pname +"</td><td>" +name+"</td><td>"
                +price+"</td> <td>"+q+"</td><td>"+q*p+"</td></tr>");
                    break;
                }
            }
        }
        out.println("</table>");
        out.println("<h2>Total Amount:"+amount+"</h2>");
    }
    out.println("</body>");
    out.println("</html>");
  }
}
protected void doGet(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
  try {
    processRequest(request, response);
  } catch (SQLException ex) {
    Logger.getLogger(Cart.class.getName()).log(Level.SEVERE, null, ex);
  }
}
protected void doPost(HttpServletRequest request, HttpServletResponse response)
    throws ServletException, IOException {
  try {
    processRequest(request, response);
  } catch (SQLException ex) {
    Logger.getLogger(Cart.class.getName()).log(Level.SEVERE, null, ex);
```

```
        }
    }
     public String getServletInfo() {
        return "Short description";
    }
}
```

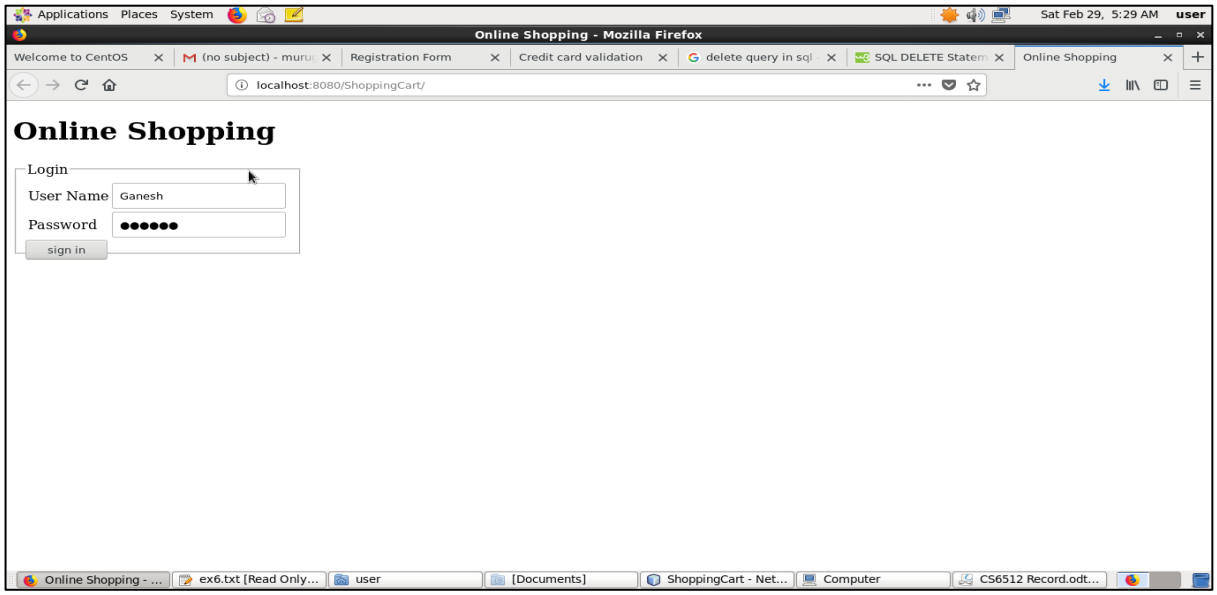
ShoppingCart.java

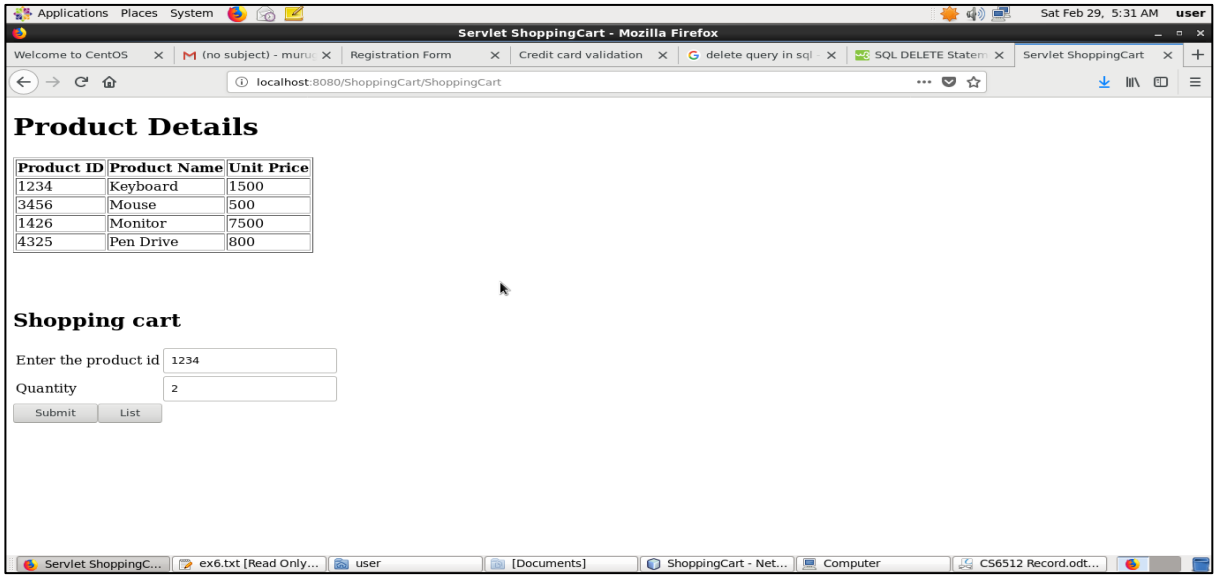
```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.ResultSet;
import java.sql.SQLException;
import java.sql.Statement;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class ShoppingCart extends HttpServlet {
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException, SQLException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            out.println("<!DOCTYPE html>");
            out.println("<html>");
            out.println("<head>");
            out.println("<title>Servlet ShoppingCart</title>");
            out.println("</head>");
            out.println("<body><form action=Cart>");
            out.println("<h1>Product Details</h1>");
            out.println("<table border=1>");
            out.println("<tr><th>Product ID</th><th>Product Name</th><th>Unit
Price</th></tr>");
            Connection con=DriverManager.getConnection("jdbc:derby://localhost:1527/tcs04",
"tcs04",
            "tcs04");
            Statement stmt=con.createStatement();
```

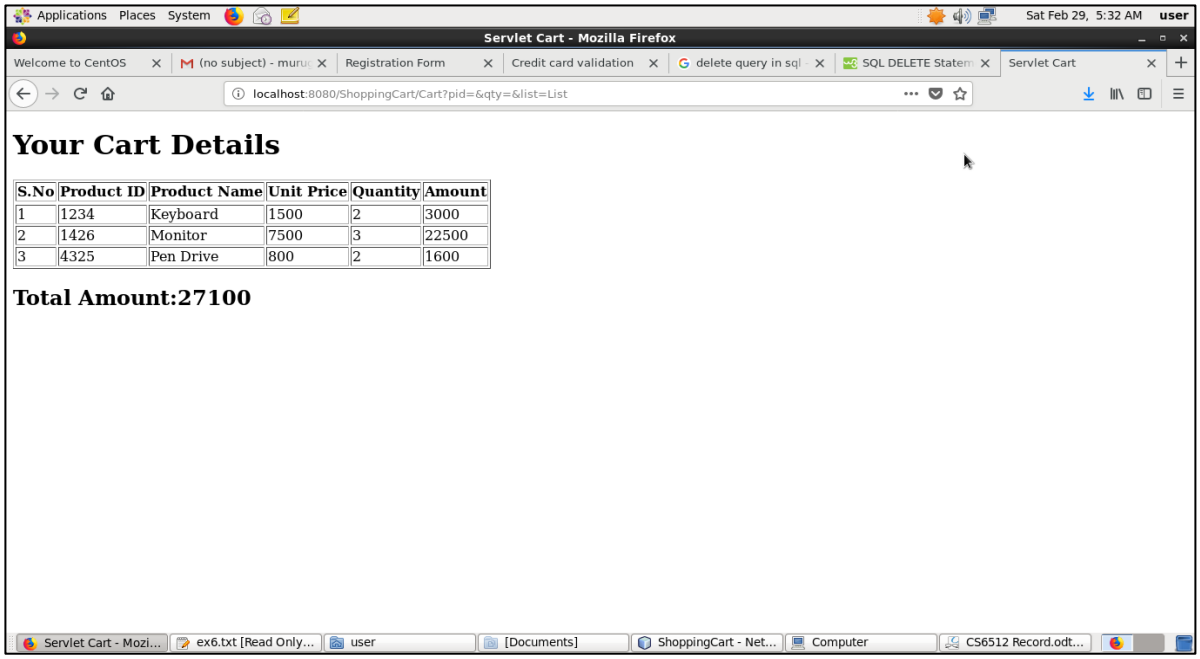
```
        ResultSet rs=stmt.executeQuery("select * from product");
        String pid=null;
        String pname=null;
        String price=null;
        while(rs.next()){
           pid=rs.getString(1);
           pname=rs.getString(2);
           price=rs.getString(3);
           out.println("<tr><td>"+pid+"</td>");
           out.println("<td>"+pname+"</td>");
           out.println("<td>"+price+"</td></tr>");
        }
        out.println("</table>");
        out.println("<br><br><br>");
        out.println("<h2>Shopping cart</h2><table>");
        out.println("<tr><td>Enter the product id</td>");
        out.println("<td><input type='text' name='pid'/></td></tr>");
        out.println("<tr><td>Quantity</td>");
        out.println("<td><input type='text' name='qty'/></td></tr></table>");
        out.print("<input type='submit' name='submit' value='Submit'/>");
        out.println("<input type='submit' name='list' value='List'/>");
        out.println("</body>");
        out.println("</html>");
    }
}
protected void doGet(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    try {
        processRequest(request, response);
    } catch (SQLException ex) {
        Logger.getLogger(ShoppingCart.class.getName()).log(Level.SEVERE, null, ex);
    }
}
protected void doPost(HttpServletRequest request, HttpServletResponse response)
        throws ServletException, IOException {
    try {
        processRequest(request, response);
    } catch (SQLException ex) {
        Logger.getLogger(ShoppingCart.class.getName()).log(Level.SEVERE, null, ex);
```

```
        }
    }
    public String getServletInfo() {
        return "Short description";
    }
}
```

Output







Result:

The program to develop a web page to perform online shopping has been executed and verified the result

Ex.No.: 7 **Date :**

JSP Application with Book Database

Aim:

Develop a web page to display the book details retrieved from the database

Procedure:

Step 1. Start.

Step 2. Create a webpage to show the book details

Step 3. Create a JSP program to populate the book details on the web page.

Step 4. Create a servlet program to traverse and search a book from the database.

Step 5. Execute the JSP and servlet program to display the book details.

Step 6. Stop

book.jsp

```
<%@page import="java.sql.Statement"%>
<%@page import="java.sql.ResultSet"%>
<%@page import="java.sql.DriverManager"%>
<%@page import="java.sql.Connection"%>
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
<title>Dynamic Webpage</title>
</head>
<body>
<%
        Class.forName("org.apache.derby.jdbc.ClientDriver");
        Connection
        con=DriverManager.getConnection("jdbc:derby://localhost:1527/bookdb","book",
        "book");
        Statement st=con.createStatement();
        String str="select * from books";
        ResultSet rs=st.executeQuery(str);
         out.println("<table border='2'><tr><th>ISBN Number</th><th>Book Name</th>
        <th>Author </th><th>Price</th></tr>");
        while(rs.next()){
                out.println("<tr><td>"+rs.getInt(1)+"</td><td>"+rs.getString(2)+"</td><td>"+
                rs.getString(3)+"</td><td>"+rs.getInt(4)+"</td></tr>");
        }
        out.println("</table><br><br>");
        out.println("<form action='search'>");
        out.println("ISBN Number:"+""+"<input type='search' name='search'><br><br><br>");
        out.println("<input type='submit' value='Seacrh'");
      %>
</body>
</html>
```

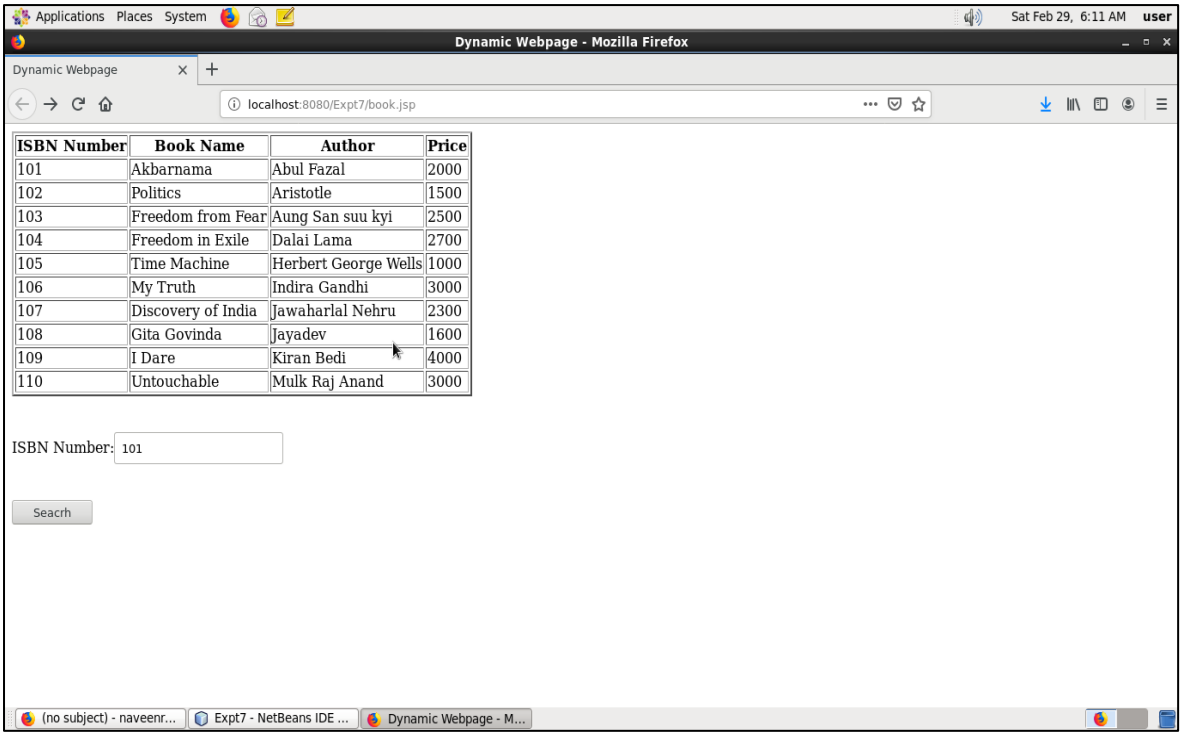
search.java

```
import java.io.IOException;
import java.io.PrintWriter;
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
```

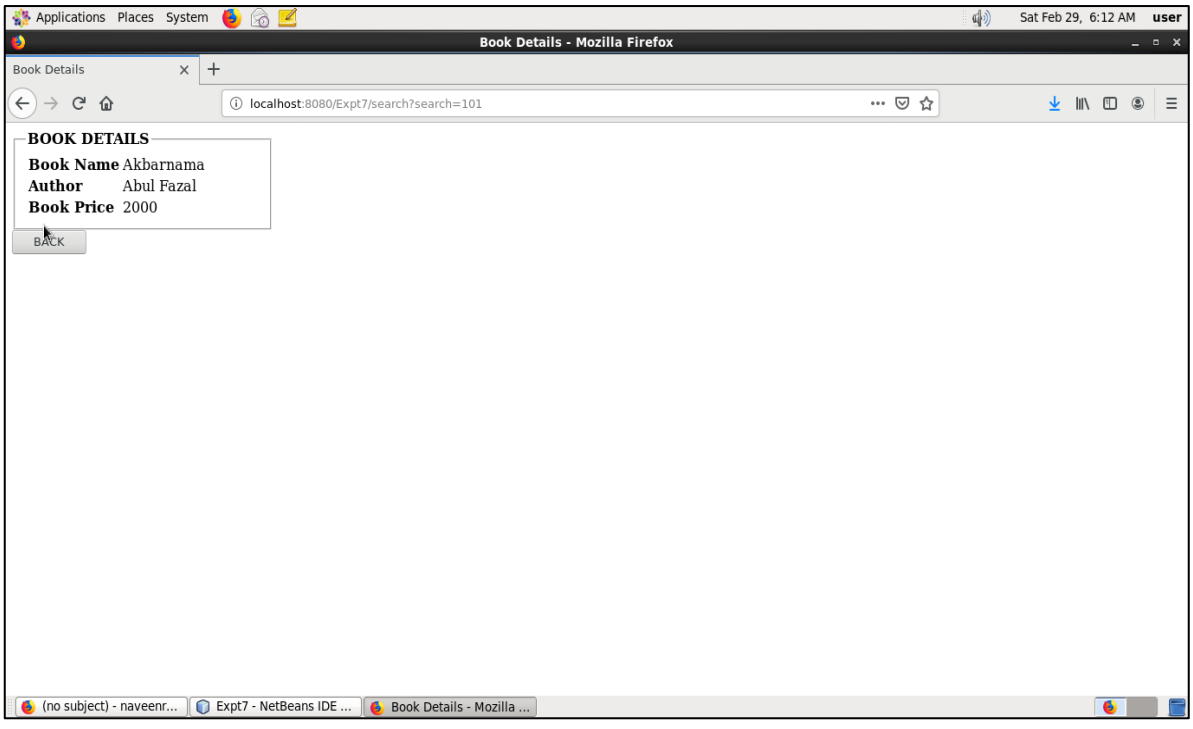
```
import java.sql.ResultSet;
import java.sql.ResultSetMetaData;
import java.sql.SQLException;
import java.util.logging.Level;
import java.util.logging.Logger;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class search extends HttpServlet {
    protected void processRequest(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException, ClassNotFoundException {
        response.setContentType("text/html;charset=UTF-8");
        try (PrintWriter out = response.getWriter()) {
            String num=request.getParameter("search");
            Class.forName("org.apache.derby.jdbc.ClientDriver");
             Connection
            con=DriverManager.getConnection("jdbc:derby://localhost:1527/bookdb","book",
            "book");
            String str="select book_name,author,price from books where ISBN=?";
            PreparedStatement st=con.prepareStatement(str);
            st.setString(1, num);
            ResultSet rs=st.executeQuery();
            ResultSetMetaData rsm=rs.getMetaData();
             out.println("<fieldset style='width:20%'><legend><b>BOOK DETAILS</b></legend>
            <table>");
            while(rs.next()){
                out.println("<tr><td><b>Book Name</b></td><td>"+rs.getString(1)+"</td></tr>");
                out.println("<tr><td><b>Author</b></td><td>"+rs.getString(2)+"</td></tr>");
                out.println("<tr><td><b>Book Price</b></td><td>"+rs.getInt(3)+"</td></tr>");
            }
            out.println("</table></fieldset>");
            out.println("<!DOCTYPE html>");
           out.println("<html>");
            out.println("<head>");
            out.println("<title>Book Details</title>");
            out.println("</head>");
            out.println("<body>");
            out.println("<form action='book.jsp'>");
```

```
            out.println("<input type='submit' value='BACK'>");
            out.println("</form>");
            out.println("</body>");
            out.println("</html>");
        } catch (SQLException ex) {
            Logger.getLogger(search.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
    protected void doGet(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        try {
            processRequest(request, response);
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(search.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
    protected void doPost(HttpServletRequest request, HttpServletResponse response)
            throws ServletException, IOException {
        try {
            processRequest(request, response);
        } catch (ClassNotFoundException ex) {
            Logger.getLogger(search.class.getName()).log(Level.SEVERE, null, ex);
        }
    }
    public String getServletInfo() {
        return "Short description";
    }
}
```

Output



ISBN Number	Book Name	Author	Price
101	Akbarnama	Abul Fazal	2000
102	Politics	Aristotle	1500
103	Freedom from Fear	Aung San suu kyi	2500
104	Freedom in Exile	Dalai Lama	2700
105	Time Machine	Herbert George Wells	1000
106	My Truth	Indira Gandhi	3000
107	Discovery of India	Jawaharlal Nehru	2300
108	Gita Govinda	Jayadev	1600
109	I Dare	Kiran Bedi	4000
110	Untouchable	Mulk Raj Anand	3000



Result:

The program to develop a web page populate the book details from the database has been executed and verified the result

Ex.No.: 8 **Date :**

XML data Parsing with DOM

Aim:

Develop a DOM parser application to retrieve data from XML file

Procedure:

Step 1. Start.

Step 2. Using a standard text editor, create a file called users.xml.

Step 3. Write the declaration, which identifies the file as an XML document. The declaration starts with the characters "<?", which is the standard XML identifier for a processor instruction.<?xml version='1.0'>

Step 4. After the declaration, every XML file defines exactly one element, known as the root element. Here, <userdata>

Step 5. Add attributes to an element by specifying them in tags. Eg: <user>

Step 6. Add Nested elements by specifying attributes for the previous tags. Eg: <userno>, <name>, <age>.

Step 7. Save file as .xml file.

Step 8. Write a javascript program for Information Retrieval.

Step 9. Stop

users.xml

```
<?xml version="1.0"?>
<userdata>
	<user>
		<userno>101</userno>
		<name>Ravi</name>
		<age>23</age>
	</user>
	<user>
		<userno>102</userno>
		<name>Raja</name>
		<age>20</age>
	</user>
	<user>
		<userno>103</userno>
		<name>Rose</name>
		<age>18</age>
	</user>
	<user>
		<userno>104</userno>
		<name>Rajesh</name>
		<age>25</age>
	</user>
	<user>
		<userno>105</userno>
		<name>Raghul</name>
		<age>16</age>
	</user>
	<user>
		<userno>106</userno>
		<name>Ganesh</name>
		<age>22</age>
	</user>
	<user>
		<userno>107</userno>
		<name>Magesh</name>
		<age>21</age>
	</user>
	<user>
```

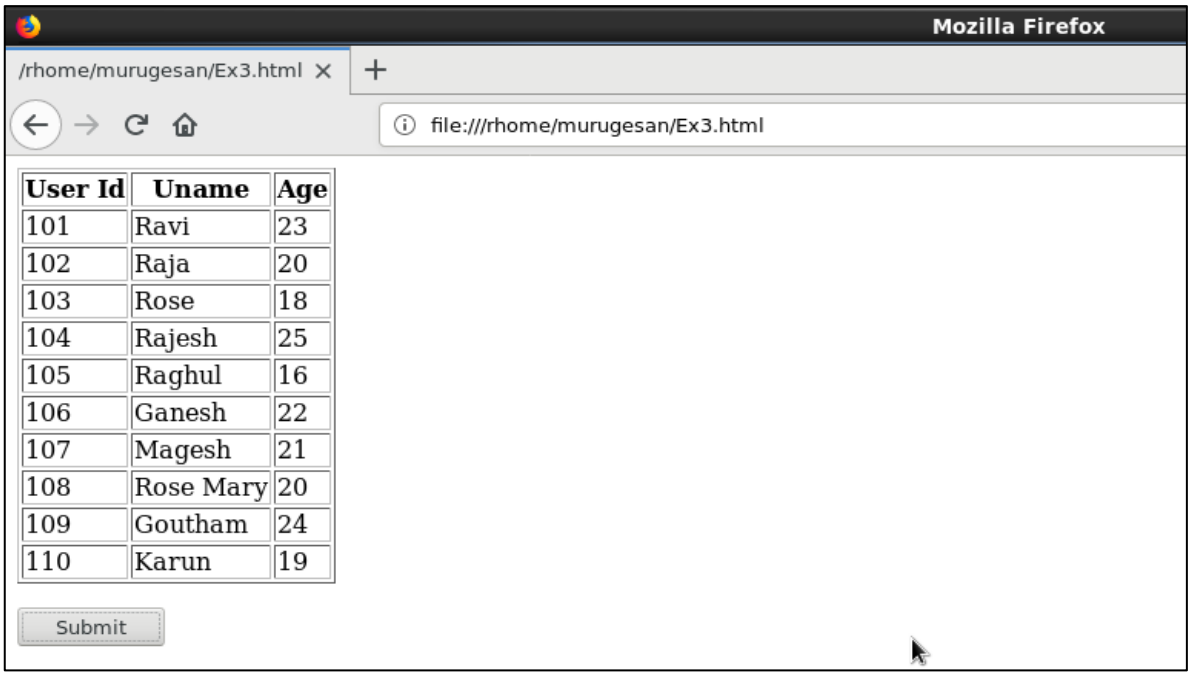
```
        <userno>108</userno>
        <name>Rose Mary</name>
        <age>20</age>
    </user>
    <user>
        <userno>109</userno>
        <name>Goutham</name>
        <age>24</age>
    </user>
    <user>
        <userno>110</userno>
        <name>Karun</name>
        <age>19</age>
    </user>
</userdata>
```

index.html

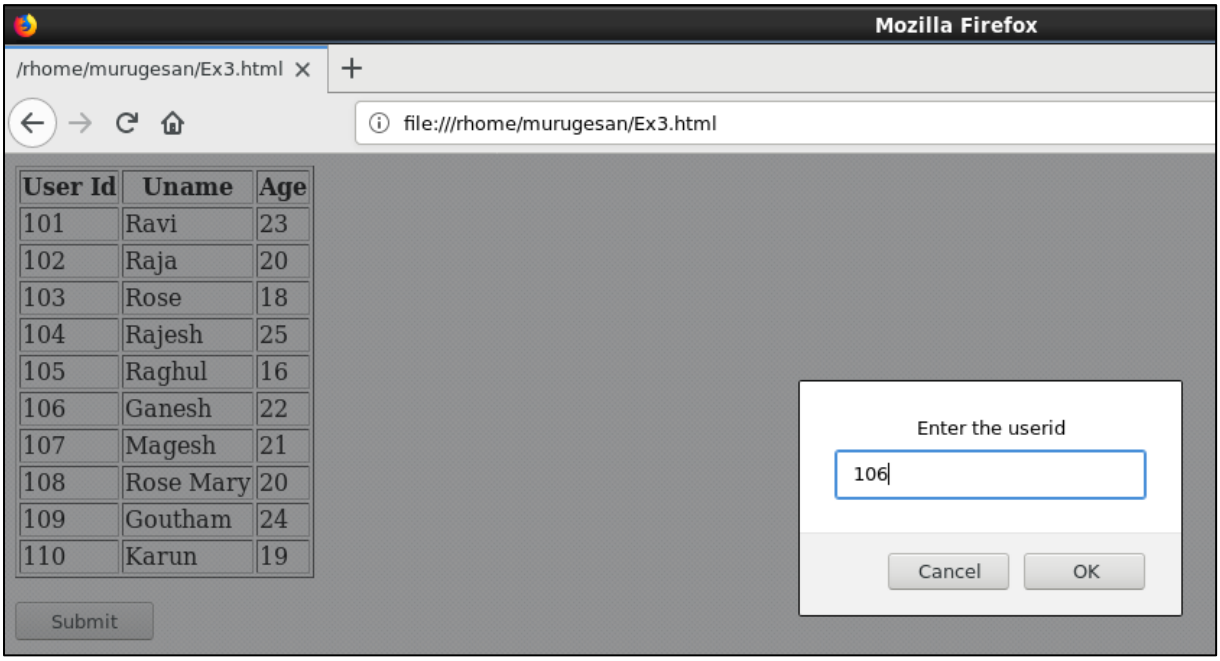
```
<html>
<body>
<script type="text/javascript">
    var xmlhttp = new XMLHttpRequest();
    xmlhttp.open("GET","users.xml",false);
    xmlhttp.send();
    var xmlDoc = xmlhttp.responseXML;
    document.write("<html><table border=1><tr><th>User Id</th>
    <th>Uname</th><th>Age</th></tr>");
    for(var i=0;i<10;i++)
    {
        var uid1=xmlDoc.getElementsByTagName("userno")[i].childNodes[0].nodeValue;
        var uname = xmlDoc.getElementsByTagName("name")[i].childNodes[0].
                    nodeValue;
        var uage = xmlDoc.getElementsByTagName("age")[i].childNodes[0].nodeValue;
        document.write("<tr><td>"+uid1+"</td><td>"+uname+"</td><td>"+uage
        +"</td></tr>");
    }
    document.write("</table></html>");
</script>
<script type="text/javascript">
function display()
{
```

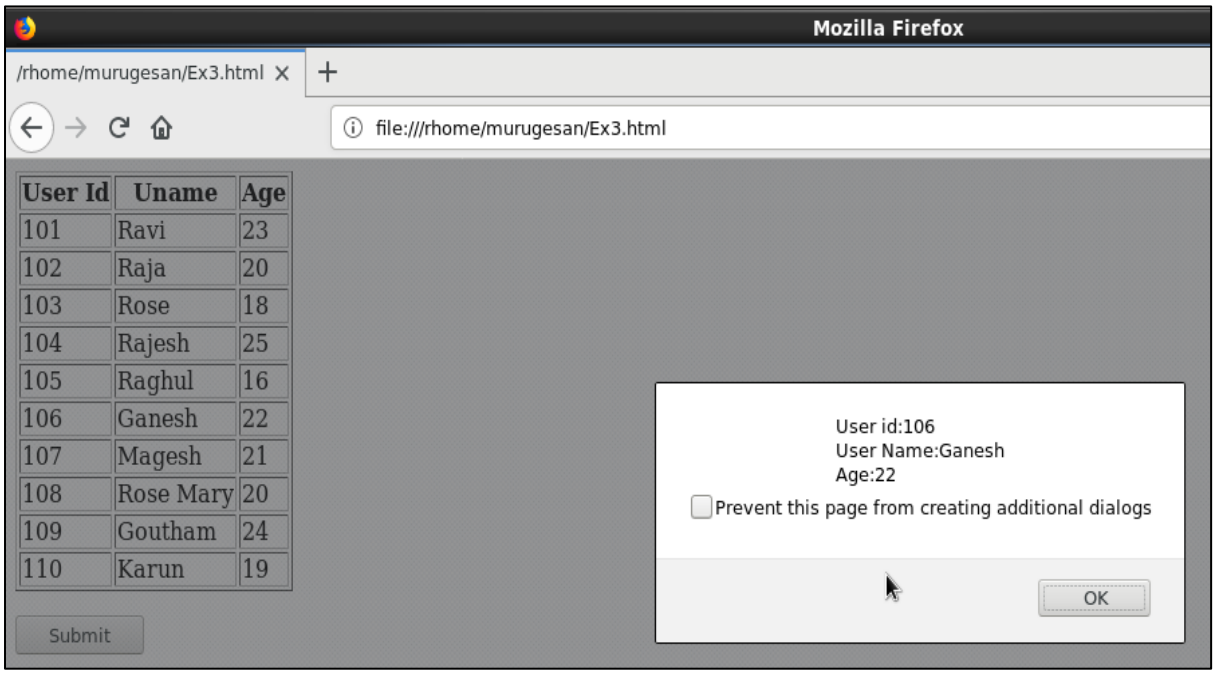
```
        var xmlhttp = new XMLHttpRequest();
        xmlhttp.open("GET","users.xml",false);
        xmlhttp.send();
        var xmlDoc = xmlhttp.responseXML;
        var uid = prompt("Enter the userid");
        var x = xmlDoc.getElementsByTagName("userdata");
        for(var i=0;i<10;i++)
        {
                uid1=xmlDoc.getElementsByTagName("userno")[i].childNodes[0].nodeValue;
                if(uid===uid1)
                {
                        var uname = xmlDoc.getElementsByTagName("name")[i].childNodes[0].
                                        nodeValue;
                        var uage = xmlDoc.getElementsByTagName("age")
                                        [i].childNodes[0].nodeValue;
                        alert("User id:"+uid +"\n"+"User Name:"+uname+"\n"+"Age:"+uage);
                        break;
                }
        }
}
</script>
<p><button onclick="javascript:display()">Submit</button></p>
</body>
</html>
```

Output



User Id	Uname	Age
101	Ravi	23
102	Raja	20
103	Rose	18
104	Rajesh	25
105	Raghul	16
106	Ganesh	22
107	Magesh	21
108	Rose Mary	20
109	Goutham	24
110	Karun	19





Result

The program to create a XML document and an information retrieve from the document has been executed and verified the result

Ex.No.: 9 **Date :**

XML data Parsing with DOM

Aim:

Develop a html document and a php program to get user information and store it into the database

Procedure:

Step 1. Start

Step 2. Create a html form to enter user details.

Step 3. Create a php program to retrieve the form information

Step 4. Write a regular expression to check the form field data

Step 5. Implement the regular expression to the php program to validate the form field entities.

Step 6. Create another php program to store the user information to the database

Step 7. Execute the html file to check the form details.

Step 8. Stop

index.php

```
<?php
 $scon=mysqli_connect('localhost','root','','sample');
   if(!$scon)
   {
      die('Error Connecting to Database');
   }
session_start();
if(isset($_POST['submit']))
{
$name=$_POST['uname'];
$_SESSION['user']=$name;
$pass=$_POST['pass'];
if(!empty($_POST['uname']) && !empty($_POST['pass']))
{
$row=mysqli_query($scon,"select * from login where username='$name'");
$res=mysqli_fetch_array($row);
$pass1=$res['password'];
if($pass==$pass1)
{
     header("Location: success.php");
       exit;
}
else
{
     $errMSG="Invalid data <br>";

}
}
}
if(isset($_POST['register']))
{
   header("Location: register.php");
       exit;
```

```
}
?>
<!DOCTYPE html>
<html>
        <style>
      form {
   width: 300px;
   margin: 0 auto;
}
   </style>
   <body>
       <form action="index.php" method="post">
         <h1 style="text-align: center">LOGIN FORM</h1>
         <table>
            <tr><td><label>NAME</label></td><td><input type="text" name="uname">
           </td></tr>
           <tr><td><label>PASSWORD</label></td><td><input type="password" name=
           "pass"></td></tr></table><br>
         <center><input type="submit" name="submit" value="LOGIN"></center>
          <?php if(isset($errMSG)) echo '<script type="text/javascript">alert("Invalid userID
or password");</script>'; ?><br>
          <center><input type="submit" name="register" style="height:20px;width:200px"
value="REGISTER"></center>
      </form>
   </body>
</html>
```

success.php

```
<?php
session_start();
$user=$_SESSION['user'];
?>
<!DOCTYPE html>
<html>
<body>
```

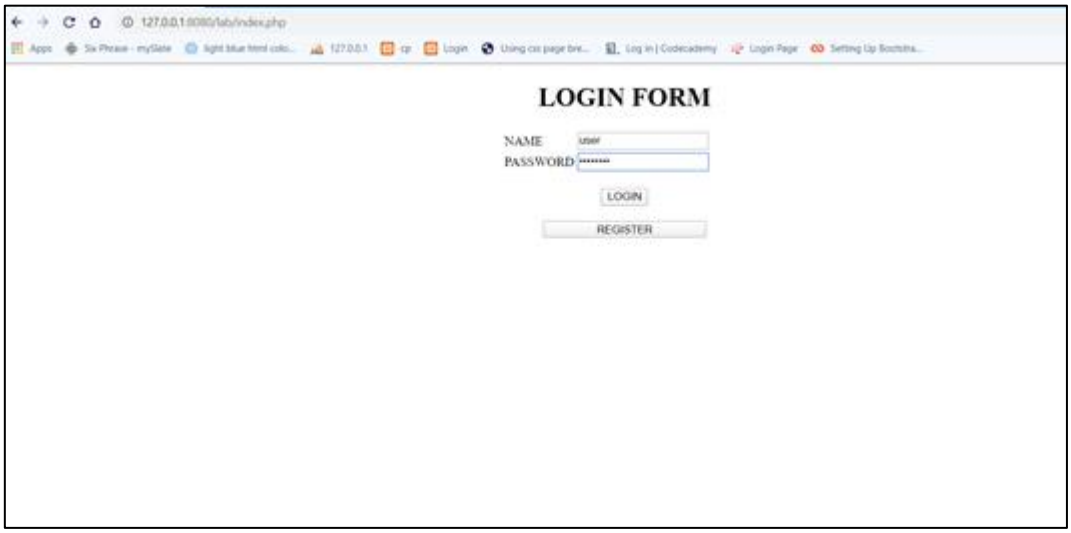
```
<h1 style="text-align: center">Welcome <?php echo $user; ?></h1>
</body>
</html>
```

register.php

```
<?php
 $scon=mysqli_connect('localhost','root','','sample');
if(isset($_POST['submit']))
{
   $nameErr="";
$name=$_POST['uname'];
$no=$_POST['phone'];
$email=$_POST['email'];
$pass=$_POST['pass'];
$flag=1;
if(!preg_match("/^[a-zA-Z ]*$/",$name)) {
   echo '<script type="text/javascript">alert("Invalid name format");</script>';
$flag=0;}
if(!preg_match("/[a-z0-9._%+-]+@[a-z0-9.-]+\.[a-z]{2,}$/",$email)) {
   echo '<script type="text/javascript">alert("Invalid email format");</script>';
   $flag=0;
}
   if(!preg_match("/^[0-9]+$/",$no)) {
   echo '<script type="text/javascript">alert("Invalid phone number format");</script>';
   $flag=0;
}
if($flag==1)
{
$sql="insert into login values('$name','$pass','$email','$no')";
if(mysqli_query($scon,$sql))
      {
      header("Location: index.php");
      exit;
   }
```

```
}
}
?>
<!DOCTYPE html>
<html>
 <style>
      form {
   width: 300px;
   margin: 0 auto;
}
   </style>
   <body>
       <form action="register.php" method="post">
         <h1 style="text-align: center">REGISTRATION FORM</h1><?php
          $nameErr="";?>
         <table>
            <tr><td><label>NAME</label></td><td><input type="text" name="uname">
            <?php echo $nameErr; ?></td></tr>
             <tr><td><label>EMAIL</label></td><td><input type="text" name="email">
            </td></tr>
             <tr><td><label>PHONE NO</label></td><td><input type="text" name=
            "phone"></td></tr>
            <tr><td><label>PASSWORD</label></td><td><input type="password" name=
            "pass"></td></tr></table><br>
         <center><input type="submit" name="submit"></center>
      </form>
   </body>
</html>
```

Output



Result

The program to create form for retrieving data and store the details into the database has been executed and verified the result

Ex.No.: 10 **Date :**

Web Service for Add two values

Aim:

To develop a web service program to find the sum of two integer values.

Procedure:

Step 1. Start

Step 2. Create a new web application with the name of WebSer

Step 3. Create a new web service with the name of AddSer in the package serv

Step 4. Include an operation for the web service by right click the webservice and select Add operations

Step 5. Give a name for the operation as Addition and include two parameters with the name of val1 and val2 in the pop-up menu and then press ok

Step 6. Deploy the project by selecting deploy option from the project properties

Step 7. Test the web service by right click the webservice, now we will get the WSDL file; displayed on the browser and copy the url.

Step 8. Create a client application by create a new web application with the name of WebClient

Step 9. In the project (by right click the project) select the web service client option and paste the url copied in step 7. with the package of serv (by creating new one for the client application

Step 10. Modify the index.html to accept two inputs and place a submit button

Step 11. Create a new JSP file add.jsp to get the input from the html file and send the input values to the web service by call the web service operation by right click on the jsp file and select the add operation which is automatically generated

Step 12. Change the va1 and val2 parameter with getParameter() method

Step 13. Edit the java file AddSer.java change the return statement as return val1+val2

Step 14. Run the html file to get the webservice to run

Step 15. Stop.

index.html

```
<!DOCTYPE html>
<html>
   <head>
      <title>Adding two values</title>
      <meta charset="UTF-8">
      <meta name="viewport" content="width=device-width, initial-scale=1.0">
   </head>
   <body>
      <form name="webservice" action="add.jsp" method="post">
         First Value <input type="text" name="val1" /><br>
         Second Value<input type="text" name="val2" /><br>
         <input type="submit" value="Add" name="btnAdd" />
      </form>

   </body>
</html>
```

AddSer.java

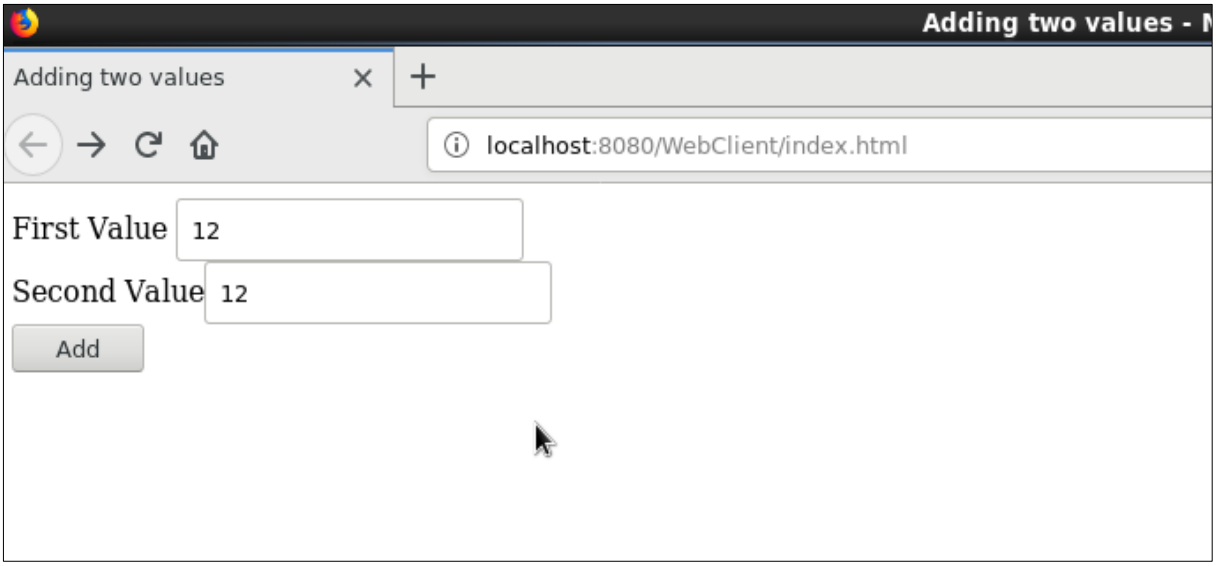
```
package serv;
import javax.jws.WebService;
import javax.jws.WebMethod;
import javax.jws.WebParam;
@WebService(serviceName = "AddSer")
public class AddSer {
   @WebMethod(operationName = "Addition")
   public Integer Addition(@WebParam(name = "val1") Integer val1, @WebParam(name =
"val2") Integer val2) {
      return val1+val2;
   }
}
```

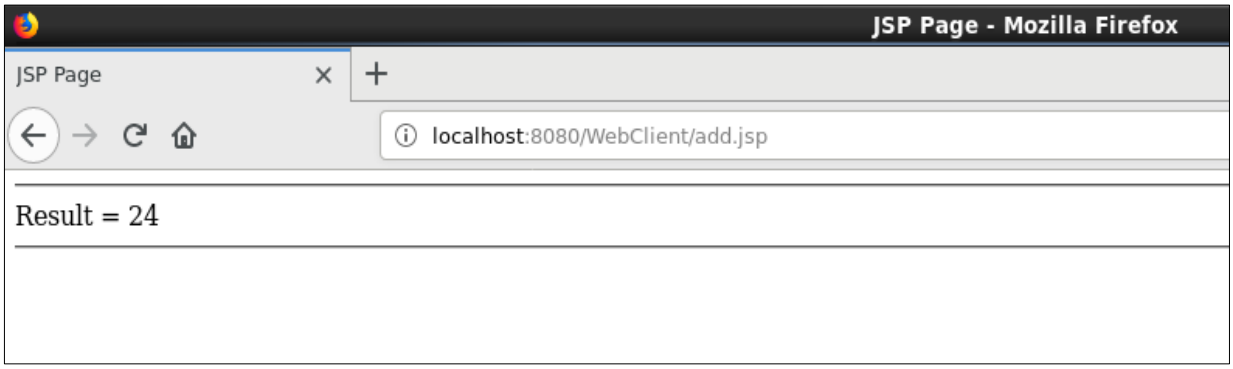
add.jsp

```
<%@page contentType="text/html" pageEncoding="UTF-8"%>
<!DOCTYPE html>
<html>
```

```
    <head>
        <meta http-equiv="Content-Type" content="text/html; charset=UTF-8">
        <title>JSP Page</title>
    </head>
    <body>
    try {
            serv.AddSer_Service service = new serv.AddSer_Service();
            serv.AddSer port = service.getAddSerPort();
            java.lang.Integer val1 = Integer.parseInt(request.getParameter("val1"));
            java.lang.Integer val2 = Integer.parseInt(request.getParameter("val2"));
            java.lang.Integer result = port.addition(val1, val2);
            out.println("Result = "+result);
    } catch (Exception ex) {  }
    %>
</body>
</html>
```

Output





Result:

The program to develop a web service to perform addition of two values has been executed and verified the result.