DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

LAB MANUAL

WEB TECHNOLOGIES

III B.TECH-Vth SEM

Lab Exercises	
1.	Write a HTML program for the demonstration of Lists. a. Unordered List b. Ordered List c. Definition List d. Nested List
2.	Write a HTML program for demonstrating Hyperlinks. a. Navigation from one page to another. b. Navigation within the page.
3.	Write a HTML program for time-table using tables.
4.	Write a HTML program to develop a static Home Page using frames.
5.	Write HTML program for designing your institute website. Display departmental information of your institute on the website.
6.	Write HTML program to design an entry form for student details/employee information/faculty details.
7.	Develop a responsive website using CSS and HTML. Website may be for tutorial/blogs/commercial website
8.	Write a program in XML for creation of DTD, which specifies set of rules. Create a style sheet in CSS/ XSL & display the document in internet explorer.
9.	Write HTML for demonstration of cascading stylesheets. a. Embedded stylesheets. b. External stylesheets. c. Inline styles.
10.	Write a javascript program to validate USER LOGIN page.
11.	Write a javascript program for validating REGISTRATION FORM
12.	Write a program for implementing XML document for CUSTOMER DETAILS.
13.	Create a Java Bean for Employee information (EmpID, Name, Salary, Designation and Department).
14.	Build a command-line utility using Node.js that performs a specific task, such as converting text to uppercase, calculating the factorial of a number, or generating random passwords
15.	Develop a script that uses MongoDB's aggregation framework to perform operations like grouping, filtering, and sorting. For instance, aggregate user data to find the average age of users in different cities.
16.	Write a simple servlet that displays a message.

17.	Write a servlet that reads parameters from employee login page.
18.	Write a servlet for creating a cookie and retrieving it.
19.	Create a table which should contain at least the following fields: name, password, email-id, phone number Write Servlet/JSP to connect to that database and extract data from the tables and display them. Insert the details of the users who register with the web site, whenever a new user clicks the submit button in the registration page.
20.	Write a JSP which insert the details of the 3 or 4 users who register with the web site by using registration form. Authenticate the user when he submits the login form using the user name and password from the database.

1. **Write a HTML program for the demonstration of Lists.**
   - e. **Unordered List**
   - f. **Ordered List**
   - g. **Definition List**
   - h. **Nested List**

Unordered List:

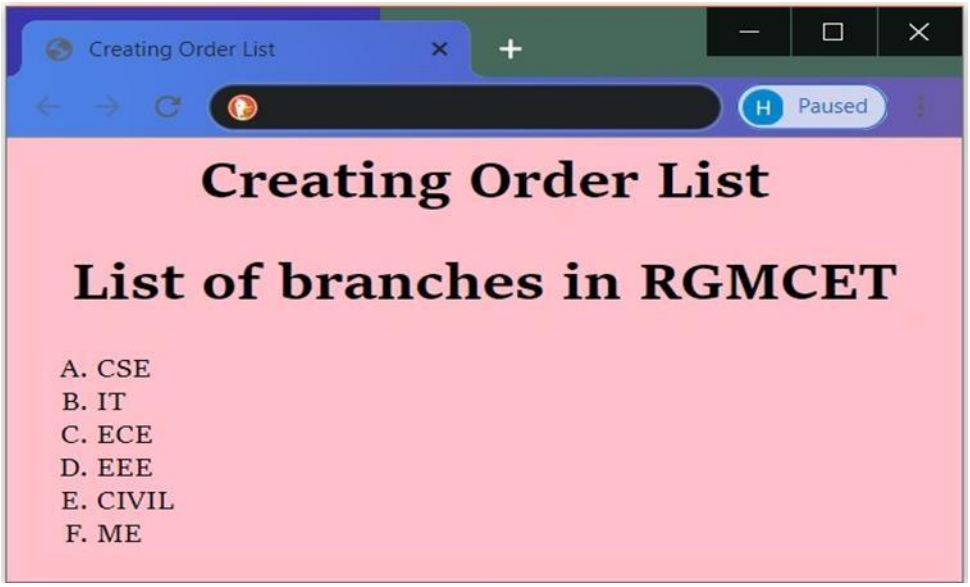
```
<html>
<head>
        <title> Creating Unorder List </title>
</head>
<body bgcolor=”pink”>
    <h1 align=”center”> Creating Unorder List</h1>
    <h1 align=”center”>List of Colleges in Kurnool</h1>
<ul type=”square”>
     <li>GPREC</li>
     <li>RGMCET</li>
     <li>GPCET</li>
   </ul>
</body>
</html>
```

Output:

Ordered List:

```
<html>
<head>
<title> Creating Order List </title>
</head>
<body bgcolor=”pink”>
<h1 align=”center”> Creating Order List</h1>
<h1 align=”center”>List of branches in RGMCET</h1>
<ol type=”A”>
                <li>CSE</li>
                <li>IT</li>
                <li>ECE</li>
                <li>EEE</li>
                <li>CIVIL</li>
                <li>ME</li>
        </ol>
 </body>
</html>
```

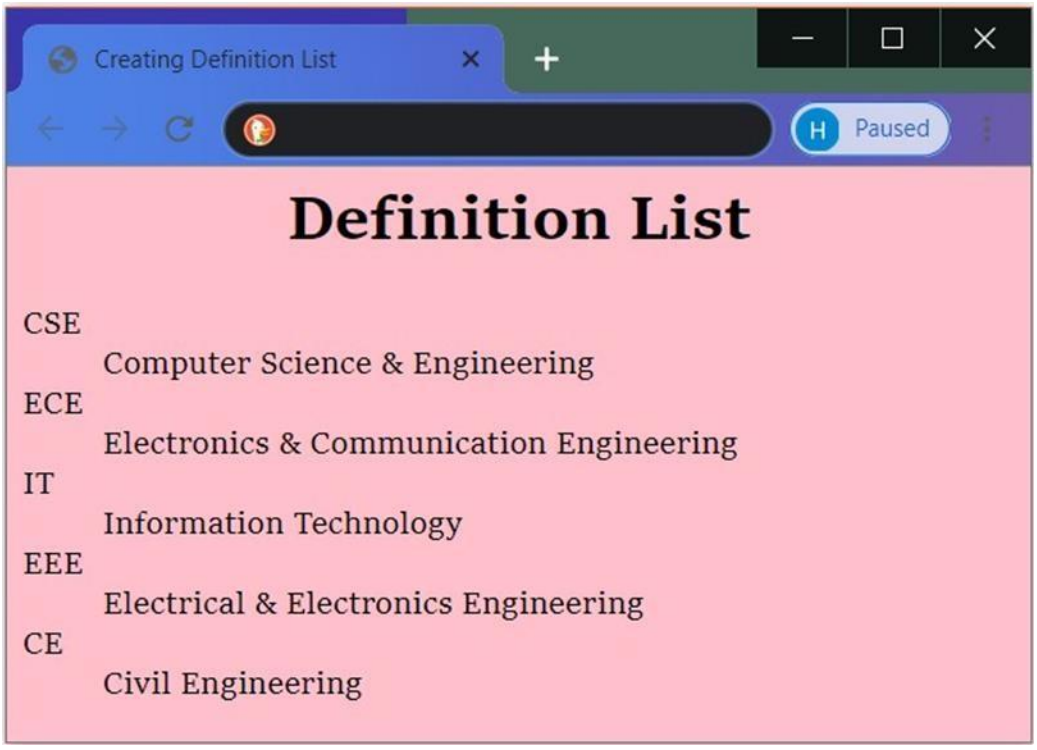
Output:



Definition List:

```
<html>
<head>
<title>Creating Definition List</title>
</head>
<body bgcolor=”pink”>
        <h1 align=”center”>Definition List</h1>
        <dl>
                <dt>CSE<dd>Computer Science & Engineering
                <dt>ECE<dd>Electronics & Communication Engineering
                <dt>IT<dd>Information Technology
                <dt>EEE<dd>Electrical & Electronics Engineering
                <dt>CE<dd>Civil Engineering
        </dl>
    </body>
</html>
```

Output:



Nested List:

```
<html>
<head>
<title>Nested Lists</title>
</head>
<body bgcolor=”pink”>
<h1 align=”center”>List of Colleges in Kurnool</h1>
<ol>
<li>Kurnool</li>
<ul>
<li>GPREC</li>
<li>BITS</li>
<li>GPCET</li>
</ul>
    <li>Nandyala</li>
      <ul>
```

```
            <li>RGMCET</li>
            <li>SREC</li>
        </ul>
    </ol>
</body>
</html>
```

Output:

2. Write a HTML program for demonstrating Hyperlinks.

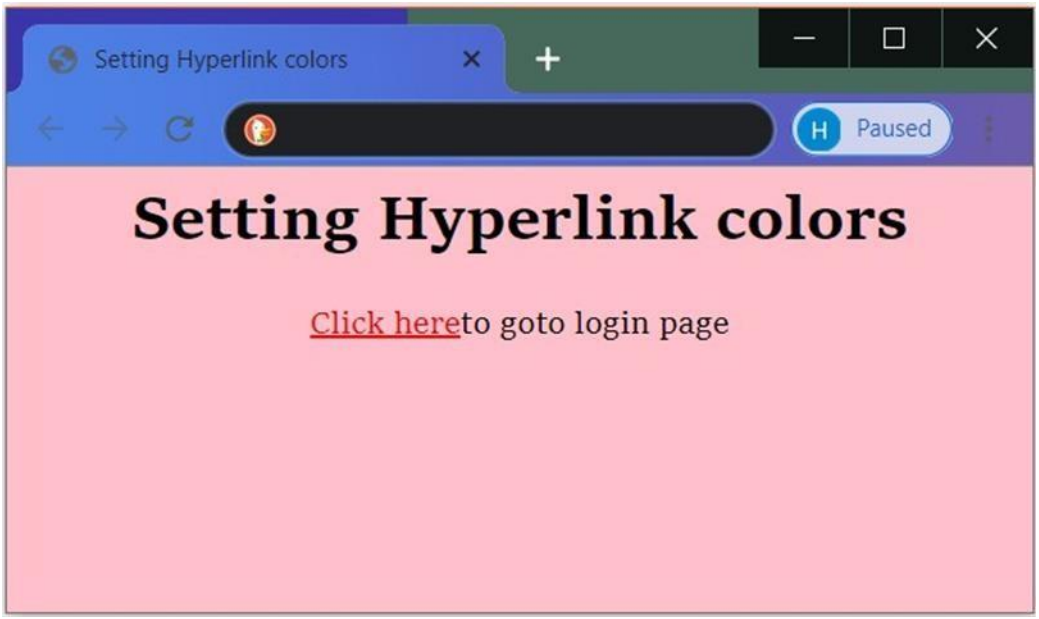
c. Navigation from one page to another.

d. Navigation within the page.

Navigation from one page to another:

```
<html>
<head>
<title>Setting Hyperlink colors</title>
</head>
<body bgcolor="pink" link=”green” vlink=”blue” alink=”red”>
<center><h1>Setting Hyperlink colors</h1>
<a href=”login.html”>Click here</a>to goto login page
</body>
</html>
```

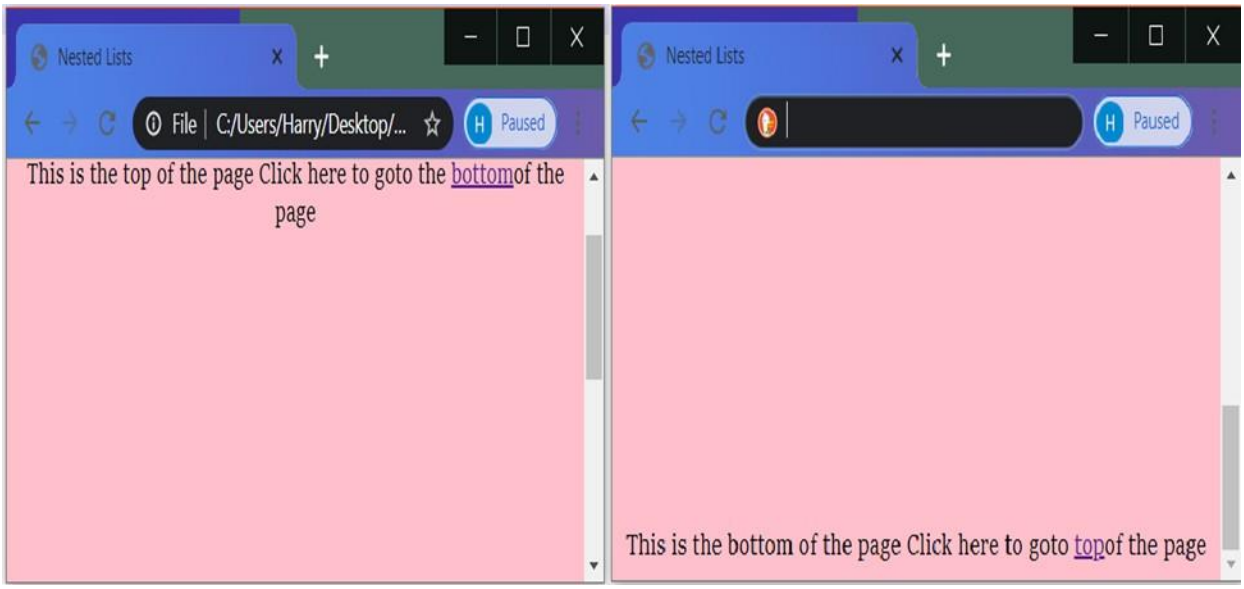
Output:



Navigation within the page:

```
<html>
    <head>
     <title>Nested Lists</title>
   </head>
   <body bgcolor="pink">
   <center><h1>Linking to a section in a page</h1>
   <a name=”top”>This is the top of the page</a>
   Click here to goto the <a target=”#bottom”>bottom</a>of the page
<br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br><br>
<br><br><br><br><br>
<a name=”bottom”>This is the bottom of the page</a> Click
here to goto <a target=”#top”>top</a>of the page
</center>
</body>
</html>
```

Output:


Nested Lists
File | C:/Users/Harry/Desktop/...
Paused
This is the top of the page Click here to goto the bottomof the page
Nested Lists
Paused
This is the bottom of the page Click here to goto topof the page

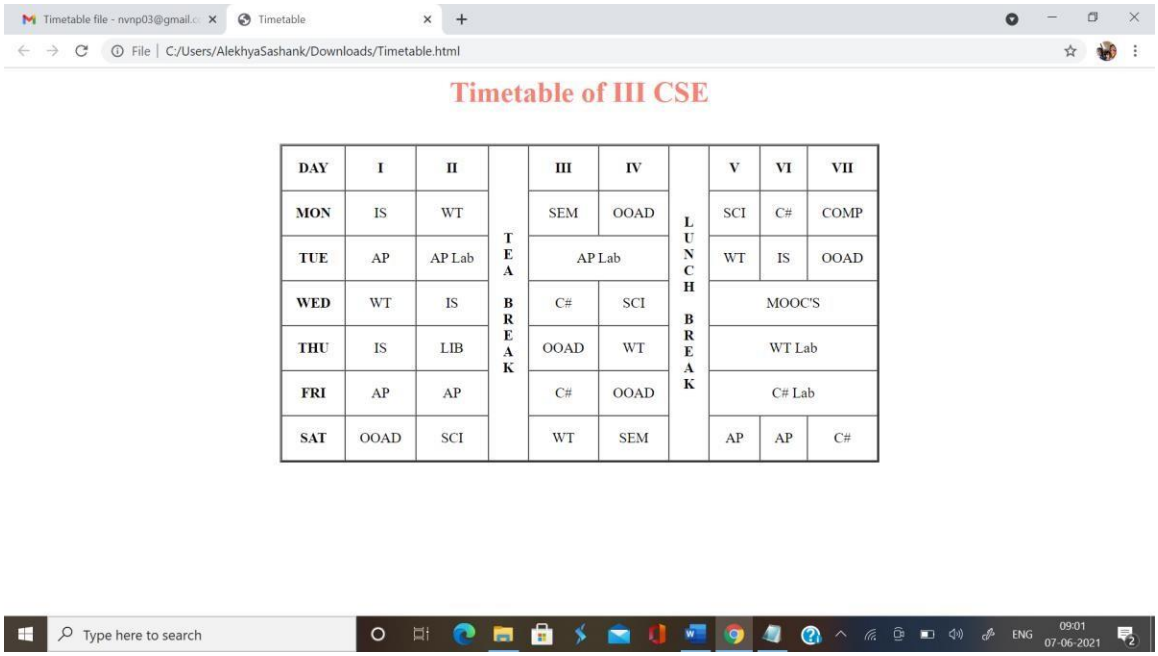
3. Write a HTML program for time-table using tables.

```
<html>
    <head>
        <title>Timetable</title>
    </head>
    <body>
        <h1 align="center"><font color="Salmon">Timetable of III CSE</font></h1><br>
        <table align="center" border="2" cellspacing="0" cellpadding="15">
            <tr align="center" valign=="middle">
                <th>DAY</th>
                <th>I</th>
                <th>II</th>
                <th rowspan="7"><b>T<br>E<br>A<br><br>B<br>R<br>E<br>A<br>K</b></th>
                <th>III</th>
                <th>IV</th>
                <th rowspan="7"><b>L<br>U<br>N<br>C<br>H<br><br>B<br>R<br>E<br>A<br>K</b></th>
                <th>V</th>
                <th>VI</th>
                <th>VII</th>
            </tr>
            <tr align="center">
                <th>MON</th>
                <td>IS</td>
                <td>WT</td>
                <td>SEM</td>
                <td>OOAD</td>
```

```
            <td>SCI</td>
            <td>C#</td>
            <td>COMP</td>
        </tr>
        <tr align="center">
            <th>TUE</th>
            <td>AP</td>
            <td>AP Lab</td>
            <td colspan="2">AP Lab</td>
            <td>WT</td>
            <td>IS</td>
            <td>OOAD</td>
        </tr>
        <tr align="center">
            <th>WED</th>
            <td>WT</td>
            <td>IS</td>
            <td>C#</td>
            <td>SCI</td>
            <td colspan="3">MOOC'S</td>
        </tr>
        <tr align="center">
            <th>THU</th>
            <td>IS</td>
            <td>LIB</td>
            <td>OOAD</td>
            <td>WT</td>
            <td colspan="3">WT Lab</td>
        </tr>
        <tr align="center">
```

```
                    <th>FRI</th>
                    <td>AP</td>
                    <td>AP</td>
                    <td>C#</td>
                    <td>OOAD</td>
                    <td colspan="3">C# Lab</td>
                </tr>
                <tr align="center">
                    <th>SAT</th>
                    <td>OOAD</td>
                    <td>SCI</td>
                    <td>WT</td>
                    <td>SEM</td>
                    <td>AP</td>
                    <td>AP</td>
                    <td>C#</td>
                </tr>
            </table>
        </body>
    </html>
```

Output:



Timetable of III CSE

DAY	I	II	TEA BREAK	III	IV	LUNCH BREAK	V	VI	VII
MON	IS	WT		SEM	OOAD		SCI	C#	COMP
TUE	AP	AP Lab		AP Lab			WT	IS	OOAD
WED	WT	IS		C#	SCI		MOOC'S		
THU	IS	LIB		OOAD	WT		WT Lab		
FRI	AP	AP		C#	OOAD		C# Lab		
SAT	OOAD	SCI		WT	SEM		AP	AP	C#

4. Write a HTML program to develop a static Home Page using frames.

```
<html>
<head>
<title>ABES Institute of Technology Ghaziabad </title>
</head>
<frameset cols="30%,70%">
 <frameset rows="25%,25%,50%">
  <frame src="e:\cse546\logo.html">
  <frame src="e:\cse546\home1.html">
  <frame src="e:\cse546\courses.html">
 </frameset>
 <frameset rows="25%,25%,50%">
  <frame src="e:\cse546\name.html">
  <frame src="e:\cse546\table.html">
  <frame src="e:\cse546\default.html" name="display">
  </frameset>
 </frameset>
</html>
```

Output:

5. Write a HTML program to develop a static Registration Form.

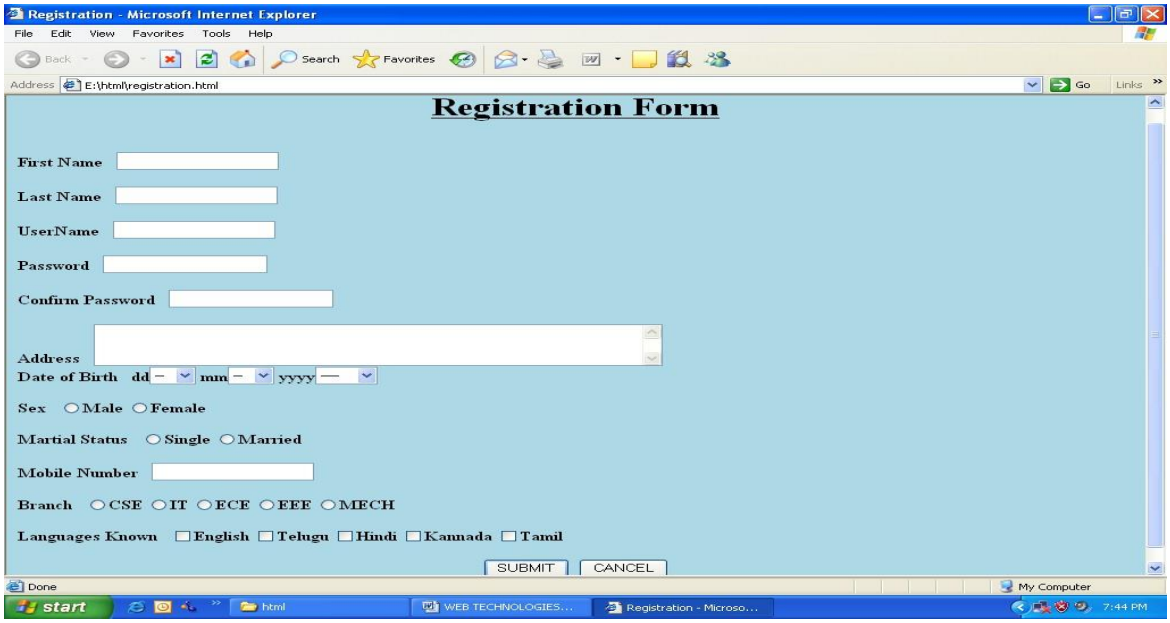
```
<html>
  <head>
    <title>Registration</title>
  </head>
  <body bgcolor=lightblue>
   <h1 align=center><u>Registration Form</u></h1>
   <br><br><br>
  <div>
   <strong>
    First Name   <input type=text value="  " name="txt1"><br><br>
    Last Name   <input type=text value=" " name="txt2"><br><br>
    UserName   <input type=text value="" name="txt3"><br><br>
    Password   <input type=password value="" name="pwd1"><br>
    Confirm Password   <input type=password value="" name="pwd2"><br><br>
    Address   <textarea rows=3 cols=60></textarea><br><br>
    Date of Birth  
     dd<select name="sel1">
       <option>--</option>
       <option>01</option>
       <option>02</option>
       <option>03</option>
       <option>04</option>
       <option>05</option>
       <option>27</option>
       <option>28</option>
       <option>29</option>
       <option>30</option>
       <option>31</option>
      </select>
```

```
mm<select name="sel2">
    <option>--</option>
    <option>01</option>
    <option>02</option>
    <option>03</option>
    <option>04</option>
    <option>05</option>
    <option>06</option>
    <option>07</option>
    <option>08</option>
    <option>09</option>
    <option>10</option>
    <option>11</option>
    <option>12</option>
  </select>
yyyy<select name="sel3">
    <option>--- </option>
    <option>1987</option>
    <option>1988</option>
    <option>1989</option>
    <option>1990</option>
    <option>1991</option>
    <option>1992</option>
    <option>1993</option>
    <option>1994</option>
    <option>1995</option>
    <option>1996</option>
    <option>1997</option>
    <option>1998</option>
    <option>1999</option>
```

```
<option>2000</option>
<option>2001</option>
<option>2002</option>
<option>2003</option>
<option>2004</option>
<option>2005</option>
<option>2006</option>
<option>2007</option>
<option>2008</option>
<option>2009</option>
<option>2010</option>
<option>2011</option>
<option>2012</option>
<option>2013</option>
<option>2014</option>
<option>2015</option>
<option>2016</option>
<option>2017</option>
</select><br><br>
Sex  
<input name="rb1" type="radio" value="radiobutton">Male
<input name="rb1" type="radio" value="radiobutton">Female
<br><br>
Martial Status  
<input name="rb2" type="radio" value="radiobutton">Single
<input name="rb2" type="radio" value="radiobutton">Married
<br><br>
Mobile Number   <input type=text name="txt4"><br><br>
Branch  
<input name="rb3" type="radio" value="radiobutton">CSE
```

```
    <input name="rb3" type="radio" value="radiobutton">IT
    <input name="rb3" type="radio" value="radiobutton">ECE
    <input name="rb3" type="radio" value="radiobutton">EEE
    <input name="rb3" type="radio" value="radiobutton">MECH
    <br><br>
  Languages Known  
    <input name="cb1" type="checkbox" value="checkbox">English
    <input name="cb1" type="checkbox" value="checkbox">Telugu
    <input name="cb1" type="checkbox" value="checkbox">Hindi
    <input name="cb1" type="checkbox" value="checkbox">Kannada
    <input name="cb1" type="checkbox" value="checkbox">Tamil
    <br><br>
  <center>
    <input type=submit value="SUBMIT" name="btn1"> 
    <input type=reset value="CANCEL" name="btn1">
  </center>
 </strong>
 </body>
</html>
```

Output:


Registration - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address E:\html\registration.html
Go Links
Registration Form
First Name
Last Name
UserName
Password
Confirm Password
Address
Date of Birth dd mm yyyy
Sex Male Female
Martial Status Single Married
Mobile Number
Branch CSE IT ECE EEE MECH
Languages Known English Telugu Hindi Kannada Tamil
SUBMIT CANCEL
Done
My Computer
start
html
WEB TECHNOLOGIES...
Registration - Microso...
7:44 PM

9. Write HTML for demonstration of cascading stylesheets.

d. Embedded stylesheets.

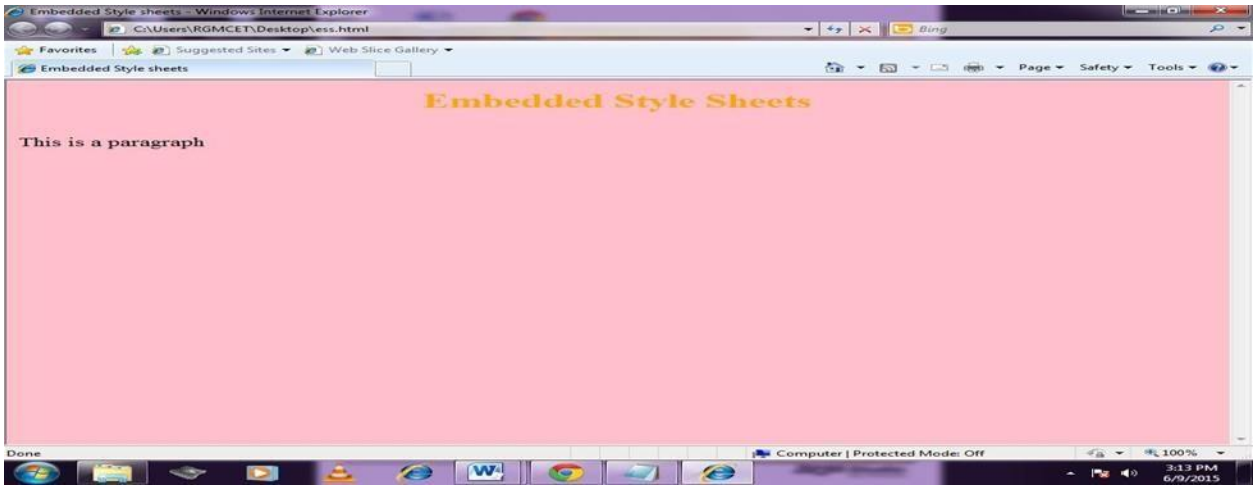
e. External stylesheets.

f. Inline styles.

Embedded stylesheets:

```
<html>
    <head>
        <title>Embedded Style sheets</title>
        <style type=”text/css”>
                body{backgroun
                d-color: pink;}
                  h1
                  {color:orange;
                  text-align:
                  center;
                  }
                p {
                  font-family: "Times
                  New Roman";
                  font-size: 20px;
                  }
        </style>
    </head>
    <body>
        <h1>Embedded Style Sheets</h1><br>
        <p>This is a paragraph
    </body>
</html>
```

Output:



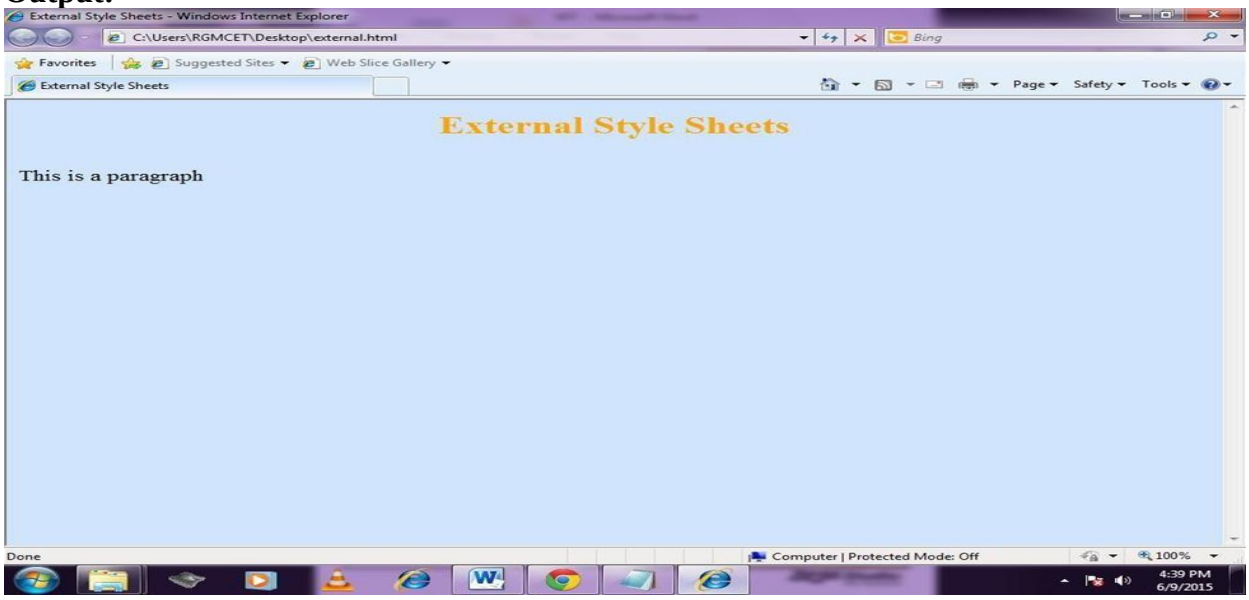
External Stylesheets:
extern.css:

```
body {background-color: #d0e4fe;}
h1 {
color: orange; text-align: center;
}
p {
font-family: "Times New Roman"; font-size: 20px;
}
```

extern.html:

```
<html>
<head>
<title>External Style Sheets</title>
<link rel=”stylesheet” type=”text/css” href=”extern.css”>
</head>
<body>
<h1>External Style Sheets</h1><br>
<p>This is a paragraph
</body>
</html>
```

Output:

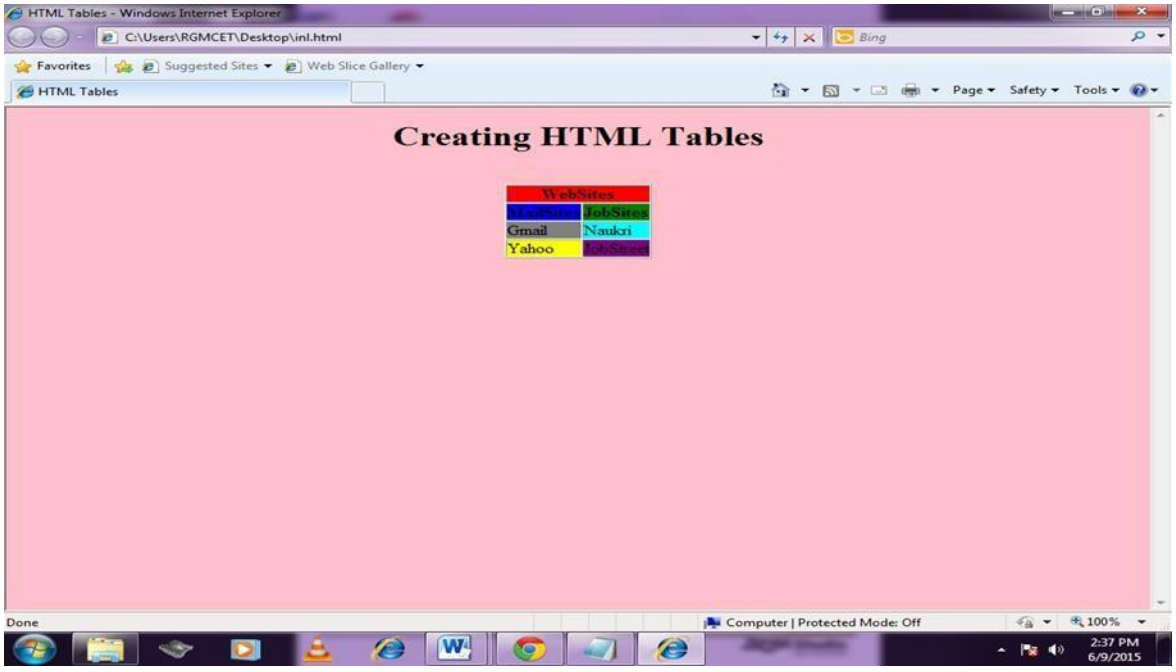


Inline styles:

```
<html>
    <head>
        <title>HTML Tables</table>
    </head>
    <body bgcolor="pink">
        <center>
            <h1>Creating HTML Tables</h1><br>
            <table border="2" cellpadding="4" cellspacing="4">
                <tr>
                    <th colspan="2" style="background-color:red">
                    WebSites</th>
                </tr>
                <tr>
                    <th style="background-
                    color:blue">MailSites</th>
                    <th style="background-
                    color:green">JobSites</th>
```

```
                    </tr>
                    <tr>
                        <td style=”background-color:grey”>Gmail</td>
                        <td style=”background-color:aqua”>Naukri</td>
                    </tr>
                    <tr>
                        <td style=”background-
                        color:yellow”>Yahoo</td>
                        <td style=”background-
                        color:purple”>JobStreet</td>
                    </tr>
                </table>
            </center>
        </body>
    </html>
```

Output:



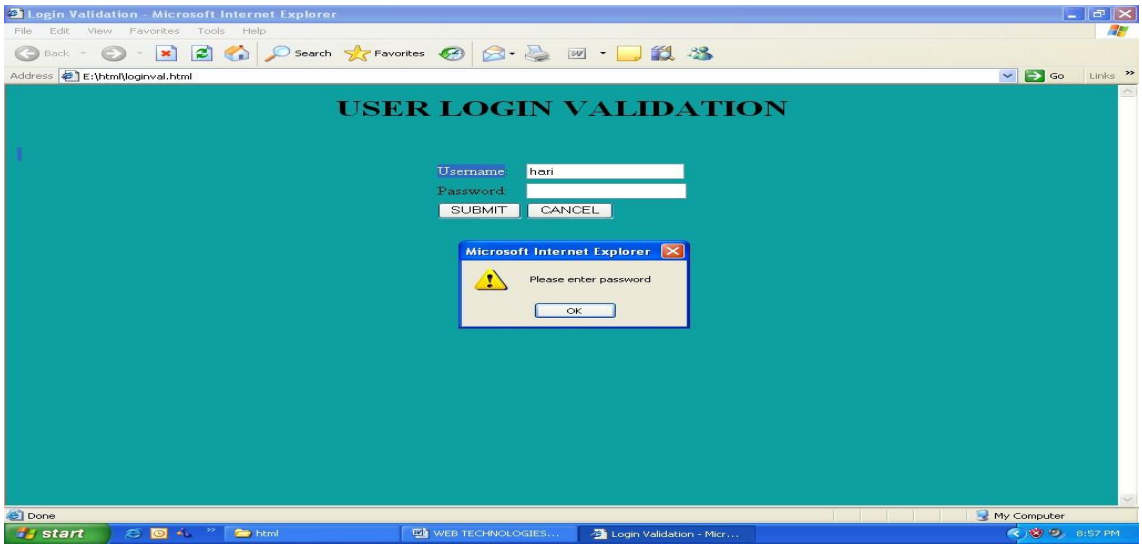
10. Write a javascript program to validate USER LOGIN page.

```
<html>
 <head>
  <title>Login Validation</title>
  <script language="javascript">
    function formValidator()
     {
      var username=document.getElementById('uname');
      var password=document.getElementById('pwd');
      if(isEmpty(username)&&isEmpty(password))
       {
        alert("enter something");
        document.form1.uname.focus();
       }
      if(!isEmpty(username)&&isEmpty(password)&&isAlphabet(username))
        {
        alert("Please enter password");
        document.form1.pwd.focus();
        }
      if(!isEmpty(username)&&!isEmpty(password)&&isAlphabet(username))
        {
        return true;
        }
      else
        {
       if(!isEmpty(username)&&!isEmpty(password)&&!isAlphabet(username))
        {
        alert("Please Enter only alphabets for username");
        document.form1.uname.focus();
        }
```

```
        }
       return false;
       }
    function isEmpty(elem)
       {
        if(elem.value.length==0)
        {
         return true;
        }
        return false;
       }
    function isAlphabet(elem)
       {
        var alphaExp=/^[a-z A-Z]+$/;
        if(elem.value.match(alphaExp))
        {
         return true;
        }
       }
</script>
</head>
<body bgColor=megastar>
  <h1 align=center>USER LOGIN VALIDATION</h1>
  <br><br>
  <form name="form1" onSubmit="return formValidator()">
    <center>
     <table border=0 colsSpacing=4>
       <tr>
         <td>Username:</td>
         <td><input type=text value="" name="uname"></td>
```

```
        </tr>
        <tr>
        <td>Password:</td>
          <td><input type=password value="" name="pwd"></td>
        </tr>
       <tr>
        <td><input type=submit value="SUBMIT" name="btn1"></td>
        <td><input type=reset value="CANCEL" name="btn2"></td>
       </tr>
      </table>
    </center>
  </form>
 </body>
</html>
```

Output:



11. Write a javascript program for validating REGISTRATION FORM.

```
<html>
<head>
<title>JavaScript sample registration from validation </title>
<script type='text/javascript'>
function formValidation()
{
var uid = document.form1.userid;
var passid = document.form1.passid;
var uname = document.form1.username;
var uadd = document.form1.address;
var uzip = document.form1.zip;
var uemail = document.form1.email;
var umsex = document.form1.msex;
var ufsex = document.form1.fsex;
if(userid_validation(uid,5,12))
{
if(userid_validation(passid,7,12))
{
if(allLetter(uname))
{
if(alphanumeric(uadd))
{
if(allnumeric(uzip))
{
if(ValidateEmail(uemail))
{
if(validsex(umsex,ufsex))
{
}
```

```
}
}
}
}
}
}
return false;
} function userid_validation(uid,mx,my)
{
var uid_len = uid.value.length;
if (uid_len == 0 || uid_len >= my || uid_len < mx)
{
alert("It should not be empty / length be between "+mx+" to "+my);
uid.focus();
return false;
}
return true;
}
function allLetter(uname)
{
var letters = /^[A-Za-z]+$/;
if(uname.value.match(letters))
{
return true;
}
else
{
alert('Please input alphabet characters only');
uname.focus();
return false;
```

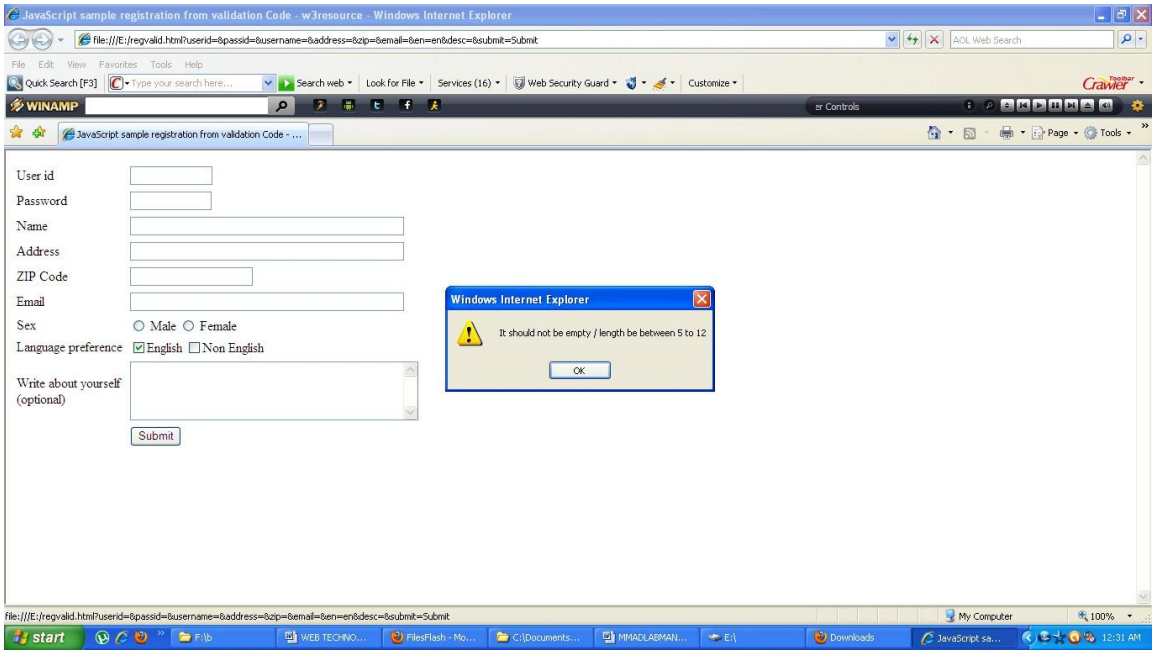
```
}
}
function alphanumeric(uadd)
{
var letters = /^[0-9a-zA-Z]+$/;
if(uadd.value.match(letters))
{
return true;
}
else
{
alert('Please input alphanumeric characters only');
uadd.focus();
return false;
}
}
function allnumeric(uzip)
{
var numbers = /^[0-9]+$/;
if(uzip.value.match(numbers))
{
return true;
}
else
{
alert('Please input numeric characters only');
uzip.focus();
return true;
}
}
```

```
function ValidateEmail(uemail)
{
var mailformat = /^\w+([\.-]?\w+)*@\w+([\.-]?\w+)*(\.\w{2,3})+$/;
if(uemail.value.match(mailformat))
{
return true;
}
else
{
alert("You have entered an invalid email address!");
uemail.focus();
return false;
}
} function validsex(umsex,ufsex)
{
x=0;

if(umsex.checked)
{
x++;
} if(ufsex.checked)
{
x++;
}
if(x==0)
{
alert('Select Male/Female');
umsex.focus();
return false;
}
```

```
else
{
return true;

}
}
</script>
</head>
<body>
<form name='form1' onsubmit='return formValidation()' >
<table width="500" cellpadding="3" style="border-collapse: collapse;">
<tr>
<td>User id </td>
<td><input type="text" name="userid" size="12" /></td>
</tr>
<tr>
<td>Password</td>
<td><input type="password" name="passid" size="12" /></td>
</tr>
<tr>
<td>Name</td>
<td><input type="text" name="username" size="50" /></td>
</tr>
<tr>
<td>Address</td>
<td><input type="text" name="address" size="50" /></td>
</tr>
<tr>
<td>ZIP Code </td>
<td><input type="text" name="zip" /></td>
```

```
</tr>
<tr>
<td>Email</td>
<td><input type="text" name="email" size="50" /></td>
</tr>
<tr>
<td>Sex</td>
<td><input type="radio" name="msex" value="Male" /> Male
<input type="radio" name="fsex" value="Female" /> Female</td>
</tr>
<tr>
<td>Language preference</td>
<td><input type="checkbox" name="en" value="en" checked />English
<input type="checkbox" name="nonen" value="noen" />Non English</td>
</tr>
<tr>
<td>Write about yourself<br>
(optional)</td>
<td><textarea name="desc" rows="4" cols="40"></textarea></td>
</tr>
<tr>
<td> </td>
<td><input type="submit" name="submit" value="Submit" /></td>
<td> </td>
</tr>
</table>
</form>
</body>
</html>
```

Output:

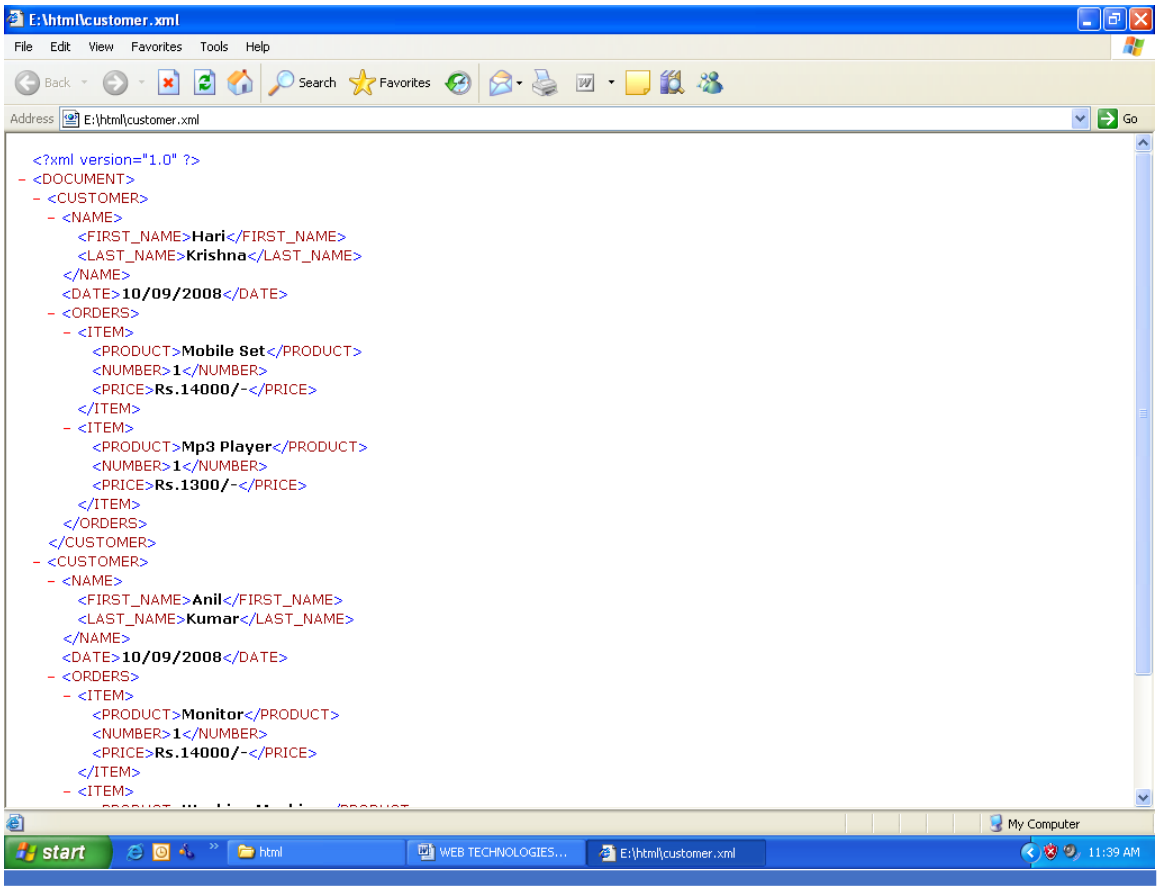

JavaScript sample registration from validation Code - w3resource - Windows Internet Explorer
User id
Password
Name
Address
ZIP Code
Email
Sex
Male
Female
Language preference
English
Non English
Write about yourself (optional)
Submit
Windows Internet Explorer
It should not be empty / length be between 5 to 12
OK

12. Write a program for implementing XML document for CUSTOMER DETAILS.

```
<?xml version="1.0"?>
<DOCUMENT>
 <CUSTOMER>
  <NAME>
   <FIRST_NAME>Hari</FIRST_NAME>
   <LAST_NAME>Krishna</LAST_NAME>
  </NAME>
  <DATE>10/09/2008</DATE>
  <ORDERS>
   <ITEM>
    <PRODUCT>Mobile Set</PRODUCT>
    <NUMBER>1</NUMBER>
    <PRICE>Rs.14000/-</PRICE>
   </ITEM>
   <ITEM>
    <PRODUCT>Mp3 Player</PRODUCT>
    <NUMBER>1</NUMBER>
    <PRICE>Rs.1300/-</PRICE>
   </ITEM>
  </ORDERS>
 </CUSTOMER>
 <CUSTOMER>
  <NAME>
   <FIRST_NAME>Anil</FIRST_NAME>
   <LAST_NAME>Kumar</LAST_NAME>
  </NAME>
  <DATE>10/09/2008</DATE>
  <ORDERS>
   <ITEM>
```

```
    <PRODUCT>Monitor</PRODUCT>
    <NUMBER>1</NUMBER>
    <PRICE>Rs.14000/-</PRICE>
   </ITEM>
   <ITEM>
    <PRODUCT>Washing Machine</PRODUCT>
    <NUMBER>1</NUMBER>
    <PRICE>Rs.17000/-</PRICE>
   </ITEM>
  </ORDERS>
 </CUSTOMER>
</DOCUMENT>
```

Output:

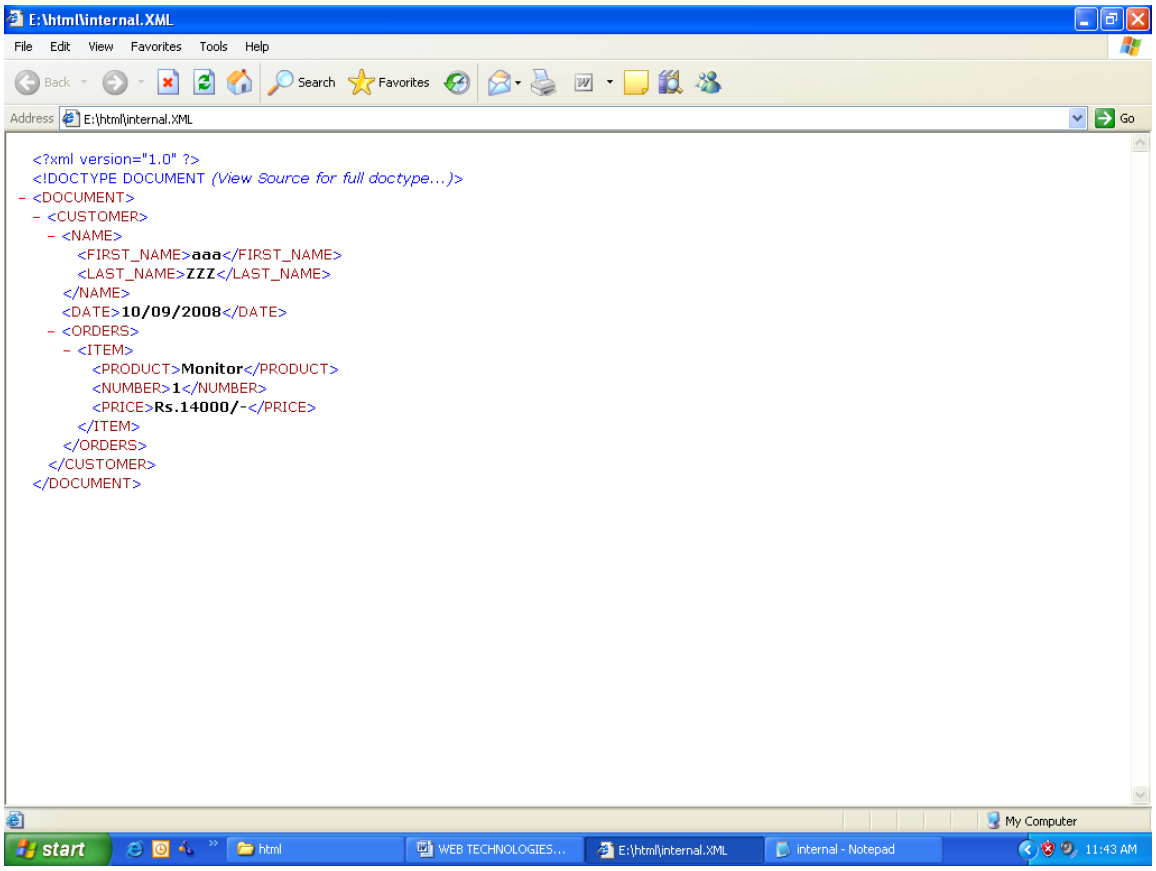


13. Write an internal Document Type Definition to validate XML for CUSTOMER DETAILS?

```
<?xml version="1.0"?>
 <!DOCTYPE DOCUMENT[
  <!ELEMENT DOCUMENT (CUSTOMER)*>
  <!ELEMENT CUSTOMER (NAME,DATE,ORDERS)>
  <!ELEMENT NAME (FIRST_NAME,LAST_NAME)>
  <!ELEMENT FIRST_NAME (#PCDATA)>
  <!ELEMENT LAST_NAME (#PCDATA)>
  <!ELEMENT DATE (#PCDATA)>
  <!ELEMENT ORDERS (ITEM)*>
  <!ELEMENT ITEM (PRODUCT,NUMBER,PRICE)>
  <!ELEMENT PRODUCT (#PCDATA)>
  <!ELEMENT NUMBER (#PCDATA)>
  <!ELEMENT PRICE (#PCDATA)>
  ]>
 <DOCUMENT>
  <CUSTOMER>
  <NAME>
    <FIRST_NAME>aaa</FIRST_NAME>
    <LAST_NAME>ZZZ</LAST_NAME>
  </NAME>
  <DATE>10/09/2008</DATE>
  <ORDERS>
   <ITEM>
    <PRODUCT>Monitor</PRODUCT>
    <NUMBER>1</NUMBER>
    <PRICE>Rs.14000/-</PRICE>
   </ITEM>
  </ORDERS>
```

```
 </CUSTOMER>
</DOCUMENT>
```

Output:



14. Write an external Document Type Definition to validate XML for CUSTOMER DETAILS?

Extern.dtd:

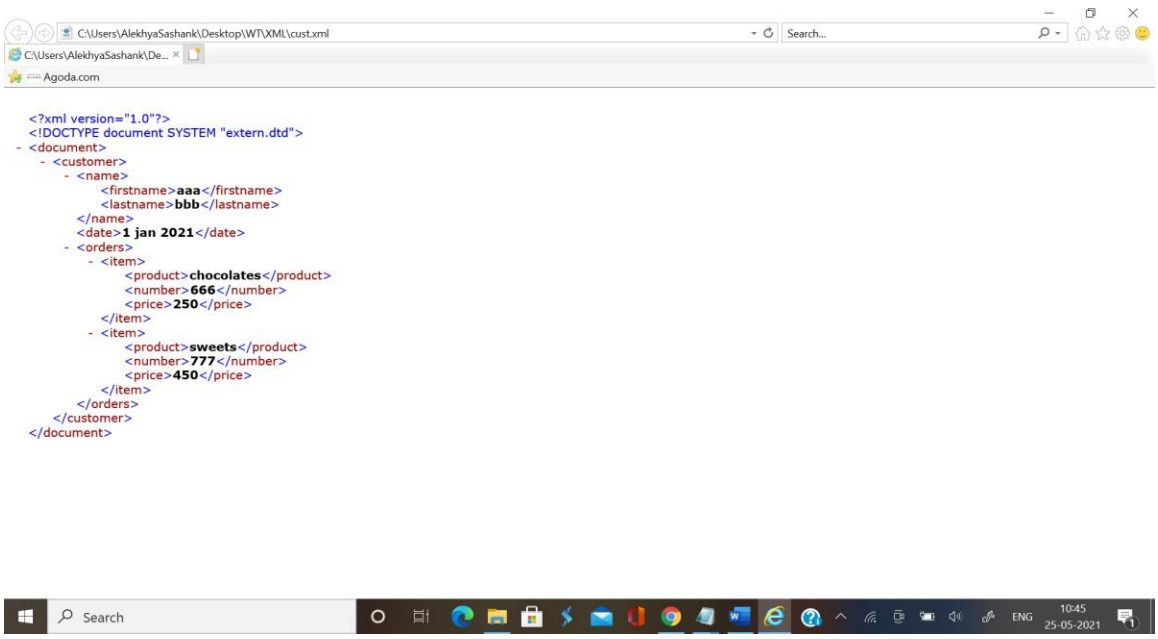
```
<!ELEMENT document (customer)*>
<!ELEMENT customer (name,date,orders)>
<!ELEMENT name (firstname,lastname)>
<!ELEMENT firstname (#PCDATA)>
<!ELEMENT lastname (#PCDATA)>
<!ELEMENT date (#PCDATA)>
<!ELEMENT orders (item)*>
<!ELEMENT item (product,number,price)>
<!ELEMENT product (#PCDATA)>
<!ELEMENT number (#PCDATA)>
<!ELEMENT price (#PCDATA)>
```

Cust.xml:

```
<?xml version="1.0"?>
<!DOCTYPE document SYSTEM "extern.dtd">
<document>
        <customer>
                <name>
                        <firstname>aaa</firstname>
                        <lastname>bbb</lastname>
                </name>
                <date>1 jan 2021</date>
                <orders>
                        <item>
                                <product>chocolates</product>
                                <number>666</number>
                                <price>250</price>
                        </item>
```

```
                <item>
                    <product>sweets</product>
                    <number>777</number>
                    <price>450</price>
                </item>
            </orders>
        </customer>
</document>
```

Output:



15. Write an XML for person information and access the data using XSL.

Ppl.xml:

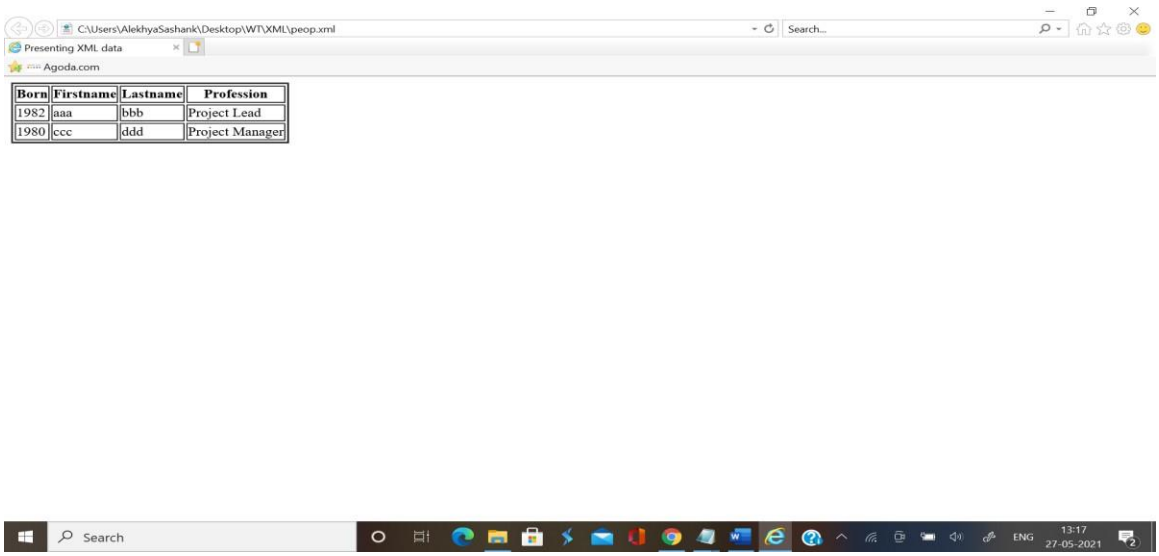
```
<?xml version="1.0"?>
<?xml-stylesheet type="text/xsl" href="people.xsl"?>
<people>
	<person born="1982">
		<name>
			<firstname>aaa</firstname>
			<lastname>bbb</lastname>
		</name>
		<profession>Project Lead</profession>
	</person>
	<person born="1980">
		<name>
			<firstname>ccc</firstname>
			<lastname>ddd</lastname>
		</name>
		<profession>Project Manager</profession>
	</person>
</people>
```

People.xsl:

```
<?xml version="1.0"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:output method="html" omit-xml-declaration="no"/>
<xsl:template match="/">
<html>
	<head>
		<title>Presenting XML data</title>
	</head>
	<body>
```

```
<table border="2">
                    <tr>
                        <th>Born</th>
                        <th>Firstname</th>
                        <th>Lastname</th>
                        <th>Profession</th>
                    </tr>
                    <xsl:for-each select="people/person">
                    <tr>
                        <td><xsl:value-of select="@born"/></td>
                        <td><xsl:value-of select="name/firstname"/></td>
                        <td><xsl:value-of select="name/lastname"/></td>
                        <td><xsl:value-of select="profession"/></td>
                    </tr>
                    </xsl:for-each>
                </table>
            </body>
</html>
</xsl:template>
</xsl:stylesheet>
```

Output:


C:\Users\AlekhyaSashank\Desktop\WT\XML\peop.xml
Search...
Presenting XML data
Agoda.com
Born
Firstname
Lastname
Profession
1982
aaa
bbb
Project Lead
1980
ccc
ddd
Project Manager
Search
ENG
13:17
27-05-2021

16. Write a simple servlet that displays a message.

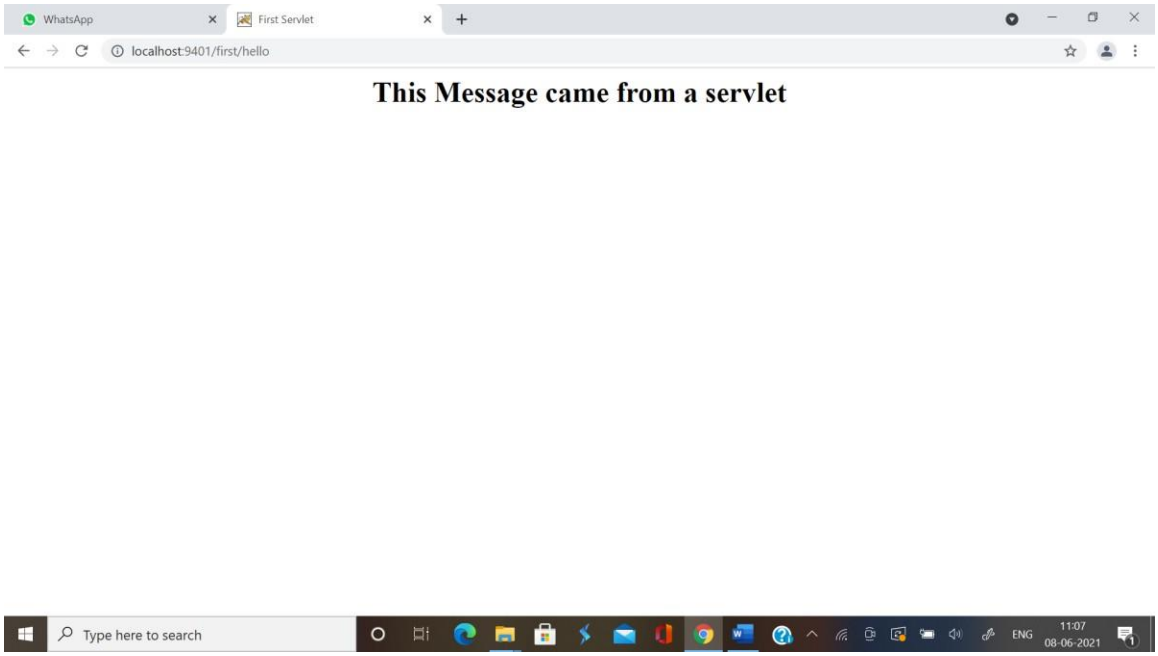
FirstServlet.java:

```
import java.io.*;
import javax.servlet.*;
public class FirstServlet extends GenericServlet{
    public void service(ServletRequest req,ServletResponse res)throws ServletException,IOException{
            res.setContentType("text/html");
            PrintWriter pw=res.getWriter();
            pw.println("<html><head><title>First Servlet</title></head>");
            pw.println("<body><center><h1>This Message came from a servlet</h1>");
            pw.println("</center></body></html>");
            pw.close();
    }
}
```

Web.xml:

```
<web-app>
    <servlet>
            <servlet-name>abc</servlet-name>
            <servlet-class>FirstServlet</servlet-class>
    </servlet>
    <servlet-mapping>
            <servlet-name>abc</servlet-name>
            <url-pattern>/hello</url-pattern>
    </servlet-mapping>
</web-app>
```

Output:


WhatsApp
First Servlet
localhost:9401/first/hello
This Message came from a servlet
Type here to search
ENG
11:07
08-06-2021

17. Write a servlet that reads parameters from employee login page.

Index.html:

```
<html>
	<head>
		<title>Servlet Parameters</title>
	</head>
	<body>
		<center>
			<form name="form1" method="POST"
action="http://localhost:9401/rpar/rparam">
			<table>
				<tr>
					<td><b>Employee</td>
					<td><input type="text" name="ename"
value=""></td>
				</tr>
				<tr>
					<td><b>Id</td>
					<td><input type="text" name="id" value=""></td>
				</tr>
				<tr>
					<td><input type="submit" value="submit"></td>
					<td><input type="reset" value="clear"></td>
				</tr>
			</table>
			</form>
		</center>
	</body>
</html>
```

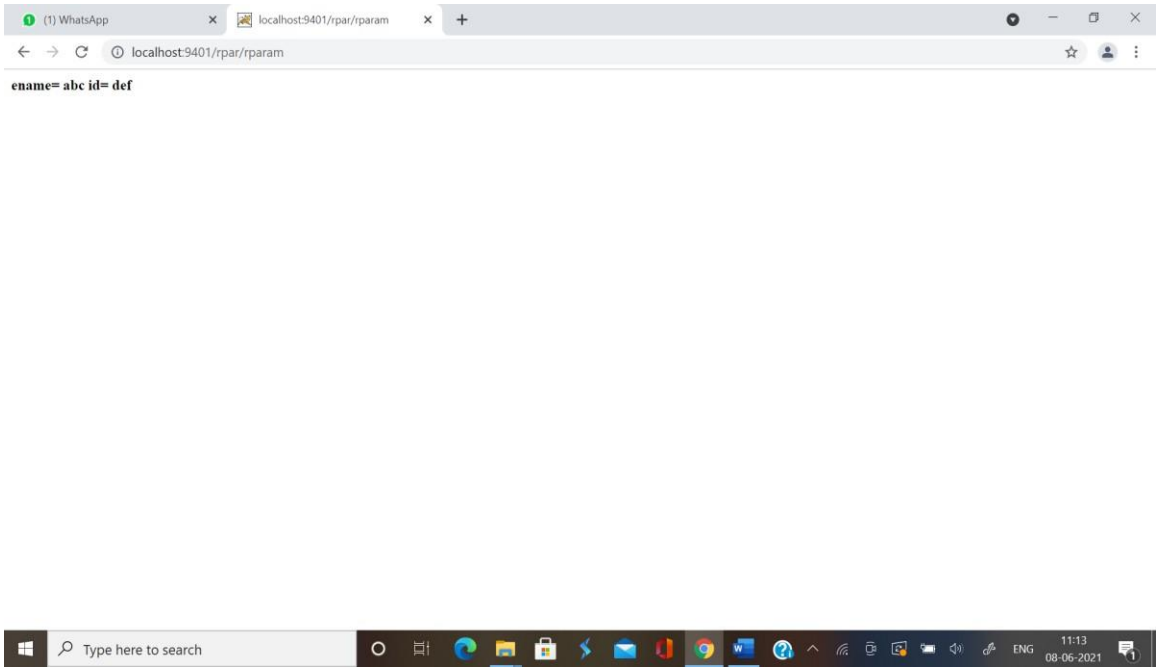
Rparam.java:

```
import java.io.*;
import java.util.*;
import javax.servlet.*;
public class Rparam extends GenericServlet{
        public void service(ServletRequest req,ServletResponse res)throws
ServletException,IOException{
                res.setContentType("text/html");
                PrintWriter pw=res.getWriter();
                Enumeration e=req.getParameterNames();
                while(e.hasMoreElements()){
                        String pname=(String)e.nextElement();
                        pw.println("<b>"+pname+"=");
                        String pvalue=req.getParameter(pname);
                        pw.println("<b>"+pvalue);
                }
                pw.close();
        }
}
```

Web.xml:

```
<web-app>
        <servlet>
                <servlet-name>rp</servlet-name>
                <servlet-class>Rparam</servlet-class>
        </servlet>
        <servlet-mapping>
                <servlet-name>rp</servlet-name>
                <url-pattern>/rparam</url-pattern>
        </servlet-mapping>
</web-app>
```

Output:


(1) WhatsApp
localhost:9401/rpar/rparam
localhost:9401/rpar/rparam
ename= abc id= def
Type here to search
ENG
11:13
08-06-2021

18. Write a servlet for creating a cookie and retrieving it.

Index.html:

```
<html>
    <head>
        <title> Cookies demo </title>
    </head>
    <body>
        <center>
<form name="form1" method="POST" action="http://localhost:9401/cook/acook">
        <b>Enter a value for my cookie:
        <input type="text" name="data" size=25 value="">
        <br><input type="submit" value="submit">
        </form>
     </center>
  </body>
</html>
```

AddCookieServlet.java:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class AddCookieServlet extends HttpServlet
{
   public void doPost (HttpServletRequest req, HttpServletResponse res)throws ServletException,IOException
  {
        String data=req.getParameter("data");
         Cookie cookie=new Cookie("MyCookie",data);
          res.addCookie(cookie);
          PrintWriter pw=res.getWriter();
          pw.println("<br>MyCookie has been sent to:");
```

```
            pw.println(data);
            pw.close();
    }
}
```

GetCookieServlet.java:

```
import java.io.*;
import javax.servlet.*;
import javax.servlet.http.*;
public class GetCookieServlet extends HttpServlet
{
    public void doGet (HttpServletRequest req, HttpServletResponse res)throws ServletException, IOException
    {
            Cookie[] cookies=req.getCookies();
            res.setContentType("text/html");
            PrintWriter pw=res.getWriter();
            pw.println("<b>");
             for(int i=0;i<cookies.length;i++)
             {
                    String name=cookies[i].getName();
                     String value=cookies[i].getValue();
                     pw.println("name="+name+";value="+value);
            }
            pw.close();
    }
}
```

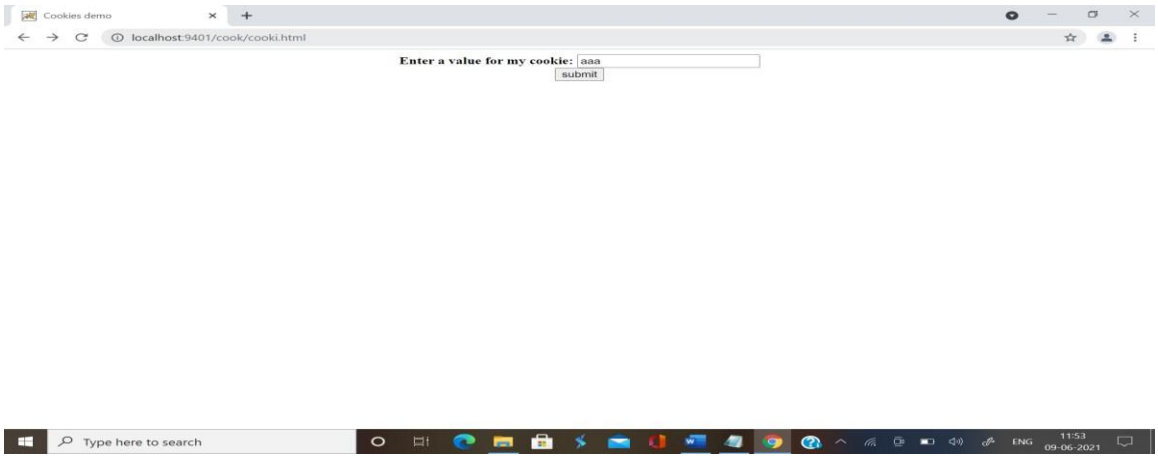
Web.xml:

```
<web-app>
        <servlet>
                <servlet-name>ackk</servlet-name>
```

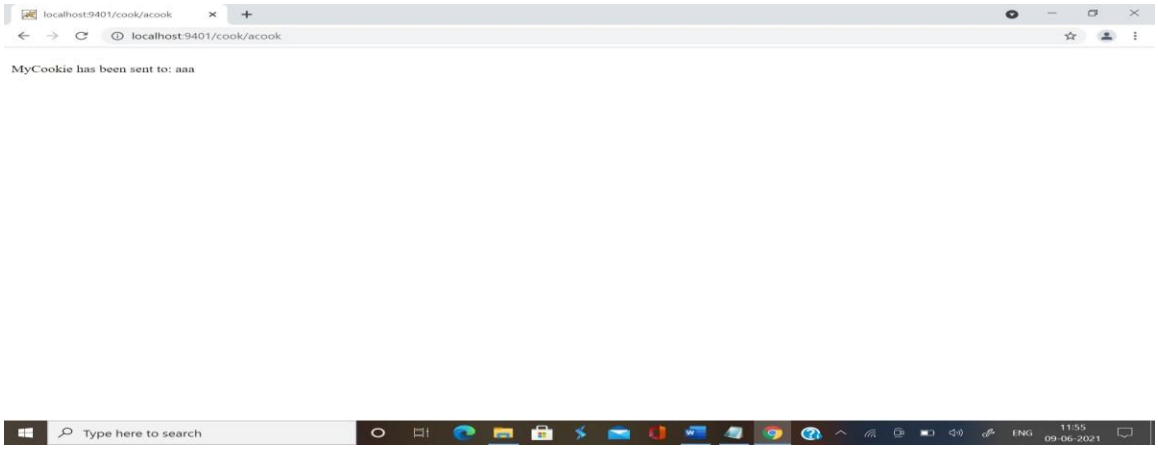
```
            <servlet-class>AddCookieServlet</servlet-class>
        </servlet>
        <servlet-mapping>
            <servlet-name>ackk</servlet-name>
            <url-pattern>/acook</url-pattern>
        </servlet-mapping>
<servlet>
            <servlet-name>gck</servlet-name>
            <servlet-class>GetCookieServlet</servlet-class>
        </servlet>
        <servlet-mapping>
            <servlet-name>gck</servlet-name>
            <url-pattern>/gcook</url-pattern>
        </servlet-mapping>
</web-app>
```

Output:

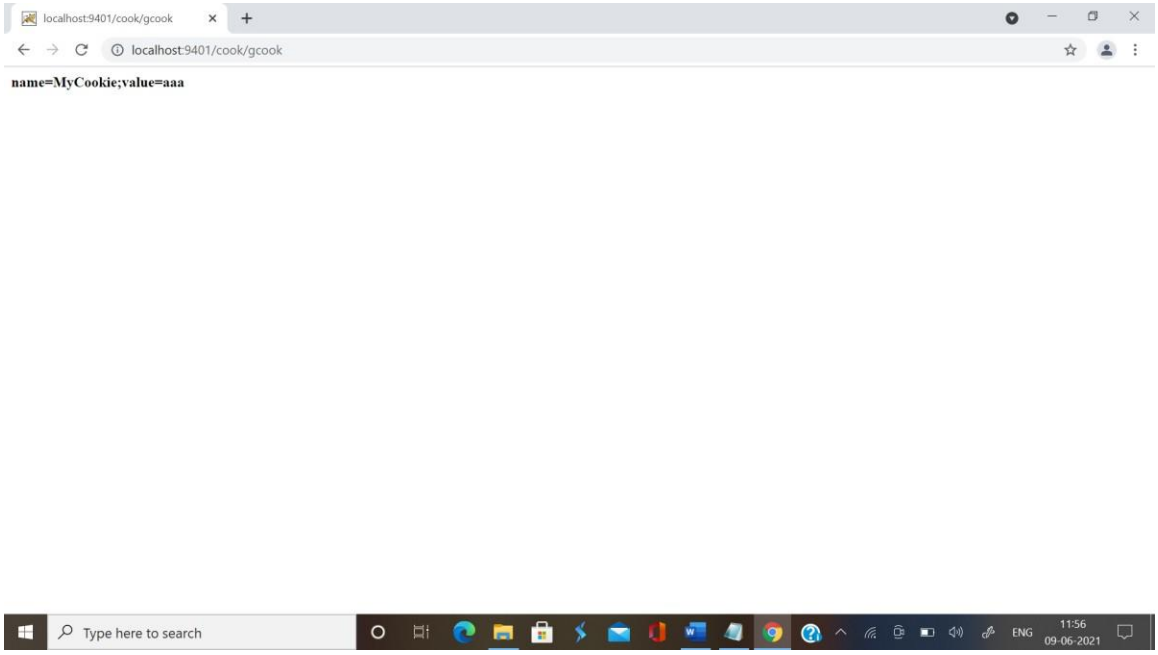
Web page that accepts value for my cookie.



Servlet response that creates a cookie and adds it to the response:



Servlet that reads the cookie from request.



19. Write a JSP that reads parameters from user login page.

Index.html:

```
<html>
  <head>
    <title>Login Page</title>
  </head>
  <body>
    <h1 align=center>Login</h1>
    <form name="form1" action="loginJsp.jsp" method="post">
                    <table>
                    <tr>
                            <td><b>UserName:</td>
                            <td><input type=txt name=t1></td>
                    </tr>
                    <tr>
                            <td><b>Password:</td>
                            <td><input type=password name=t2></td>
                    </tr>
                  <tr>
                            <td><input type=submit value=submit></td>
                            <td><input type=reset value=cancel></td>
                    </tr>
                    </table>
    </form>
  </body>
</html>
```

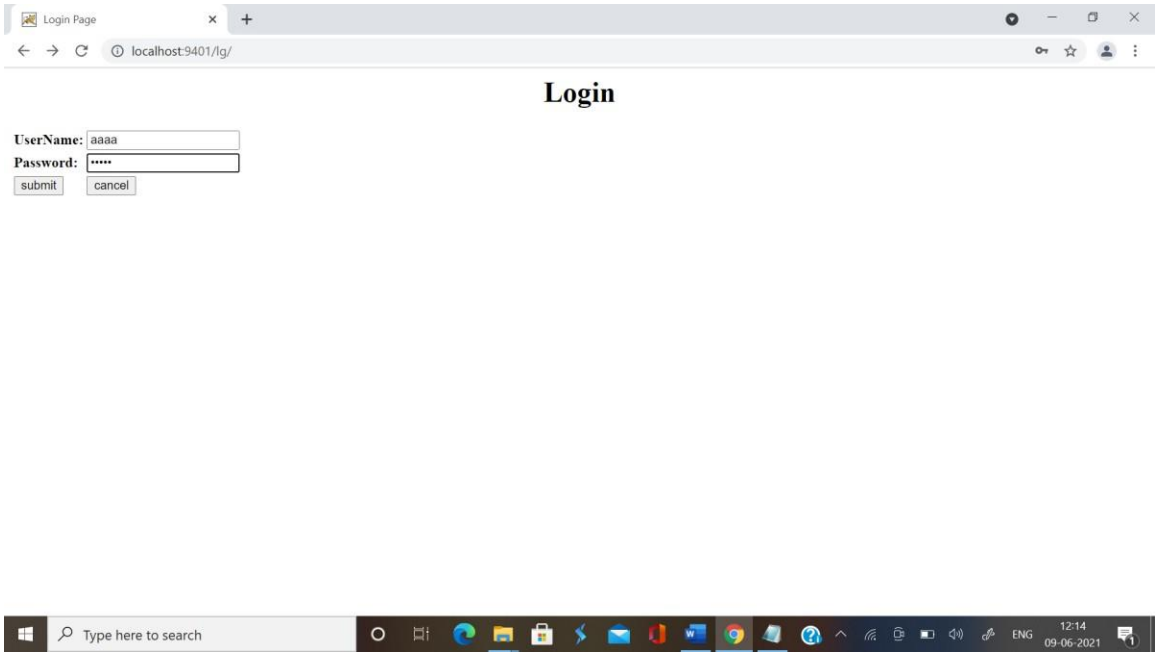
loginJsp.jsp:

```
<%@ page import="javax.io.*"%>
<%@ page import="javax.servlet.*"%>
<%@ page import="javax.servlet.http.*"%>
```

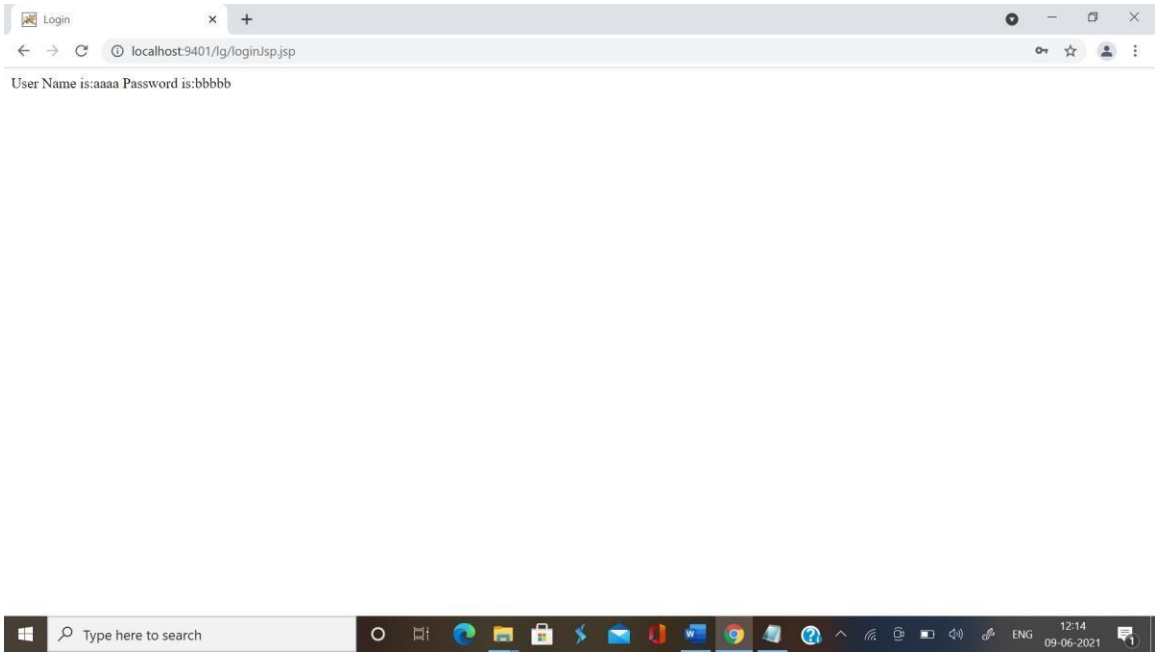
```
<%@ page import="javax.servlet.jsp.*"%>
<html>
  <head>
    <title>Login</title>
  </head>
  <body>
   <%out.println("User Name is:"+request.getParameter("t1"));
     out.println("Password is:"+request.getParameter("t2"));
    %>
  </body>
</html>
```

Output:

Login page to enter data:



JSP after submitting the data:



20. Write a JSP that reads a value, creates a cookie and retrieves it.

Index.html:

```
<html>
	<body>
		<form name="form1" action="second.jsp">
		<b>Enter Value for cookie:
		<input type="text" name="data" value="">
		<br>
		<input type="submit" value="Enter">
	</body>
</html>
```

Second.jsp:

```
<%@page contentType="text/html" language="java"%>
<%
  String data=request.getParameter("data");
  Cookie cookie=new Cookie("Mycookie",data);
  cookie.setMaxAge(60*60);
  response.addCookie(cookie);
  out.print("<b> Cookie value:"+data);
%>
<html>
<body>
<a href="third.jsp">Click here</a> to see the cookie's data
</body>
</html>
```

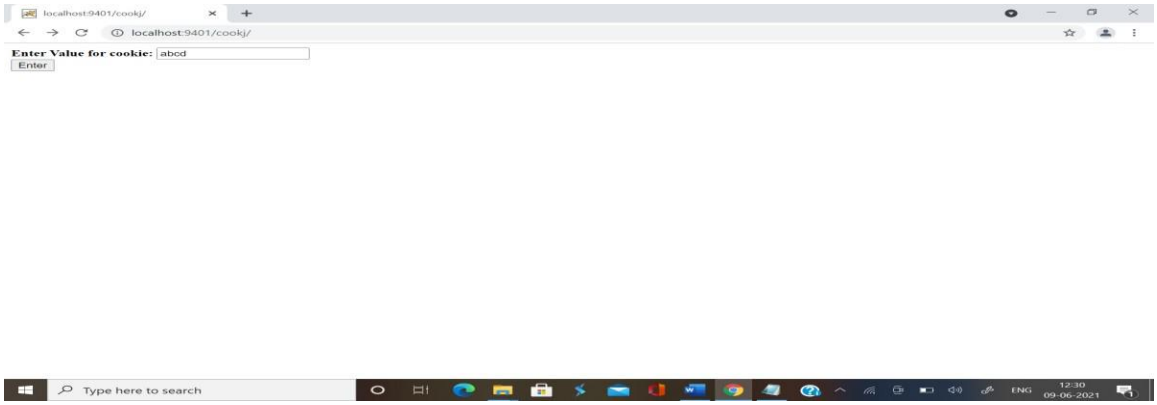
Third.jsp:

```
<%@page session="false"%>
<html>
<body>
<%
```

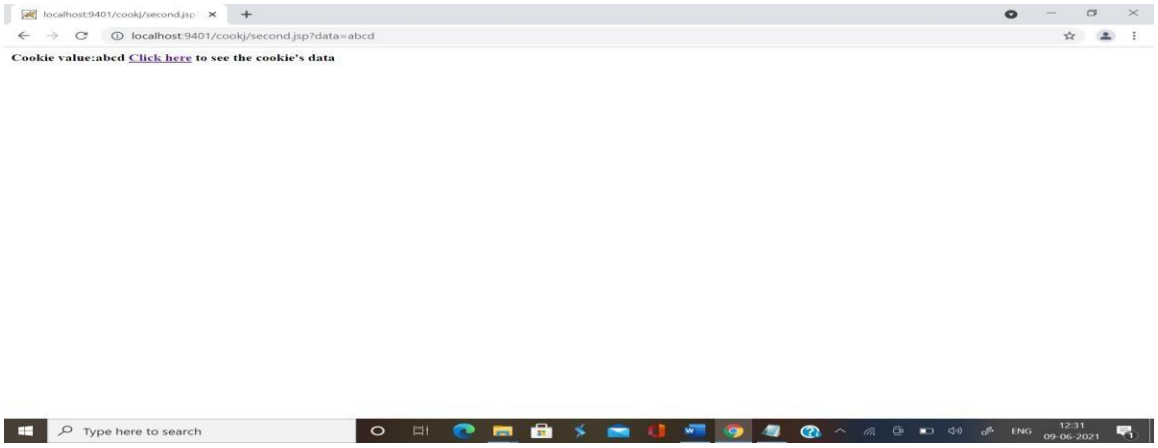
```
  Cookie[] cookies = null;
  cookies = request.getCookies();
  if( cookies != null ){
     for (int i = 0; i < cookies.length; i++){
        out.print("Name : " + cookies[i].getName() + ", ");
        out.print("Value: " + cookies[i].getValue()+" <br>");
     }
  }else{
     out.println("<h2>No cookies founds</h2>");
  }
%>
</body>
</html>
```

Output:

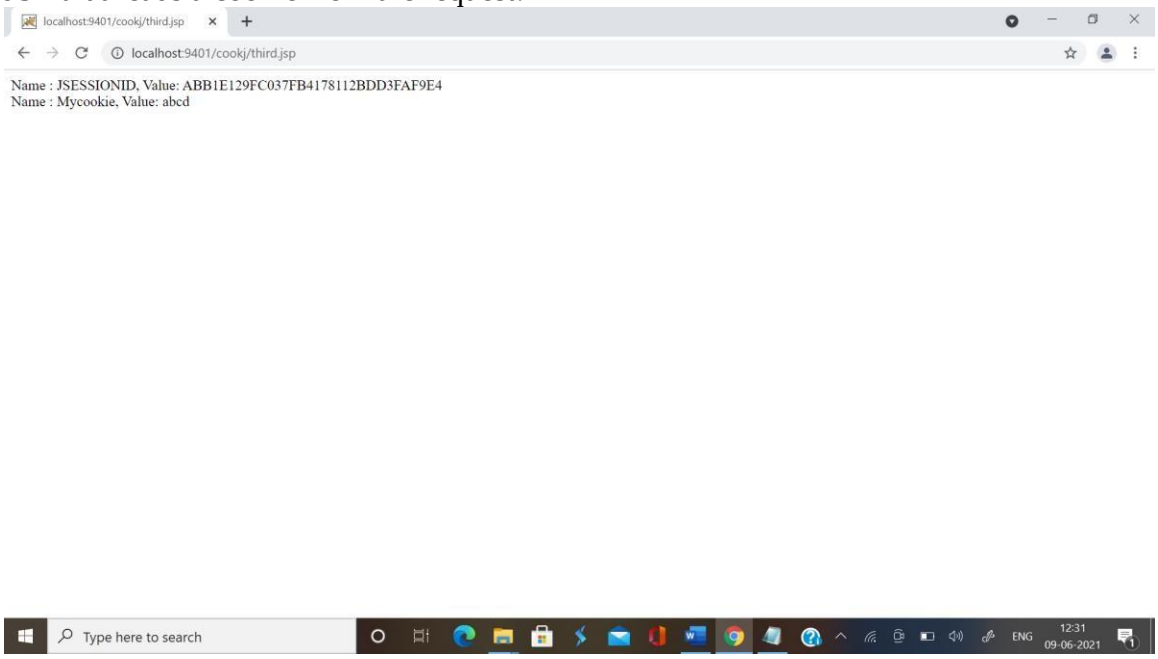
Web page that accepts cookie value:



JSP that reads and creates a cookie:



JSP that reads a cookie from the request:



21. Write a JSP for session tracking.

```
<%@ page import="java.io.*,java.util.*" %>
<%
  Date createTime = new Date(session.getCreationTime());
  Date lastAccessTime = new Date(session.getLastAccessedTime());
%>
<html>
   <head>
      <title>Session Tracking</title>
   </head>
   <body>
      <center>
         <h1>Session Tracking Example</h1>
      </center>
      <table border="1" align="center">
         <tr bgcolor="#ffcccc">
            <th>Session info</th>
            <th>Value</th>
         </tr>
         <tr >
            <td>id</td>
            <td><% out.print( session.getId()); %></td>
         </tr>
         <tr>
            <td>Creation Time</td>
            <td><% out.print(createTime); %></td>
         </tr>
         <tr>
            <td>Time of Last Access</td>
            <td><% out.print(lastAccessTime); %></td>
```

```
        </tr>
       </table>
   </body>
</html>
```

Output: