

1) Create an XHTML page that provides information about your department. Your XHTML page must use the following tags:

- a. Text Formatting tags
- b. Horizontal rule
- c. Meta element
- d. Links
- e. Images
- f. Tables

(If needed use additional tags).

1a.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <html>
  <head> <title>Labpgm1 </title></head>
  <body bgcolor="skyblue">
    <center><h1> 
      AMC ENGINEERING COLLEGE </h1></center>
    <center><h4>18th KM, Bannerghatta Main Road, Kalkere, Bengaluru - 560
083 </h4></center>
    <center><h2> DEPARTMENT OF MCA </h2>
    </center><hr/> <h2> Photo Gallery </h2>
    <marquee behavior="scroll" direction="left">
      
      
      
      
    </marquee>
    <p><center> <em><strong> WELCOME TO MCA DEPT. </strong> </em></center>
</p> <p><pre> The department of Computer Applications
                                was started in the
                                year 2000. </pre> </p>
  <ul>
```

The course is a Post Graduate program in Computer Applications, affiliated to Visvesvaraya Technological

University (VTU), Belgaum, approved by All India Council for Technical Education (AICTE), Accredited by National Board of Accreditation

(NBA), New Delhi, Ministry of HRD, and recognized by the Government of Karnataka.

The department of MCA has the credential achievement of being the first MCA program under VTU to be

accredited by National Board of Accreditation, New Delhi during 2009.

MCA²₃ Year Courses

MCA have Two Different Course's: MCA 3YRS & MCA 3 YRS : MCA3YRS & MCA2YRS

<meta name="Semesters" content="1st sem, 2nd sem,3rd sem, 4th sem, 5th sem, 6th sem"/> <table border=5px rows=4 cols=4 >

<tr>

<th > S.NO </th>

<th> Course </th>

<th> Duration </th>

<th> Intake </th>

</tr>

<tr>

<td> 1 </td>

<td> MCA - REGULAR </td>

<td> 3 Years </td>

<td> 180 </td>

</tr>

<tr>

<td> 2 </td>

<td> MCA 2nd Year Direct (Lateral Entry) </td>

<td> 2 Years </td>

<td> 120 </td>

```

        </tr>
    </table>
    <h2> Select any Link to know the Eligibility of 2 Courses
    </h2> <ol>
        <li><a href="mca3.html"> MCA Regular (3 Years) </a></li><br/>
        <li><a href="mca2.html"> MCA 2nd Year Direct Lateral Entry (2 Years) </a></li>
    </ol>

```

```

</body>
</html>

```

mca3.html:

```

<html>
<head><title>MCA 3YRS</title></head>
<body bgcolor="orange">
<ul>
<h1> MCA Regular 3 YRS Course Eligibility: </h1>
<li><h3>
General Merit Candidates should have any Bachelor's degree with an aggregate of 50% marks.
</li></h3>
<li><h3>
SC/ST Candidates should have any Bachelor's degree with an aggregate of 45% marks.
</li></h3>
<li><h3>
Mathematics/Statistics/Computer Science/Business Management/Computer
Application/Computer Programming is compulsory at 10+2 or PUC or at degree level.
</li></h3>
<li><h3>
Students score card of PGCET/KMAT should be submitted at the time of admission.
</li></h3>
</body>
</html>

```

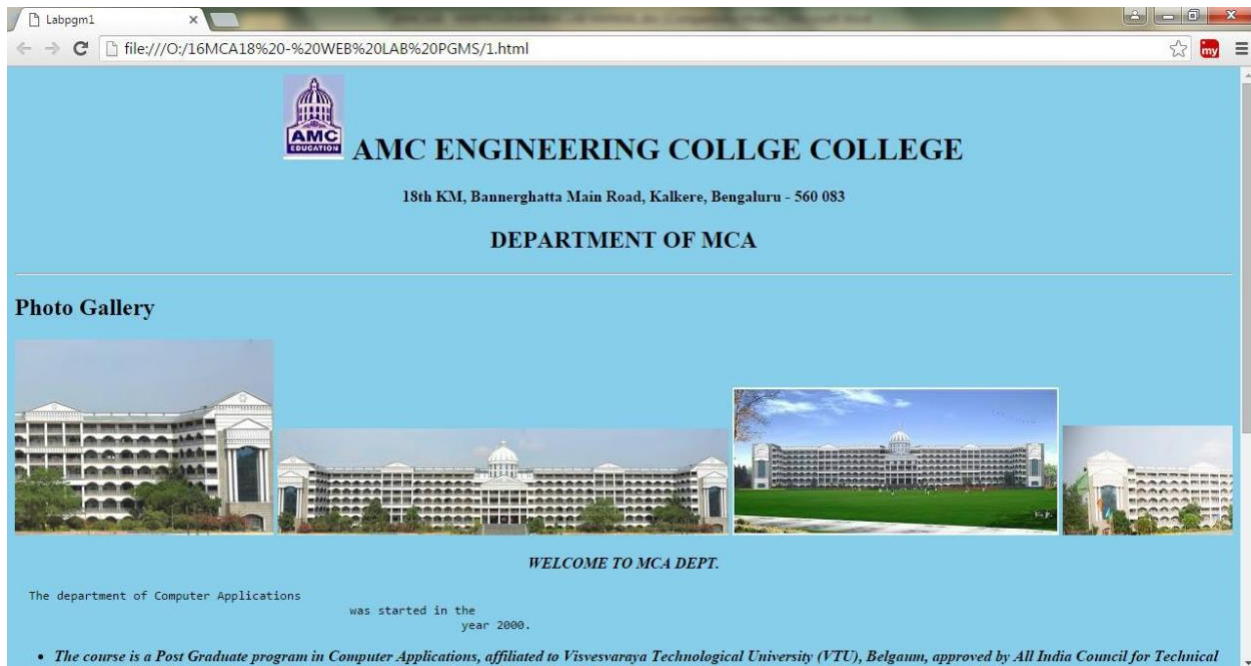
mca2.html:

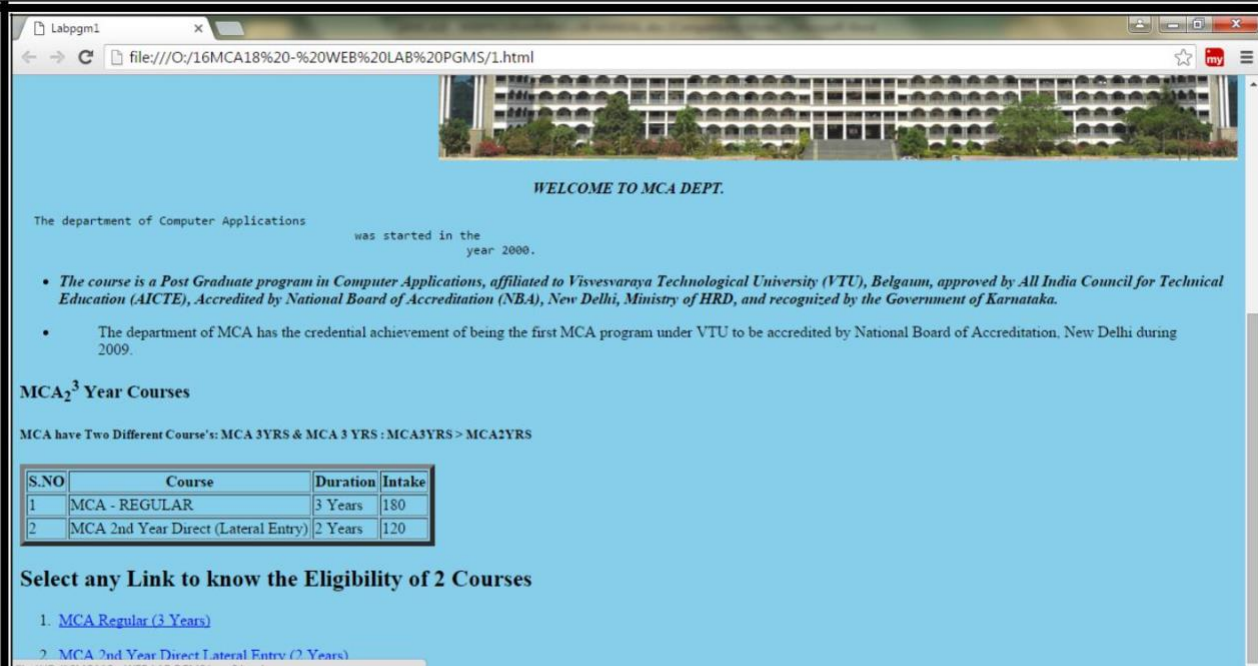
```

<html>
<head><title>MCA 3YRS</title></head>
<body bgcolor="yellow">
<ul>
<h1> MCA 2nd Year Direct(Lateral Entry) Eligibility:
</h1> <li><h2>
BCA or B.Sc in computer science or information technology with Aggregate 50%.
</h2></li>
<li><h2>
SC/ST Candidates with any of above mentioned degrees with relaxation as Aggregate of 45% marks.
</h2></li>
</body>
</html>

```

Output:





file:///O:/16MCA18%20-%20WEB%20LAB%20PGMS/1.html

WELCOME TO MCA DEPT.

The department of Computer Applications was started in the year 2000.

- The course is a Post Graduate program in Computer Applications, affiliated to Visvesvaraya Technological University (VTU), Belgaum, approved by All India Council for Technical Education (AICTE), Accredited by National Board of Accreditation (NBA), New Delhi, Ministry of HRD, and recognized by the Government of Karnataka.
- The department of MCA has the credential achievement of being the first MCA program under VTU to be accredited by National Board of Accreditation, New Delhi during 2009.

MCA₂³ Year Courses

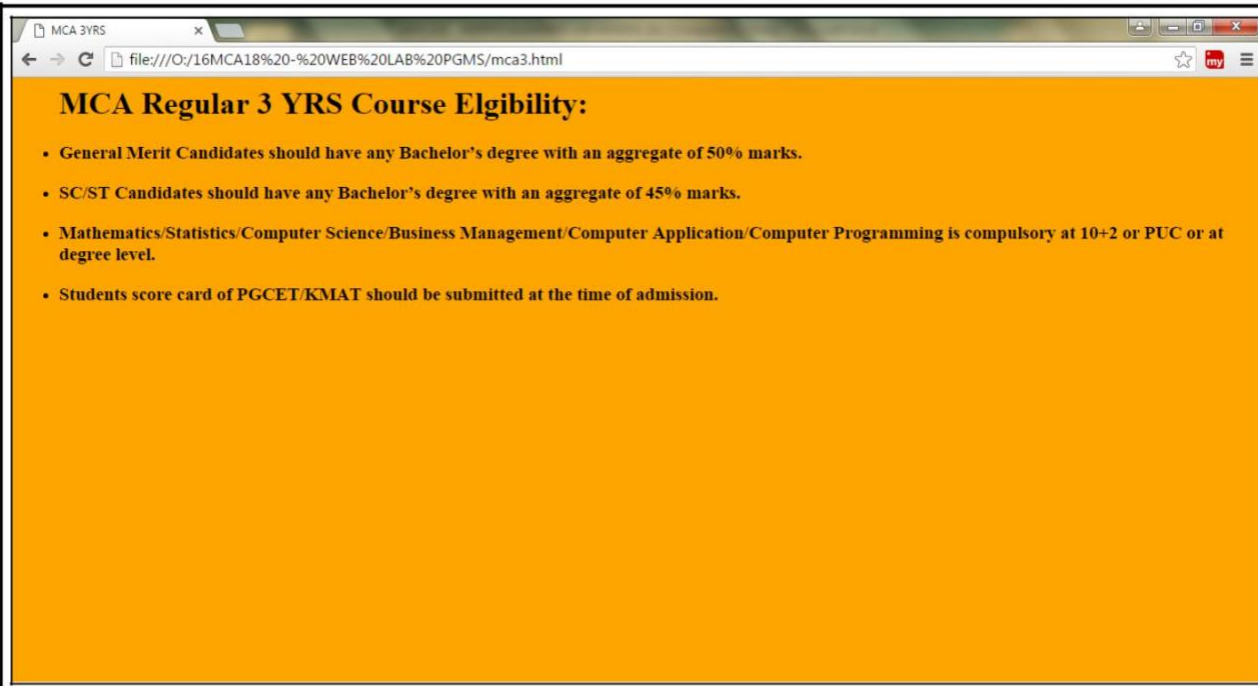
MCA have Two Different Course's: MCA 3YRS & MCA 2 YRS : MCA3YRS > MCA2YRS

S.NO	Course	Duration	Intake
1	MCA - REGULAR	3 Years	180
2	MCA 2nd Year Direct (Lateral Entry)	2 Years	120

Select any Link to know the Eligibility of 2 Courses

- [MCA Regular \(3 Years\)](#)
- [MCA 2nd Year Direct Lateral Entry \(2 Years\)](#)

file:///O:/16MCA18 - WEB LAB PGMS/mca3.html



MCA 3YRS

file:///O:/16MCA18%20-%20WEB%20LAB%20PGMS/mca3.html

MCA Regular 3 YRS Course Eligibility:

- General Merit Candidates should have any Bachelor's degree with an aggregate of 50% marks.
- SC/ST Candidates should have any Bachelor's degree with an aggregate of 45% marks.
- Mathematics/Statistics/Computer Science/Business Management/Computer Application/Computer Programming is compulsory at 10+2 or PUC or at degree level.
- Students score card of PGCET/KMAT should be submitted at the time of admission.

2) Develop and demonstrate the usage of inline, external and internal style sheet using CSS. Use XHTML page that contains at least three paragraphs of text, listed elements and a table with four rows and four columns.

2a.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
  <head> <title>Labpgm2 </title>
    <style type="text/css">
      .u2 {color:purple;font-size:20pt;list-style-type:upper-roman} table {color:green;font-
        size:20pt;border-style:dotted;border-width:thick;border-color:blue}
    </style>
    <link rel="stylesheet" type="text/css"
href="2.css"/> </head>

  <body>
    <center><p class="c1"> AMC Engg. Collge
  </p></center> <center><p id="p12"> Dept.of MCA </p>
  </center> <p > Faculties in MCA Dept. </p>

    <ul style="color:red;font-size:20pt;list-style-type:circle"> <li>
      Prof.ACMV srinvas - Prof. & HOD of Dept </li> <li>
      Mr. Vasanth C. Bhagawat - Associate prof. </li>
  </ul>

    <ol class="u2">
      <li> Mr. Rajesh N. - Asst.Prof. </li>
      <li> Mrs.Sravanthi K. - Asst.Prof. </li>
      <li> Mrs.Pramila Mohanty - Asst.Prof. </li>
  </ol>

  <table border=5px rows=4 cols=4 >
    <tr style="color:orange">
```



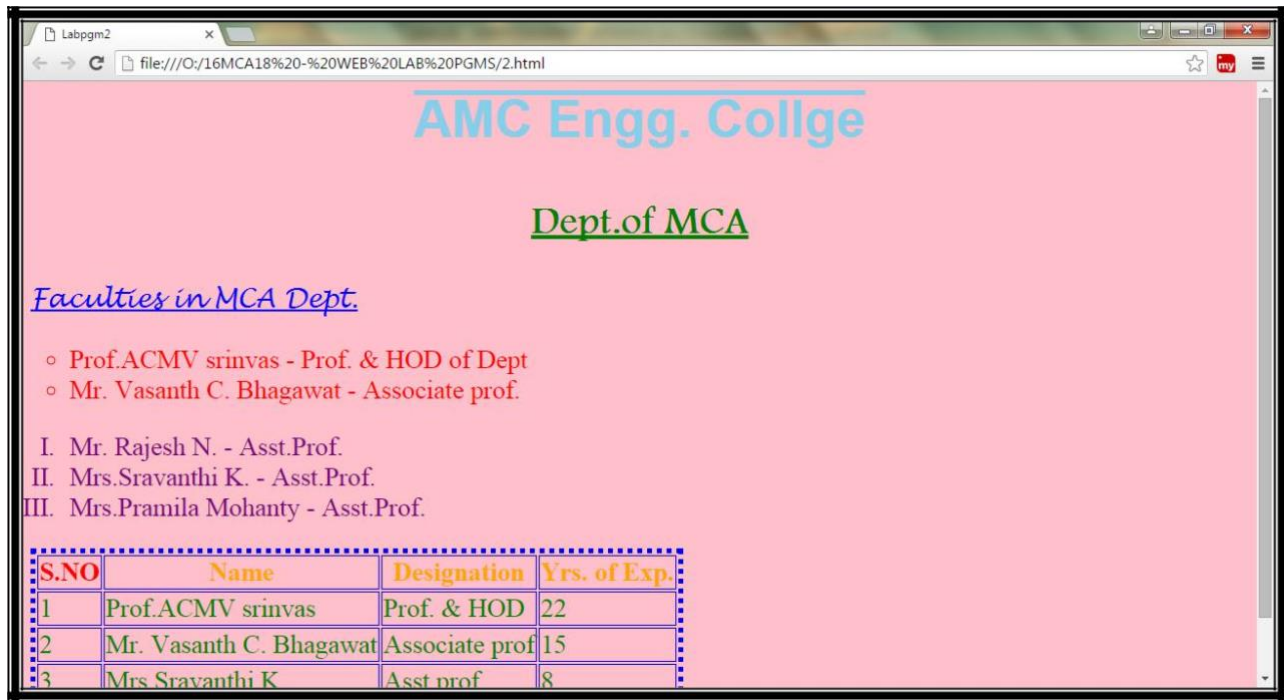
```
<th style="color:red"> S.NO </th>
<th> Name </th>
<th> Designation </th>
<th> Yrs. of Exp. </th>
</tr>
<tr>
<td> 1 </td>
<td> Prof.ACMV srinvas </td>

<td> Prof. & HOD </td>
<td> 22 </td>
</tr>
<tr>
<td> 2 </td>
<td> Mr. Vasanth C. Bhagawat </td>
<td> Associate prof </td>
<td> 15 </td>
</tr>
<tr>
<td> 3 </td>
<td> Mrs.Sravanthi K</td>
<td> Asst prof </td>
<td> 8 </td>
</tr>
<tr>
<td> 4 </td>
<td> Mr. Rajesh N.</td>
<td> Asst prof </td>
<td> 6 </td>
</tr>

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


2.CSS:

```
p.c1 {font-size:40pt;font-family:arial;color:skyblue;font-weight:bold;text-decoration:underline }
#p12 {font-size:30pt;font-family:Footlight MT;color:green;font-weight:bold; } p {font-size:20pt;font-family:Lucida Handwriting;color:blue;text-decoration:underline}
```

Output:

3. Develop and demonstrate an xhtml file that includes javascript for the following problems

- a) Input : A number n obtained using prompt , Output : The first n Fibonacci numbers.
- b) Input : A number n obtained using prompt , Output : A table of numbers from 1 to n and squares using alert

a)

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head><title> LabProgram4 </title>
<script type="text/javascript">

function disp( )
{
var fib;
var n=document.getElementById('t1').value;
var a=0,b=1;
document.write("fibonacci Series<br/>");
document.write("=====<br/>")

document.write("<table bgcolor=yellow border=5 cellpadding=10
cellspacing=10>")
document.write("<tr><td>" +a+ "</td></tr><tr><td>" +b+ "</td></tr>");
for(var i=2;i<n;i++)
{
fib=a+b;
a=b;
b=fib;

document.write("<tr><td>" +fib+ "</td></tr>")

}

}
</script>
</head>
<body bgcolor="lightyellow">
<form id="f1">
<h2> Enter the limit to Generate fibonacci series:<input type="text" id="t1"/></h2>
<center><h2><Input type="button" onclick="disp()" value="Click here to display
fibonacci series"/></h2></center>
```

```
</form>
</body>
</html>
```

b)

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head><title> LabProgram4 </title>
<script type="text/javascript">
```

```
function disp1( )
```

```
{
var fib;
var n1=document.getElementById('t2').value;
var a=0,b=1;
document.write("Squares<br/>");
document.write("=====<br/>")
```

```
document.write("<table bgcolor=yellow border=5 cellpadding=10 cellspacing=10>")
```

```
for(var i=1;i<n1;i++)
{
var sqr=i*i;
document.write("<tr><td>" +i+ "</td><td>" +sqr+ "</td></tr>");

}

}
```

```
</script>
</head>
<body bgcolor="lightyellow">
<form id="f1">
<h2> Enter the limit to find squares:<input type="text" id="t2"/></h2>
<center><h2><Input type="button" onclick="disp1()" value="Click here to display
squares"/> </h2></center>
</form>
</body>
</html>
```

- 4) Write a JavaScript program to generate n number of random numbers and store them in an array. Sort the generated numbers in ascending order using array sort method. Develop separate functions to find mean and median of numbers that are in the array. Display the results with appropriate messages.

4a.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head><title> LabProgram4 </title> <script
type="text/javascript">
    var rarr=new Array();
    function RandomNumGeneration( )
    {

        var ran=document.getElementById("t1").value;

        for(var i=0;i<10;i++)
        {
            rarr[i]=Math.floor(Math.random( )*ran+1);
        }
        document.write("<h3>With Out Sorting the Random Numbers Are</h3> ");
        for(var i=0;i<10;i++)
        {
            document.write("<h4>",rarr[i],"</h4>");
        }
        document.write("<h3>After Sorting the Random Numbers Are ");
        rarr.sort((a,b)=>a-b);
        for(var i=0;i<10;i++)
        {
            document.write("<h4>",rarr[i],"</h4>");
        }
        meanfun( );
        medianfun( );
    }
```

```

function meanfun( )
{
    var total=0;
    for(var i=0;i<rarr.length;i++)
    {
        total+=rarr[i];
    }
    var mean=total/rarr.length;
    document.write("<h3>The Mean value for Sorted array is:",mean,"</h3>");
}

```

```

function medianfun( )
{
    var median=0, arrlen=rarr.length;
    if(arrlen%2==0)
    {
        median=(rarr[ arrlen/2 - 1 ] + rarr[ arrlen/2 ] ) / 2 ;
    }
    else
    {
        median=rarr[ ( arrlen-1 ) / 2 ];
    }
    document.write("<h3>The Median value for Sorted array is:",median,"</h3>");
}

```

```
</script>
```

```
</head>
```

```
<body bgcolor="lightyellow">
```

```
<form id="f1">
```

```
<h2> Enter the Highest Number to Generate Random Number:<input type="text" id="t1"/></h2>
```

```
<center><h2><input type="button" onclick="RandomNumGeneration( )" value="Click here to
Geneate Random Number"/> </h2></center>
```

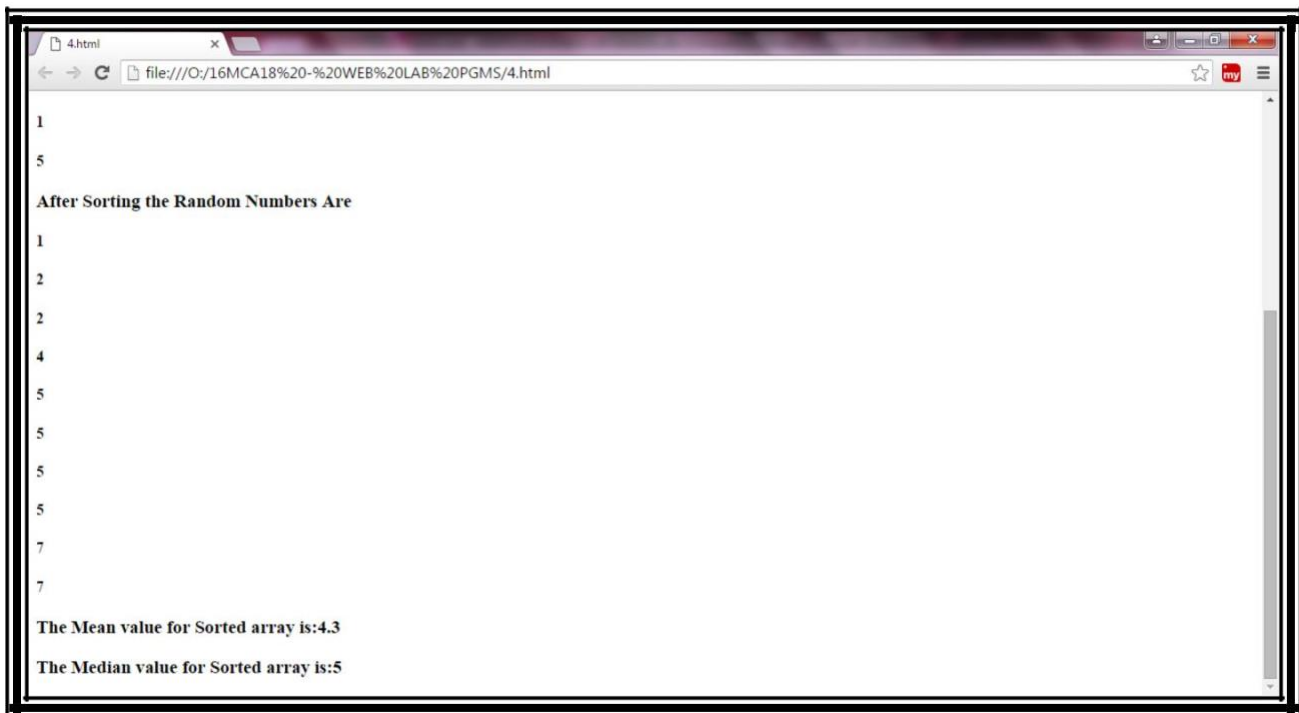
```
</form>
```

```
</body>
```

```
</html>
```

Output:

A screenshot of a web browser window titled 'LabProgram4'. The address bar shows the file path: `file:///O:/16MCA18%20-%20WEB%20LAB%20PGMS/4.html`. The page content is on a yellow background and contains the text 'Enter the Highest Number to Generate Random Number:' followed by a text input field containing the number '7'. Below the input field is a button labeled 'Click here to Geneate Random Number'.



A screenshot of a web browser window titled '4.html'. The address bar shows the file path: `file:///O:/16MCA18%20-%20WEB%20LAB%20PGMS/4.html`. The page content displays the following text:

```
1
5
After Sorting the Random Numbers Are
1
2
2
4
5
5
5
5
7
7
The Mean value for Sorted array is:4.3
The Median value for Sorted array is:5
```

5) Create a XHTML document that describes the form for taking orders for popcorn. Text boxes are used at the top of the form to collect the buyer's name and address. These are placed in a borderless table to force the text box align vertically. A second table to collect actual order. Each row of this table names a product, displays the price, and uses text box with size 2 to collect the quantity ordered using <td> tag. The payment method is input by the user through one of four radio buttons. Provide provision for submission of order and clear the order form.

Sample output form

**Welcome to Millennium Gymnastics Booster Club
Popcorn Sales**

Buyer's Name:

Street Address:

City, State, Zip:

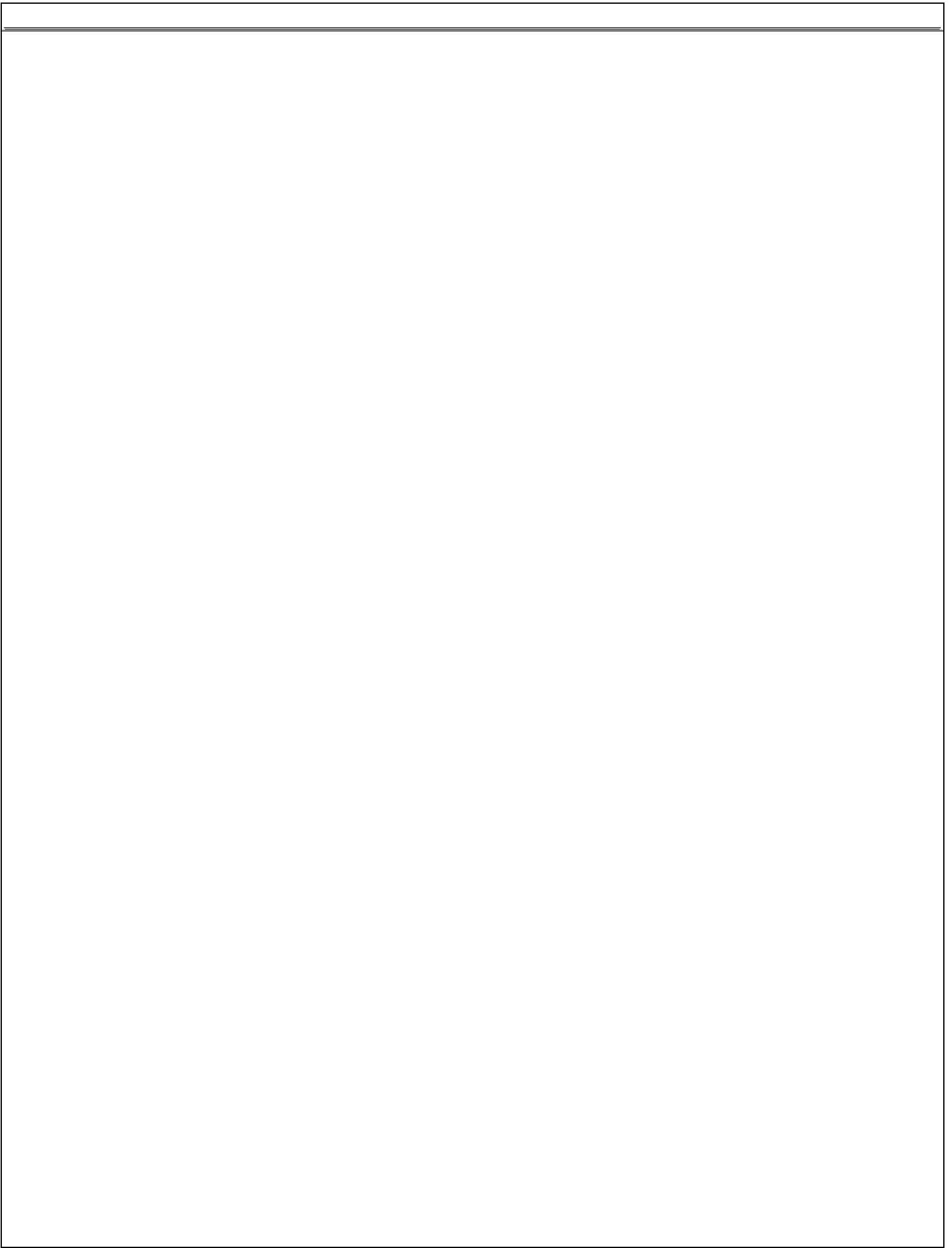
Product Name	Price	Quantity
Unpopped Popcorn (1 lb.)	\$3.00	<input type="text"/>
Caramel Popcorn (2 lb. canister)	\$3.50	<input type="text"/>
Caramel Nut Popcorn (2 lb. canister)	\$4.50	<input type="text"/>
Toffee Nut Popcorn (2 lb. canister)	\$5.00	<input type="text"/>

Payment Method:

☒ Visa ☐ Master Card ☐ Discover ☐ Check

5a.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<title>amc</title>
<head><title>LABPGM 3</title></head>
<body bgcolor="orange">
<center><h2> Welcome to Millennium Gymnastics Booster Club PopcorSales</center></head><h2>
<form method ="post" action="">
<table align=center>
```




```

<tr><br/> <br/>
<td><b> Buyer's Name</td></b>
<td> <input type="text" name="username" size="20" maxlength="25"
minlength="5"/></td> </tr>

<tr>
<td><b>Street Address</td></b>
<td> <input type="text" name="strtadrs" size="30" maxlength="35" minlength="15"/></td>

</tr>

<tr>
<td><b>City,State,Zip</td></b>
<td> <input type="text" name="csz" size="25" maxlength="30"/></td>
</tr>
</table>
<br/>
<br/>

<table align="center" border="3px" cellpadding="10px" cellspacing="10px"> <tr>
<th><b> Product Name</b></th>
<th><b> Price</b></th>
<th><b> Quantity</b></th>

<tr>
<td><b>Unpopped Popcorn(1 lb.)</b></td>
<td>$3.00</td>
<td><input type="text" size="5"></td>
</tr>

<tr>
<td><b>Carmel Popcorn(2
lb.canister)</b></td> <td>$3.50</td>
<td><input type="text" size="5"></td>

```

```
</tr>
```

```
<tr>
```

```
<td><b>Carmel Nut Popcorn(1  
lb.Canister)</b></td> <td>$4.50</td>
```

```
<td><input type="text" size="5"></td>
```

```
</tr>
```

```
<tr>
```

```
<td><b>Tuffy Nut Popcorn(1 lb.Canister)</b></td>
```

```
<td>$5.00</td>
```

```
<td><input type="text" size="5"></td>
```

```
</tr>
```

```
</table>
```

```
<br/>
```

```
<table align= center >
```

```
<tr>
```

```
<th><b><h2>Payment </b></th></h2>
```

```
<th><b><h2>Methods:</b></th></h2>
```

```
<th><th/>
```

```
<th><th/>
```

```
</tr>
```

```
<tr >
```

```
<td><label><input type="radio" name="card" value="visa" checked=checked />Visa</lable></td>
```

```
<td><label><input type="radio" name="card" value="visa"/>Master Card</lable></td>
```

```
<td><label><input type="radio" name="card" value="visa"/>Discover</lable></td>
```

```
<td><label><input type="radio" name="card" value="visa"/>Check</lable></td> </tr>
```

```
<tr>
```

```
<td><button type="submit" form="nameform" value="Submit">Submit oder</button>
```

```
<td><button type="submit" form="nameform" value="Submit">Clear order
```

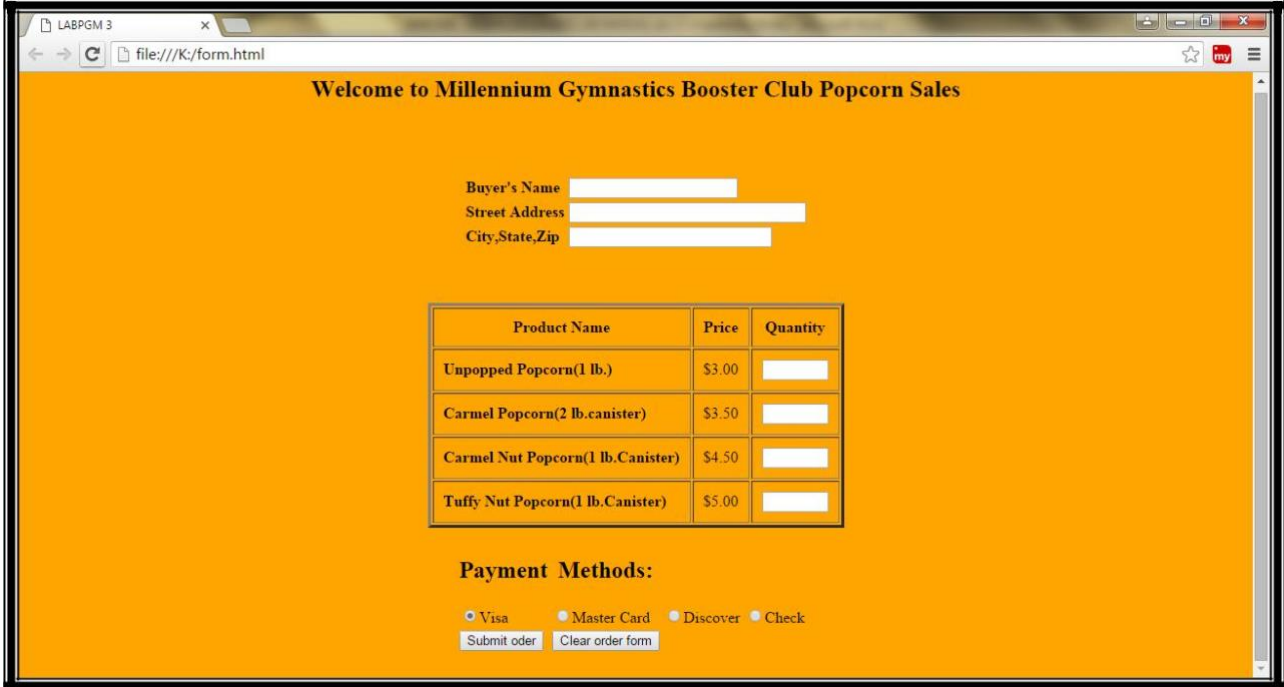
```
form</button> </tr>
```

</form>

</body>

</html>

Output:



The screenshot shows a web browser window with the address bar displaying 'file:///K:/form.html'. The page has an orange background and is titled 'Welcome to Millennium Gymnastics Booster Club Popcorn Sales'. It contains a form for buyer information, a table of popcorn products, and payment options.

Buyer's Name
Street Address
City,State,Zip

Product Name	Price	Quantity
Unpopped Popcorn(1 lb.)	\$3.00	<input type="text"/>
Carmel Popcorn(2 lb.canister)	\$3.50	<input type="text"/>
Carmel Nut Popcorn(1 lb.Canister)	\$4.50	<input type="text"/>
Tuffy Nut Popcorn(1 lb.Canister)	\$5.00	<input type="text"/>

Payment Methods:

☒ Visa ☐ Master Card ☐ Discover ☐ Check

6) Develop, test and validate an XHTML document that has checkboxes for apple (59 cents each), Orange (49 cents each), and banana (39 cents each) along with submit button. Each checkboxes Should have its own *onclick* event handler. These handlers must add the cost of their fruit to a total cost. An event handler for the *submit* button must produce an alert window with the message „*your total cost is \$xxx*“, where xxx is the total cost of the chose fruit, including 5 percent sales tax. This handler must return „false“ (to avoid actual submission of the form data).

6.html:

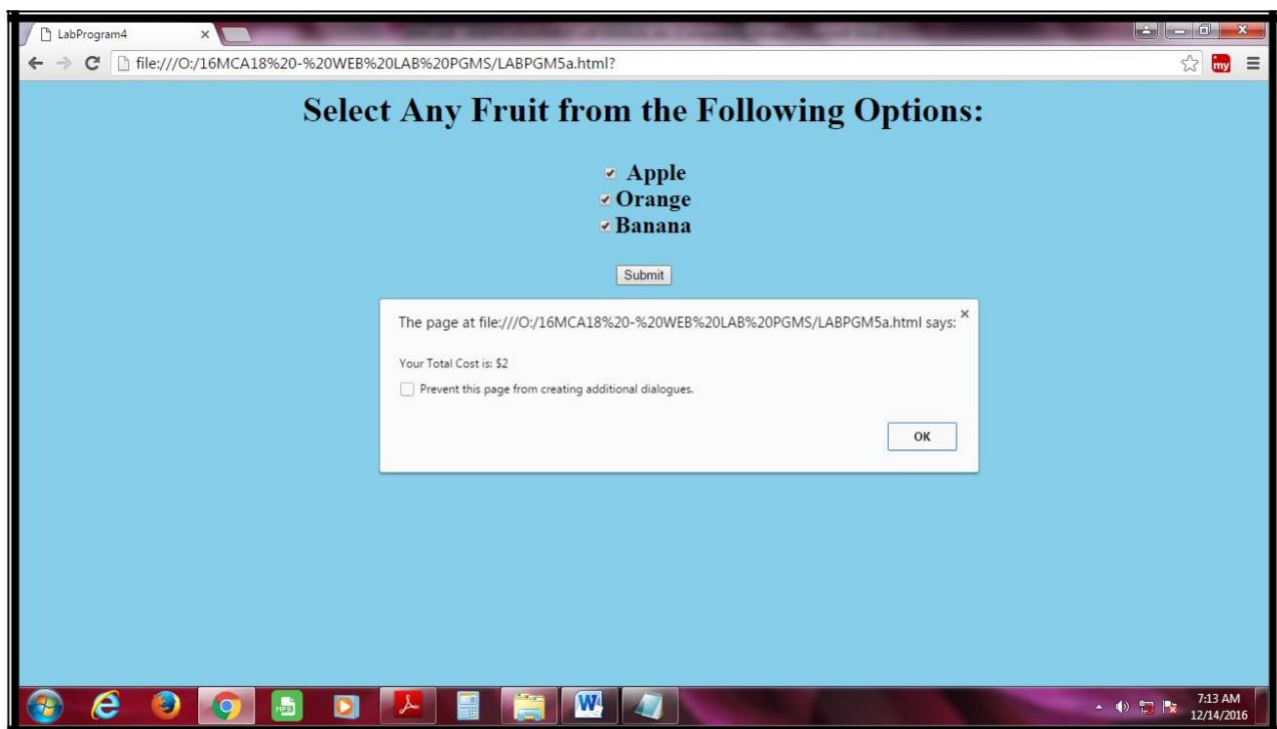
```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head><title> LabProgram4 </title>
<script type="text/javascript">
    var totamt=0;
    function AppleCost( )
    {
        if(document.getElementById("c1").checked==true)
        {
            totamt+=59;
        }
    }
    function OrangeCost( )
    {
        if(document.getElementById("c2").checked==true)
        {
            totamt+=49;
        }
    }
    function BananaCost( )
    {
        if(document.getElementById("c3").checked==true)
        {
            totamt+=39;
        }
    }
}
```

```

function totcost1 ( )
{
    var totcost=totamt+(totamt*(5/100));
    var dolorcost=Math.round(totcost/100);
    alert("Your Total Cost is: $" +dolorcost);
}

</script>
</head>
<body Bgcolor="Skyblue"><h2>
    <form action="" name="MainForm"><center>
        <h2> Select Any Fruit from the Following Options:</br></h2>
        <label><input type="checkbox" id="c1" value="apple" onclick="AppleCost(
)"/> Apple</label><br/>
        <label><input type="checkbox" id="c2" value="orange"
onclick="OrangeCost( )"/>Orange</label><br/>
        <label><input type="checkbox" id="c3" value="banana"
onclick="BananaCost( )"/>Banana</label><br/><br/>
        <input type="submit" onclick="totcost1( )"/>
    </h2></center> </form></body></html>

```

Output:

6b) Modify the document to accept quantity for each item using textboxes.

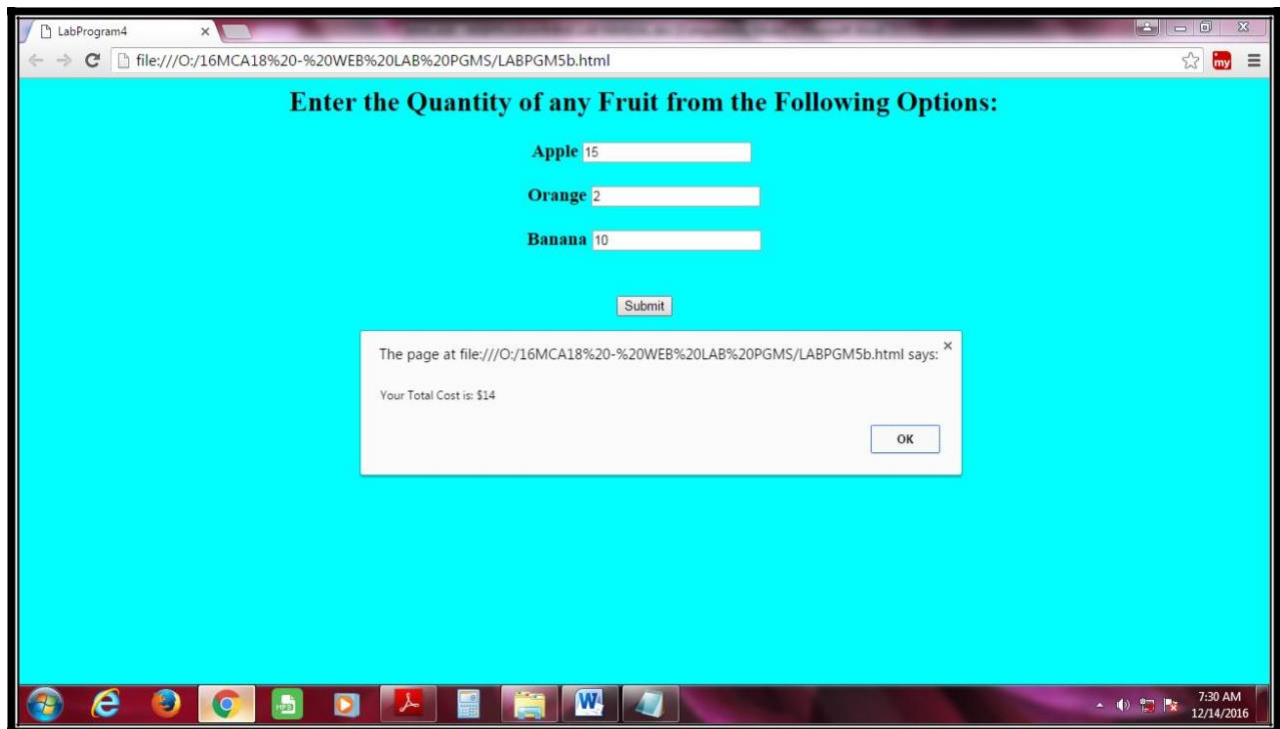
6b.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"> <head><title> LabProgram4 </title>
  <script type="text/javascript">

    var totamt=0;
    function AppleCost( )
    {
      var appquan=document.getElementById("t1").value;
      totamt+=59*appquan;
    }
    function OrangeCost( )
    {
      var oraquan=document.getElementById("t2").value;
      totamt+=49*oraquan;
    }
    function BananaCost( )
    {
      var banquan=document.getElementById("t3").value;
      totamt+=39*banquan;
    }
    function totcost1( )
    {
      var totcost=totamt+(totamt*(5/100));
      var dolarcost=Math.round(totcost/100);
      alert("Your Total Cost is: $" +dolarcost);
    }

  </script>
</head>
<body bgcolor="cyan"><center><h3>
<form action="" name="MainForm">
  <h2> Enter the Quantity of any Fruit from the Following Options:</br></h2>
```

```
<label> Apple </label> <input type="text" id="t1" onchange="AppleCost()" /> <br/><br/>
<label> Orange </label> <input type="text" id="t2" onchange="OrangeCost()" /><br/><br/>
<label> Banana </label> <input type="text" id="t3" onchange="BananaCost()" /><br/><br/>
<h2><input type="submit" onclick="totcost1()" /> </h2></h3></center>
</form>
</body>
</html>
```

Output:

7a) Develop and demonstrate, a XHTML document that collects the USN(the valid format is : A digit from 1 to 4 followed by two upper-case characters followed by two digits followed by three uppercase characters followed by two digits; (no embedded spaces are allowed) from the user. Use JavaScript that validate the content of the document. Suitable messages should be display in the alert if errors are detected in the input data. Use CSS and event handlers to make your document good-looking and effective.

7a.html:

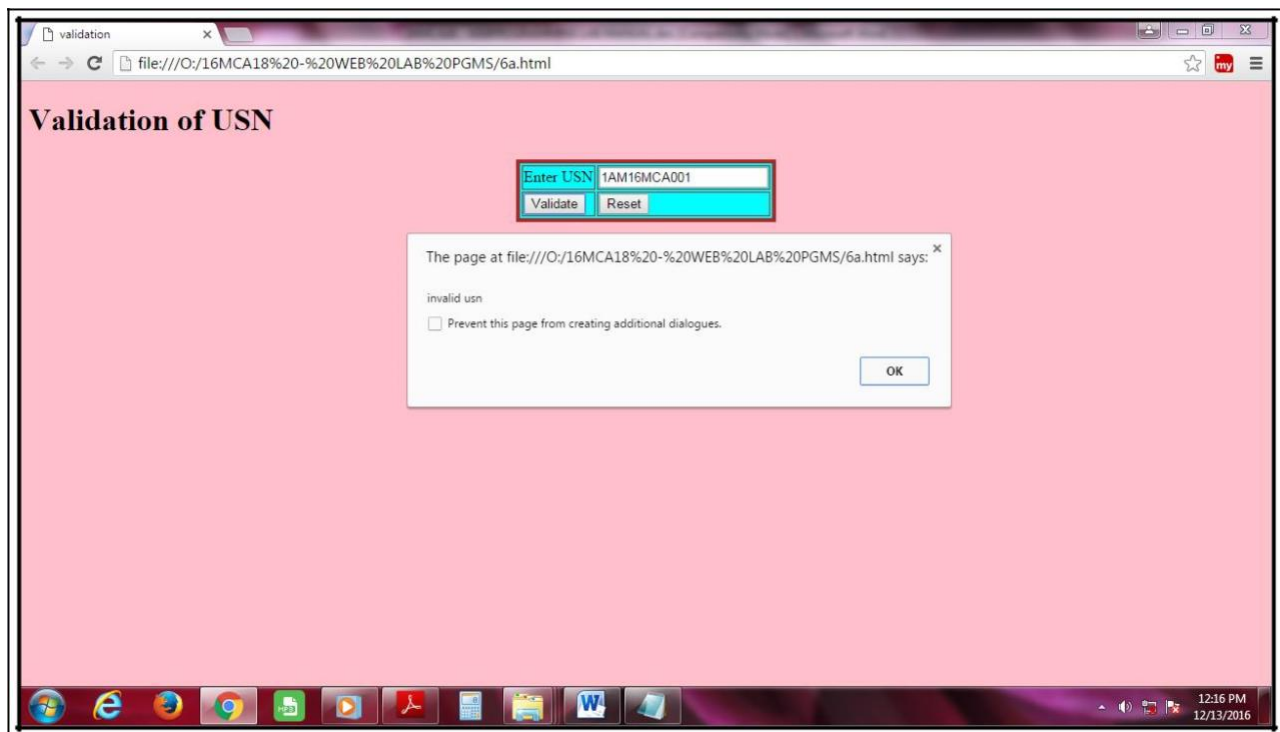
```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"> <head>

<title>validation</title>
<script type="text/javascript">
function checkusn()
{
    var usn=document.getElementById('txtusn').value;
    var exp=/^[1-4][a-zA-Z][a-zA-Z][0-9][0-9][a-zA-Z][a-zA-Z][a-zA-Z][0-9][0-9][0-9]$/;

    if(usn.match(exp))
    {
        alert("valid usn");
    }
    else
    {
        alert("invalid usn");
    }
}
</script>
</head>
<body bgcolor="pink">
<h1>Validation of USN</h1>
<form>
<table bgcolor="cyan" border="4" bordercolor="brown" align="center">
```



```
<tr>
    <td>Enter USN</td>
    <td>
        <input type="text" id="txtusn"/>
    </td>
</tr>
<tr>
    <td>
        <input type="button" value="Validate" onClick="checkusn();" />
    </td>
    <td>
        <input type="reset" value="Reset" />
    </td>
</tr>
</table>
</body>
</html>
```



7b) Modify the above program to get the current semester also(restricted to be a number from 1 to 6).

7b.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"> <head>

<title>validation</title>
<script type="text/javascript">
function checkusn()
{

    var usn=document.getElementById('txtusn').value;
    var usn1=document.getElementById('txtusn')
        var exp=/^[1-4][a-zA-Z]{2}\d{2}[a-zA-
        Z]{3}\d{2}$/; if(usn.match(exp))
    {
        alert("Entered usn "+usn+" is valid");

    }
    else
    {
        alert("Entered usn: " +usn+ " is Not valid");
        usn1.focus();
        usn1.select();
    }
}

function checksem()
{

    var sem=document.getElementById('txtsem').value;
    var sem1=document.getElementById('txtsem')
        var exp=/^[1-6]$/;
```

```

        if(sem.match(exp))
        {
            alert("Entered Semster " +sem+ "    is valid");
        }
        else
        {
            alert("Entered Semster " +sem+ "    is not valid");
            sem1.focus();
            sem1.select();
        }
    }
</script>
</head>
<body bgcolor="pink">
    <center><h1>Validation of USN and
Semester</h1></center> <form>
        <table bgcolor="cyan" border="4" bordercolor="brown"
            align="center"> <tr>
                <td>Enter USN</td>
                <td>
                    <input type="text" id="txtusn" onblur="checkusn0;"/>
                </td>
            </tr>
            <tr>
                <td>Enter Semester</td>
                <td>
                    <input type="text" id="txtsem" />
                </td>
            </tr>
            <tr>
                <td>
                    <input type="button" value="Validate" onclick="checksem0;checkusn0;"/>
                </td>
                <td>
                    <input type="reset" value="Reset"/>
                </td>
            </tr>
        </table>
    </form>

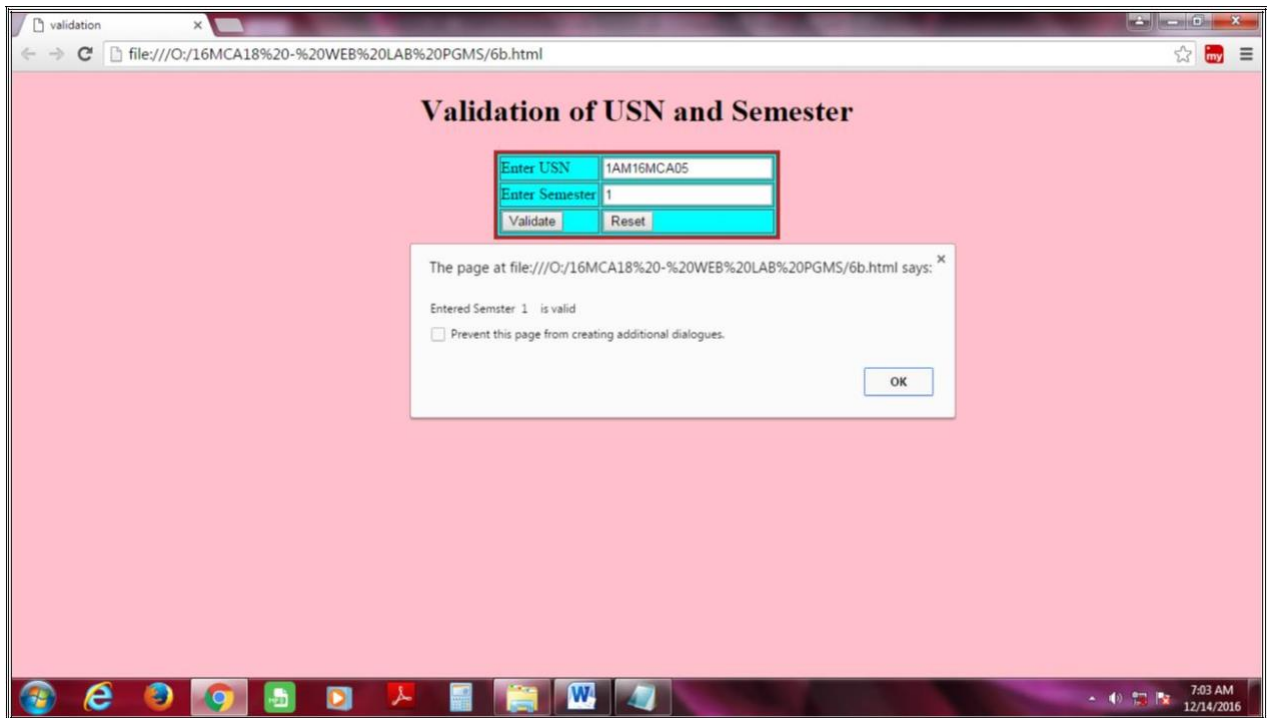
```

```
</td>  
</tr>
```

```
<table>
```

```
</body>
```

```
</html>
```

Output:

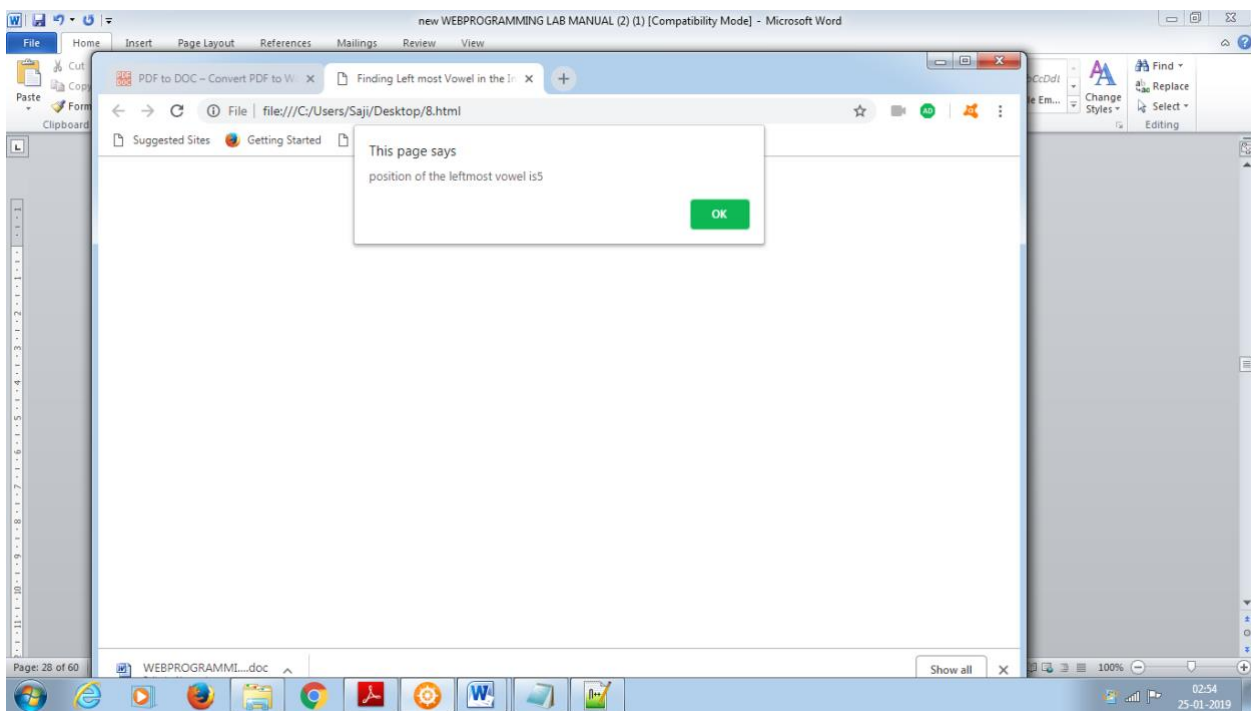
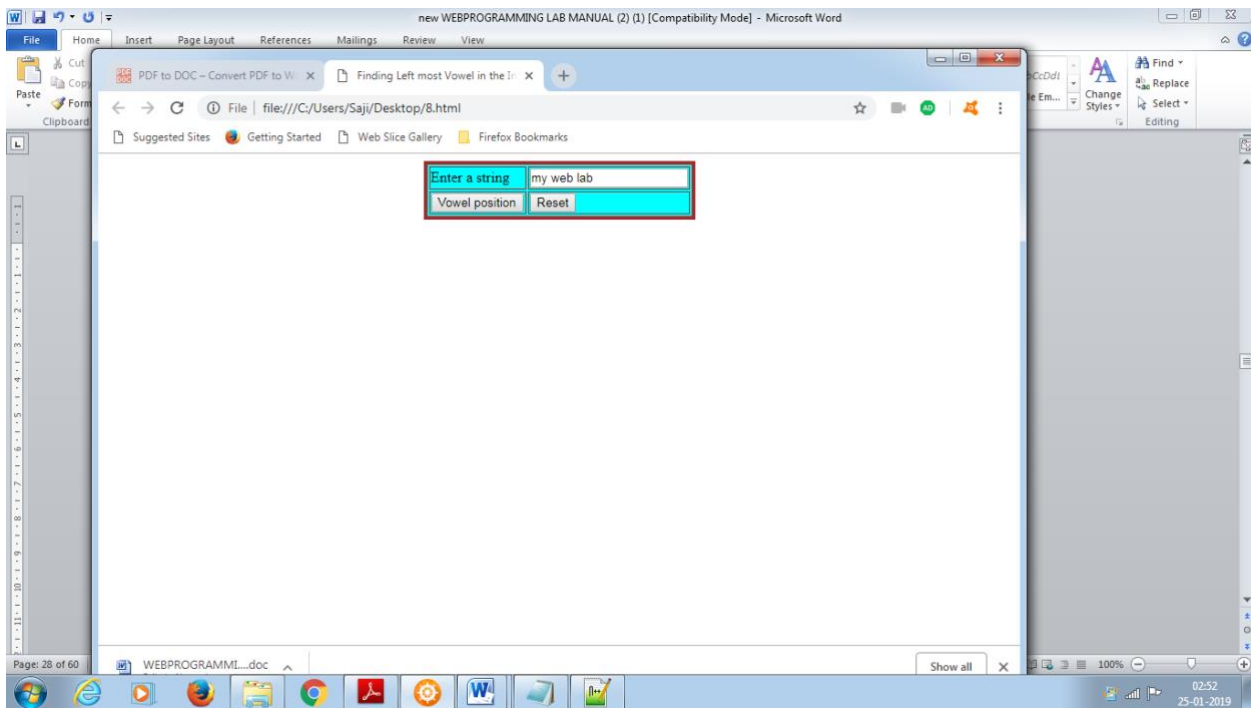
8. Develop and demonstrate a HTML file which includes Javascript that uses functions for the following problems.

a)Parameter : A String Output : The position in the string of the leftmost Vowel

b)Parameter : A number Output : The number with its digits in reverse order

8a.html

```
<html>
<head><title>Finding Left most Vowel in the Input String</title>
<script type="text/javascript">
function check()
{
    var chr = "";
    var str = document.getElementById('t1').value;
    var x=str.search(/[aeiouAEIOU]/);
    if(x>=0)
    {
        pos=x+1;
        alert("position of the leftmost vowel is"+ pos);
    }
    else{
        alert("no vowels found");
    }
}
</script>
</head>
<body>
<form>
<table bgcolor="cyan" border="4" bordercolor="brown" align="center">
<tr>
<td>Enter a string</td>
<td>
<input type="text" id="t1"/>
</td>
</tr>
<tr>
<td>
<input type="button" value="Vowel position" onClick="check0;"/>
</td>
<td>
<input type="reset" value="Reset"/>
</td>
</tr>
</table>
</body>
</html>
```



8b.html

```
<html>
<head><title>Finding Left most Vowel in the Input String</title>
<script type="text/javascript">
function rev()
{
var x=new Array();
var str=document.getElementById('t1').value;
for(var i=str.length-1;i>=0;i--)
{
x=x+str[i];

}

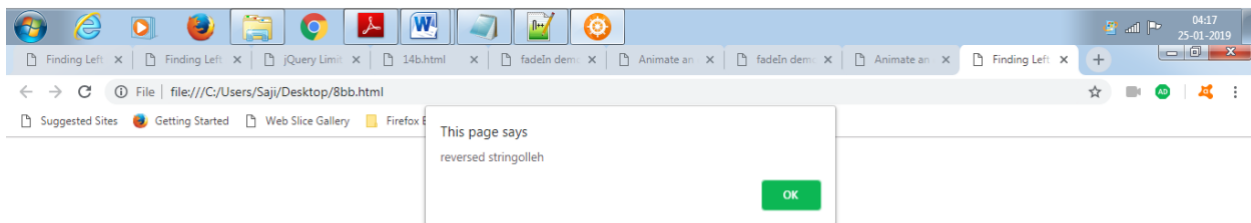
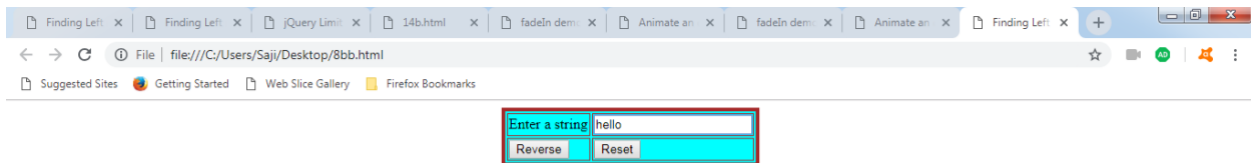
    alert("reversed string"+x);

}

</script>

</head>
<body>
    <form>
<table bgcolor="cyan" border="4" bordercolor="brown" align="center">
<tr>
<td>Enter a string</td>
<td>
<input type="text" id="t1"/>
</td>
</tr>
<tr>
<td>
<input type="button" value="Reverse" onClick="rev();"/>
</td>
<td>
<input type="reset" value="Reset"/>
</td>
</tr>
</table>

</body>
</html>
```



9. Develop and demonstrate a HTML5 page which contains

- a) Dynamic Progressive Bar.
- b) Display Video file using HTML5 video tag

9a.html

```
<!DOCTYPE html>
<html>
<head>
<title>jQuery HTML5 Progress Bar</title>
<script src="jquery-3.3.1.min.js"></script>
```

```
<script type="text/javascript">
$(document).ready(function() {
var progressbar = $('#progressbar'),
max = progressbar.attr('max'),
time = (300/max)*5,
value = progressbar.val();
```

```
var loading = function() {
value += 0.5;
addValue = progressbar.val(value);
```

```
$('.progress-value').html(value + '%');
```

```
if (value == max) {
clearInterval(animate);
}
};
```

```
var animate = setInterval(function() {
loading();
}, time);
});
```

```
</script>
```

```
<style>
```

```
/* setting the dimensions */
```

```
progress {
```

```

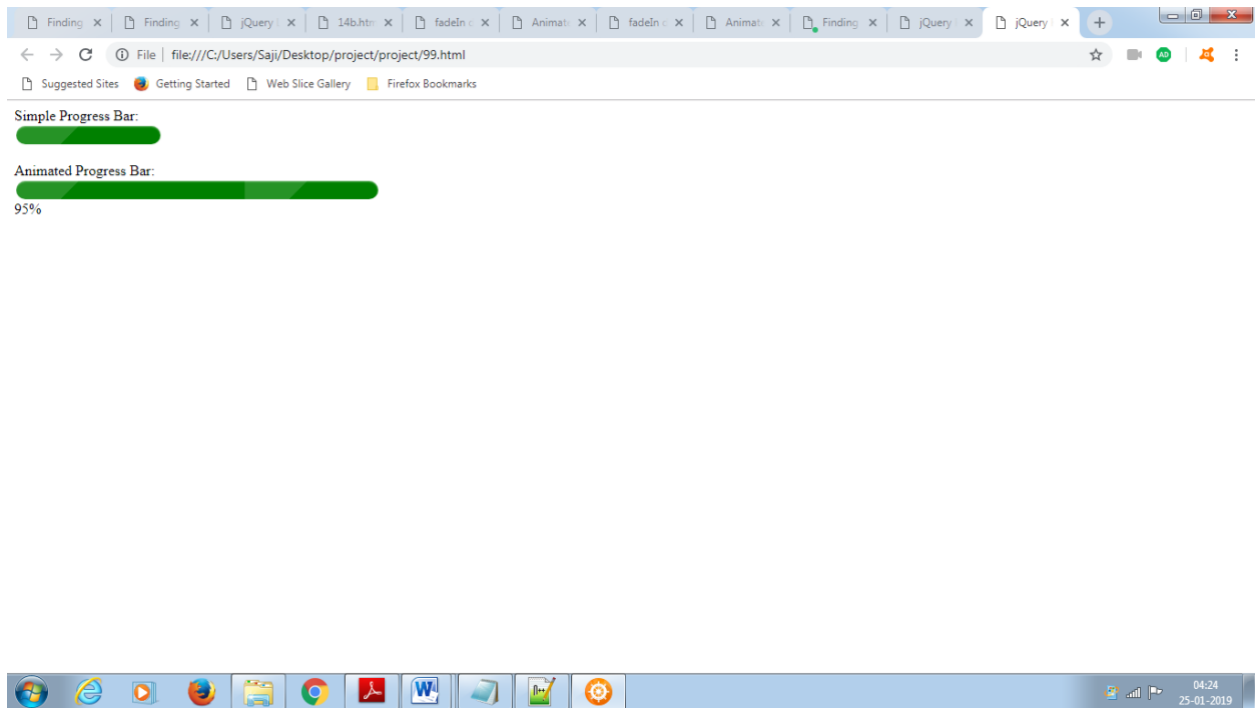
width: 400px;
height: 24px;
display: block;
/* disable defaults */
-webkit-appearance: none;
border: none;
}
/*Styling the background of the progress bar */
progress::-webkit-progress-bar {
background: white;
border-radius: 45px;
padding: 2px;
box-shadow: 0 1px 0px 0 rgba(255, 255, 255, 0.2);
}
/* Setting the appearance of the meter */
progress::-webkit-progress-value {
border-radius: 25px;
box-shadow: inset 0 1px 1px 0 rgba(255, 255, 255, 0.4);
background-size: 250px 25px;
background-image: linear-gradient(135deg, rgba(255, 255, 255, .15) 25%, transparent 25%,
transparent 75%, rgba(255, 255, 255, .15) 75%, rgba(255, 255, 255, .15) 75%,
transparent 75%, transparent);

</style>
</head>
<body>

```

Simple Progress Bar: <progress value="0.4"></progress>

Animated Progress Bar: <progress id="progressbar" value="0" max="95"></progress><div class="progress-value"></div>



10. Develop and demonstrate, using JavaScript script, a XHTML document that contains three short paragraphs of text, stacked on top of each other, with only enough of each showing so that the mouse cursor can be placed over some part of them. When the cursor is placed over the exposed part of any paragraph, it should rise to the top to become completely visible.

10.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"> <head>

<title>Stacking of paragraph</title>
<style type="text/css">
    .p1 {background-color:red;top:200px;left:300px;width:600px;position:absolute;Z-index:0;}

    .p2 {background-color:yellow;top:220px;left:320px;width:600px;position:absolute;Z-index:0;}

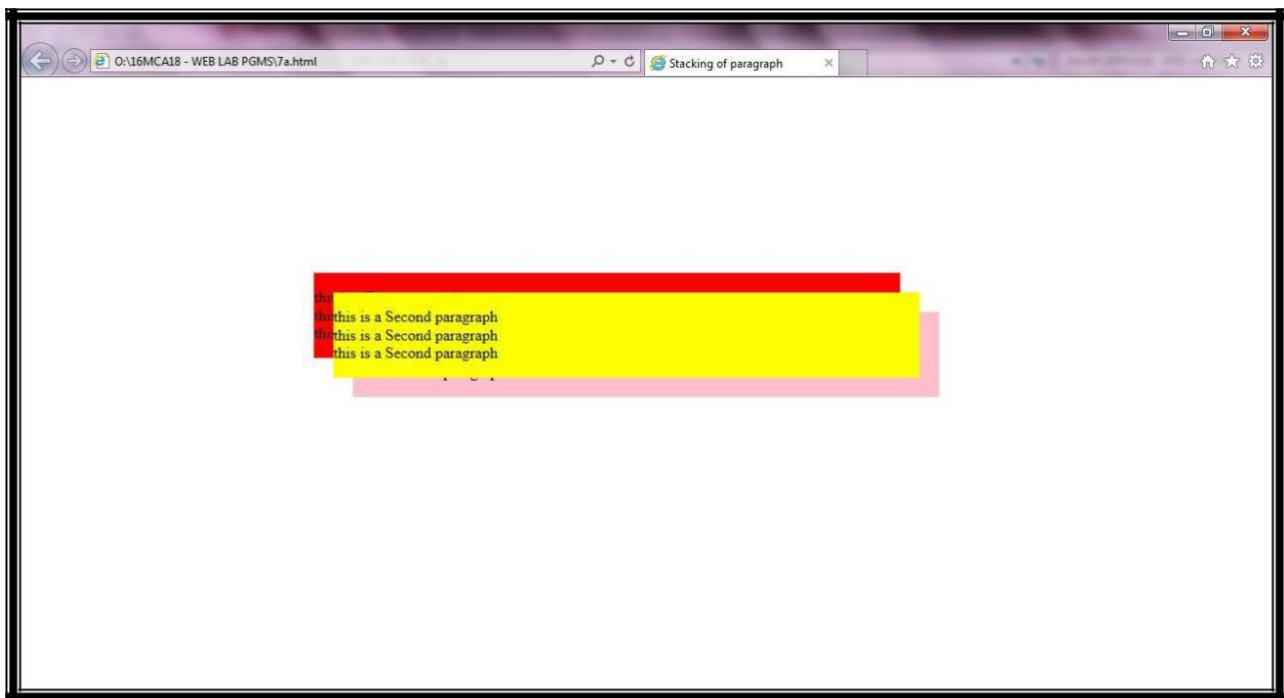
    .p3 {background-color:pink;top:240px;left:340px;width:600px;position:absolute;Z-
index:0;} </style>
<script type="text/javascript">
    var top=3;
    function totop(newtop)
    {
        var dom=document.getElementById(top).style;
        var newdom=document.getElementById(newtop).style;
        dom.zIndex=0;
        newdom.zIndex=5;
        top=newtop;
    }

</script>
</head>
<body>
    <div id="1" class="p1" onmouseover="totop(1);">
        <p>this is a First paragraph<br/>
        this is a first paragraph<br/>
```

```

        this is a first paragraph<br/></p>
    </div>
    <div id="2" class="p2"onmouseover="toto(2);">
        <p>this is a Second paragraph<br/>
        this is a Second paragraph<br/>
        this is a Second paragraph<br/></p>
    </div>
    <div id="3" class="p3" onmouseover="toto(3);">
        <p>this is a Third paragraph<br/>
        this is a Third paragraph<br/>
        this is a Third paragraph<br/></p>
    </div>
</body>
</html>

```

Output:

10b) Modify the above document so that when a text is moved from the top stacking position, it returns to its original position rather than to the bottom.

10b.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN" "http://www.w3.org/TR/xhtml1
11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>Stacking of paragraph</title>
  <style type="text/css">
    .p1 {background-color:red;top:200px;left:300px;width:600px;position:absolute;Z-index:0;}

    .p2 {background-color:yellow;top:220px;left:320px;width:600px;position:absolute;Z-index:0;}

    .p3 {background-color:pink;top:240px;left:340px;width:600px;position:absolute;Z-
index:0;} </style>
  <script type="text/javascript">
    var top=3;
    var opos;
    function totop(newtop)
    {
      var dom=document.getElementById(top).style;
      var newdom=document.getElementById(newtop).style;
      dom.zIndex=0;
      newdom.zIndex=5;
      top=newtop;
    }
    function tobottom()
    {
      document.getElementById(top).style.zIndex=0;
    }
  </script>
</head>
<body>
  <div id="1" class="p1" onmouseover="totop('1');" onmouseout="tobottom();">
```

```
<p>this is a first paragraph<br/>
this is a first paragraph<br/>
this is a first paragraph<br/></p>
</div>
```

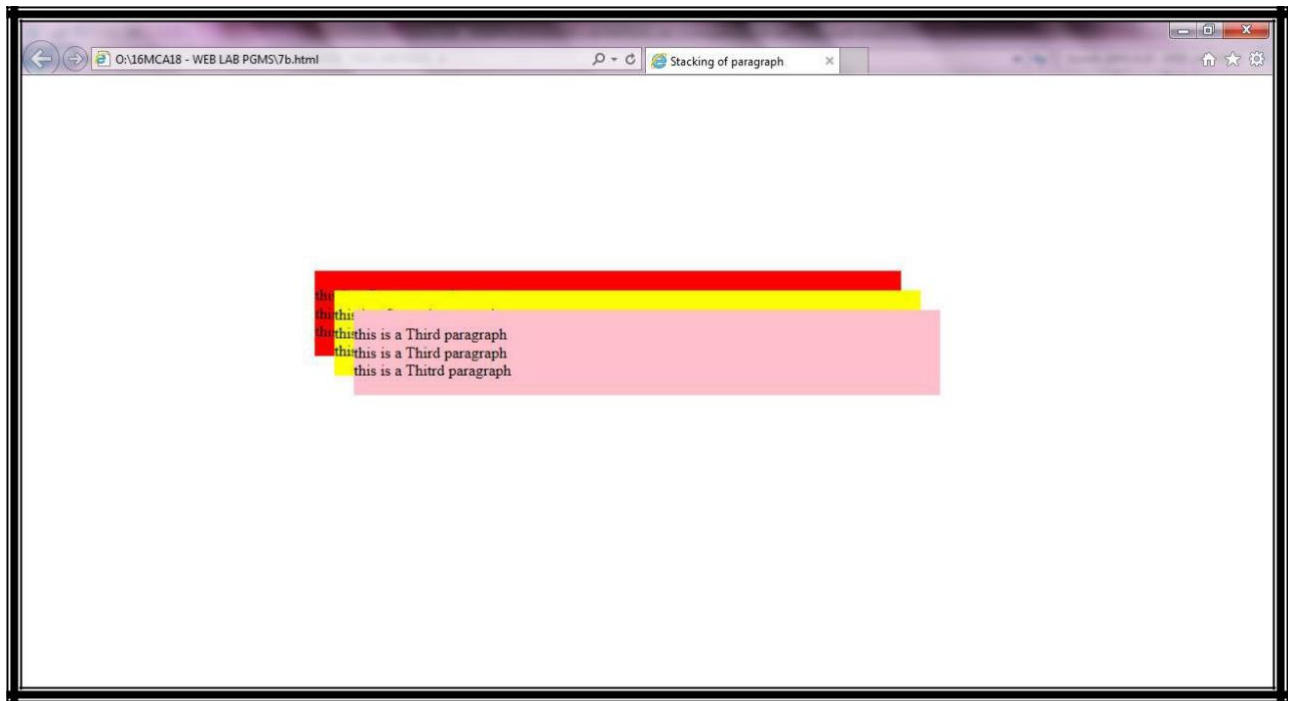
```
<div id="2" class="p2" onmouseover="toto('2');"
onmouseout="tobottom();" > <p>this is a Second paragraph<br/>
this is a Second paragraph<br/>
this is a Second paragraph<br/></p>
</div>
```

```
<div id="3" class="p3" onmouseover="toto('3');"
onmouseout="tobottom();" > <p>this is a Third paragraph<br/>
this is a Third paragraph<br/>
this is a Thitrd paragraph<br/></p>
</div>
```

```
</body>
```

```
</html>
```

Output:



11) Develop a simple calculator to perform arithmetic (addition, subtraction, multiplication and division) operations on given two numbers. Use an html tag that allows the user to input two numbers and to display the result of arithmetic operation. Write suitable HTML and JavaScript and CSS to your simple calculator. The following figure show sample document display.

11a.html:

```
<? xml version="1.0" encoding="utf-8" ?>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.1// EN"
"http://www.w3.org/TR/xhtml11/DTD/xhtml11.dtd">
<html xmlns="http://www.w3.org/1999/xhtml"> <head>

<title>validation</title>
<script type="text/javascript">

function add()
{
var n1=document.getElementById("num1").value;
var n2=document.getElementById("num2").value;
if((n1=="") && (n2==""))
{
alert("Please Enter Num1 & Num2 inputs");
document.getElementById("num1").focus();
}
else if(n1=="")
{
alert("Please Enter Num1 input");
document.getElementById("num1").focus();
}
else if(n2=="")
```

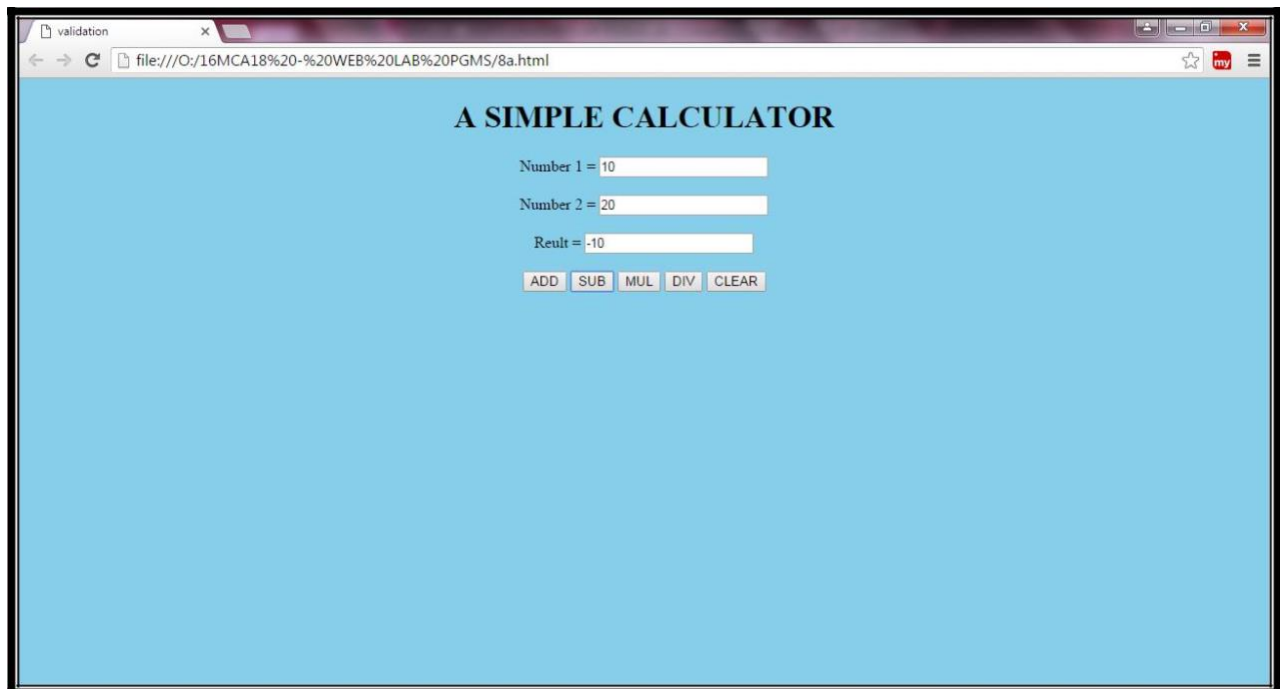


```
{
    alert("Please Enter Num2 input");
    document.getElementById("num2").focus();
}
else
{
    var add=parseInt(n1)+parseInt(n2);
    document.getElementById("result").value=add;
}
}
function sub( )
{
    var n1=document.getElementById("num1").value;
    var n2=document.getElementById("num2").value;
    if((n1=="") && (n2==""))
    {
        alert("Please Enter Num1 & Num2 inputs");
    }
    else if(n1=="")
    {
        alert("Please Enter Num1 input");
    }
    else if(n2=="")
    {
        alert("Please Enter Num2 input");
    }
    else
    {
        var sub=n1-n2;
        document.getElementById("result").value=sub;
    }
}
function mul( )
{
    var n1=document.getElementById("num1").value;
    var n2=document.getElementById("num2").value;
    if((n1=="") && (n2==""))
    {
        alert("Please Enter Num1 & Num2 inputs");
```

```
    }
    else if(n1=="")
    {
        alert("Please Enter Num1 input");
    }
    else if(n2=="")
    {
        alert("Please Enter Num2 input");
    }
    else
    {
        var mul=n1*n2;
        document.getElementById("result").value=mul;
    }
}
function div( )
{
    var n1=document.getElementById("num1").value;
    var n2=document.getElementById("num2").value;
    if((n1=="") && (n2==""))
    {
        alert("Please Enter Num1 & Num2 inputs");
    }
    else if(n1=="")
    {
        alert("Please Enter Num1 input");
    }
    else if(n2=="")
    {
        alert("Please Enter Num2 input");
    }
    else
    {
        var div=n1/n2;
        document.getElementById("result").value=div;
    }
}
</script>
</head>
```

```
<body bgcolor="skyblue">
  <center><h1>A SIMPLE
  CALCULATOR</h1></center> <form>
    <center>Number 1 = <input type="text" id="num1"/><br/><br/>
      Number 2 = <input type="text" id="num2"/><br/><br/>
        Reult = <input type="text" id="result" readonly/><br/><br/>
          <input type="button" value="ADD" onClick="add();" />
            <input type="button" value="SUB" onClick="sub();" />
              <input type="button" value="MUL" onClick="mul();" />
                <input type="button" value="DIV" onClick="div();" />
                  <input type="reset" value="CLEAR"/>

    </center>
  </body>
</html>
```

Output:

12 Design an XML document to store information about a student in an engineering college affiliated to VTU. The information must include USN, Name, and Name of the College, Branch, Year of Joining, and e-mail id. Make up sample data for 3 students. Create a CSS style sheet and use it to display the document.

12.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<?xml-stylesheet type="text/css" href="12.css"?>
<vtu>
  <student>
    <usn>1AM16MCA01</usn>MCA
    <name>ARSHIYA ANJUM</name>
    <college>AMC Engineering College</college>
    <branch>MCA</branch>
    <yoy>2016</yoy>
    <email>ars@gmail.com</email>
  </student>
  <student>
    <usn>1AM16MCA05</usn>
    <name>NAGESH</name>
    <college>AMC Engineering College</college>
    <branch>MCA</branch>
    <yoy>2016</yoy>
    <email>nagesh@gmail.com</email>
  </student>
  <student>
    <usn>1AM16MCA10</usn>
    <name>SUBRAJIT GUPTA</name>
    <college>AMC Engineering College</college>
    <branch>MCA</branch>
    <yoy>2016</yoy>
    <email>sgupta@gmail.com</email>
  </student>
</vtu>
```

12.css:

```
vtu {color:red;font-size:25pt;font-style:bold}  
student {color:pink;font-size:25pt;font-style:bold}  
name {color:blue;font-size:25pt;font-style:italic}  
usn {color:purple;font-size:25pt;font-style:italic}  
college {color:red;font-size:25pt;font-style:italic}  
branch {color:violet;font-size:25pt;font-style:italic}  
email {color:cyan;font-size:25pt;font-style:italic}  
voj {color:black;font-size:25pt;font-style:italic}
```

Output:

12b) Create an XSLT style sheet for one student element of the above document and use it to create a display of that element.

12b.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<?xml-stylesheet type="text/xsl" href="12b.xsl"?>
<vtu>
  <student>
    <usn>1AM16MCA01</usn>MCA
    <name>ARSHIYA ANJUM</name>
    <college>AMC Engineering College</college>
    <branch>MCA</branch>
    <yoy>2016</yoy>
    <email>ars@gmail.com</email>
  </student>
  <student>
    <usn>1AM16MCA05</usn>
    <name>NAGESH</name>
    <college>AMC Engineering College</college>
    <branch>MCA</branch>
    <yoy>2016</yoy>
    <email>nagesh@gmail.com</email>
  </student>
  <student>
    <usn>1AM16MCA10</usn>
    <name>SUBRAJIT GUPTA</name>
    <college>AMC Engineering College</college>
    <branch>MCA</branch>
    <yoy>2016</yoy>
    <email>sgupta@gmail.com</email>
  </student>
</vtu>
```

12b.xsl:

```

<?xml version="1.0" encoding="utf-8"?>
<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns="http://www.w3.org/1999/html"> <xsl:template match="vtu">
    <h1>Student information</h1>
    <hr size="4" color="green"/>
    <xsl:for-each select="student">
        <span style="color:blue;font-style:italic;font-weight:bold;font-size:25pt;">Name:
        <xsl:value-of select="name"/></span><br/>

        <span style="color:red;font-style:italic;font-weight:bold;font-size:25pt;">Usn:
        <xsl:value-of select="usn"/></span><br/>

        <span style="color:pink;font-style:italic;font-weight:bold;font-size:25pt;">college:
        <xsl:value-of select="college"/></span><br/>

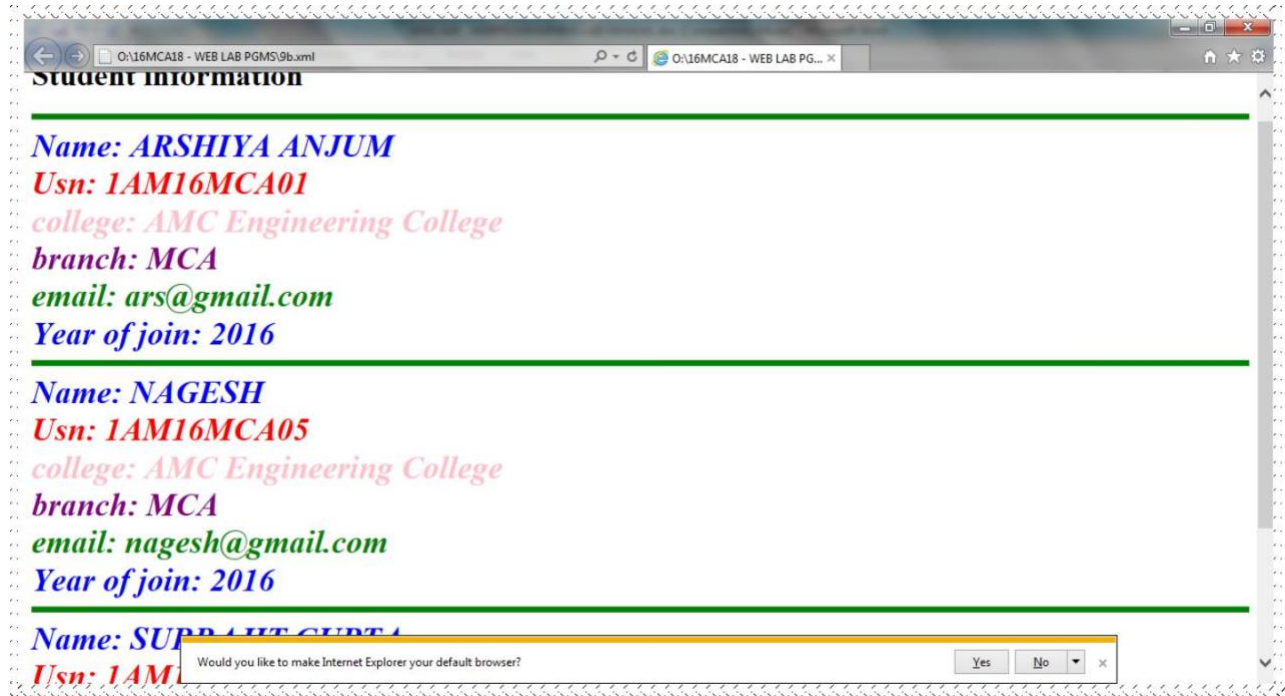
        <span style="color:purple;font-style:italic;font-weight:bold;font-size:25pt;">branch:
        <xsl:value-of select="branch"/></span><br/>

        <span style="color:green;font-style:italic;font-weight:bold;font-size:25pt;">email:
        <xsl:value-of select="email"/></span><br/>

        <span style="color:blue;font-style:italic;font-weight:bold;font-size:25pt;">Year of join:
        <xsl:value-of select="yoj"/></span><br/>

    <hr size="4" color="green"/>
    </xsl:for-each>
</xsl:template>
</xsl:stylesheet>

```

Output:

13. Develop and demonstrate using jquery to solve the following:

- a) Limit Character input in the text area including count.
- b) Based on check box, disable/enable the form submit button

13a.html

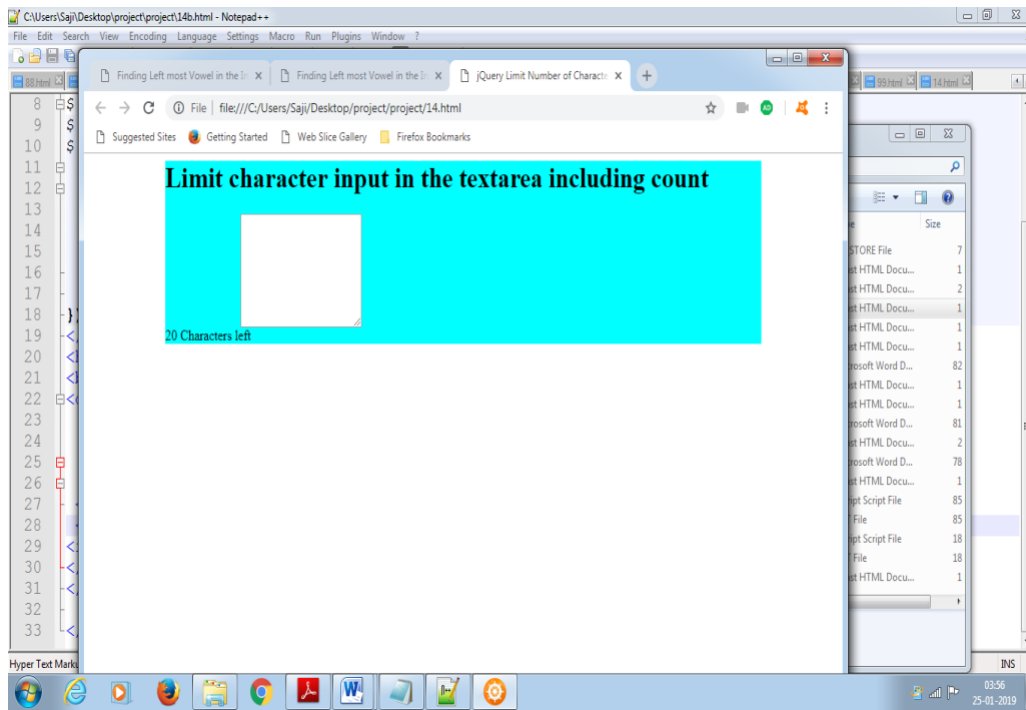
```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
<title>jQuery Limit Number of Characters in a TextArea</title>
<script type="text/javascript" src="jquery-3.3.1.min.js"></script>
<script type="text/javascript">
$(function() {
$('div').css('background-color','cyan');
$('div').css('margin-left','100px');
$('div').css('margin-right','100px');
$('#textarea1').css('margin-left','100px');

var maxCharLength = 20;
$('#textarea1').keyup(function() {

                $('#textarea1').attr("maxlength",maxCharLength);
                var len=$('#textarea1').val().length;

if (len >= maxCharLength) {

this.value = this.value.substring(0,maxCharLength);
}
$('#spntxt').text(maxCharLength - len + ' Characters Left');
});
});
</script>
</head>
<body>
<div>
<h1>Limit character input in the textarea including count</h1>
<textarea id="textarea1" cols="20" rows="8"></textarea><br/>
<span id="spntxt"> 20 Characters left</span>
</div>
</body>
</html>
```



13b.html

```
<!DOCTYPE html>
<html>
<head>
<script src="jquery-3.3.1.min.js"></script>
</head>
<body>
<script>
$(function() {
$('#d1').css('background-color','pink');
$('#btnSubmit').attr('disabled', 'disabled');
    $('#checkMe').click(function() {
        if ($(this).is(':checked')) {
            $('#btnSubmit').removeAttr('disabled');
        } else {
            $('#btnSubmit').attr('disabled', 'disabled');
        }
    });
});
</script>
<h1>Disable form submit button</h1>
<br/>
<div id="d1">
    <h4>Please fill the form</h4>
    <hr>
    <form action="success.html" method="GET">
        <label>Name
        <input type="text" name="name" required placeholder="Enter your name"></label><br/><br/>
        <label><input type="checkbox" id="checkMe" value="">Check me to submit</label>
        <input type="submit" id="btnSubmit"/>
    </form>
</div>
</body>
</html>
```

14. Develop and demonstrate using JQuery to solve the following:

- a) Fade in and Fade out all division elements
- b) Animate an element by Changing its height and width

14a.html

```
<!doctype html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <title>fadeIn demo</title>
  <style>
    span {
      color: red;
      cursor: pointer;
    }
    div {
      margin: 3px;
      width: 80px;
      display: none;
      height: 80px;
      float: left;
    }
    #one {
      background: #f00;
    }
    #two {
      background: #0f0;
    }
    #three {
      background: #00f;
    }
  </style>
  <script src="https://code.jquery.com/jquery~1.10.2.js"></script>
</head>
<body>
  <span>Click here...</span>
  <div id="one"></div>
  <div id="two"></div>
  <div id="three"></div>
```

```

<script>
$( document.body ).click(function() {
    $( "#one" ).fadeIn(2000);
    $( "#two" ).fadeIn(6000);
    $( "#three" ).fadeIn(12000);

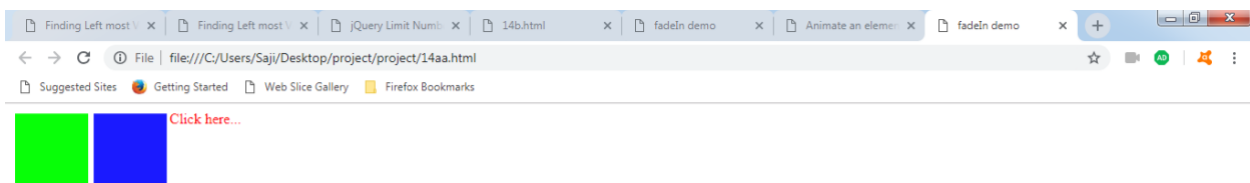
    $( "#one" ).delay(2000);
    $( "#one" ).fadeOut(2000);
    $( "#two" ).delay(2000);
    $( "#two" ).fadeOut(15000);
    $( "#three" ).delay(2000);
    $( "#three" ).fadeOut(20000);

});
</script>

</body>
</html>

```

OUTPUT



14b.html

```
<!DOCTYPE html>
<head>
<script type="text/javascript" src="jquery-3.3.1.min.js"></script>
<script>
$(function() {
$("#btn1").click(function() {

    $("#box").animate({
        width: "500px",
        height: "500px",
    },2000);
});

$("#btn2").click(function() {
    $("#box").animate({
        width: "100px",
        height: "100px",
    },2000);
});
});
</script>
<meta charset="utf-8">
<title>Animate an element, by changing its height and width</title>
</head>
<body>
<button id="btn1">Animate height & width</button>
<button id="btn2">Reset</button>
<div id="box" style="background:#B45F04;height:100px;width:100px;margin:6px;"></div>
</body>
</html>
```

