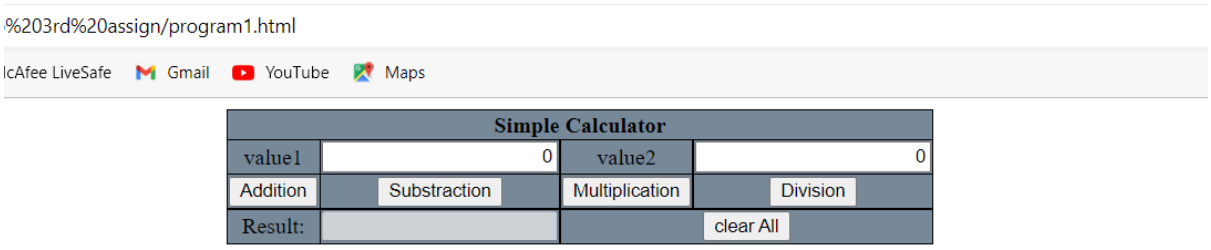
Program1: Write a Javascript to design a simple calculator to perform the following operations: sum, product, difference, quotient.

```
<!DOCTYPE html>
<html>
<head>
	<title>Simple Calculator</title>
	<style>
		table,td,th
		{
			border: 1px solid black;
			width: 33%;
			text-align: center;
			background-color: lightslategrey;
			border-collapse: collapse;
		}
		table {margin: auto;}
		input {text-align: right;}
	</style>
	<script type="text/javascript">
		function calc(clicled_id)
		 {
			var val1=parseFloat(document.getElementByid('value1').value);
			var val2=parseFloat(document.getElementByid('value2').value);
			if (isNaN(val1)|| isNaN(val2))
				alert("enter number");
			else if(clicled_id=="add")
				document.getElementByid("answer").value=val1+val2;
			else if(clicled_id=="sub")
				document.getElementByid("answer").value=val1-val2;
			else if(clicled_id=="mul")
				document.getElementByid("answer").value=val1*val2;
			else if(clicled_id=="div")
				document.getElementByid("answer").value=val1/val2;

		}
		function cls()
		{
			value1.value="0"
			value2.value="0"
			answer.value="";
		}
	</script>
</head>
<body>
	<table>
		<tr>
			<th colspan="4">Simple Calculator
			</th>
		</tr>
		<tr>
```

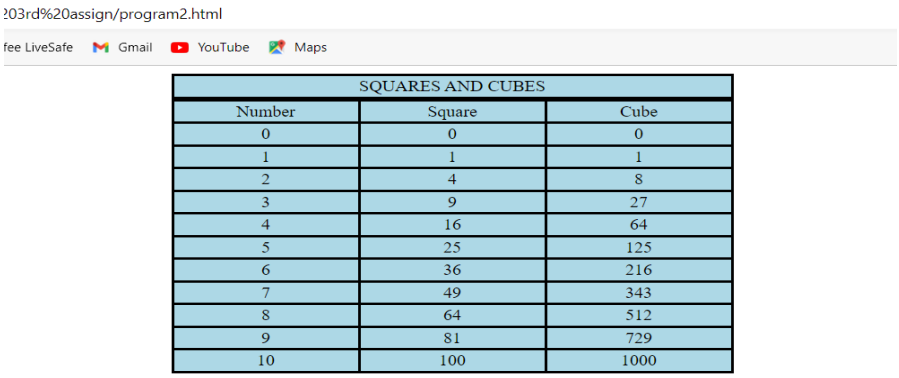
```
                <td>value1</td><td><input type="text" id="value1" value="0"/></td>
                <td>value2</td><td><input type="text" id="value2" value="0"/></td>
            </tr>
            <tr>
                <td><input type="button" value="Addition" id="add"
onclick="calc(this.id)"/></td>
                <td><input type="button" value="Substraction" id="sub"
onclick="calc(this.id)"/></td>
                <td><input type="button" value="Multiplication" id="mul"
onclick="calc(this.id)"/></td>
                <td><input type="button" value="Division" id="div"
onclick="calc(this.id)"/></td>

            </tr>
            <tr>
                <td>Result:</td>
                <td><input type="text" id="answer"/ value="" disabled="" /></td>
                <td colspan="2"><input type="button" value="clear All"
onclick="cls()"/></td>
            </tr>
        </table>

</body>
</html>
```

OUTPUT:



<u>Program 2</u>: Write a Javascript that calculates the squares and cubes of the number from 0 to 10 and HTML text that displays the resulting values in an HTML table format.

```
<!DOCTYPE HTML>
<html>
<head>
   <style>
      table,tr,td
      {
         border: solid black;
         width: 33%;
         text-align: center;
         border-collapse: collapse;
         background-color: lightblue;
      }
      table
      {
         margin: auto;
      }
   </style>
   <script>
      document.write("<center>")
      document.write("<table><tr><td colspan='3'>SQUARES AND CUBES </td></tr></table>");
      document.write("<table><tr><td>Number</td><td>Square</td><td>Cube</td></tr>");
      for (var n = 0; n <= 10; n++)
      {
         document.write("<tr><td>" + n + "</td><td>" + n * n + "</td><td>" + n * n * n +
"</td></tr>");
      }
      document.write("</table></center>");
   </script>
</head>
</html>
```

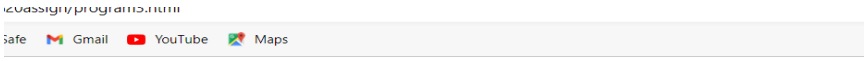


Program 3: Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches 50pt it displays "TEXT SHRINKING" in BLUE color. Then the font size decreases to 5pt.

```
<!DOCTYPE HTML>
<html>
<head>
   <style>
      p
      {
         position: absolute;
         top: 50%;
         left: 50%;
         transform: translate(-50%, -50%);
      }
   </style>
</head>
<body>
   <p id="demo"></p>
   <script>
      var var1 = setInterval(inTimer, 500);
      var fs = 5;
      var ids = document.getElementById("demo");
      function inTimer()
      {
         ids.innerHTML = 'TEXT GROWING';
         ids.setAttribute('style', "font-size: " + fs + "px; color: red");
         fs += 5;
         if (fs >= 50)
         {
            clearInterval(var1);
            var2 = setInterval(deTimer, 500);
         }
```

```
        }

        function deTimer()
        {
            fs -= 5;
            ids.innerHTML = 'TEXT SHRINKING';
            ids.setAttribute('style', "font-size: " + fs + "px; color: blue");
            if (fs === 5)
            {
                clearInterval(var2);
                var1 = setInterval(inTimer, 500);
            }
        }

    </script>
</body>
</html>
```

OUTPUT:

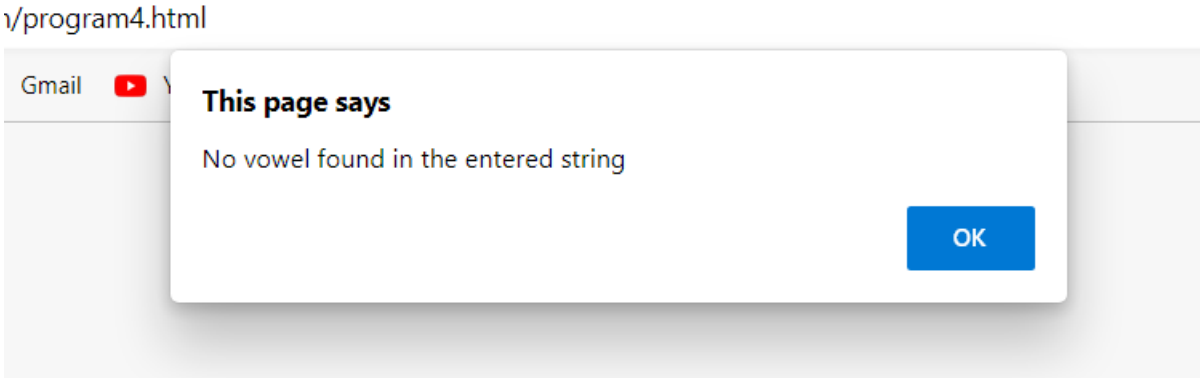


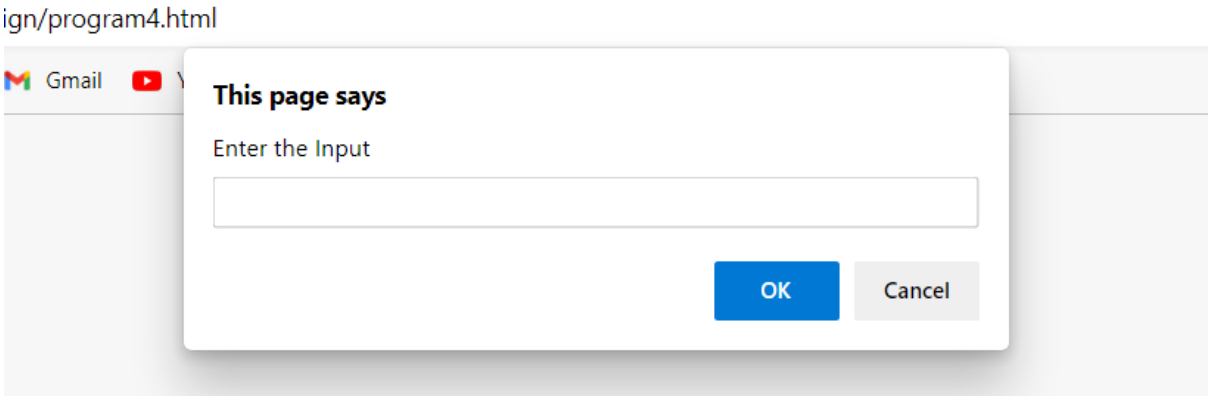
TEXT SHRINKING

Program 4: Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems: a) Parameter: A string b) Output: The position in the string of the left-most vowel c) Parameter: A number d) Output: The number with its digits in the reverse order.

```
<!DOCTYPE HTML>
<html>
<body>
   <script type="text/javascript">
      var str = prompt("Enter the Input", "");
      if (!(isNaN(str)))
      {
         var num, rev = 0,remainder;
         num = parseInt(str);
         while (num != 0)
         {
            remainder = num % 10;
            num = parseInt(num / 10);
            rev = rev * 10 + remainder;
         }
         alert("Reverse of " + str + " is " + rev);
      }
      else
      {
         str = str.toUpperCase();
         for (var i = 0; i < str.length; i++)
         {
            var chr = str.charAt(i);
            if (chr == 'A' || chr == 'E' || chr == 'I' || chr == 'O' || chr == 'U')
                  break;
         }
         if (i < str.length)
            alert("The position of the left most vowel is " + (i + 1));
         else
            alert("No vowel found in the entered string");
      }
   </script>
</body>
</html>
```

OUTPUT:





<u>Program 5:</u> 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 email id. Make up sample data for 3 students. Create a CSS style sheet and use it to display the document.

```
<?xml version = "1.0" encoding ="utf-8"?>
<?xml-stylesheet type="text/css" href="program5.css"?>
<!DOCTYPE HTML>
<html>
<head>
   <h1> STUDENTS DESCRIPTION </h1>
</head>
<students>
   <student>
      <USN>USN : 4AB16CS001</USN>
      <name>NAME : ABC</name>
      <college>COLLEGE :  IIT</college>
      <branch>BRANCH : Computer Science and Engineering</branch>
      <year>YEAR : 2016</year>
      <e-mail>E-Mail : abc@gmail.com</e-mail>
   </student>
   <student>
```

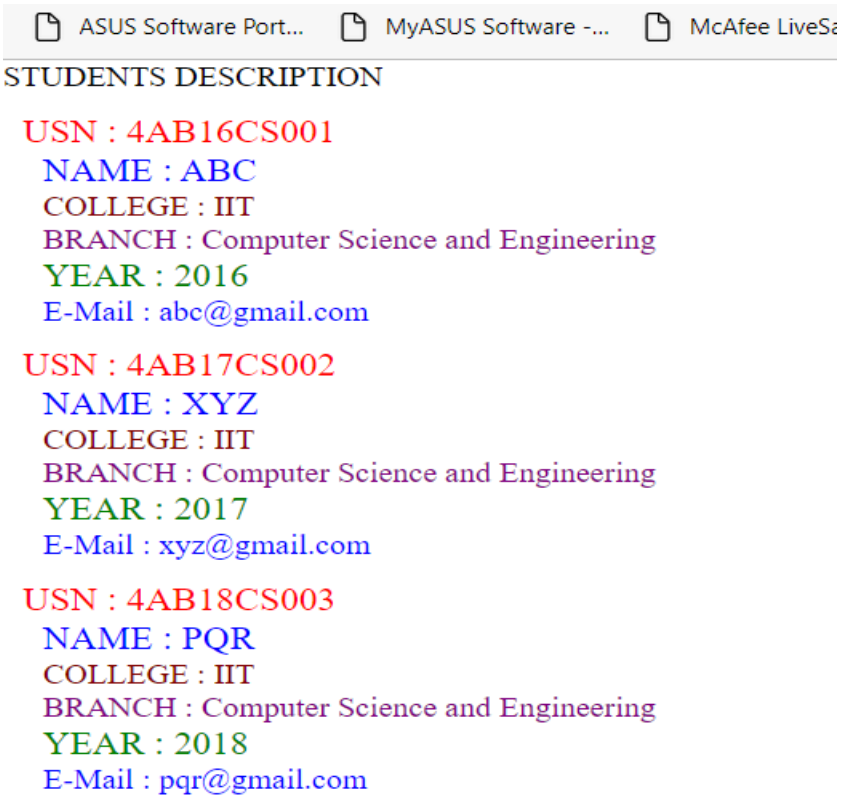
```
      <USN>USN :  4AB17CS002</USN>
      <name>NAME : XYZ</name>
      <college>COLLEGE :  IIT</college>
      <branch>BRANCH : Computer Science and Engineering</branch>
      <year>YEAR : 2017</year>
      <e-mail>E-Mail : xyz@gmail.com</e-mail>
   </student>
   <student>
      <USN>USN :  4AB18CS003</USN>
      <name>NAME : PQR</name>
      <college>COLLEGE :  IIT</college>
      <branch>BRANCH : Computer Science and Engineering</branch>
      <year>YEAR : 2018</year>
      <e-mail>E-Mail : pqr@gmail.com</e-mail>
   </student>
</students>
</html>
```

Program 5: CSS Part

```
student {
   display: block;
   margin-top: 10px;
   color: Navy;
}

USN {
   display: block;
   margin-left: 10px;
   font-size: 14pt;
   color: Red;
}

name {
   display: block;
   margin-left: 20px;
   font-size: 14pt;
   color: Blue;
}

college {
   display: block;
   margin-left: 20px;
   font-size: 12pt;
   color: Maroon;
}
```

```
branch {
    display: block;
    margin-left: 20px;
    font-size: 12pt;
    color: Purple;
}

year {
    display: block;
    margin-left: 20px;
    font-size: 14pt;
    color: Green;
}

e-mail {
    display: block;
    margin-left: 20px;
    font-size: 12pt;
    color: Blue;
}
```

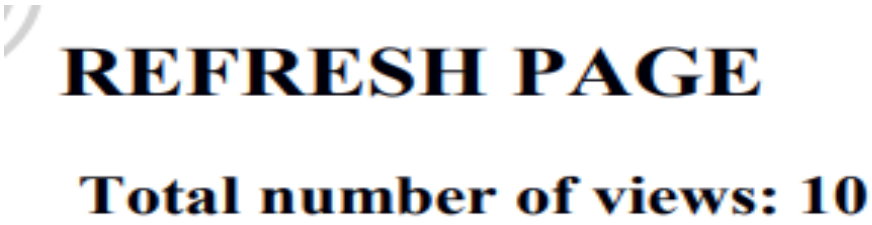
OUTPUT:



Program 6: Write a PHP program to keep track of the number of visitors visiting the web page and to display this count of visitors, with proper headings.

```
<?php
print "<h3> REFRESH PAGE </h3>";
$name="counter.txt";
$file = fopen($name,"r");
$hits= fscanf($file,"%d");
fclose($file);
$hits[0]++;
$file = fopen($name,"w");
fprintf($file,"%d",$hits[0]);
fclose($file);
print "Total number of views: ".$hits[0];
?>
```

OUTPUT:



Program 7: Write a PHP program to display a digital clock which displays the current time of the server.

```
<!DOCTYPE HTML>
<html>
<head>
<meta http-equiv="refresh" content="1"/>
<style>
p {
color:white;
font-size:90px;
position: absolute;
top: 50%;
left: 50%;
transform: translate(-50%, -50%);
}
body{background-color:black;}
</style>
<p> <?php echo date(" h: i : s A");?> </p>
```

```
</head>
</html>
```

OUTPUT:

<u>Program 8:</u> Write the PHP programs to do the following:

a) Implement simple calculator operations.

b) Find the transpose of a matrix.

c) Multiplication of two matrices.

d) Addition of two matrices.

```
<html>
<head>
<style>
table, td, th
{
border: 1px solid black;
width: 35%;
text-align: center;
background-color: DarkGray;
}
table { margin: auto; }
input,p { text-align:right; }
</style>
</head>
<body>
<form method="post">
<table>
<caption><h2> SIMPLE CALCULATOR </h2></caption>>
<tr><td>First Number:</td><td><input type="text" name="num1"
/></td>
<td rowspan="2"><input type="submit"
value="calculate"></td></tr>
<tr><td>Second Number:</td><td><input
type="text"
name="num2"/></td></tr>
</form>
<?php
if(isset($_POST['submit'])) // it checks if the input submit is filled
```

```
{
}
?>
</body>
</html>
$num1 = $_POST['num1'];
$num2 = $_POST['num2'];
if(is_numeric($num1) andis_numeric($num1) )
{
echo "<tr><td> Addition :</td><td><p>".($num1+$num2)."</p></td>";
echo "<tr><td> Subtraction :</td><td><p> ".($num1-$num2)."</p></td>";
echo "<tr><td> Multiplication
:</td><td><p>".($num1*$num2)."</p></td>";
echo "<tr><td>Division :</td><td><p> ".($num1/$num2)."</p></td>";
echo "</table>";
}
else
{
echo"<script type='text/javascript' > alert(' ENTER VALID SCRIPT')</script>;
}
}
</?>
</head>
</html>
```

Test No.	Input Parameters	Expected Output	Obtained Output	Remarks
1.	value1=50.56 value2=24.39	Addition =74.95 Subtraction =26.17 Multiplication=1233.1584 Division=2.072980729807298	Addition =74.95 Subtraction =26.17 Multiplication=1233.1584 Division=2.072980729807298	PASS
2.	value1= 0 value2= 45	Addition =45 Subtraction =-45 Multiplication=0 Division=0	Addition =45 Subtraction =-45 Multiplication=0 Division=0	PASS
3.	value1= 45 value2= 0	Addition =45 Subtraction =45 Multiplication=0 Division=Infinity	Addition =45 Subtraction =45 Multiplication=0 Division=Infinity	PASS
4.	value1 = abc value2 = 23	ENTER VALID NUMBER	ENTER VALID NUMBER	PASS
5	value1 = 50 value2 =xyz	ENTER VALID NUMBER	ENTER VALID NUMBER	PASS

OUTPUT:

The first matrix:
1 2 3
4 5 6
7 8 9
The second matrix:
7 8 9
4 5 6
1 2 3
The transpose of the first matrix:
1 4 7
2 5 8
3 6 9
The addition of matrices is:
8 10 12
8 10 12
8 10 12

the multiplication of matrices:
18 24 30
54 69 84
90 114 138

Program 9: Write a PHP program named states.py that declares a variable states with value "Mississippi Alabama Texas Massachusetts Kansas". write a PHP program that does the following:

a) Search for a word in variable states that ends in xas. Store this word in element 0 of a list named states List.

b) Search for a word in states that begins with k and ends in s. Perform a case insensitive comparison. [Note: Passing re.Ias a second parameter to method compile performs a case-insensitive comparison.] Store this word in element1 of states List.

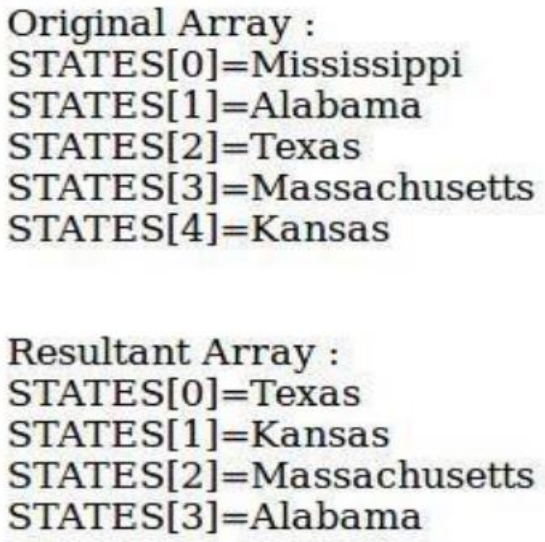
c) Search for a word in states that begins with M and ends in s. Store this word in element 2 of the list.

d) Search for a word in states that ends in a. Store this word in element 3 of the list.

```
<?php
$states = "Mississippi Alabama Texas Massachusetts
Kansas"; $statesArray = [];
$states1 = explode(' ',$states);
echo "Original Array :<br>";
foreach ( $states1 as $i => $value )
print("STATES[$i]=$value<br>");
foreach($states1 as $state) {
if(preg_match( '/xas$/', ($state)))
$statesArray[0] = ($state);
}
```

```
foreach($states1 as $state) {
if(preg_match('/^k.*s$/i', ($state)))
$statesArray[1] = ($state);
foreach($states1 as $state) {
if(preg_match('/^M.*s$/', ($state)))
$statesArray[2] = ($state);
}
foreach($states1 as $state){
if(preg_match('/a$/', ($state)))
$statesArray[3] = ($state);
}
echo "<br><br>Resultant Array :<br>";
foreach ( $statesArray as $array => $value );
print("STATES[$array]=$value<br>");
</?>
```

OUTPUT:



<u>Program 10:</u> Write a PHP program to sort the student records which are stored in the database using selection sort.

```
<!DOCTYPE html>
<html>
<body>
<style>
table, td, th
{
border: 1px solid black;
width: 33%;
text-align: center;
border-collapse:collapse;
```

```
background-color:lightblue;
}
table { margin: auto; }
</style>
<?php
$servername = "localhost";
$username = "root";
$password = "root";
$dbname = "weblab";
$a=[];
// Create connection
// Opens a new connection to the MySQL server
$conn = mysqli_connect($servername, $username, $password, $dbname);
// Check connection and return an error description from the last
connection error, if any
if ($conn->connect_error)
die("Connection failed: " . $conn->connect_error);
$sql = "SELECT * FROM student";
// performs a query against the
database $result = $conn->query($sql);
echo "<br>";
echo "<center> BEFORE SORTING
</center>"; echo "<table border='2'>";
echo "<tr>";
echo
"<th>USN</th><th>NAME</th><th>Address</th></tr>"; if
($result->num_rows> 0)
{
// output data of each row and fetches a result row as an
associative array
while($row = $result->fetch_assoc()){
echo "<tr>";
echo "<td>". $row["usn"]."</td>";
echo "<td>". $row["name"]."</td>";
echo "<td>". $row["addr"]."</td></tr>";
array_push($a,$row["usn"]);
}
else
}
echo "Table is Empty";
echo "</table>";
$n=count($a);
$b=$a;
for ( $i = 0 ; $i< ($n - 1) ; $i++ )
{
$pos= $i;
```

```
echo "<td>". $d[$i]."</td></tr>";
}
?>
</body>
</html>
echo "</table>";
$conn->close();
```

OUTPUT:

USN	NAME	ADDRESS
1ME14	CHANDANA	MANDYA
1ME15	ARUN	HASSAN
1ME16	ABHAY	BENGALURU
1ME13	SANJAY	KOLAR

AFTER SORTING

USN	NAME	ADDRESS
1ME16	ABHAY	BENGALURU
1ME15	ARUN	HASSAN
1ME14	CHANDANA	MANDYA
1ME13	SANJAY	KOLAR