WEB TECHNOLOGY LABORATORY WITH MINI PROJECT
17CSL77

① Program 1

Javascript : simple calculator.

```
<!DOCTYPE html>
<html>
<head>
<title> Lab Calculator program </title>
 <style>
    .title {
       position : relative ;
          top : 2.5px ;
    border-radius : 10px ;
   margin-bottom : 50px ;
    text-align : center ;
       width : 400px ;
      color : #ff4446 ;
      border : dashed green 2px ;
     }
   input [type = "text"] {
        border-radius : 10px ;
         text-align : right ;
        border-color : black ;
        background-color : white ;
        width : 95 % ;
     }
    input [type = "button" ] {
         border-radius : 10px ;
        background-color : darkseagreen ;
         color : black ;
         border-color : darkseagreen ;
          width : 100 % ;
        }
 </style>
```

(2)

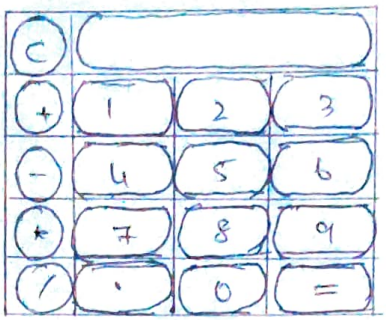
```
<script>
function disp(val){
    document.getElementById('sdm').value += val;
}
function clr(){
    document.getElementById('sdm').value = ""
}
function solve(){
    let x = document.getElementById('sdm').value;
    let y = eval(x);
    document.getElementById('sdm').value = y;
}
</script>
</head>
<body>
<div class="title">SDM</div>
<table border="1">
<tr>
<td>
<input type="button" value="C" onclick="clr()" />
</td>
<td colspan="3">
<input type="text" id="sdm" />
</td>
</tr>
<tr>
<td>
<input type="button" value="+" onclick="disp('+')" />
</td>
<td>
<input type="button" value="1" onclick="disp('1')" />
</td>
<td>
<input type="button" value="2" onclick="disp('2')" />
</td>
<td>
<input type="button" value="3" onclick="disp('3')" />
</td>
</tr>
```

```
<tr>
 <td>
  <input type = "button" value = "-" onclick = "disp('-')" />
 </td>
 <td>
  <input type = "button" value = "4" onclick = "disp('4')" />
 </td>
 <td>
  <input type = "button" value = "5" onclick = "disp('5')" />
 </td>
 <td>
  <input type = "button" value = "6" onclick = "disp('6')" />
 </td>
 </tr>
<tr>
 <td>
  <input type = "button" value = "*" onclick = "disp('*')" />
 </td>
 <td>
  <input type = "button" value = "7" onclick = "disp('7')" />
 </td>
<td>
  <input type = "button" value = "8" onclick = "disp('8')" />
</td>
 <td>
  <input type = "button" value = "9" onclick = "disp('9')" />
 </td>
</tr>
<tr>

<td>
  <input type = "button" value = "/" onclick = "disp('/')" />
</td>
<td>
  <input type = "button" value = "." onclick = "disp('.')" />
</td>
<td>
  <input type = "button" value = "0" onclick = "disp('0')" />
</td>
```

```
<td>
<input type="button" value="=" onclick="solve()" />
</td>
</tr>
</center>
</Body>
</html>
```

OUTPUT :



Test Cases

Test No	Input parameter.	Expected Output	Obtained Output	Remarks
1.	Value1 = 50.56 Value2 = 24.39	Addition = 74.95 Subtract = 26.17 Multiply = 1233.1584 Divide = 2.0729507298	Addition = 74.95 Subtract = 26.17 Multiply = 1233.1584 Divide = 2.0729507298	Pass
2.	Value1 = 0 Value2 = 45	Addition = 45 Subtract = -45 Multiply = 0 Divide = 0	Addition = 45 Subtract = -45 Multiply = 0 Divide = 0	Pass
3.	Value1 = abc Value2 = 123	Enter a valid number	Enter a valid number	Pass

② Program 2

Write a javascript that calculates the square and cube of the number from 0 to 10 and outputs html texts and displays the resulting value in HTML table format.

```
<html>
<head>
<script>
    document.write('<h1 align="right"> square and cubes of the
                    numbers from 0 to 10 </h1>');
    document.write('<center> <table width="30%" border="1" bgcolor="white">');
    document.write("<tr><th>Number</th><th>Square</th><th>Cube</th></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>");
</script>
</head>
</html>
```

OUTPUT:

Number	Square	Cube
0	0	0
1	1	1
2	4	8
3	9	27
4	16	64
5	25	125
6	36	216
7	49	343
8	64	512
9	81	729
10	100	1000

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.

program3.html

```
<!DOCTYPE html>
<html>
<body>
<p id="myP1">TEXT-GROWING</p>
<p id="myP2">TEXT SHRINKING</p></body>
<script>
// Global declarations
var size = 10;
var i = 0;
var myWait1 = setInterval(growText1, 100);
function growText1()
{
  if (size<51) {
     size = size+1;
     document.getElementById("myP1").style.fontSize = (size + 'pt');
     document.getElementById("myP1").style.color = "red";
     //Hide the paragraph "TEXT SHRINKING"
     document.getElementById("myP2").style.visibility = "hidden";
  }else{
     clearInterval(myWait1);
     myWait1 = setInterval(shrinkText1, 100);
     // Now hide the first paragraph and display the second paragraph
     document.getElementById("myP1").style.visibility = "hidden";
     document.getElementById("myP1").style.fontSize = "1pt";
     document.getElementById("myP2").style.visibility = "visible";
  }
}
```

```
function shrinkText1()
{
 if (size > 5)
  {
    size = size-1;
    document.getElementById("myP2").style.fontsize = (size + 'pt');
    document.getElementById("myP2").style.color = "blue";
    //
  }
 }
</script>
</body>
</html>
```

Output

TEXT-GROWING

TEXT SHRINKING

(4) Develop and demonstrate a HTML 5 file that includes JavaScript 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.

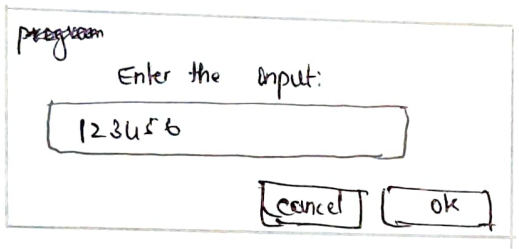
program4.html

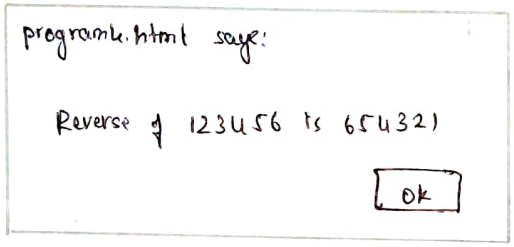
```
<!DOCTYPE HTML>
<html>
  <body>
    <script type="text/javascript">
    var str = prompt("Enter the input", "");
    if (!(isNaN (str)))
    {
      var num, rev=0, remainder;
      num = parseInt (str);
      while (num!=0) {
          remainder= num%10;
          num = parseInt(num/10);
          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 leftmost vowel is"+(i+1));
else
        alert("No vowel found in the entered string");
}
</script>
</body>
</html>
```

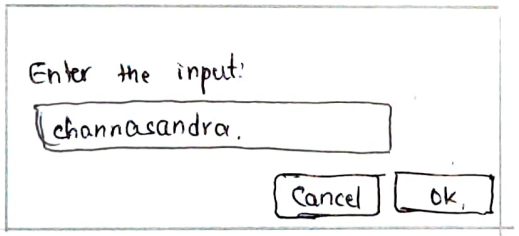
Output

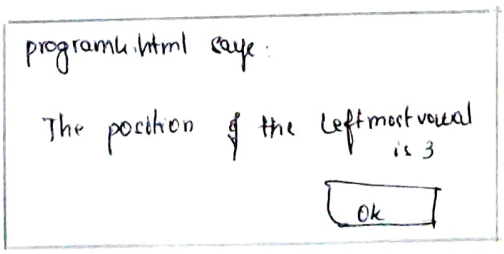
①





②





Test cases

Test No	Input Parameters	Expected Output	obtained Output	Remarks
0	123	Reverse of 123 is 321	Reverse of 123 is 321	PASS
1	CHANNASANDRA	The position of the left most vowal is 3	The position of the left most vowal is 3	PASS
2	SKY	No vowal found in the entered string	No vowal found in the entered string	PASS
3	MNKTD	The position of the left most vowal is 5	The position of the left most vowal is 5	PASS

5. 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 and 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.

program5.html

```
<?xml-stylesheet type="text/css" href="5.css"?>
<!DOCTYPE HTML>
<html>
    <head>
        <h1 STUDENTS DESCRIPTION</h1>
    </head>
    <student>
        <student>
            <USN> USN : 4SU17CS001 </USN>
            <name> NAME : SANTOSH </name>
            <college> COLLEGE : SDMIT </college>
            <branch> BRANCH : Computer science and Engineering </branch>
            <year> YEAR : 2017 </year>
            <e-mail> E-Mail : santosh@gmail.com </e-mail>
        </student>
        <student>
            <USN> USN : 4SU17CS002 </USN>
            <name> NAME : MANORANJAN </name>
            <college> COLLEGE : SDMIT </college>
            <branch> BRANCH : Computer Science and Engineering </branch>
            <year> YEAR : 2017 </year>
            <e-mail> E-Mail : manoranjan@gmail.com </e-mail>
        </ student>
        <student>
            <USN> USN: 4SU17CS003</USN>
            <name> NAME : CHETHAN </name>
            <college> COLLEGE : SDMIT </ college>
```

```
<branch> BRANCH: Computer Science and Engineering </branch>
<year> YEAR: 2017 </year>
<email> E-Mail: chethan@gmail.com </e-mail>
</student>
</students>
</html>
```

program5.css

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

Output

STUDENT DESCRIPTION

USN: 4SU17CS001
NAME: SANTOSH
COLLEGE: SDMIT
BRANCH: Computer Science & Engineering
YEAR: 2017
E-Mail: santosh@gmail.com

USN: 4SU17CS002
NAME: MANORANJAN
COLLEGE: SDMIT
BRANCH: Computer Science and Engineering.
YEAR: 2017
E-Mail: manpranjan@gmail.com

USN: 4SU17CS003
NAME: CHETHAN
COLLEGE: SDMIT
BRANCH: Computer Science and Engineering
YEAR: 2017
E-Mail: chethan@gmail.com

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

program.php

```
<?php
    print "<h3> REFRESH PAGE </h3>";
    $name = "counter.txt";
    $file = fopen($name, "r");
    $hits = fscan($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:

REFRESH PAGE

Total number of views : 10

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

program7.php

```
<!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>
```

Output

10:44:08 AM

10. Write a PHP program to sort the student records which are stored in the database using selection sort.

Goto Mysql and then type

```
Creat database weblab;
Use weblab;
Create table student(usn varchar(10), name varchar(20), addres varchar(20));
```

program10.php

```
<!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
            // open a new connection to the Mysql server.
            $conn = mysqli_connect($servername, $username, $password, $dbname);
```

```
// Check connection and return and 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;
```

```
        for($j=$i+1; $j<$n ; $j++) {
            if($a[$pos] > $a[$j])
                $pos=$j;
        }
        if($pos != $i) {
            $temp = $a[$i];
            $a[$i] = $a[$pos];
            $a[$pos] = $temp;
        }
    }
    $c =[];
    $d =[];
    $result = $conn->query($sql);
    if ($result->num_rows > 0) //output data of each row
    {
        while($row = $result->fetch_assoc()) {
            for($i=0; $i< $n; $i++) {
                if($row["usn"] == $a[$i]) {
                    $c[$i] = $row["name"];
                    $d[$i] = $row["addr"];
                }
            }
        }
    }
    echo "<br>"
    echo "<center>AFTER SORTING</center>";
    echo "<table border="2">";
    echo "<tr>";
    echo "<th>USN</th><th>NAME</th><th>Address</th></tr>";
```

```
for($i=0; $i<$n; $i++){
        echo "<tr>";
        echo "<td>". $a[$i]. "</td>";
        echo "<td>". $c[$i] . "</td>";
        echo "<td>". $d[$i]. "</td></tr>";
    }
    echo "</table>";
    $conn->close();
?>
</body>
</html>
```

Output

BEFORE SORTING

USN	NAME	Address
4SU17CS019	Niranjini	Bengaluru
4SU17CS008	Darshan	Mysuru
4SU17CS004	Anusha.	Ujire
4SU17CS042	Vandana.	Belthangady

AFTER SORTING

USN	NAME	Address
4SU17CS004	Anusha.	Ujire
4SU17CS008	Darshan	Mysuru.
4SU17CS019	Niranjini	Bengaluru
4SU17CS042	Vandana.	Belthangady