VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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WEB TECHNOLOGY AND ITS APPLICATIONS

Practical Assessment Record

By

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SECTION-B

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Practical Assessment Record

EVALUATION

Course Duration: 20th March- 2023 to 10th July 2023

Name:	**KUMAR SHRIJAN**
USN:	**1CR20CS099**
Section:	**B**
Date of Submission:	**28/06/2023**
Final Marks Obtained:	**_____/20**
Signature of Faculty:	

Faculty In charge:
Manjula Subramaniam,
Assistant Professor
Dept of CSE, CMRIT

Prescribed List of Programs

Sl No	Date	Program Name	Marks (15)	Signature
1		Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient.		
2		Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10and outputs HTML text that displays the resulting values in an HTML table format.		
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.		
4		Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems: **1.** Parameter: A string **1.** Output: The position in the string of the left-most vowel **1.** Parameter: A number **1.** Output: The number with its digits in the reverse order		
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, Branch, Year of Joining, and email id. Makeup sample data for 3 students. Create a CSS style sheet and use it to display the document.		
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.		
7		Write a PHP program to display a digital clock which displays the current time of the server.		

8		Write the PHP programs to do the following: **1.** Implement simple calculator operations. **1.** Find the transpose of a matrix. **1.** Multiplication of two matrices. **1.** Addition of two matrices.		
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: **1.** Search for a word in variable states that ends in xas. Store this word in element0 of a list named states List. **1.** 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. **1.** Search for a word in states that begins with M and ends in s. Store this word in element 2 of the list. **1.** Search for a word in states that ends in a. Store this word in element 3 of the list.		
10		Write a PHP program to sort the student records which are stored in the database using selection sort.		

Total:	**____/150**
Avg(20):	**_____/20**

Program 1: Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient.

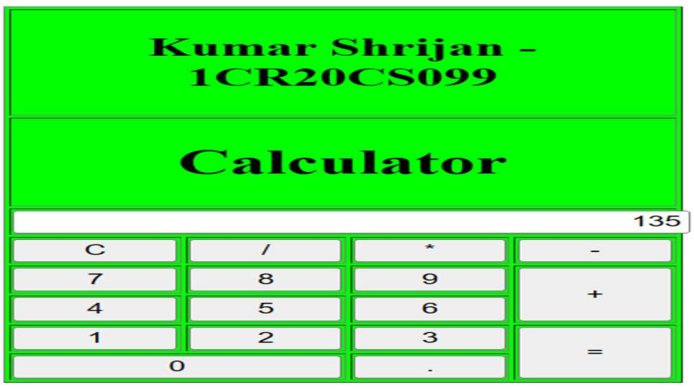
Program:

```
<!DOCTYPE html>
  <html>
    <head>
      <title>Calculator</title>
      <style>
        body
        {
          margin:150px;
        }
        input{
          width:100%;
          height:100%;
        }
      </style>
      <script>
        function display(x){
            document.getElementById("text1").value+=x;
        }
        function compute(){
            var x = document.getElementById("text1").value;
            document.getElementById("text1").value = eval(x);
        }
      </script>
    </head>
    <body>
      <center>
      <form>
        <table border="1" bgcolor="lime" height="300px" width="300px">
            <tr>
            <th colspan=4><h2>Kumar Shrijan - 1CR20CS099</h2></th>
          </tr>
          <tr>
            <th colspan=4><h1>Calculator</h1></th>
          </tr>
          <tr >
            <td colspan=4><input type="text" id="text1" placeholder="0" style="text-
align:right;"/></td>

          </tr>
          <tr>
            <td><input type="reset" value="C" /></td>
            <td><input type="button" value="/" onClick="display(this.value)"/></td>
```

```
                <td><input type="button" value="*" onClick="display(this.value)"/></td>
                <td><input type="button" value="-"  onClick="display(this.value)"></td>
              </tr>
              <tr>
                <td><input type="button" value="7" onClick="display(this.value)"></td>
                <td><input type="button" value="8" onClick="display(this.value)"></td>
                <td><input type="button" value="9" onClick="display(this.value)"></td>
                <td rowspan=2><input type="button" value="+" style="height:50px;"
onClick="display(this.value)"></td>
              </tr>
              <tr>
                <td><input type="button" value="4" onClick="display(this.value)"></td>
                <td><input type="button" value="5" onClick="display(this.value)"></td>
                <td><input type="button" value="6" onClick="display(this.value)"></td>
              </tr>
              <tr>
                <td><input type="button" value="1" onClick="display(this.value)"></td>
                <td><input type="button" value="2" onClick="display(this.value)"></td>
                <td><input type="button" value="3" onClick="display(this.value)"></td>
                <td rowspan=2><input type="button" value="="
style="height:48px;"  onClick="compute()" ></td>
              </tr>
              <tr>
                <td colspan=2><input type="button" value="0" onClick="display(this.value)"
style="width:100%"></td>
                <td><input type="button" value="." onClick="display(this.value)"></td>
              </tr>
            </table>
          </form>
          </center>
      </body>
  </html>
```

Output:



Program 2: Write a JavaScript that calculates the squares and cubes of the numbers from 0 to 10 and outputs HTML text that displays the resulting values in an HTML table format.

Program:

```
<!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( "<table><tr><th colspan='3'>KUMAR SHRIJAN 1CR20CS099</th></tr>" );
document.write( "<tr><td colspan='3'> NUMBERS FROM 0 TO 10 WITH THEIR SQUARES AND CUBES</td></tr>" );
document.write( "<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>" ) ;
</script>
</head>
</html>
```

Output:

KUMAR SHRIJAN 1CR20CS099		
NUMBERS FROM 0 TO 10 WITH THEIR SQUARES AND CUBES		
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

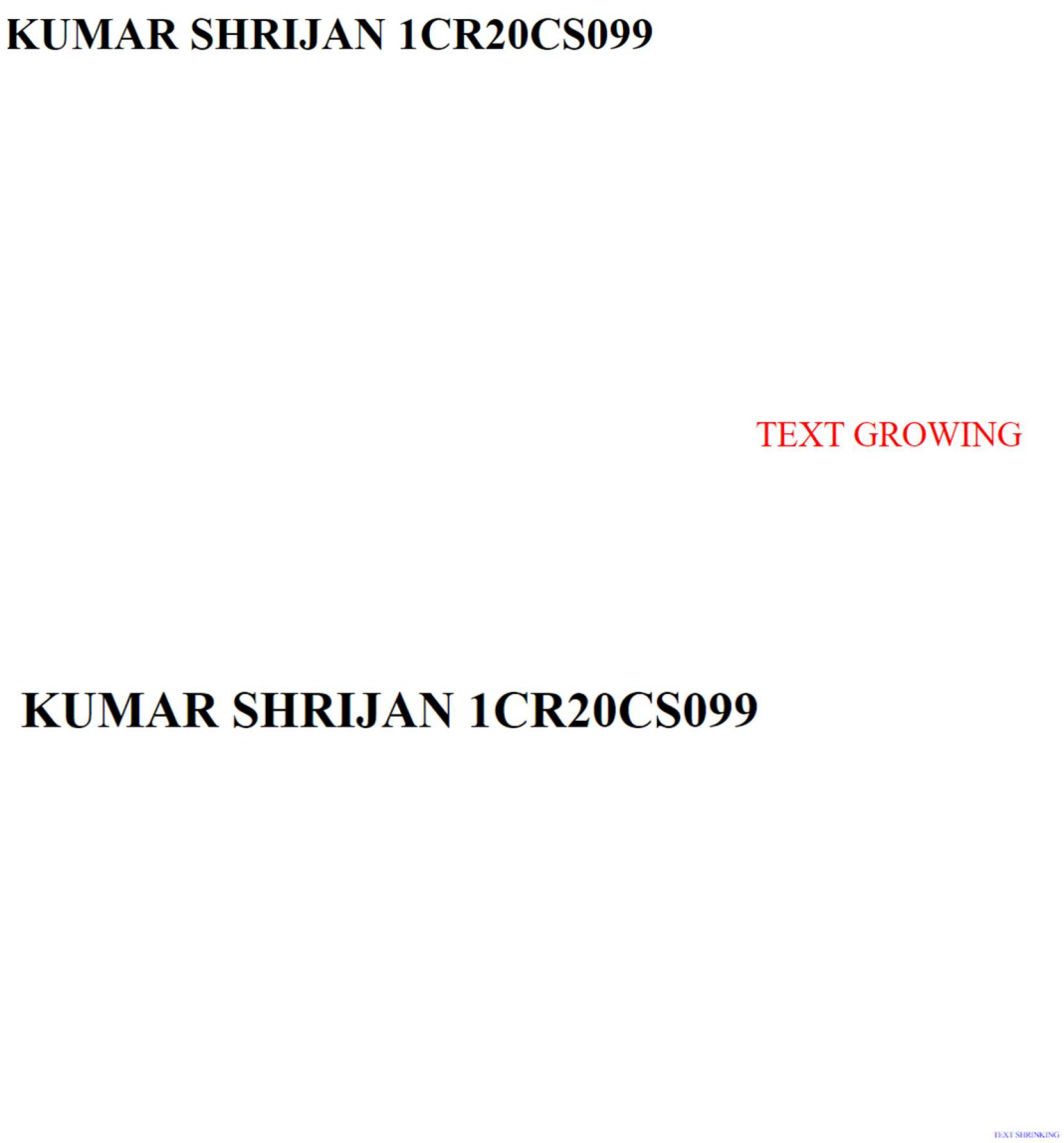
Program 3: Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100ms in RED COLOR, when the font size reaches50pt it displays "TEXT-SHRINKING" in BLUE color. Then the font size decreases to 5pt.

Program:

```
<!DOCTYPE html>
<html>
  <head>
    <style>
      p {
        position: absolute;
        top: 50%;
        left: 50%;
        transform: translate(-50%, -50%);
      }
    </style>
  </head>
  <body>
    <h1>KUMAR SHRIJAN 1CR20CS099</H1>
<p id="demo"></p>

    <script>
      var var1 = setInterval(inTimer, 1000);
      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, 1000);
        }
      }
      function deTimer() {
        fs -= 5;
        ids.innerHTML = "TEXT SHRINKING";
        ids.setAttribute("style", "font-size: " + fs + "px; color: blue");
        if (fs === 5) {
          clearInterval(var2);
        }
      }
    </script>
  </body>
</html>
```

Output:


KUMAR SHRIJAN 1CR20CS099
TEXT GROWING
KUMAR SHRIJAN 1CR20CS099
TEXT SHRINKING

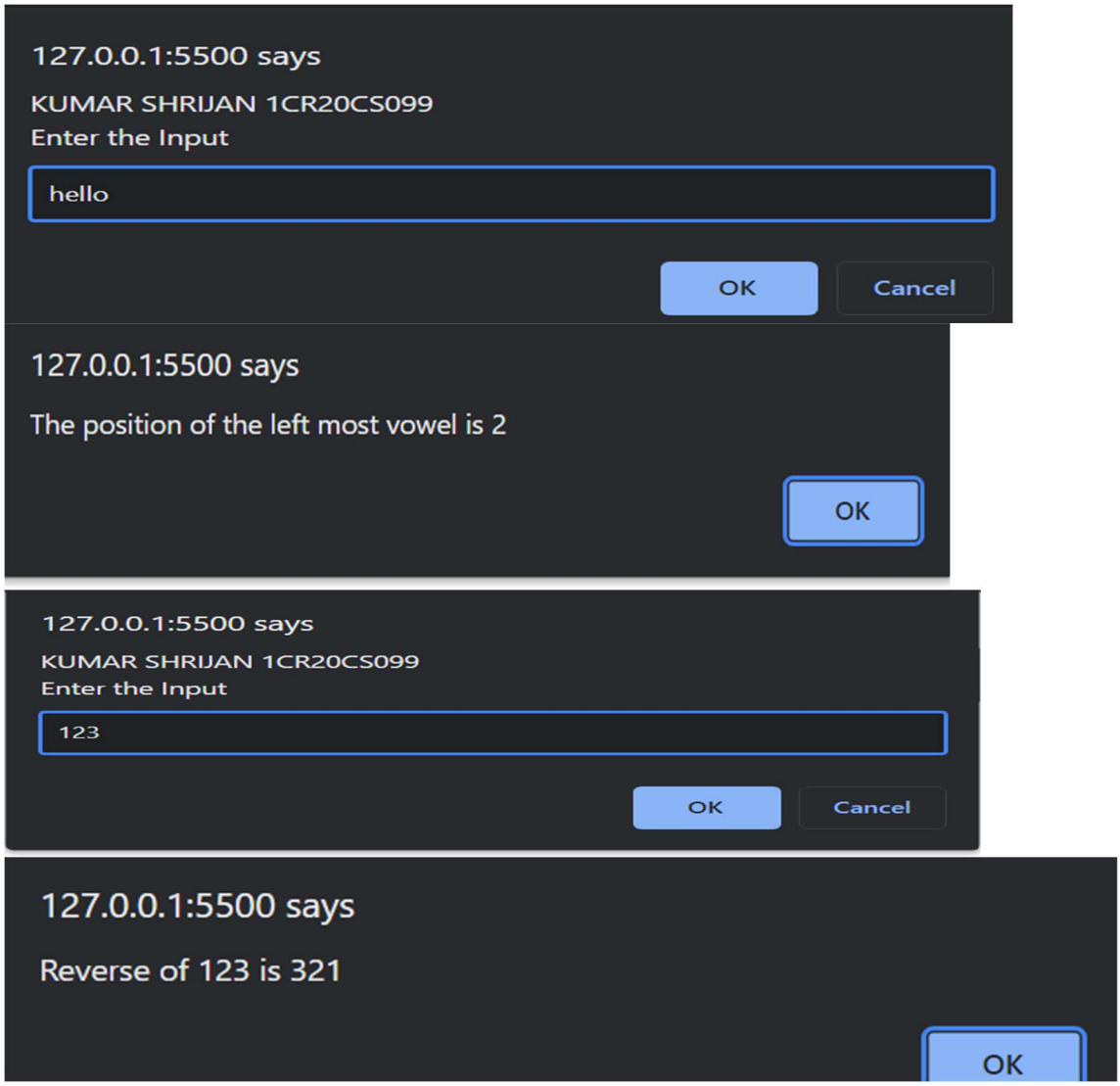
Program 4: Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:

- **Parameter: A string**
- **Output: The position in the string of the left-most vowel**
- **Parameter: A number**
- **Output: The number with its digits in the reverse order**

Program:

```
<!DOCTYPE html>
<html>
 <body>
  <script type="text/javascript">
   var str = prompt("KUMAR SHRIJAN 1CR20CS099\nEnter 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:



Test Cases :

Test No.	Input Parameters	Expected Output	Obtained Output	Remarks
1.	123	Reverse of 123 is 321	Reverse of 123 is 321	PASS
1.	HELLO	The position of leftmost vowel is 2	The position of leftmost vowel is 2	PASS
2.	SKY	No vowel found in the entered string	No vowel found in the entered string	PASS
2.	234	Reverse of 234 is 432	Reverse of 234 is 432	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, 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.**

P5.xml

```
<?xml version="1.0" encoding="ASCII"?>
<?xml-stylesheet type="text/css" href="p5.css"?>
<studentlist>
        <student>
            <usn>1CR20CS008</usn>
            <name>Adarsh</name>
            <college>CMRIT</college>
            <branch>CSE</branch>
            <joindate>15-Aug-2009</joindate>
            <emailid>adarsh@yahoo.com</emailid>
        </student>
        <student>
            <usn>1CR20CS089</usn>
            <name>Joel</name>
            <college> CMRIT </college>
            <branch>CSE</branch>
            <joindate>15-Aug-2009</joindate>
            <emailid>joel@yahoo.com</emailid>
        </student>
        <student>
            <usn>1CR20CS099</usn>
            <name>Kumar</name>
            <college> CMRIT </college>
            <branch>CSE</branch>
            <joindate>15-Aug-2009</joindate>
            <emailid>kumar@yahoo.com</emailid>
        </student>

</studentlist>
```

P5.css

```
student {display: block; margin-top:15px; color: blue; }
usn {display: block;  color: maroon; font-size:16pt; }
```

```
name {display: block; color: green; font-size:12pt; }
college {display: block;  color: green; font-size:12pt; }
branch {display: block; color: green; font-size:12pt;}
joindate {display: block;  color: green; font-size:12pt; }
emailid {display: block; color: green; font-size:12pt; }
```

1CR20CS008
Adarsh
CMRIT
CSE
15-Aug-2009
adarsh@yahoo.com

1CR20CS089
Joel
CMRIT
CSE
15-Aug-2009
joel@yahoo.com

1CR20CS099
Kumar
CMRIT
CSE
15-Aug-2009
kumar@yahoo.com

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

```
<?php
print "<h4>1CR20CS099 Kumar Shrijan";
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

1CR20CS099 Kumar Shrijan

REFRESH PAGE

Total number of views: 6

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

P7.php

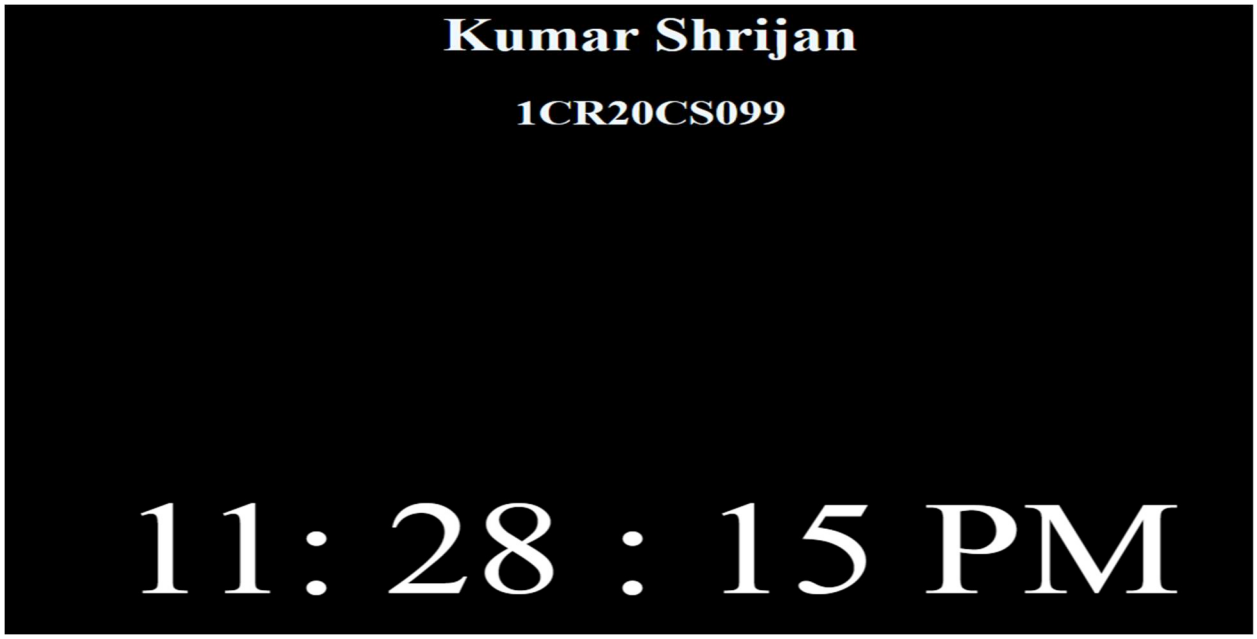
```
<!DOCTYPE HTML>
<html>
<head>
<h1 style="color: aliceblue; text-align: center;">Kumar Shrijan</h1>
<h2 style="color: aliceblue; text-align: center;">1CR20CS099</h2>

<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>
```



8. **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.**

Prog8a.php

```
<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> Kumar Shrijan- 1CR20CS089 </h2>
         </caption>>
         <caption>
            <h1> SIMPLE CALCULATOR </h1>
         </caption>> <tr>
            <td>First Number:</td>
            <td><input type="text" name="num1" /></td>

            <td rowspan="2"><input type="submit" name="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
{

$num1 = $_POST['num1'];
$num2 = $_POST['num2'];
if(is_numeric($num1)  and is_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 NUMBER');</script>";}
}
?>
</body>
</html>
```

Output

Kumar Shrijan- 1CR20CS099

SIMPLE CALCULATOR

First Number:	12	calculate
Second Number:	15	
Addition :	27	
Subtraction :	-3	
Multiplication :	180	
Division :	0.8	

Test Cases:

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

Prog8b.php

```
<?php
$a = array(array(2,2,4),array(4,9,6),array(3,8,9));
$b = array(array(7,8,9),array(4,5,6),array(1,2,3));

$m=count($a);
$n=count($a[2]);
$p=count($b);
$q=count($b[2]);
echo "Kumar Shrijan- 1CR20CS099";
echo "<br/>";
```

```
echo "the first matrix     :"."<br/>";

for ($row = 0; $row < $m; $row++) {

for ($col = 0; $col < $n; $col++)

echo " ".$a[$row][$col];

echo "<br/>";

}
echo "the second matrix:"."<br/>";
for ($row = 0; $row < $p; $row++) {
for ($col = 0; $col < $q; $col++)

echo " ".$b[$row][$col];
echo "<br/>";
}
echo "the transpose for the first matrix is:"."<br/>"; for ($row = 0; $row < $m; $row++) {
for ($col = 0; $col < $n; $col++)
   echo " ".$a[$col][$row];
echo "<br/>";
}
if(($m===$p) and ($n===$q)) {
   echo "the addition of matrices is:"."<br/>";
   for ($row = 0; $row < 3; $row++) {
      for ($col = 0; $col < 3; $col++)
         echo " ".$a[$row][$col]+$b[$row][$col]." "; echo "<br/>";
}
}
if($n===$p){
echo " The multiplication of matrices: <br/>";
$result=array();
for ($i=0; $i < $m; $i++) {
   for($j=0; $j < $q; $j++){
      $result[$i][$j] = 0;
      for($k=0; $k < $n; $k++)

         $result[$i][$j] += $a[$i][$k] * $b[$k][$j];
}
}
for ($row = 0; $row < $m; $row++) {

   for ($col = 0; $col < $q; $col++)
```

```
      echo " ".$result[$row][$col];

   echo "<br/>";
}
}

?>
```

```
Kumar Shrijan- 1CR20CS099
the first matrix :
2 2 4
4 9 6
3 8 9
the second matrix :
7 8 9
4 5 6
1 2 3
the transpose for the first matrix is:
2 4 3
2 9 8
4 6 9
the addition of matrices is:
9 10 13
8 14 12
4 10 12
The multiplication of matrices:
26 34 42
70 89 108
62 82 102
```

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 statesList.**

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 statesList.**

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.**

Prog9.php

```
<?php
echo "Kumar Shrijan - 1CR20CS099 <br> <br>";
$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>");
?>
```

Kumar Shrijan - 1CR20CS099

Original Array :
STATES[0]=Mississippi
STATES[1]=Alabama
STATES[2]=Texas
STATES[3]=Massachusetts
STATES[4]=Kansas

Resultant Array :
STATES[0]=Texas
STATES[1]=Kansas
STATES[2]=Massachusetts
STATES[3]=Alabama

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

Goto Mysql and then type

```
create database weblab_099;

use weblab_099;

create table student(usn varchar(10),name varchar(20),address 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 = "";

$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";

 $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)

{
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>
```

BEFORE SORTING

USN	NAME	Address
1CR20CS099	Kumar Shrijan	Bangalore
1CR20CS023	ABC	Delhi
1CR20CS098	XYZ	Mumbai

AFTER SORTING

USN	NAME	Address
1CR20CS023	ABC	Delhi
1CR20CS098	XYZ	Mumbai
1CR20CS099	Kumar Shrijan	Bangalore