Web Technology Labaratory with Mini Project - 17CSL77

4SU18CS402
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Experiment no : 1

Write a JavaScript to design a simple calculator to perform the following operations :

Sum, product, difference and quotient.

Program 1.html

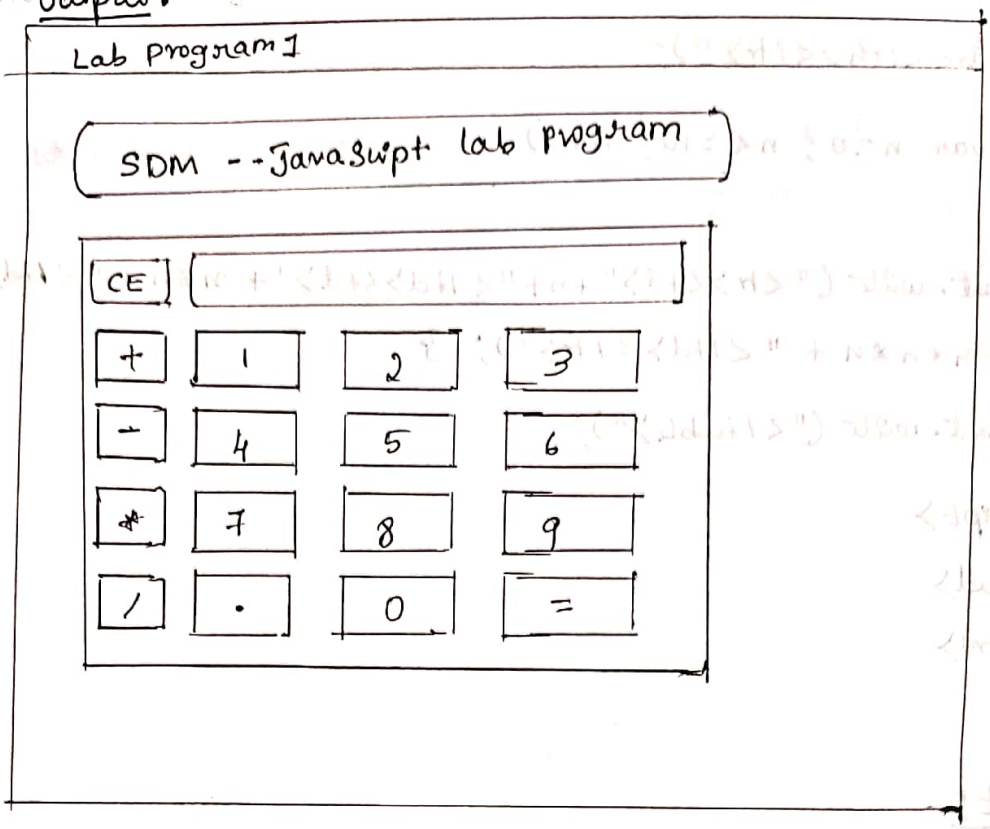
```
<!DOCTYPE html>
<html>
<head><title> Lab Program 1 </title>
  <style>
    .title{
      border-radius: 6px;
      margin-bottom : 10px;
      text-align : center;
      width : 230px;
      color : rgb(248, 248, 248);
      background-color : rgb(21, 104, 110);
      border : solid black 1px;
    }
    input[type="text"]{
      border-radius : 3px;
      text-align : right;
      background-color : rgb(233, 233, 233);
    }
    input[type="button"]{
      border-radius : 3px;
      text-align : right;
      background-color : rgb(233, 233, 233);
    }
```

```
input [type = "button"] {
    border-radius: 5px;
    background-color: #53546d;
    color: whitesmoke;
    border-color: #928d8e;
    width: 98%;
    box-shadow: 0 1px rgb(158, 148, 148);
}
</style>
<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 -- Javascript lab program </div>
<table border = "3">
    <tr>
        <td>
            <input type = "button" value = "CE" onclick = "clr()" />
    </td>
```

```
<td colspan="4">
    <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>
  <td>
  </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>
</table>
</body>
</html>
```

Output:



Experiment no : 2.

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

program 2.html

```
<!DOCTYPE html>
<html>
 <head>
   <title> Lab program 2 -- Square and Cube </title>
<script>
document.write ('<h1 align ="center "> Squares 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 :-

Lab program 2 -- Square and Cube.

Squares and Cubes of the numbers from 0 to 10

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

Experiment no : 3

Write a JavaScript code that display 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>
   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";
}
  else
{
 clearInterval (myWait1);
 myWait1 = setInterval (ShrinkText1, 100);
```

```
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

Experiment no : 4

Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problem

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.

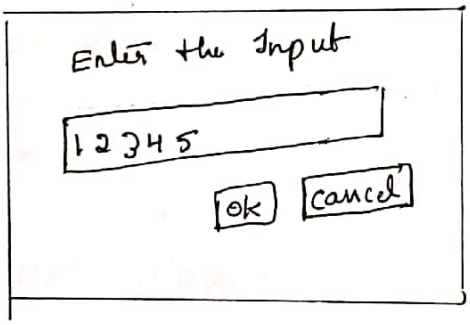
Program4.html

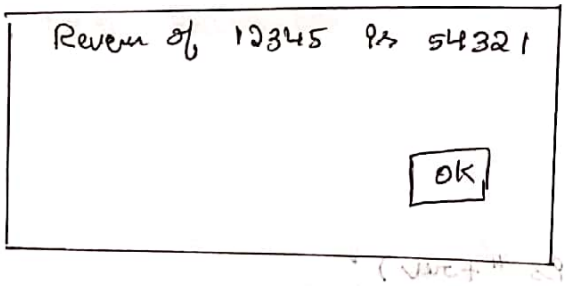
```
<!DOCTYPE html>
<html>
<body>
<script type = "text/javascript">
var str = prompt ("Enter the input", " ");
if (! (isNaN (str)))
{
  var num, rev = 0, remainder;
  num = parseInt (str);
  while (num != 0) {
  remainder = num % 10;
  num = parseInt (num / 10);
  rev = rev * 10 + remainder;
}
alert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

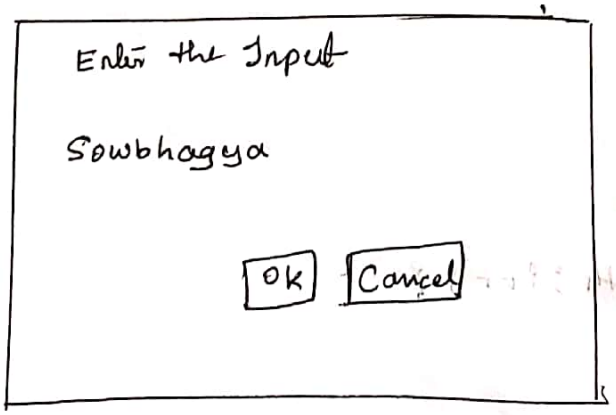
Output:-

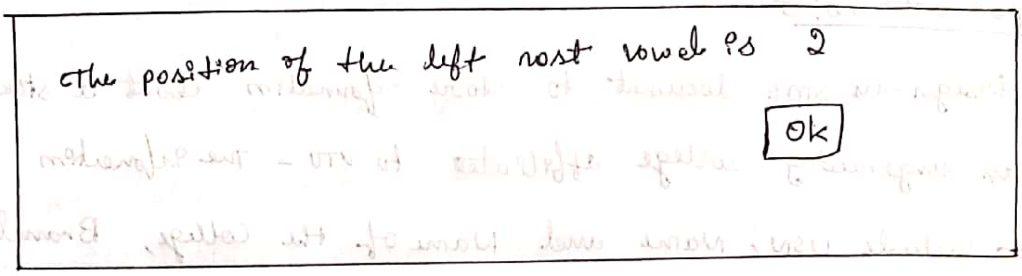
1.



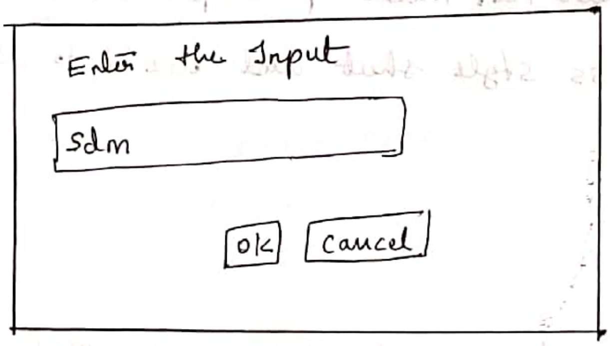


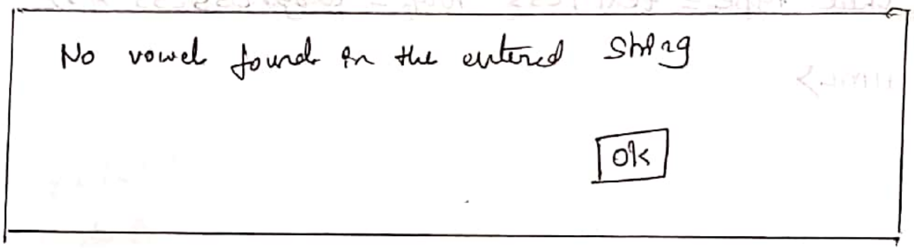
2.





3.





Experiments

Experiment no: 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.

Program5.xml

```
<?xml-stylesheet type="text/css" href="program5.css" ?>
<!DOCTYPE HTML>
<html>
<head>
  <h1> STUDENT DESCRIPTION </h1>
</head>
<students>
<student>
 <USN> USN : 4SU18CS402 </USN>
 <name> NAME : SOWBHAGYA K </name>
 <college> COLLEGE : SDMIT </college>
 <branch> BRANCH : Computer Science and Engineering </branch>
 <year> YEAR : 2018 </year>
 <e-mail> E-mail : sowbhagyak1995@gmail.com </e-mail>
</student>
 <student>
 <USN> USN : 4SU17CS001 </USN>
 <name> NAME : Ramesh </name>
```

<college> COLLEGE : SDMIT </college>

<branch> BRANCH : Computer Science and Engineering </branch>

<year> YEAR : 2018 </year>

<e-mail> E-MAIL : ranya111@gmail.com </e-mail>

</student>

<student>

<USN> USN : 4SU17CS003 </USN>

<name> NAME : CHETAN </name>

<college> COLLEGE : SDMIT </college>

<branch> BRANCH : Computer Science and Engineering </branch>

<year> YEAR : 2018 </year>

<e-mail> E-MAIL : chetan@gmail.com </e-mail>

</student>

</students>

</html>

Programs.css

```
student{
    display:block;
    margine-top:10px;
    color: Navy;
}
USN{
    display:block;
    margine-left:10px;
    font-size:14pt;
    color: Red;
}
```

```
name{
    display : block;
    margin - left : 10px;
    font-size : 14pt;
    color : Red;
}
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 ;
}
email {
    display : block ;
    margin-left : 20px;
    font-size : 12 pt;
    color : Blue;
}
```

Output:

STUDENT DESCRIPTION

USN : 4SU18CS402

NAME : SOWBHAGYA K

COLLEGE : SDMIT

BRANCH : Computer Science and Engineering

YEAR : 2018

E-Mail : sowbhagyak1995@gmail.com.

USN : 4SU17CS001

NAME : Ramya

COLLEGE : SDMIT

BRANCH : Computer Science and Engineering

YEAR : 2018

E-mail : ramyam@gmail.com

USN : 4SU17CS003

NAME : CHETHAN

COLLEGE : SDMIT

BRANCH : Computer Science and Engineering

YEAR : 2018

E-mail : chethan@gmail.com

Experiment No : 6

Write a PHP program to keep tracks of the numbers of visitors visiting the web page and to display this count of visitors with proper headings.

Program 6.php

```
<?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 :-

REFRESH PAGE

Total number of views : 10

Experiment No: 7

Write a PHP program to display a digital clock which displays the current time of the sever.

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>
</html>
```

Output:-

04:54:52 AM

Experiment No: 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 matrix

d) Addition of two matrix.

Program 8a.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> SIMPLE CALCULATOR </h2> </caption>
```

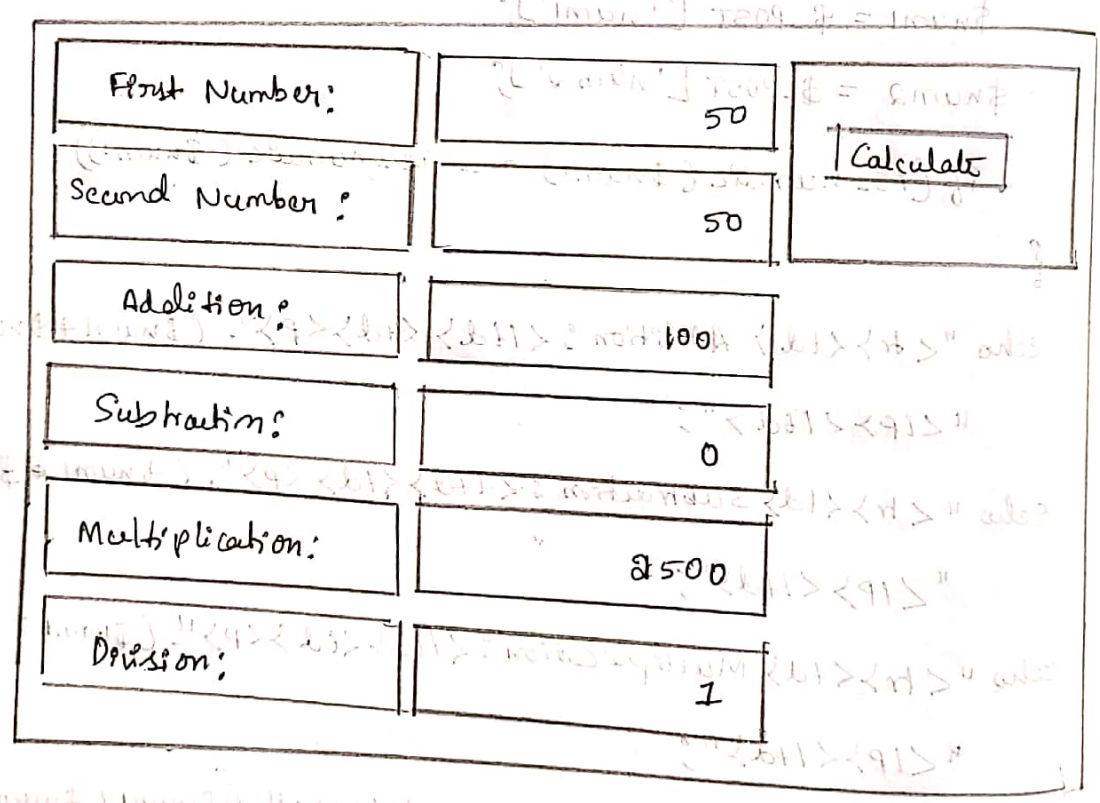
```
<tr>
 <td> First Number : </td>
 <td> <input type = "text" name = "num1" /> </td>
 <td rowspan = "2" >
 <input type = "submit" name = "submit" value = "calculate" >
 </td> </tr>
<tr>
 <td> Second Number: </td>
 <td> <input type = "text" name = "num2" /> </td> </tr>
</form>

<?php
  if (isset ($_POST ['submit']))
{
  $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:-

SIMPLE CALCULATOR



Program8b.php

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

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 for the first matrix is:

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 is:

18 24 30

54 69 84

90 114 138

Experiment No : 9

Write a PHP program named states.py that declares a variables 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. Stores this word in element 0 of a list named statesList.

b) Search for a word in states that begins with Te and ends in s. perform a case-insensitive comparison. [Note: Passing ou.IGNORECASE as a second parameter to method compile performs a case-insensitive comparison] Store this word in element 1 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. Stores this word in element 3 of the list

program9.php

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

output:

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.