WEB TECHNOLOGY LABORATORY WITH MINI PROJECT - 15CSL77
[As per Choice Based Credit System (CBCS) scheme]

(Effective from the academic year 2016 -2017)

Course objectives: This course will enable students to

1. Design and develop static and dynamic web pages.
2. Familiarize with Client-Side Programming, Server-Side Programming, Active server Pages.
3. Learn Database Connectivity to web applications.

Lab Syllabus

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 10 and outputs HTML text that displays the resulting values in an HTML table format.
3. Write a JavaScript code that displays text “TEXT-GR OWING” 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 f ont size decreases to 5pt.
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

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.
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:

a. Implement simple calculator operations.

b. Find the transpose of a matrix.

c. Multiplication of two matrices.

d. Addition of two matrices.

9. Write a PHP program named states.py that declares a variable state 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.

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

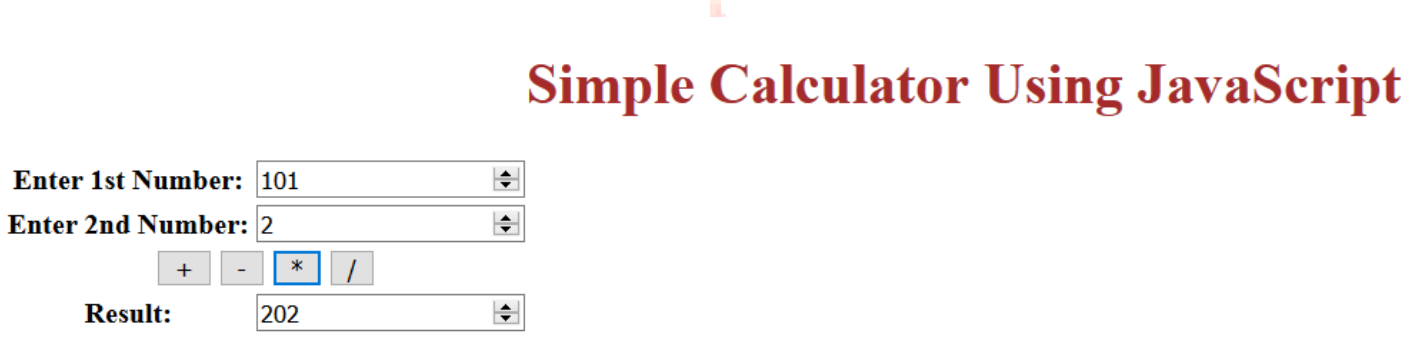
SOLUTIONS

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

```
<!DOCTYPE html>
<html>
  <head>
    <title>Calculator using JavaScript</title>
 </head>
      <body>
    <h1 style="text-align: center; color: brown;">Simple Calculator Using JavaScript</h1>
    <table>
      <tr>
        <th>Enter 1st Number: </th>
        <td><input type="number" name="num1" id="num1" /></td>
      </tr>
      <tr>
        <th>Enter 2nd Number: </th>
        <td><input type="number" name="num2" id="num2" /></td>
      </tr>
      <tr>
        <th colspan="2">
          <input type="button" value="+" onclick="performop(this.value);"/>
          <input type="button" value="-" onclick="performop(this.value);"/>
          <input type="button" value="*" onclick="performop(this.value);"/>
          <input type="button" value="/" onclick="performop(this.value);"/>
        </th>
      </tr>
      <tr>
        <th>Result: </th>
        <td><input type="number" name="res" id="res" readonly/></td>
      </tr>

    </table>

    <script>
      function performop(op) {
        var n1 = parseInt(document.getElementById("num1").value);
        var n2 = parseInt(document.getElementById("num2").value);
        var result = 0;
        if(op == "+") {
          result = n1+n2;
        }
        else if (op == "-") {
          result = n1-n2;
        }
        else if (op == "*") {
          result = n1*n2;
        }
        else {
```

```
            result = n1/n2;
          }
          document.getElementById("res").value = result;
        }
      </script>
    </body>
</html>
```

OUTPUT:



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.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Squares and Cubes</title>
</head>
  <body onload="sqrcub();">
    <h1 style="text-align: center;color: brown;">Squares and Cubes Using JavaScript</h1>
    <hr>
    <div id="tab">
    </div>

    <script>
      function sqrcub() {
        var result = "<table border='1'
cellpadding='10'><tr><th>SNO</th><th>SQUARE</th><th>CUBE</th></tr>";
        var i,sqr=0,cube=0;
        for(i=0;i<=10;i++) {
          sqr = i*i;
          cube = Math.pow(i,3);
          result += "<tr><td>"+i+"</td><td>"+sqr+"</td><td>"+cube+"</td></tr>";
        }
        result += "</table>";
```

```
            document.getElementById("tab").innerHTML = result;
        }
    </script>
  </body>
</html>
```

OUTPUT:

Squares and Cubes Using JavaScript

SNO	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-GR OWING" 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>
      <title>JavaScript - Grow & Shrink Text</title>
<script language = "JavaScript">
         var c = 0, t1;
         function start()
         {
            t1 = window.setInterval("incr()", 100);
         }
         function incr() {
            c = c + 1;
            t.innerHTML = "TEXT-GROWING : " + c + "pt";
            t.style.fontSize = c + "pt";
            window.status = c;
            if (c > 50) {
               window.clearTimeout(t1);
               alert("Font Size Reached 50pt. Text will Now Shrink");
               t1 = window.setInterval("decr()", 100);
            }
```

```
            t.style.color = "red";
        }
        function decr() {
            c = c - 1;
            t.innerHTML = "TEXT-SHRINKING: " + c + "pt";
            t.style.fontSize = c + "pt";
            window.status = c;
            if (c == 5) {
                window.clearTimeout(t1);
            }
            t.style.color = "blue";
        }
    </script>
</head>
<body bgcolor="#ffdead" onload="start()">
<center>
    <p id="t"></p>
</center>
</body></html>
```

TEXT-GROWING : 26pt

TEXT-SHRINKING: 33pt

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

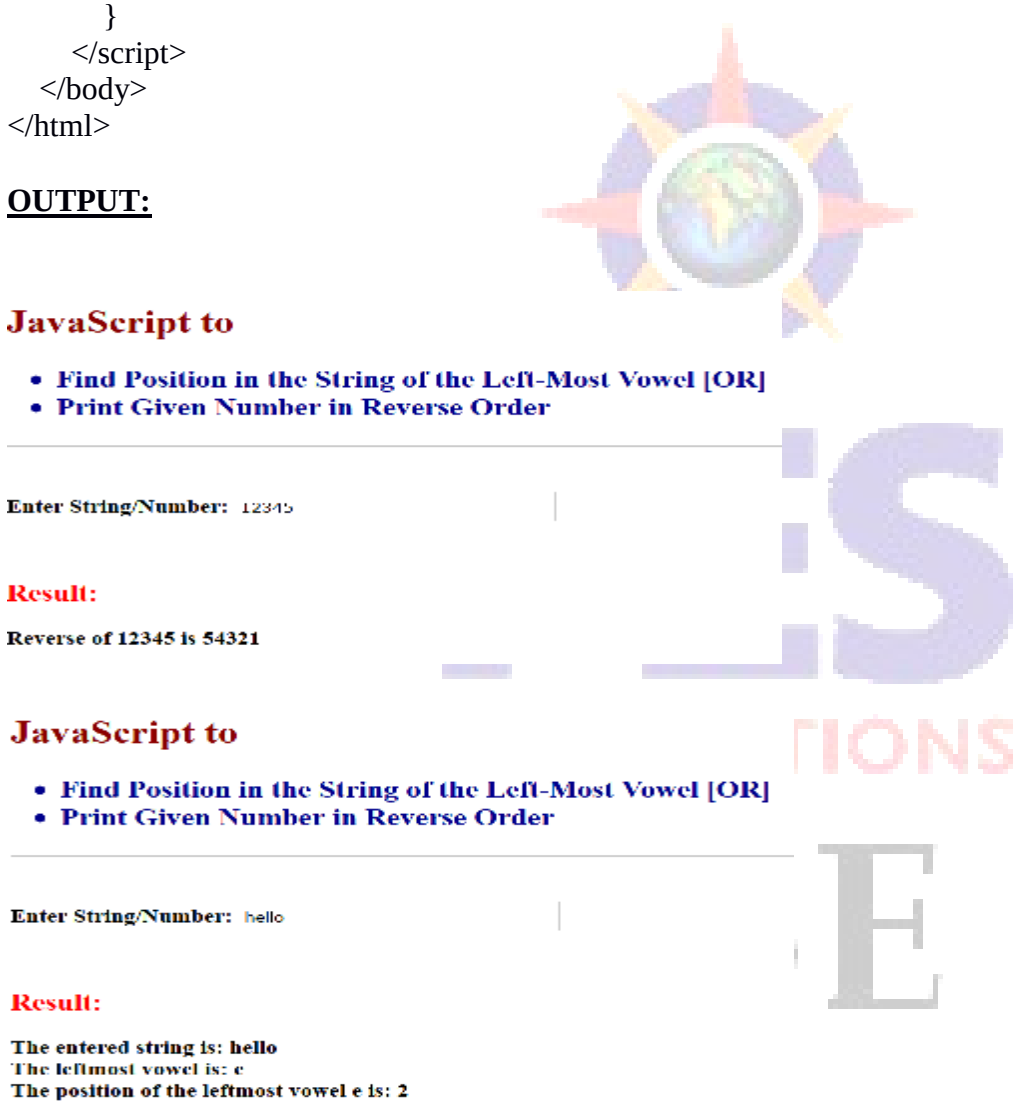
d. Output: The number with its digits in the reverse order

```
<!DOCTYPE html>
<html>
<head>
    <title>JavaScript Functions</title>
    <style>
        .tb {
```

```
            padding: 4px 22px 4px 4px;
            border:1px solid red;
            width:230px;
            height:20px;
            font:10pt verdana;
         }
      </style>
   </head>

   <body>
      <h1 style="color: darkred;">JavaScript to </h1>
      <h2 style="color: darkblue;">
         <ul>
            <li>Find Position in the String of the Left-Most Vowel [OR]</li>
            <li>Print Given Number in Reverse Order</li>
         </ul>
      </h2>
      <hr>
      <br/>
      <p style="font-size: 14pt;"><b>Enter String/Number: </b><input class="tb" type="text" id="str"
onblur="evalinput(this.value);"/></p>
      <br/>
      <h2 style="color: red;">Result: </h2>
      <div id="result"></div>
      <script>
         function evalinput(str) {
            if (Number.isInteger(parseInt(str))) {
               var num = parseInt(str);
               var rev = 0, rem = 0;
               while (num > 0) {
                  rem = parseInt(num % 10);
                  rev = rev * 10 + rem;
                  num = parseInt(num / 10);
               }
               document.getElementById("result").innerHTML = "<h3>Reverse of " + str + " is " + rev +
"</h3>";
            }
            else {
               var text = "<h3>The entered string is: " + str + "<br/>";
               for (var i = 0; i < str.length; i++)
               {
                  if (str.charAt(i) == 'a' || str.charAt(i) == 'e' || str.charAt(i) == 'i'
                        || str.charAt(i) == 'o' || str.charAt(i) == 'u' || str.charAt(i) == 'A' ||
                        str.charAt(i) == 'E' || str.charAt(i) == 'I' || str.charAt(i) == 'O' || str.charAt(i) == 'U')
                  {
                     text += "The leftmost vowel is: " + str.charAt(i) + "<br/>";
                     var pos = i + 1;
```

```
                text += "The position of the leftmost vowel " + str.charAt(i) + " is: " + pos + "</h3><br/>";
                document.getElementById("result").innerHTML = text;
                exit;
            }
        }
        text += "The entered string has no vowels</h3>";
        document.getElementById("result").innerHTML = text;
    }
  }
 </script>
</body>
</html>
```

OUTPUT:



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.

Procedure:

1. Create an XML program to store student information
2. Link the CSS file to XML program

<?xml-stylesheet href="student.css" type="text/css"?
3. Write an external CSS for the XML file created above.

Program 5.xml

```
<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/css" href="student.css"?>

<students>

   <student>

      <sname>ABCD</sname>

       <usn>1PE15CS001</usn>

       <college>PESIT-BSC</college>

       <branch>CSE</branch>

       <yoj>2015</yoj>

       <email>abcd@xyz.com</email>

   </student>

   <student>

       <sname>qwerty</sname>

       <usn>1PE15CS002</usn>

       <college>PESIT-BSC</college>

       <branch>CSE</branch>

       <yoj>2015</yoj>

       <email>qwerty@xyz.com</email>

   </student>

   <student>

      <sname>PQRS</sname>

       <usn>1PE15CS003</usn>
```

```
        <college>PESIT-BSC</college>

        <branch>CSE</branch>

       <yoj>2015</yoj>

        <email>pqrs@xyz.com</email>

    </student>
</students>
```

STUDENT.CSS

```
students {
    background-color: bisque;
    font-family: ‘cambria';
}
student {
    display: block;
    margin-bottom: 30pt;
    margin-left: 0;
}
sname {
    display: block;
    font-size: 15pt;
    text-transform: uppercase;
    color: blue;
}
usn:before {
    content: "USN: ";
    font-size: 14pt;
    font-weight: bold;
}
usn {
    display: block;
    font-size: 14pt;
    margin-left: 20pt;
    text-transform: uppercase;
    color: blueviolet;
}
college:before {
content: "Affiliated College: ";
font-size: 14pt;
```

```
font-weight: bold;
}
college {
 display: block;
  font-size: 14pt;
  margin-left: 20pt;
  color: blueviolet;
}

branch:before {
    content: "Branch: ";
    font-size: 14pt;
    font-weight: bold;
}
branch {
    display: block;
    font-size: 14pt;
    margin-left: 20pt;
    color: blueviolet;
}
yoj:before {
    content: "Year of Joining: ";
    font-size: 14pt;
    font-weight: bold;
}
yoj {
    display: block;
    font-size: 14pt;
    margin-left: 20pt;
    color: blueviolet;
}


email:before {
    content: "EMAILID: ";
    font-size: 14pt;
    font-weight: bold;
}
email {
    display: block;
    font-size: 14pt;
```

```
    margin-left: 20pt;
    color: blueviolet;
}
/* End of File */
```

OUTPUT:

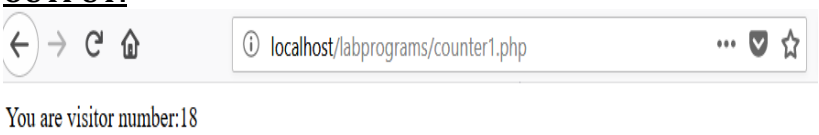
6. Write a PHP program to keep track of the number of visitors visiting the web page and to display this count of visitors, with proper headings.

```
<?php
$file = 'count.txt';
 $count = strval(file_get_contents($file));
file_put_contents($file, $count + 1); echo("You are
visitor number:".$count); ?>
```

Steps to run PHP File in XAMPP:

1. **Save the files with .php file extension .**
2. **Place your PHP file in the "htdocs" folder ---→ XAMPP folder ---→ C: Drive**
3. **The file path is C:\xampp\htdocs for the web server.**
4. **Create .txt file(count.txt in our program) and save it in the php file location.**
5. **Initialize and save the .txt file to 0.**
6. **You can see the XAMPP icon in the task bar / control panel. Click on Apache and start the server. Open up any web browser, enter http://localhost/usrpgm/counter1.php**

OUTPUT:



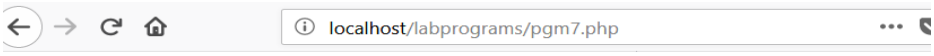
7.Write a PHP program to display a digital clock which displays the current time of the server.

Note: The JavaScript function (client side) renders the time stamp of the local system.
Whereas php (server side program) renders the time stamp from the server.

```
<!DOCTYPE html>

<html>

  <head>

    <meta charset="UTF-8">

    <meta http-equiv="refresh" content="1">

  </head>

  <body>

    <h1>Display Current Date & Time</h1>

    <h2>

    <?php

    echo "The time from the server is <span style='color:tomato';> " . date("h:i:sa")."</span>";

    echo '<br />';
    echo "Today's Date is <span style='color:tomato';>" . date("d-m-Y");

        date_default_timezone_set('Asia/Kolkata');

   echo " </span> and Current Time is <span style='color:red';>" . date("h:i:s a") . "</span>";

   ?>

    </h2>
```

```
  </body>

</html>
```

OUTPUT:



Display Current Date & Time

The time from the server is 06:39:52am
Today's Date is 19-07-2018 and Current Time is 10:09:52 am

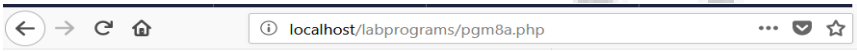
8. Write the PHP Programs to do the following
a) Implement simple calculator operations.

Program:

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="UTF-8">
    <title></title>
  </head>
  <body>
    <h1>Simple Calculator Using PHP</h1>
    <form action="pgm8a.php" method="post">
      <table>
        <tr><td>Enter First Number: </td><td><input type="text" name="first" required autocomplete="off"/></td></tr>
        <tr><td>Enter Second Number: </td><td><input type="text" name="second" required autocomplete="off"/></td></tr>
        <tr><td>Select Operator: </td><td>
            <select name="op">
              <option>Select Operation</option>
              <option value="+">Addition</option>
              <option value="-">Subtraction</option>
              <option value="*">Multiplication</option>
              <option value="/">Division</option>
              <option value="%">Remainder</option>
            </select>
          </td></tr>
        <tr><td colspan="2"><input type="submit" name="pop" value="Perform
```

```
Operation"/></td></tr>
        </table>
      </form>
      <?php
      if(isset($_POST['pop'])) {
        echo "<h1>Result is </h1>";
        $num1 = $_POST["first"];
        $num2 = $_POST["second"];
        $op = $_POST["op"];
        $result = 0;
        switch($op) {
          case '+' : $result = $num1 + $num2;
                echo "<h1>Addition of 2 Numbers: " . $result . "</h1>";
                break;
          case '-' : $result = $num1 - $num2;
                echo "<h1>Subtraction of 2 Numbers: " . $result . "</h1>";
                break;
          case '*' : $result = $num1 * $num2;
                echo "<h1>Product of 2 Numbers: " . $result . "</h1>";
                break;
          case '/' : $result = $num1 / $num2;
                echo "<h1>Division of 2 Numbers: " . $result . "</h1>";
                break;
          case '%' : $result = $num1 % $num2;
                echo "<h1>Remainder of 2 Numbers: " . $result . "</h1>";
                break;
          default :  echo "<h1 style='color:red;'>Sorry, No Operation Found</h1>";
                break;
        }
      }
      ?>
    </body>
</html>
```

OUTPUT:



Simple Calculator Using PHP

Enter First Number: 3
Enter Second Number: 3
Select Operator: Multiplication
Perform Operation

Result is

Product of 2 Numbers: 9

b) Transpose of a matrix

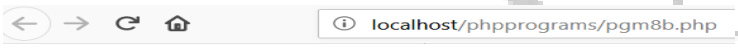
c) Addition of matrix and multiplication of two matrices.

Program:

```
<?php
header('Content-Type: text/plain'); //without this header "\t and  \n" wont work
// transpose matrix
$matrix1 = array(array(1, 2), array(4, 5));
$matrix2 = array(array(1, 2), array(4, 5));
echo "\n\n\n";
echo "The order of the matrix A is:" . count($matrix1) . "x" . count($matrix1[0]);
echo "\n";
echo "The order of the matrix B is:" . count($matrix2) . "x" . count($matrix2[0]);
echo "\n";
$rowCount = count($matrix1); //Provides the rowcount of matrix
$colCount = count($matrix1[0]);   //Provides the column count of matrix
echo "The input matrix A is:\n";
for ($r = 0; $r < $rowCount; $r++) {
   for ($c = 0; $c < $colCount; $c++) {
      echo $matrix1[$r][$c] . " \t";
   }
   echo "\n";
}
echo "The input matrix B is:\n";
for ($r = 0; $r < $rowCount; $r++) {
   for ($c = 0; $c < $colCount; $c++) {
      echo $matrix2[$r][$c] . " \t";
   }
   echo "\n";
}

//The transpose of the matrix
echo "\nThe output Transpose of matrix is:\n";
for ($r = 0; $r < $colCount; $r++) {
   for ($c = 0; $c < $rowCount; $c++) {
      echo $matrix1[$c][$r] . " \t";
   }
   echo "\n";
}
$rowCount = count($matrix1); //Provides the rowcount of matrix
$colCount = count($matrix1[0]);   //Provides the column count of matrix
$rowCount2 = count($matrix2);
$colCount2 = count($matrix2[0]);

//The sum of the matrix
echo "\nThe sum of matrix is:\n";

for ($r = 0; $r < $rowCount; $r++) {
```

```
   for ($c = 0; $c < $colCount; $c++) {

      $val = $matrix1[$r][$c] + $matrix2[$r][$c];
      echo $val . "\t";
   }
   echo "\n";
}
$rowCount = count($matrix1); //Provides the rowcount of matrix
$colCount = count($matrix1[0]);   //Provides the column count of matrix
$rowCount2 = count($matrix2);
$colCount2 = count($matrix2[0]);

//The Multiplication of the matrix
echo "\nThe Multiplication of matrix is:\n";
//A*B C*D
//B is not equal to C
if($colCount == $rowCount2)
{
for($r = 0;$r < $rowCount;$r++)
{
for($c = 0;$c < $colCount;$c++)
{
$val = $matrix1[$r][$c] * $matrix2[$r][$c];
echo $val."\t";
}
echo "\n";
}
} else {
   echo "The matrix multiplication is not possible.";
}
?>
```

Output:




```
The order of the matrix A is:2x2
The order of the matrix B is:2x2
The input matrix A is:
1       2
4       5
The input matrix B is:
1       2
4       5

The output Transpose of matrix is:
1       4
2       5

The sum of matrix is:
2       4
8       10

The Multiplication of matrix is:
1       4
16      25
```

9. Write a PHP program named states.py that declares some variable states with the 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 s 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 element in 2 of the list.

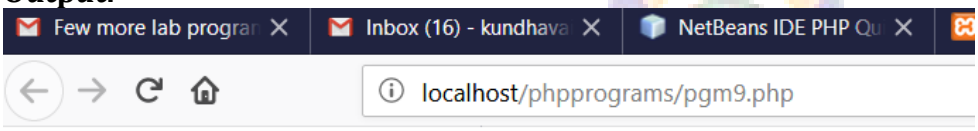
Search for a word in states that ends in a. Store this word in element 3 of the list.

Program:

```
<?php
header('Content-Type: text/plain');
$allTheStates = "Mississippi Alabama Texas Massachusetts Kansas";
$statesArray = [];
$states1 = explode(' ', $allTheStates);
$i = 0;
//states that ends in xas
foreach ($states1 as $state) {
   if (preg_match('/xas$/', ($state))) {
      $statesArray[$i] = ($state);
      $i = $i + 1;
      print "\nThe States that ends in xas:" . $state;
   }
}
//states that begins with k and ends in s
foreach ($states1 as $state) {
   if (preg_match('/^k.*s$/i', ($state))) {
      $statesArray[$i] = ($state);

      $i = $i + 1;
      echo "\nThe states that begins with k ans ends in s:" . $state;
   }
}
//states that begins with M and ends in s
foreach($states1 as $state) {
if (preg_match('/^M.*s$/', ($state))) {
   $statesArray[$i] = ($state);
   $i = $i + 1;
   echo "\nThe states that begins with M and ends in s:" . $state;
}
}
//states that ends in a
foreach($states1 as $state) {
```

```
if (preg_match('/a$/', ($state))) {
   $statesArray[$i] = ($state);

   $i = $i + 1;
   echo "\nThe states that ends in a:" . $state;
}
}
foreach ($statesArray as $element => $value) {
   print( "\n" . $value . " is the element " . $element);
}
?>
```

Output:




```
The States that ends in xas:Texas
The states that begins with k ans ends in s:Kansas
The states that begins with M and ends in s:Massachusetts
The states that ends in a:Alabama
Texas is the element 0
Kansas is the element 1
Massachusetts is the element 2
Alabama is the element 3
```

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

1. **ajaxInfo.php:**

```
<!DOCTYPE html> <html>
<head>
  <title>Selection Sort</title> </head>
<!-- jQuery 3 -->
<script src="jquery.min.js"></script>
<script type="text/javascript">
  var globalData = null;
  var tempData;
  if (tempData === null || tempData === undefined) {
    tempData = {};
  }
  tempData = {
    saveRecord: function ()
    {
      var url = "ajaxInfo.php";
      }
      var formEQData = new FormData($('#formRecord')[0]);
      formEQData.append("saveRecord", "saveRecord");
      $.ajax({type: "POST", url: url, async: false, dataType: 'json', cache: false, processData: false,
```

```
contentType: false, data: formEQData,
            success: function (obj) {
               alert(obj.msg);
               tempData.getRecord(); // Calling function to fetch the Record from DB.
            }
         });
      },
      getRecord: function () {
         var url = "ajaxInfo.php";
         var myData = {getRecord: 'getRecord'};
         $.ajax({type: "POST", url: url, async: false, dataType: 'json', data: myData, success: function
(obj)
            {
               globalData = obj.studentArr; // Assigning to Global Variable
               var content = "";
               $('#tableRow').html("");
               for (var i = 0; i < obj.studentArr.length; i++)
               {
                  content += '<tr><td>' + obj.studentArr[i].stu_id + '</td><td>' +
obj.studentArr[i].stu_name + '</td>'
                     + '<td>' + obj.studentArr[i].stu_mobile + '</td><td>' + obj.studentArr[i].stu_email
+ '</td></tr>';
               }
               $('#tableRow').append(content);
            }
         });
      },
      selectionSort: function () {
         var url = "ajaxInfo.php";
         var myData = {selectionSort: 'selectionSort'};
         $.ajax({type: "POST", url: url, async: false,
            dataType: 'json', data: myData,
            success: function (obj)
            {
               var content = "";
               $('#tableRow').html("");
               for (var i = 0; i < obj.sortedArr.length; i++)
               {
                  for (var j = 0; j < globalData.length; j++)
                  {
                     if (obj.sortedArr[i] == globalData[j].stu_id)
                     {
                        content += '<tr><td>' + globalData[j].stu_id + '</td><td>' +
globalData[j].stu_name + '</td>'
                           + '<td>' + globalData[j].stu_mobile + '</td><td>' + globalData[j].stu_email +
'</td></tr>';
                     }
                  }
               }
```

```
                $('#tableRow').append(content);
            }
          });
      },
    };

    $(document).ready(function () {
      tempData.getRecord();
    });
  </script>
  <body>
  <center>
    <h1> Add Student Record </h1> <form id="formRecord">
      <table border="0"> <tr>
            <td>Name</td>
            <td><input type="text" name="name" id="name"></td> </tr>
        <tr>
          <td>Mobile Number</td>
          <td><input type="number" name="mobile" id="mobile"></td> </tr>
        <tr>
          <td>Email ID</td>
          <td><input type="email" name="email" id="email"></td> </tr>
      </table><br>
      <button type="button" onclick="tempData.saveRecord();" style="width:150px;">Add
Student</button>
    </form>
    <br/><br/>
    <div style="overflow-x: scroll;height: 600px;width:60%;">
      <button type="button" style="width:150px;float: right;" onclick="tempData.selectionSort();" >
Selection Sort</button>
      <br/><br/>
      <table border=1 style="width:100%;"> <thead>
            <tr style="text-align: left;"> <th>Student ID</th> <th>Name</th> <th>Mobile</th>
<th>Email</th>
            </tr>
        </thead>
        <tbody id="tableRow"> </tbody>
      </table>
    </div>
  </center>
</body>
</html>
```

2. db.php

```
<?php

require_once('db.php');
/* Fetching the initial data */
/* $Query = 'select * from info';$fetchRec = mysqli_query($con,$Query) or die(mysqli_error()); */
/* Add the record to DATABASE */
if (isset($_POST['saveRecord'])) {
   $name = $_POST['name'];
   $mobile = $_POST['mobile'];
   $email = $_POST['email'];
   if ($name != '' && $mobile != '' && $email != '') {
      $stu_id = rand(0, 99999); //random number generation
      $Query = "insert into info(stu_id,stu_name,stu_mobile,stu_email)
values($stu_id,'$name',$mobile,'$email')";
      mysqli_query($con, $Query) or die(mysqli_error());
      $msg = 'Record Saved Successfully !';
   } else {
      $msg = "Text Field is empty !";
   }
   $status['msg'] = $msg;
   echo json_encode($status);
   mysqli_close($con);
}
/* read all studrnt data from DATABASE */
if (isset($_POST['getRecord'])) {
   $sql = "select * from info";
   $fetchRec = mysqli_query($con, $sql) or die(mysqli_error());
   while ($row = mysqli_fetch_array($fetchRec)) {
      $stu_id = $row['stu_id'];
      $stu_name = $row['stu_name'];
      $stu_mobile = $row['stu_mobile'];
      $stu_email = $row['stu_email'];
      $studentArr[] = array('stu_id' => $stu_id, 'stu_name' => $stu_name, 'stu_mobile' => $stu_mobile,
'stu_email' => $stu_email
      );
   }
   $status['studentArr'] = $studentArr;
   echo json_encode($status);
   mysqli_close($con);
}
/* read data from DATABASE */
if (isset($_POST['selectionSort'])) {
   $sql = "select * from info";
   $fetchRec = mysqli_query($con, $sql) or die(mysqli_error());
   while ($row = mysqli_fetch_array($fetchRec)) {
      $getStuID[] = $row['stu_id'];
```

```
    }
    $selectionArr = selection_sort($getStuID);  // calling selection Sort function
    $status['sortedArr'] = $selectionArr;
    echo json_encode($status);
    mysqli_close($con);
}

function selection_sort($data) {
    for ($i = 0; $i < count($data) - 1; $i++) {
        $min = $i;
        for ($j = $i + 1; $j < count($data); $j++) {
            if ($data[$j] < $data[$min]) {
                $min = $j;
            }
        }
        $data = swap_positions($data, $i, $min);
    }
    return $data;
}

function swap_positions($data1, $left, $right) {
    $backup_old_data_right_value = $data1[$right];
    $data1[$right] = $data1[$left];
    $data1[$left] = $backup_old_data_right_value;
    return $data1;
}
?>
```

3. Student_db.sql:

```
-- phpMyAdmin SQL Dump
-- version 4.5.1
-- http://www.phpmyadmin.net
--
-- Host: 127.0.0.1
-- Generation Time: Jul 09, 2018 at 11:46 AM
-- Server version: 10.1.13-MariaDB
-- PHP Version: 5.5.35

SET FOREIGN_KEY_CHECKS=0;
SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
SET time_zone = "+00:00";


/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
```

```
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8mb4 */;

--
-- Database: `student_db`
--
CREATE DATABASE IF NOT EXISTS `student_db` DEFAULT CHARACTER SET latin1 COLLATE latin1_swedish_ci;
USE `student_db`;

-- --------------------------------------------------------

--
-- Table structure for table `info`
--

DROP TABLE IF EXISTS `info`;
CREATE TABLE `info` (
  `id` int(11) NOT NULL,
  `stu_id` int(11) NOT NULL,
  `stu_name` varchar(30) NOT NULL,
  `stu_mobile` varchar(15) NOT NULL,
  `stu_email` varchar(30) NOT NULL
) ENGINE=InnoDB DEFAULT CHARSET=latin1;

--
-- Dumping data for table `info`
--

INSERT INTO `info` (`id`, `stu_id`, `stu_name`, `stu_mobile`, `stu_email`) VALUES
(1, 53073, 'Santhosh K', '9876756431', 'santhoshkcse4@gmail.com'),
(5, 99145, 'Mahesh', '9875656567', 'mahesh@gmail.com'),
(11, 33944, 'THYAGARAJAN M', '9876765644', 'kuttpri2305@gmail.com');

--
-- Indexes for dumped tables
--

--
-- Indexes for table `info`
--
ALTER TABLE `info`
  ADD PRIMARY KEY (`id`),
  ADD UNIQUE KEY `stu_id` (`stu_id`);
```

```
--
-- AUTO_INCREMENT for dumped tables
--

--
-- AUTO_INCREMENT for table `info`
--
ALTER TABLE `info`
 MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=13;SET
FOREIGN_KEY_CHECKS=1;

/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
```

4. Index.php

```
<?php error_reporting(0); session_start();
$con = mysqli_connect("localhost","root","","student_db"); if (mysqli_connect_errno()) {
echo "Failed to connect to MySQL: " . mysqli_connect_error();
}
?>
```

OUTPUT: