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

lab1.html

```
<!DOCTYPE HTML>
<html>
<head>
<style>
table, td, th
{
border: 10px solid black;
width:5px;
text-align: center;
background-color: DarkGray;
}
table { margin: auto; }
input { text-align:right; }
</style>
<script type="text/javascript">
function calc(clicked_id)
{
var val1 = parseFloat(document.getElementById("value1").value);
var val2 = parseFloat(document.getElementById("value2").value);
if(isNaN(val1)||isNaN(val2))
      alert("ENTER VALID NUMBER");
else if(clicked_id=="add")
      document.getElementById("answer").value=val1+val2;
else if(clicked_id= ="sub")
      document.getElementById("answer").value=val1-val2;
else if(clicked_id= ="mul")
      document.getElementById("answer").value=val1*val2;
```

```
else if(clicked_id= ="div")
      document.getElementById("answer").value=val1/val2;
}
function cls()
{
document.getElementById("value1").value=" ";
document.getElementById("value2").value=" ";
document.getElementById("answer").value=" ";
}
</script>
</head>
<body>
<table>
<tr>
      <th colspan="2"> SIMPLE CALCULATOR </th>
</tr>
<tr>
      <td>value1</td>
      <td colpan="3"><input type="text" id="value1" value="0"/></td>
</tr>
<tr>
      <td>value2</td>
      <td><input type="text" id="value2" value="0"/> </td>
</tr>
<tr>
      <td><input type="submit" value="Addition" id = "add"
onclick="calc(this.id)"/></td>
</tr>
<tr>
<td><input type="submit" value="Subtraction" id = "sub"
onclick="calc(this.id)"/></td></tr>
```

```
<tr>

<td><input type="submit" value="Multiplication" id = "mul"
onclick="calc(this.id)"/></td></tr>

<tr>

<td><input type="submit" value="Division" id ="div"
onclick="calc(this.id)"/></td>

</tr>

<tr><td>Answer:</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:

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.

Lab2.html

```
<!DOCTYPE HTML>
<html>
<head>
<style>
table,tr, td
{
border: solid black;
width: 33%;
text-align: center;
border-collapse: collapse;
background-color:cyan;
}
table { margin: auto; }
</style>
</head>
<body bgcolor="purple">
<script type="text/javascript">
document.write("<table><tr><th  colspan='3'>NUMBERS  FROM  0  TO  10  WITH  THEIR
SQUARES AND CUBES </th></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>
<body>
</html>
```

Output:

localhost/lab/lab2.html

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

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.

Lab3.html

```
<!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, 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:

Initially

TEXT GROWING

After

TEXT GROWING

When reaches 50pt size

TEXT GROWING

TEXT SHRINKING

TEXT SHRINKING

TEXT SHRINKING

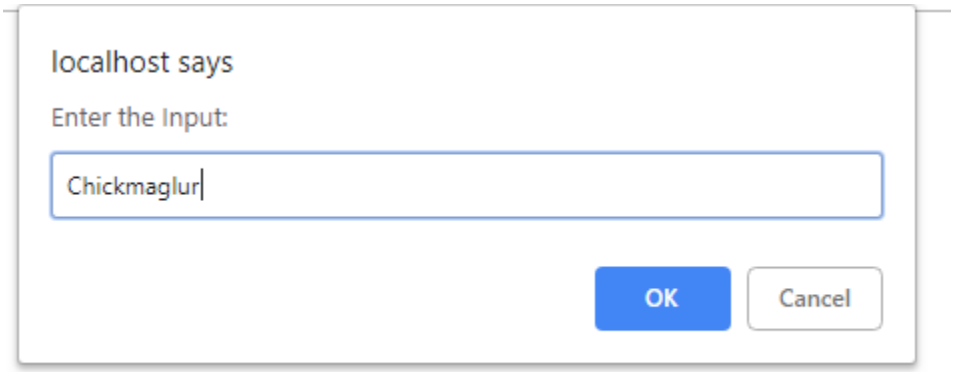
4. Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:
a. Parameter: A string
b. Output: The position in the string of the left-most vowel
c. Parameter: A number
d. Output: The number with its digits in the reverse order

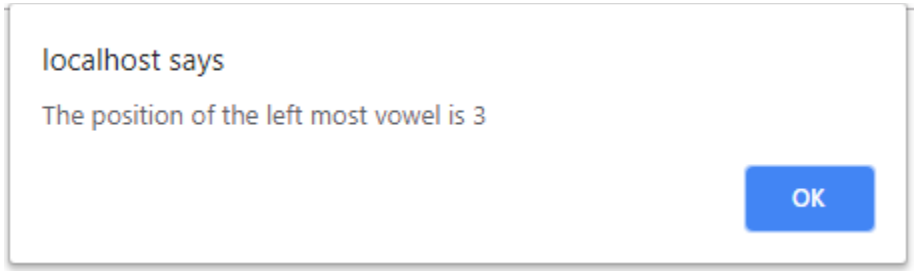
lab4.html

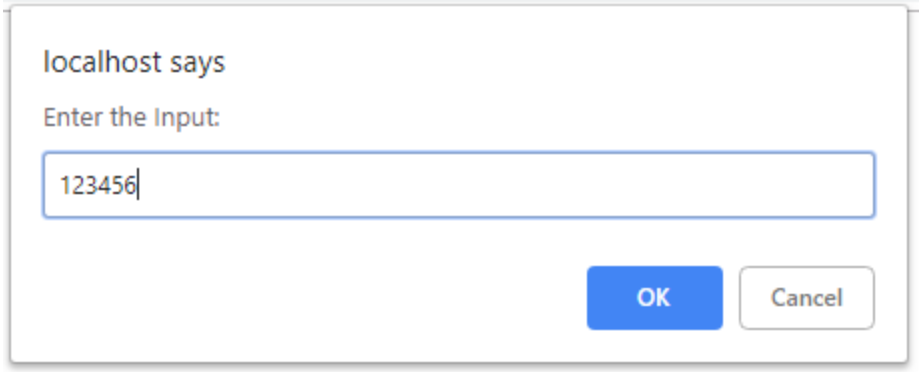
```
<!DOCTYPE HTML>
<html>
<head><title>Lab4</title>
</head>
<body>
<script type="text/javascript">
var str = prompt("Enter the Input:");
if(!(isNaN(str)))
{
      var num,rev=0,remainder;
      num = parseInt(str);
      while(num!=0)
      {
      remainder = num%10;
      num = parseInt(num/10);
      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>
```

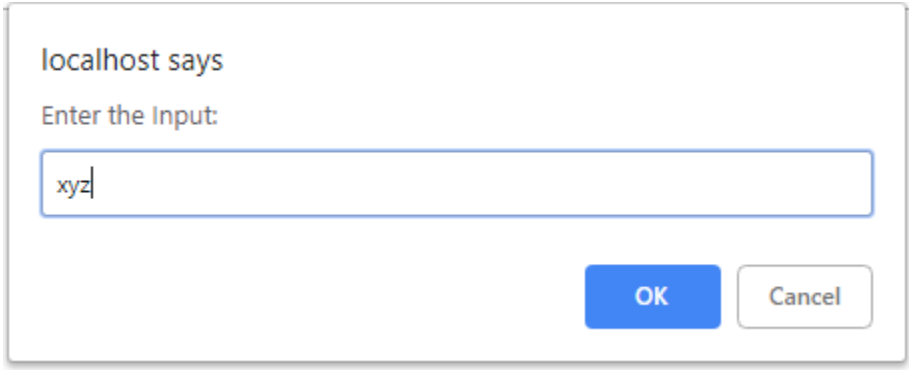
Output:

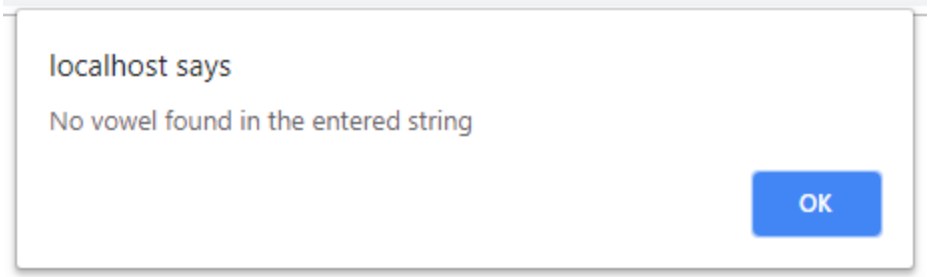





localhost says
Enter the Input:
123456
OK
Cancel


localhost says
Reverse of 123456 is 654321
OK


localhost says
Enter the Input:
xyz
OK
Cancel


localhost says
No vowel found in the entered string
OK

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.

lab5.xml

```
<?xml version = "1.0" encoding="utf-8"?>
<?xml-stylesheet type="text/css" href="lab51.css"?>
<students>
<heading>Student Details</heading>
   <stud1>
      <usn> USN:4AI11IS027 </usn>
      <name>NAME: Shrinidhi </name>
      <college> College:AIT</college>
      <branch> Branch:ISE</branch>
      <YOJ> Year of Joining:2011 </YOJ>
      <email>Preferred Email: shrinidhi@gmail.com </email>
   </stud1>
   <stud2>
      <usn> 4AI11IS026</usn>
      <name> Santosh</name>
      <college> AIT </college>
      <branch> ISE </branch>
      <YOJ> 2011 </YOJ>
      <email> santosh@ait.in </email>
   </stud2>
   <stud3>
      <usn> 4AI11IS034 </usn>
      <name> SUMAN </name>
      <college> AIT </college>
      <branch> ISE </branch>
      <YOJ> 2011</YOJ>
      <email> SUMAN@yahoo.com </email>
   </stud3>
</students>
```

Lab5.css

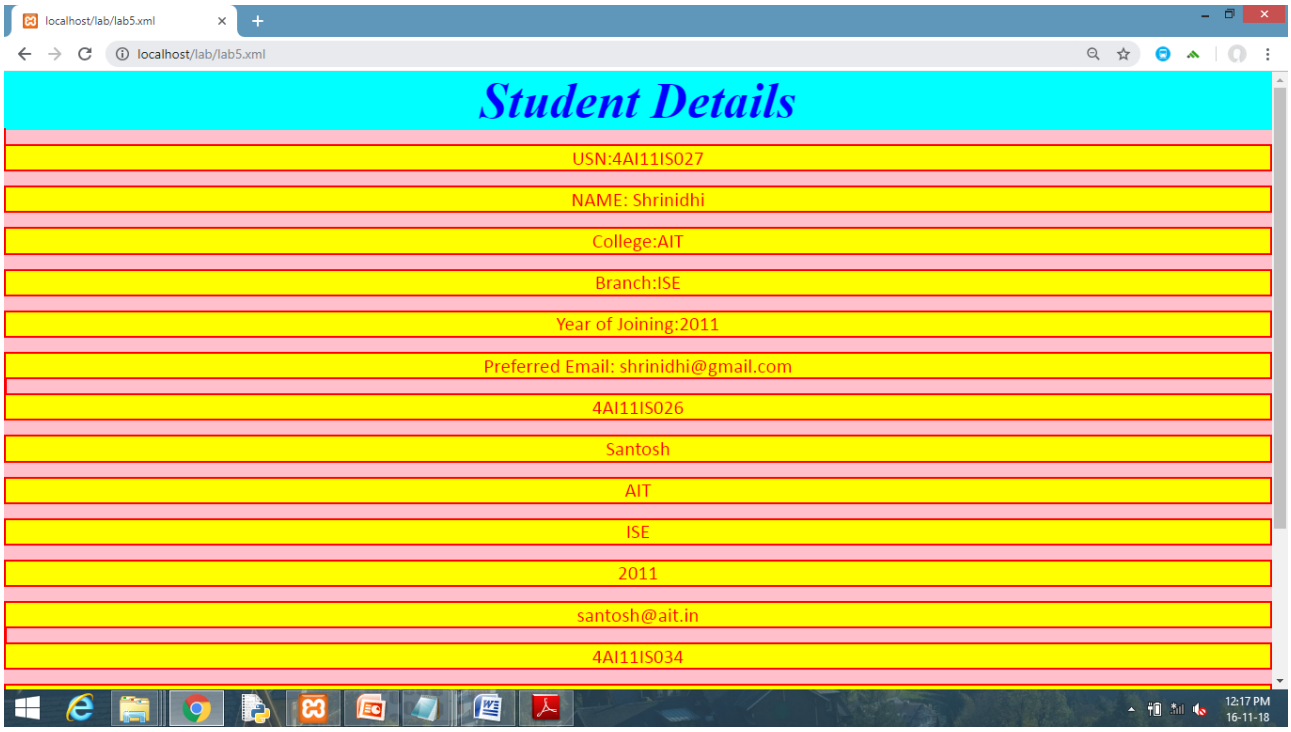
```
heading
{

font-style:italic;
font-weight:bolder;
font-size:50pt;
color:blue;
background-color:cyan;
}

stud1
{
border:20px dashed blue;
}
```

```
usn
{
font-style:italic;
color:blue;
display:block;
border:inherit;
}
name
{
font-style:bold;
font-family:calibri;
color:red;
display:block;
font-size:20pt;
border:inherit;
}
college
{
font-style:bold;
font-family:calibri;
color:green;
display:block;
font-size:20pt;
border:inherit;
}
branch
{
font-style:bold;
font-family:calibri;
color:pink;
display:block;
font-size:20pt;
border:inherit;
}
YOJ
{
font-style:bold;
font-family:calibri;
color:red;
display:block;
font-size:20pt;
border:inherit;
}
email
{
font-style:bold;
font-family:calibri;
color:red;
display:block;
font-size:20pt;
border:inherit;
}
```

Output:


localhost/lab/lab5.xml
localhost/lab/lab5.xml
Student Details
USN:4AI11IS027
NAME: Shrinidhi
College:AIT
Branch:ISE
Year of Joining:2011
Preferred Email: shrinidhi@gmail.com
4AI11IS026
Santosh
AIT
ISE
2011
santosh@ait.in
4AI11IS034
12:17 PM
16-11-18

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.

Lab6.html

```
<html>
 <head><title>Program 13</title></head>
<body bgcolor="yellow">
<h1>Click on submit to displaypage view count</h1>
<form action="http://localhost/lab/lab6.php">
<input type="submit" value="Submit">
 <input type="reset" value="clear">
</form>
</body>
</html>
```

Lab6.php

```
<!DOCTYPE HTML>
<html>
<head>
<style>
p{border:2px solid blue;text-align:center;}
</style>
</head>
<body bgcolor="red">
<p>
<?php
$name="counter.txt";
$file = fopen($name,"r");
$c= fscanf($file,"%d");
fclose($file);
$c[0]++;
$file = fopen($name,"w");
fprintf($file,"%d",$c[0]);
fclose($file);
print "Total number of views: ".$c[0];
?>
</p>
```

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

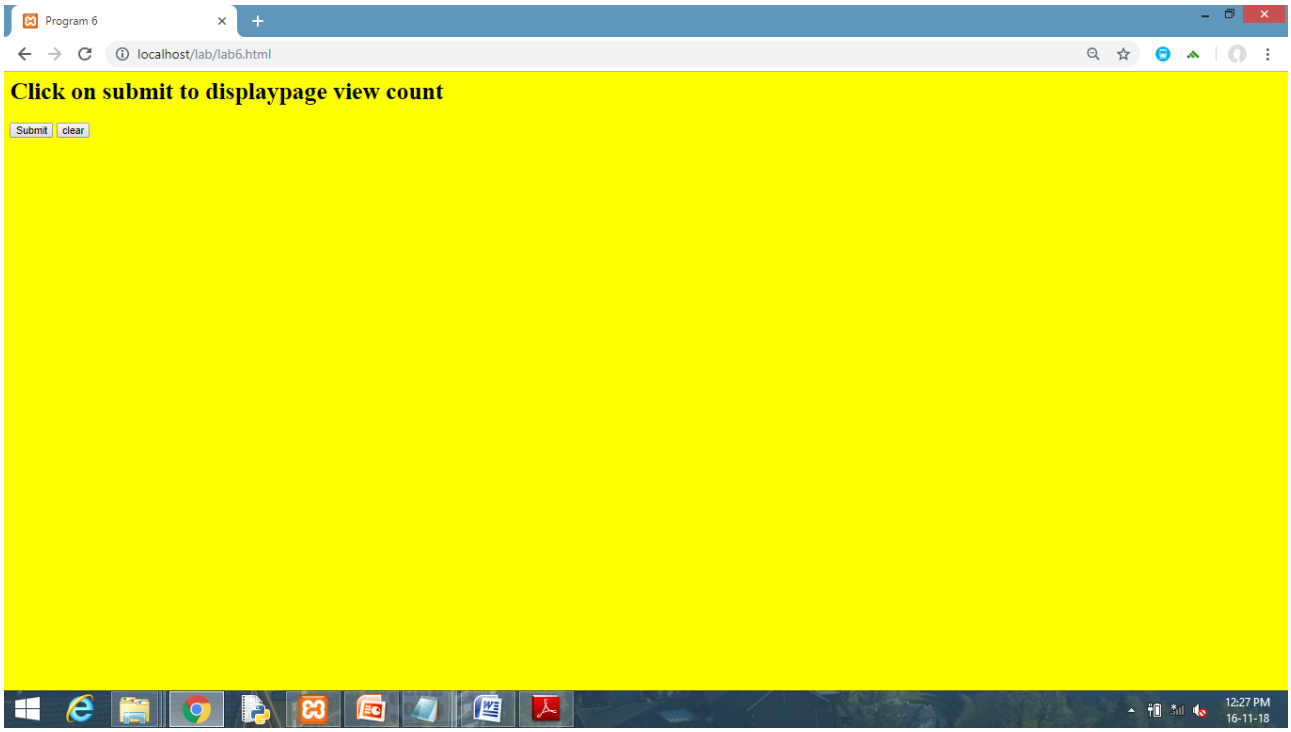
Create counter.txt file in current working directory and type 0(zero) and save

counter.txt

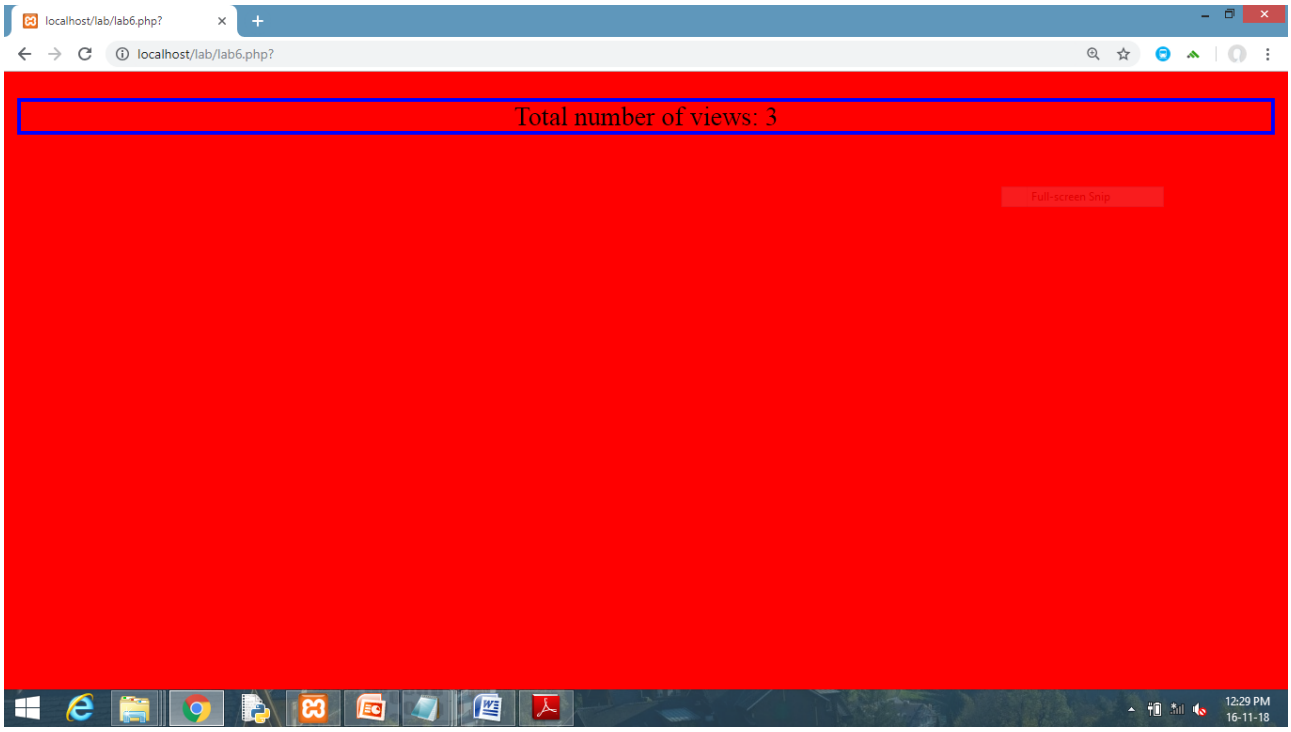
0

```
Open terminal
]chmod 777 lab6.php counter.txt   (Assign read,write,execute permission)
]php lab6.php                     (Compile php script)
```

Output:



After Clicking on submit:

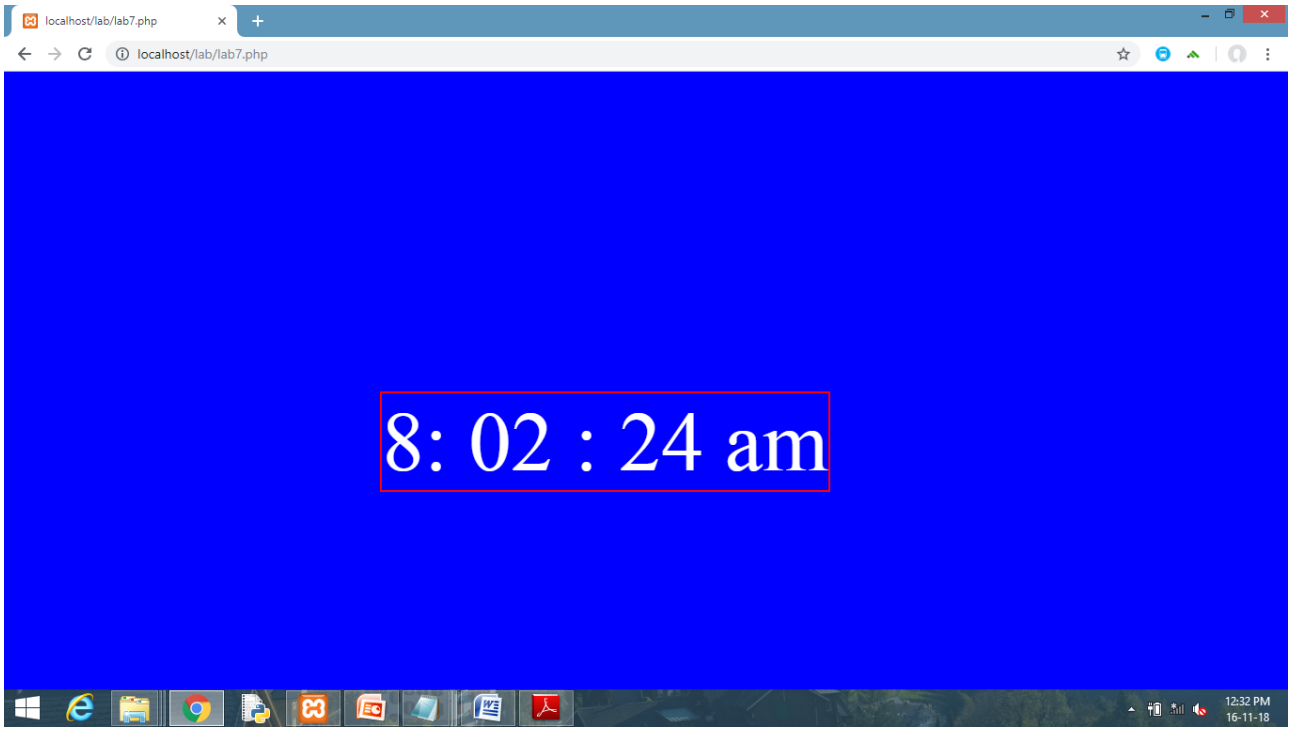

localhost/lab/lab6.php?
localhost/lab/lab6.php?
Total number of views: 3
12:29 PM
16-11-18

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

Lab7.php

```
<!DOCTYPE HTML>
<html>
<head>
<meta http-equiv="refresh" content="1"/>
<style>
p {
color:white;
font-size:90px;
position: absolute;
top:250px;
left:400px;
border:2px solid red;
}
body{background-color:blue;}
</style>
</head>
<body>
<p>
<?php
 echo date(" g: i : s a");
?>
</p>
</body>
</html>
```

Output:


localhost/lab/lab7.php
localhost/lab/lab7.php
8: 02 : 24 am
12:32 PM
16-11-18

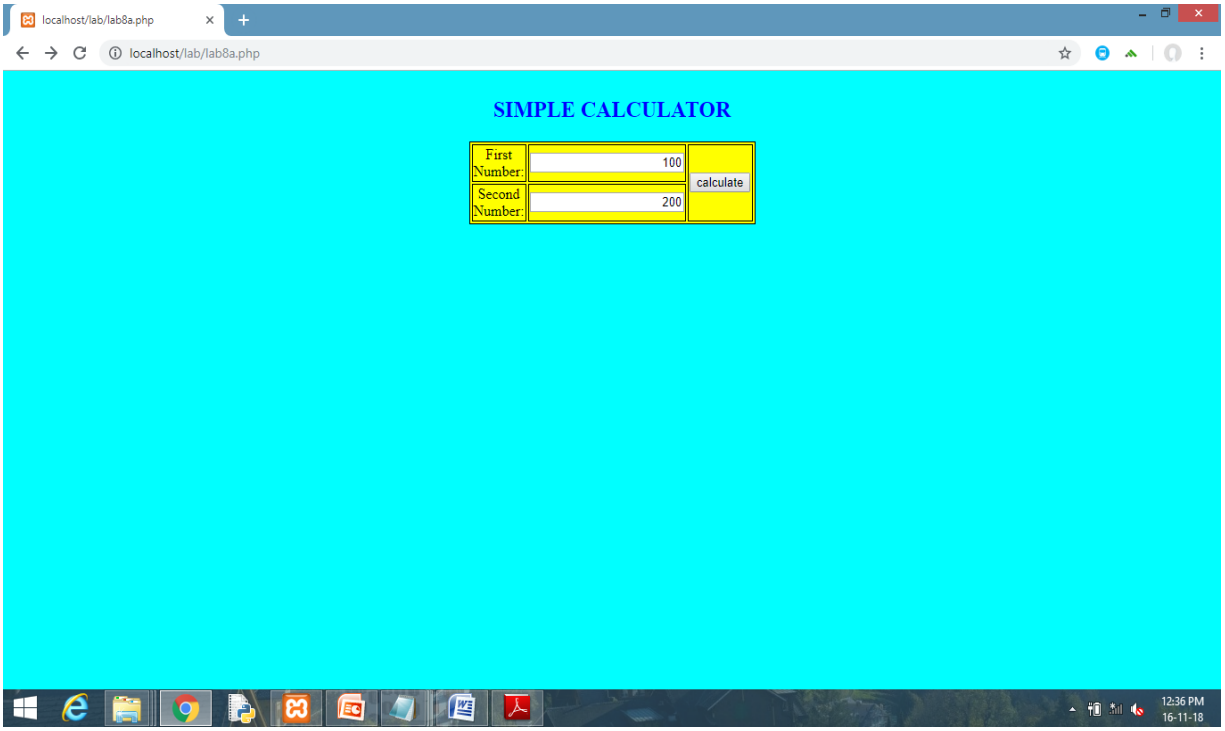
8. Write the PHP programs to do the following:
a. Implement simple calculator operations.
b. Find the transpose of a matrix.
c. Multiplication of two matrices.
d. Addition of two matrices.

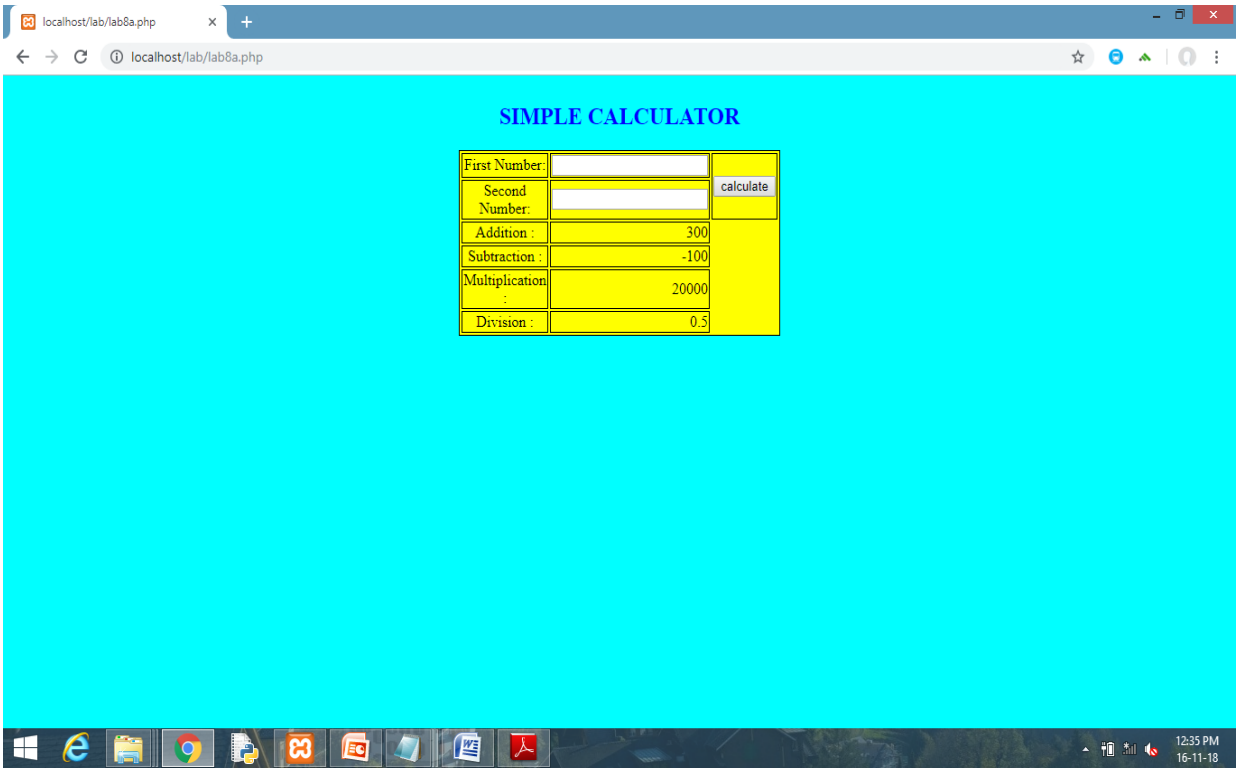
Lab8a.php

```
<html>
<head>
<style>
table,tr,td,th
{
border: 1px solid black;
width: 5px;
text-align: center;
background-color:yellow;
}
table { margin: auto; }
input,p { text-align:right; }
</style>
</head>
<body bgcolor="cyan">
<form method="post">
<table>
<caption><h2 style="color:blue;"> 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($num2) )
{
echo "<tr><td> Addition :</td><td><p>".($num1+$num2)."</p></td></tr>";
echo "<tr><td> Subtraction :</td><td><p> ".($num1-$num2)."</p></td></tr>";
echo "<tr><td> Multiplication :</td><td><p>".($num1*$num2)."</p></td></tr>";
echo "<tr><td>Division :</td><td><p> ".($num1/$num2)."</p></td></tr>";
echo "</table>";
}
else
{
echo "<script type='text/javascript'> alert(' ENTER VALID NUMBER');</script>";
}
}
?>
</body>
</html>
```

Output:


localhost/lab/lab8a.php
localhost/lab/lab8a.php
SIMPLE CALCULATOR
First Number:
100
Second Number:
200
calculate
12:36 PM
16-11-18


localhost/lab/lab8a.php
localhost/lab/lab8a.php
SIMPLE CALCULATOR
First Number:
Second Number:
calculate
Addition :
300
Subtraction :
-100
Multiplication :
20000
Division :
0.5
12:35 PM
16-11-18

Lab8b.php

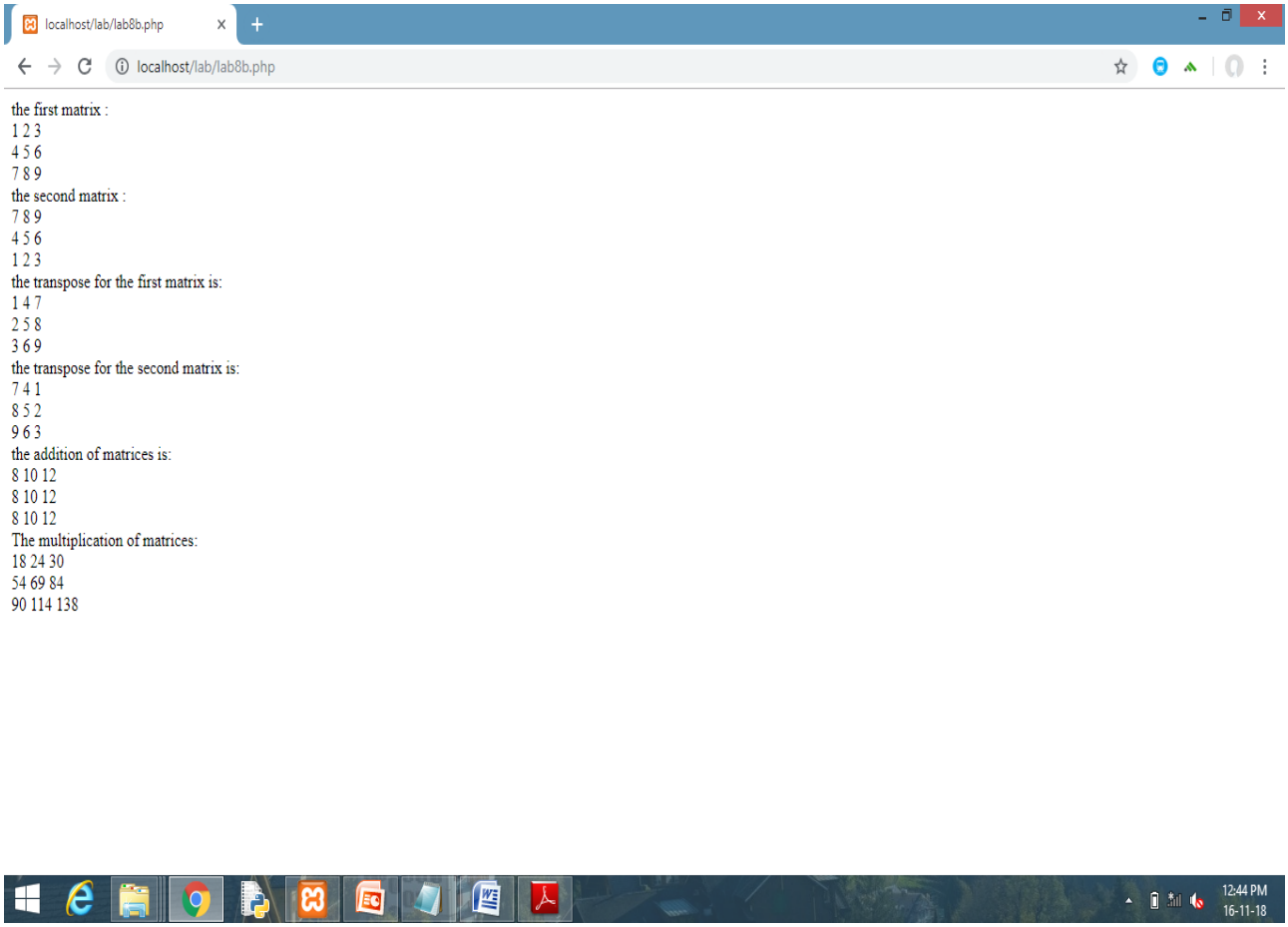
```
<?php
$a = array(array(1,2,3),array(4,5,6),array(7,8,9));
$b = array(array(7,8,9),array(4,5,6),array(1,2,3));
$m=count($a);
$n=count($a[2]);
$p=count($b);
$q=count($b[2]);
echo "the first matrix :"."<br/>";
for ($row = 0; $row < $m; $row++)
{
for ($col = 0; $col < $n; $col++)
echo " ".$a[$row][$col];
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/>";
}
echo "the transpose for the second matrix is:"."<br/>";
```

```
for ($row = 0; $row < $p; $row++)
{
for ($col = 0; $col < $q; $col++)
echo " ".$b[$col][$row];
echo "<br/>";
}

if(($m===$p) and ($n===$q))
{
echo "the addition of matrices is:"."<br/>";
for ($row = 0; $row < $m; $row++)
{
for ($col = 0; $col < $p; $col++)
echo " ".$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:



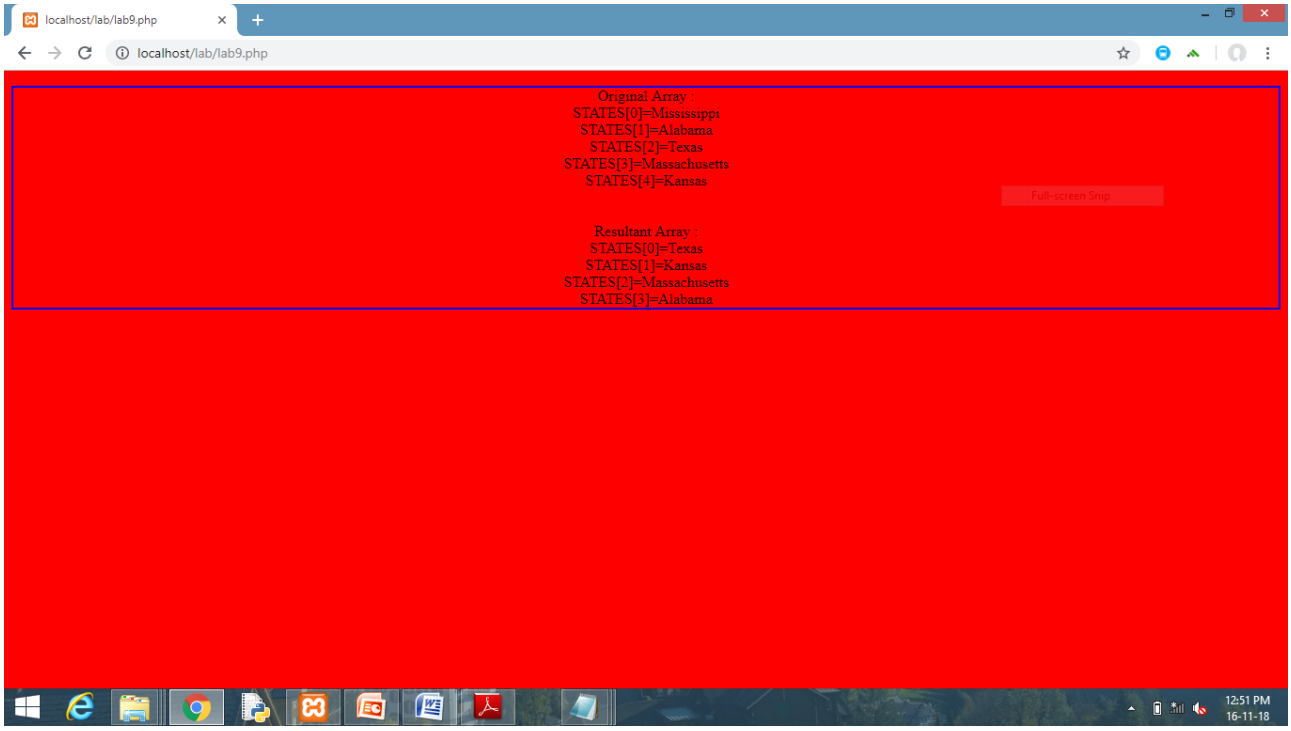
9. Write a PHP program named states.py that declares a variable states with value "Mississippi Alabama Texas Massachusetts Kansas". write a PHP program that does the following:
a. Search for a word in variable states that ends in xas. Store this word in element 0 of a list named statesList.
b. Search 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.

Lab9.php

```
<!DOCTYPE HTML>
<html>
<head>
<style>
p{border:2px solid blue;text-align:center;}
</style>
</head>
<body bgcolor="red">
<p>
<?php
$states = "Mississippi Alabama Texas Massachusetts Kansas";
$stateslist =array();
$states1 = explode(' ',$states);
echo "Original Array :<br>";
foreach ( $states1 as $i => $value )
      print("STATES[$i]=$value<br>");
foreach($states1 as $state)
{
      if(preg_match( '/xas$/', ($state)))
      $stateslist[0] = ($state);
}
foreach($states1 as $state)
{
      if(preg_match('/^k.*s$/i', ($state)))
      $stateslist[1] = ($state);
}
foreach($states1 as $state)
```

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

Output:



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

Step 1: Creation of Database

1.To start mysql server, type the following command in the terminal

```
/etc/init.d/mysqld start
```

2. Then type 'mysql' command in the terminal to get into MySQL tool

```
mysql
```

3. Create the database by following command

Syntax:create database databasename;

Ex: `create database weblab;`

4.To display creates databases

```
show databases;
```

5. To use the created database type following command

Syntax:use databasename;

```
Ex: use weblab;
```

6. Create the table in the database

Syntax:create table tablename(attribut1e type1,attribute2 type2,....);

```
ex: create table student(usn varchar(20),name varchar(20),address
varchar(20));
```

7.To display created tables in database

```
show tables;
```

8. Description about the table

```
 desc tables;
```

9. To use database commands in php

```
grant select,insert,delete,updateon student.* to apache@localhost
identified by 'lamp';
```

Lab10.html (create front end)

```
<html>
<head><title>Company Database Form</title></head> <body>
<form action="http://localhost/lab/lab10a.php" method="post">
USN<input type="text" name="usn"/><br/>
Name<input type="text" name="sname"/><br/>
adddress<input type="text" name="add"/><br/>
<input type="submit" value="insert data"/><br/>
</form><br/><br/>
<form action="http://localhost/lab/lab10b.php" method="post">
<input type="submit" value="search"/>
</form>
</body>
 </html>
```

Lab10a.php

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$dbname = "weblab";

// Create connection
$conn = new mysqli($servername, $username, $password, $dbname);
// Check connection
if ($conn->connect_error)
{
    die("Connection failed: " . $conn->connect_error);
}
if(isset($_POST["usn"]))
{
$usn=$_POST['usn'];
$sname=$_POST['sname'];
$add=$_POST['add'];
if($usn!=" " && $sname!=" " && $add!=" ")
{

$sql = "INSERT INTO student VALUES ('$usn', '$sname', '$add')";
}
if ($conn->query($sql) === TRUE)
{
    echo "New record created successfully";
}
else
{
    echo "Error: " . $sql . "<br>" . $conn->error;
}
$conn->close();
}
?>
```

Lab10b.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=array();
$conn = new mysqli($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>". $row["address"]."</td></tr>";
array_push($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=array();
$d=array();
$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]=$row["address"];
}
}
}
}
echo "<br>";
echo "<center> AFTER SORTING <center>";
echo "<table border='2'>";
echo "<tr>";
echo "<th>USN</th><th>NAME</th><th>Address</th></tr>";
for($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:

```
Applications  Places  System
root@localhost:~
File  Edit  View  Search  Terminal  Help
[root@localhost ~]# /etc/init.d/mysqld start
Starting mysqld:                                           [  OK  ]
[root@localhost ~]# mysql
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 6
Server version: 5.1.66 Source distribution

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database weblab;
Query OK, 1 row affected (0.00 sec)

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| ait                |
| company            |
| mysql              |
| student            |
| student1           |
| student2           |
| test               |
| weblab             |
+--------------------+
9 rows in set (0.00 sec)

mysql> use weblab;
Database changed
mysql> create table student(usn varchar(20),name varchar(20),address varchar(20));
Query OK, 0 rows affected (0.06 sec)

mysql> grant select,insert,update,delete on student.* to apache@localhost identified by 'lamp';
Query OK, 0 rows affected (0.00 sec)

mysql>
```
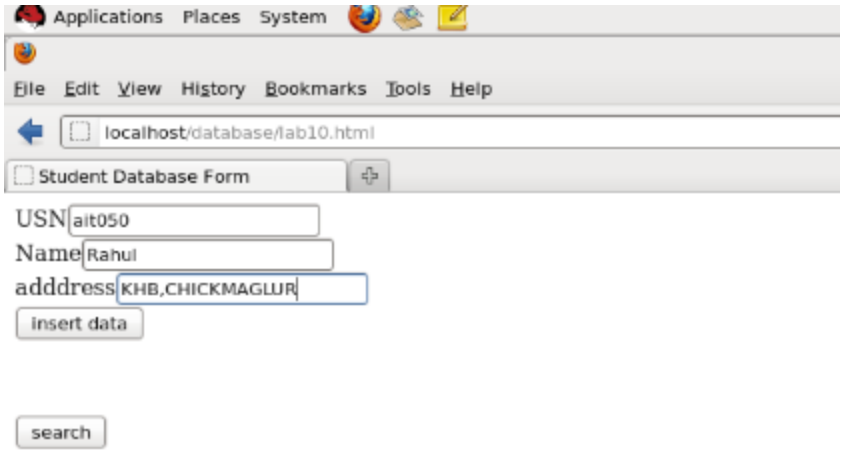
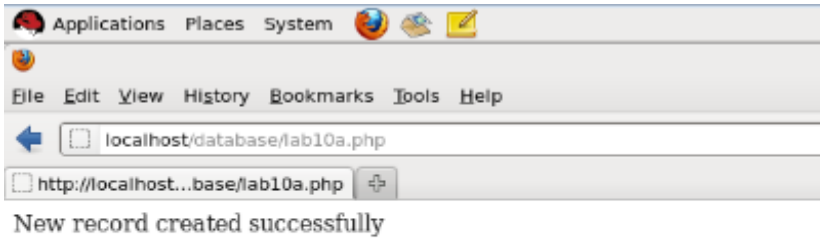
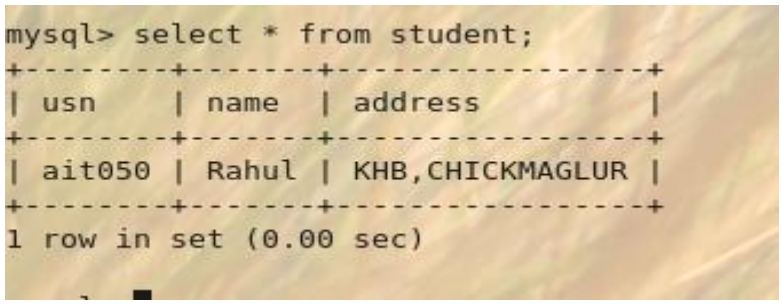
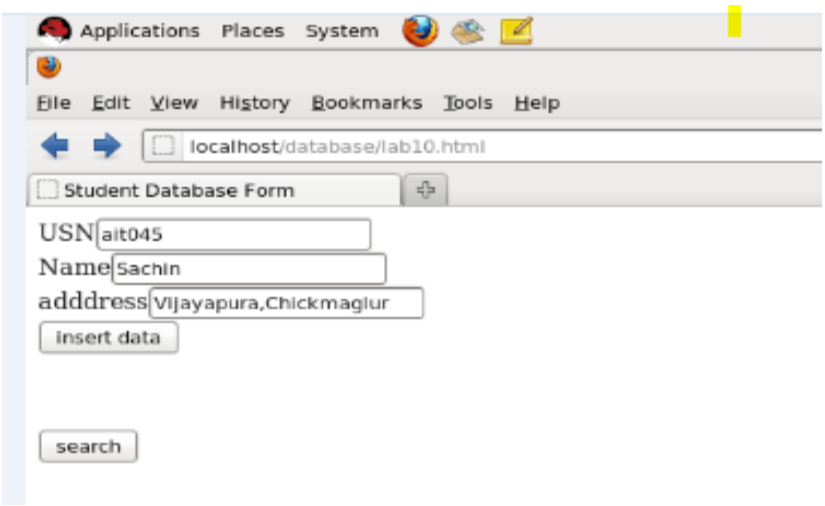
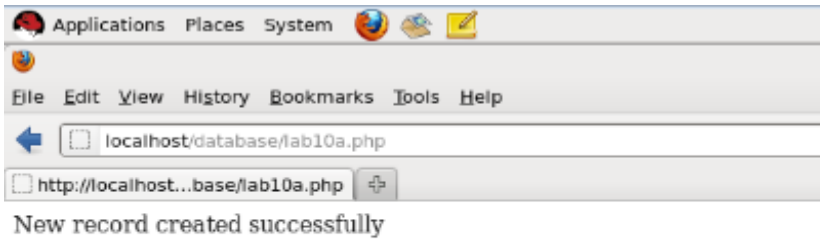





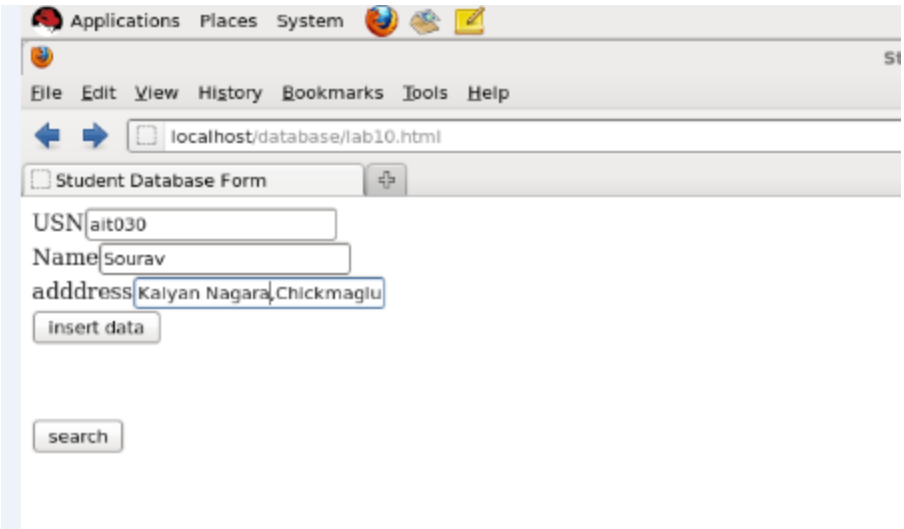


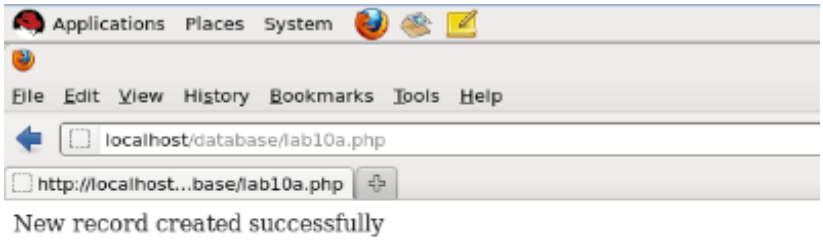
```
mysql> select * from student;
+--------+-------+------------------+
| usn    | name  | address          |
+--------+-------+------------------+
| ait050 | Rahul | KHB,CHICKMAGLUR  |
+--------+-------+------------------+
1 row in set (0.00 sec)
```



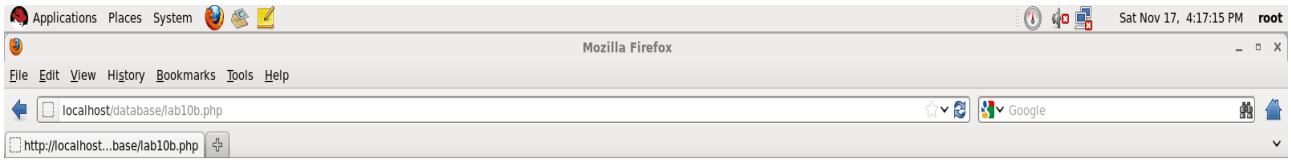



```
mysql> select * from student;
+--------+--------+----------------------+
| usn    | name   | address              |
+--------+--------+----------------------+
| ait050 | Rahul  | KHB,CHICKMAGLUR      |
| ait045 | Sachin | Vijayapura,Chickmagl |
+--------+--------+----------------------+
2 rows in set (0.00 sec)
```






```
mysql> select * from student;
+--------+--------+----------------------+
| usn    | name   | address              |
+--------+--------+----------------------+
| ait050 | Rahul  | KHB,CHICKMAGLUR      |
| ait045 | Sachin | Vijayapura,Chickmagl |
| ait030 | Sourav | Kalyan Nagara,Chickm |
+--------+--------+----------------------+
3 rows in set (0.00 sec)

mysql>
```



BEFORE SORTING

USN	NAME	Address
ait050	Rahul	KHB,CHICKMAGLUR
ait045	Sachin	Vijayapura,Chickmagl
ait030	Sourav	Kalyan Nagara,Chickm

AFTER SORTING

USN	NAME	Address
ait030	Sourav	Kalyan Nagara,Chickm
ait045	Sachin	Vijayapura,Chickmagl
ait050	Rahul	KHB,CHICKMAGLUR