

Steps of Execution of html and php programs on Linux platform (ubuntu) using lampp server

Step1: Open terminal (ctrl+alt+t)

Step2: Run lamp server by typing the command

```
sudo /opt/lampp/lampp start
```

Step3: Create your folder in htdocs by clicking on Computer → opt → lampp → htdocs → create new folder here. Type and Save your program in this new folder using gedit

```
gedit 1.html
```

Type and save (ctr+s)

Type ls to see the list of files in our folder. Before giving executable permission the file colour will be in white

Step4: Give permission to the file using chmod

```
chmod 777 1.html
```

Step5: Open browser and give the path to see the output

```
http://localhost/newfolder/1.html
```

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

```
<!DOCTYPE HTML><html>
```

```
<head>
```

```
<style>
```

```
table,td,th
```

```
{
```

```
border:1px solid black; width:33%;
```

```
text-align:center;background-color:DarkGray;border-collapse:collapse;
```

```
}
```

```
table{ margin:auto;}input{ text-align:right;}
```

```
th{ color:red}
```

```
</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()
{
value1.value="0";
value2.value="0";
answer.value="";
}
</script>
</head>
<body style bgcolor="cyan">

<table>
<tr><th colspan="4">SIMPLE CALCULATOR</th></tr>
<tr><td>value1</td><td><input type="text" id="value1" value="0"/></td>
<td>value2</td><td><input type="text" id="value2" value="0"/></td></tr>
<tr><td><input type="button" value="Addition" id="add" onclick="calc(this.id)"/></td>
<td><input type="button" value="Subtraction" id="sub" onclick="calc(this.id)"/></td>
<td><input type="button" value="Multiplication" id="mul" onclick="calc(this.id)"/></td>
<td><input type="button" value="Division" id="div" onclick="calc(this.id)"/></td>
<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>

```

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.

```

<html>
<head>
<style>
table ,tr,td
{
border:solid black;width:33%;text_align:center;
border_collapse:collapse;background_color:DarkGray;
}
table{ margin:auto;}
</style>
</head>
<body>
<table border="border">
<caption>Squares and cubes of numbers </caption>
<tr>
<th>Number</th>
<th>Square</th>
<th>Cube</th>
</tr>
<script type="text/javascript">
for(i=0;i<=10;i++)
document.write("<tr>"+ "<td>" +i+ "</td>"+ "<td>" +i*i+ "</td>"+ "<td>" +i*i*i+ "</td>"+ " "</tr>");
</script>
</table>
</body>
</html>

```

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.

```

<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>
```

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

Output: The number with its digits in the reverse order

```
<html>
<body>
  <script type="text/javascript">
    var str=prompt("Enter the input","");
    if(!(isNaN(str)))
    {
      var num,rev=0,remainder;
      num=parseInt(str);
      while(num!=0){
        remainder=num%10;
        num=parseInt(num/10);
        rev=rev*10+remainder;
      }
      alert("Reverse of "+str+" is "+rev);
    }
    else
    {
      str=str.toUpperCase();
      for(var i=0;i<str.length;i++){
        var chr=str.charAt(i);
        if(chr=='A'||chr=='E'||chr=='I'||chr=='O'||chr=='U') break;
      }
      if(i<str.length)
        alert("The position of the leftmost vowel is "+(i+1));
    }
  }
</script>
</body>
</html>
```

```

else
    alert("No vowel found in the entered string");
}
</script>
</body>
</html>

```

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.

```

<?xml version="1.0" encoding="UTF-8"?>
<?xml-stylesheet type="text/css" href="program5.css"?>
<xsd:schema xmlns:xsd=https://www.w3.org/2001/XMLSchema
targetNamespace="http://cs.uccs.edu/studentSchema"
xmlns="http://cs.uccs.edu/studentSchema"
elementFormDefault="qualified">

<h1> STUDENT DESCRIPTION </h1>
<students>
<student>

<xsd:simpleType name="usn">
<xsd:restriction base="xsd:decimal">
<xsd:maxLength value="10"/>
</xsd:restriction>
</xsd:simpleType>

<xsd:simpleType name="branch">
<xsd:restriction base="xsd:string">
<xsd:maxLength value="10"/>
</xsd:restriction>
</xsd:simpleType>

<xsd:simpleType name="year">
<xsd:restriction base="xsd:decimal">
<xsd:maxLength value="10"/>

```

```
</xsd:restriction>
</xsd:simpleType>
```

```
<xsd:simpleType name="college">
<xsd:restriction base="xsd:string">
<xsd:maxLength value="10"/>
</xsd:restriction>
</xsd:simpleType>
```

```
<xsd:simpleType name="e-mail">
<xsd:restriction base="xsd:string">
<xsd:maxLength value="10"/>
</xsd:restriction>
</xsd:simpleType>
```

```
<xsd:simpleType name="name">
<xsd:restriction base="xsd:string">
<xsd:maxLength value="10"/>
</xsd:restriction>
</xsd:simpleType>
```

```
<usn> 3BR15CS048 </usn>
<name> sana </name>
<college> BITM </college>
<branch> CSE </branch>
<year> 2015 </year>
<email> sana1@gmail.com </email>
```

```
<usn> 3BR15CS054 </usn>
<name> siri </name>
<college> BITM </college>
<branch> CSE </branch>
<year> 2015 </year>
<email> soumya157@gmail.com </email>
```

```
<usn> 3BR15CS068 </usn>
<name> soumya </name>
<college> BITM </college>
<branch> CSE </branch>
<year> 2015 </year>
<email> siri45@gmail.com </email>
```

```
</student>
</students>
</xsd:schema>
```

5.css)

student

```
{
display: block;
margin: top;
color: blue;
}
```

usn

```
{
display: block;
margin: top;
color: red;
}
```

branch,year,college,name,email

```
{
display: block;
margin: top;
color: blue;
margin-bottom : 10px;
margin-left: 50px
}
```

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

```
<html>
```



```
<title>Number of visitors</title>
<header>
<h1>Welcome to view page</h1>
</header>
<body bgcolor="cyan">
<a href="http://localhost/3br17cs002/6.php"> Number of views </a>
</body>
</html>
```

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];
?>
```

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

7.php

```
<html>
<head>
<title> Time </title>
<meta http-equiv="refresh" content="1"/>
<style>
p.rel
```

```
{
    color:red;
    position:relative;
    font-size:90px;
}
h2
{
    color:green;
    position:absolute;
    top:5%;
    left:30%;
    font-size:30px;
}
p.one
{
    color:white;
    font-size:90px;
    position:absolute;
    top:30%;
    left:50%;
    transform.translate(-50%,-50%);
}
body { background-color:black; }
</style>
<article>
    <header>
        <h2>Program to demonstrate time</h2>
    </header>
    <div>
        <p class=rel>Displaying current time</p>
        <p class=one>
            <?php
                date_default_timezone_set('Asia/Kolkata');
```

```
echo date("h : i : s a");?></p>
```

```
</div>
```

```
</article>
```

```
</html>
```

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**

8a.php

```
<html>
```

```
<head>
```

```
<style>
```

```
<meta charset="utf-8">
```

```
<meta name="viewport" content="width=device-width, initial-scale=1">
```

```
table td,th
```

```
{
```

```
border:1px solid black;
```

```
width:33%;
```

```
text-align:center;
```

```
background-color:DarkGray;
```

```
border-collapse:collapse;
```

```
}
```

```
caption
```

```
{
```

```
display:table-caption;
```

```
text-align:center;
```

```
background-color:Gray;
```

```
border-collapse:collapse;
```

```
}
```

```
table{ margin:auto;}
```

```
input{ text-align:right;}
```

```
</style>
```

```
<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="6"><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>

```

8b.php

```

<?php
$a=array(array(1,2,3),array(4,5,6),array(7,8,9));
$m=count($a);
$n=count($a[2]);

```

```

echo "The matrix:."<br/>";
for($row=0;$row<$m;$row++)
{
for($col=0;$col<$n;$col++)
echo "".$a[$row][$col];
echo "<br/>";
}
echo "The transpose for the matrix is:".<br/>";
for($row=0;$row<$m;$row++){
for($col=0;$col<$n;$col++)
echo "".$a[$col][$row];
echo "<br/>";
}
?>

```

8c.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/>";

```

```
}  
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/>";  
    }  
}  
?>
```

8d.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/>";
```

```
}
```

```
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/>";
        }
    }
?>

```

9Write 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:

- Search for a word in variable states that ends in xas. Store this word in element 0 of a list named statesList.**
- Search for a word in states that begins with k and ends in s. Perform a case insensitive comparison. [Note: Passing re.I as a second parameter to method compile performs a case-insensitive comparison.] Store this word in element1 of statesList.**
- Search for a word in states that begins with M and ends in s. Store this word in element 2 of the list.**
- Search for a word in states that ends in a. Store this word in element 3 of the list**

```

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

```

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

PART-1

Go to mysql and create your database. Inside this data base create a table called student with 3 fields usn, name, addr. Insert the values for usn, name and addr.

Steps:

Step1: type localhost/dashboard in the browser and open the dashboard

Step2: click phpMyadmin

Step3: click database (give your database name)

Step 4: click create table (create student table with three fields usn, name, addr)

Step 5: insert values for usn, name and addr.

Part-2 create the php file to fetch the values from the student table and display in ascending order according to usn.

10.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="kumar";
$a=[];
$conn=mysqli_connect($servername,$username,$password,$dbname);
if($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)
{
    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>
```