VISVESVARAYA TECHNOLOGICAL UNIVERSITY

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Lab Manual

WEB PROGRAMMING

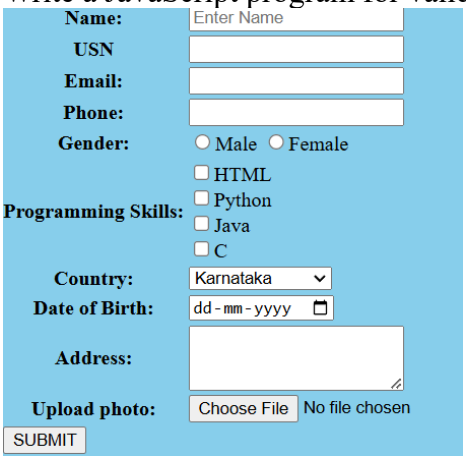
(CS256)

Department of Computer Science and Engineering

CAMBRIDGE INSTITUTE OF TECHNOLOGY,

BANGALORE-560036

2024-2025

Sl No	Programs	Page no.
1	Write an HTML program for timetable generation using tables.	
2	Write an HTML program to develop a static Web Page for Shopping Cart.	
3	Design a web page using CSS which includes the following: i. Use different font and text styles ii. Set a background image for both the page and single element on the page. iii. Define styles for links iv. Working with layers v. Adding a Customized cursor.	
4	Write a JavaScript to design a simple calculator to perform the following operations:sum, product, difference, and quotient.	
5	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 .	
6	Write a JavaScript code that displays text “TEXT-GROWING” with increasing font size in the interval of 100 ms in RED COLOR, when the font size reaches 50 pt it displays “TEXT SHRINKING” in BLUE colour. Then the font size decreases	
7	Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems: 1. Parameter: A string 2. Output: The position in the string of the left-most vowel 3. Parameter: A number 4. Output: The number with its digits in the reverse order.	
8	Write a JavaScript program for validating REGISTRATION FORM. 	
9	Write a PHP program to store current date-time in a COOKIE and display the ‘Last visited on’ date-time on the web page upon reopening of the same page.	
10.	Create an HTML form with Name, Address Line 1, Address Line 2, and E-mail text fields. On submitting, store the values in MySQL table. Retrieve and display the data based on Name.	

Additional Practice Programs

1. Write an HTML program for the demonstration of Lists. a. Unordered List b. Ordered List c.Definition List d. Nested List.
2. Write an HTML program for demonstrating Hyperlinks.
    a. Navigation from one page to another.
    b. Navigation within the page.
3. Write an HTML program to develop a static Home Page using frames.
4. Write an HTML program to develop a static Registration Form.
5. Write HTML for demonstration of cascading stylesheets.
    a. Embedded stylesheets.
    b. Externalstyle sheets.
    c. Inline styles.
6. Write a JavaScript program to validate the USER LOGIN page.
7. Write a PHP Script to find out the Sum of the Individual Digits.
8. Write a PHP Script to check whether the given number is Palindrome or not.
9. Write a program using PHP and HTML to create a form and display the details the user enters.
10. Write a PHP program to insert the details entered by the user in the Registration form into the MySQLdatabase.
11. Activity-Based Learning (Suggested Activities in Class)/Practical-Based learning Mini Project.

Case Study:

12. Photo Sharing Web Application among friends and relatives (after travel, special occasions)

Viva Questions: Refer to Glossary terms.

Program No.1

Write an HTML program for timetable generation using tables.

Code:

```
<html>
<head>
  <title>time table</title>
</head>
<body>
<H1><CENTER>COLLEGE TIME TABLE</H1>
<table border="2" align="center">
<tr>
 <td align="center">Time/Day</td>
 <td>8:45-9:50</td>
 <td>9:50-10:45</td>
 <td>10:45-11:05</td>
 <td>11:05-12:00</td>
 <td>12:00-12:55</td>
 <td>12:55-1:35</td>
 <td>1:35-2:30</td>
 <td>2:30-3:25</td>
 <td>3.25-4.20</td>
</tr>
<tr>
 <td align="center">MONDAY</td>
 <td align="center">SUB1</td>
 <td align="center">SUB2</td>
<td rowspan="6"align="center">T<br>E<br>A<br>B<br>R<br>E<br>A<br>K</td>
 <td align="center">SUB3</td>
 <td align="center">SUB4</td>
 <td rowspan="6"align="center">L<br>U<br>N<br>C<br>H</td>
 <td align="center">SUB5</td>
 <td align="center">SUB6</td>
 <td align="center">counselling class</td>
</tr>
<tr>
 <td align="center">TUESDAY</td>
 <td align="center">SUB1</td>
 <td align="center">SUB2</td>
 <td align="center">SUB3</td>
 <td align="center">SUB4</td>
 <td align="center">SUB5</td>
 <td align="center">SUB6</td>
 <td align="center">LIBRARY</td>
</tr>
```

```
<tr>
 <td align="center">WEDNESDAY</td>
 <td align="center">SUB1</td>
 <td align="center">SUB2</td>
 <td align="center">SUB3</td>
 <td align="center">SUB4</td>
 <td align="center">SUB5</td>
 <td align="center">SUB6</td>
 <td align="center">TUTORIAL</td>
</tr>
<tr>
 <td align="center">THURSDAY</td>
 <td align="center">SUB1</td>
 <td align="center">SUB2</td>
 <td align="center">SUB3</td>
 <td align="center">SUB4</td>
 <td align="center">SUB5</td>
 <td align="center">SUB6</td>
 <td align="center">FORUM</td>
</tr>
<tr>
 <td align="center">FRIDAY</td>
 <td align="center">SUB1</td>
 <td align="center">SUB2</td>
 <td align="center">SUB3</td>
 <td align="center">SUB4</td>
 <td align="center">SUB5</td>
 <td align="center">SUB6</td>
 <td align="center">counselling class</td>
</tr>
<tr>
 <td align="center">SATURDAY</td>
 <td align="center">SUB1</td>
 <td align="center">SUB2</td>
 <td colspan="2" align="center">Seminar</td>
 <td align="center">SUB5</td>
 <td align="center">SUB6</td>
 <td align="center">counselling class</td>
</tr>
</body>
</html>
```

Output:

COLLEGE TIME TABLE

Time/Day	8:45-9:50	9:50-10:45	10:45-11:05	11:05-12:00	12:00-12:55	12:55-1:35	1:35-2:30	2:30-3:25	3.25-4.20
MONDAY	SUB1	SUB2	TEABREAK	SUB3	SUB4	LUNCH	SUB5	SUB6	counselling class
TUESDAY	SUB1	SUB2		SUB3	SUB4		SUB5	SUB6	LIBRARY
WEDNESDAY	SUB1	SUB2		SUB3	SUB4		SUB5	SUB6	TUTORIAL
THURSDAY	SUB1	SUB2		SUB3	SUB4		SUB5	SUB6	FORUM
FRIDAY	SUB1	SUB2		SUB3	SUB4		SUB5	SUB6	counselling class
SATURDAY	SUB1	SUB2		Seminar			SUB5	SUB6	counselling class

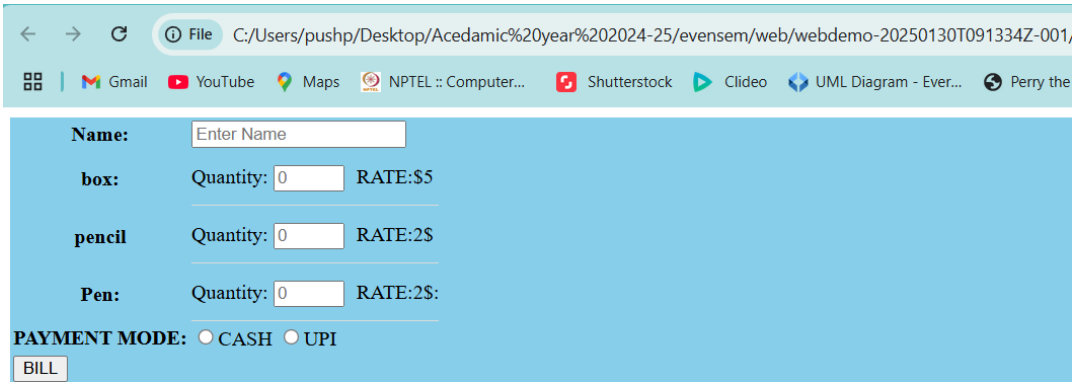
Program No.2

Write an HTML program to develop a static Web Page for Shopping Cart.

Code:

```
<form style=background-color:skyblue; center>

<table>

<tr><th>Name:</th><td><input type="text" name="Name" size="20" placeholder="Enter Name"></td></tr>

<tr><th>box:</th><td><div style="padding: 10px 0; border-bottom: 1px solid #ddd;">

<label for="quantity1">Quantity:</label> <input type="text" id="quantity1" style="margin-right: 10px;" name="quantity1" size="3" placeholder="0" style="margin-right: 10px;"><label for="quantity1">RATE:$5</label> </div></td></tr>

<tr><th>pencil</th><td><div style="padding: 10px 0; border-bottom: 1px solid #ddd;">

<label for="quantity3">Quantity:</label> <input type="text" id="quantity3" name="quantity3" size="3" style="margin-right: 10px;" placeholder="0"><label for="quantity1">RATE:2$</label>

</div></td></tr><tr><th>Pen:</th><td><div style="padding: 10px 0; border-bottom: 1px solid #ddd;"> <label for="quantity3">Quantity:</label>

<input type="text" id="quantity3" name="quantity3" size="3" style="margin-right: 10px;" placeholder="0"><label for="quantity1">RATE:2$:</label>

</div></tr><tr><th>PAYMENT MODE:</th><td>

<input type="radio" name="CASH">CASH<input type="radio" name="UPI">UPI</td></tr>

<tr><td><input type="button" value="BILL" onclick="alert('thank you for shopping with us');"></td></tr></table></form>
```

Output:



Program No.3

Design a web page using CSS which includes the following:

i. Use different font and text styles
ii. Set a background image for both the page and single element on the page.
iii. Define styles for links
iv. Working with layers
v. Adding a Customized cursor.

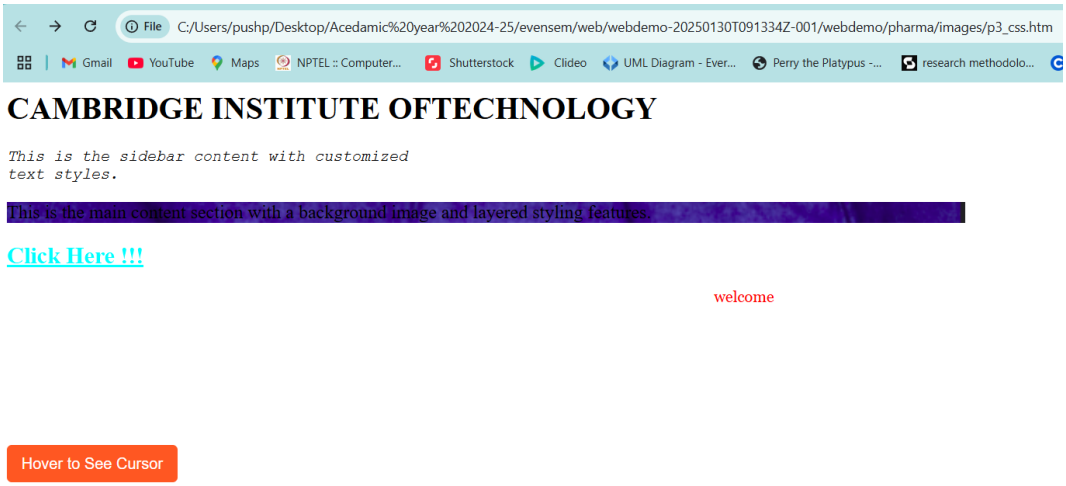
Code for:

i. Use different font and text styles
iv. Working with layers
v. Adding a Customized cursor.

```
<html><head><style type="text/css">

a:link{
color:white;cursor: auto;
}
a:hover{
background-color:green;
cursor: wait;
color:red;
}
a:visited{color:cyan; cursor: defult; }
a:active
{
background-color:orange;
cursor: auto;
}

        .p1 {
    font-family: 'Georgia', serif;
     background-size: cover;
    color: red;
    margin: 0;
    padding: 0;
text-align: center;
      }

#p2{font-family: 'Times New Roman', serif;
     background-size: cover;
    color: green;
    margin: 10;
```

```
      padding: 50;
text-align: right;
    }

 /* Customized cursor */
    button {
      cursor:  pointer;
      background-color: #ff5722;
      color: white;
      padding: 10px 15px;
      border: none;
      border-radius: 5px;
      font-size: 1em;
 cursor:  help;
    }

    button:hover {
      background-color: #e64a19;
    }
 .sidebar {
      width: 30%;
      font-family: 'Courier New', Courier, monospace;
      font-style: italic;
    }

    .content {
      width: 65%;

      background-size: cover;
      color: black;
      font-size: 1.2em;
      text-align: justify;
    }
</style></head>
<body ><h1>CAMBRIDGE INSTITUTE OFTECHNOLOGY</h1>
<div>
    <div class="sidebar">
      <p>This is the sidebar content with customized text styles.</p>
         </div>
    <div class="content">
      <p>This is the main content section with a background image and layered
styling features.</p>
    </div>
 <a href="p4.htm"><h2>Click Here !!!</h2></a>
<div  class="p1"><p >welcome  </p></div>
      <p id="p2">CSE  </p>
```

```
<button>Hover to See Cursor</button>
</body>
</html>
```

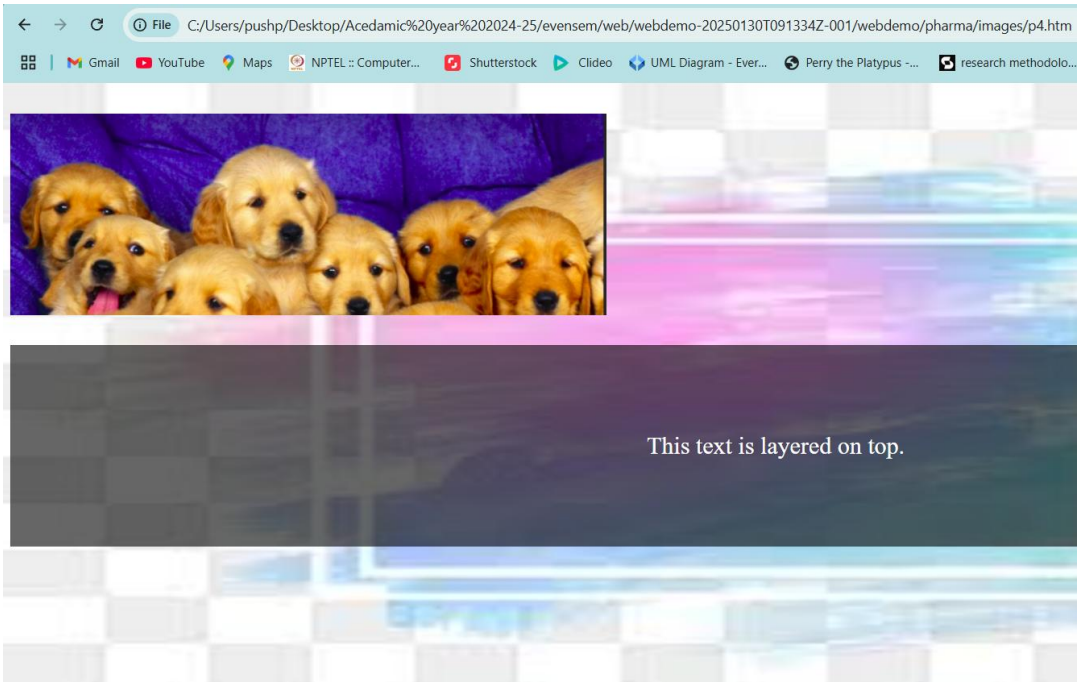


Code for:

ii. Set a background image for both the page and single element on the page.
iv. Working with layers

```
<!DOCTYPE html>
<html >
<head>
   <title>Simple Web Page with CSS Features</title>
  <style> body{
 background-image: url('download.jpeg');
  background-repeat: no-repeat;
  background-attachment: fixed;
  background-size: 100% 100%;}


.content {
      position: relative;
      width: 100%;
      height: 200px;
      margin-top: 30px;
 background-image: url('pets.png');
background-repeat: no-repeat;
    }

    /* Layering content */
    .layer-container {
      position: relative;
      width: 100%;
```

```
    height: 200px;
    margin-top: 30px;
   }
   .layer-background {
    position: absolute;
    background-color: rgba(0, 0, 0, 0.6);
    width: 100%;
    height: 100%;
    z-index: 1;
   }
   .layer-foreground {
    position: absolute;
    width: 100%;
    height: 100%;
    z-index: 2;
    color: white;
    display: flex;
    justify-content: center;
    align-items: center;
    font-size: 1.5em;
   }
  </style></head><body>   <div class=
"content"><p></p></div>
  <div class="layer-container">    <div class="layer-background"></div>
   <div class="layer-foreground">This text is layered on top.</div>
  </div>

</body>
</html>
```



Program No.4

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

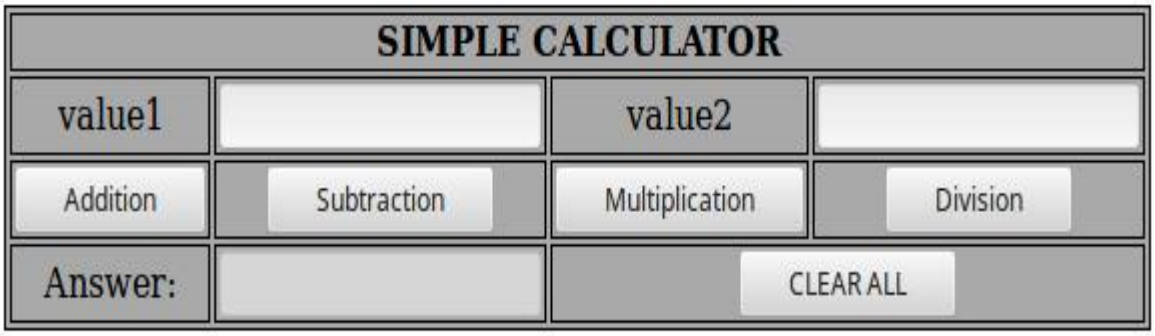
sum, product, difference, and quotient.

.

```
<!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; }
		</style>
		<script type="text/javascript">
		 functioncalc(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;
        }
    </script>
</head>
<body>
<form>
<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>
     <tr><td>Answer:</td><td><input type="text" id="answer" value=""
    disabled/></td>
    <td colspan="2"><input type="reset" value="CLEAR ALL" /></td></tr>
</table>
</form>
</body>
</html>
```

Output:



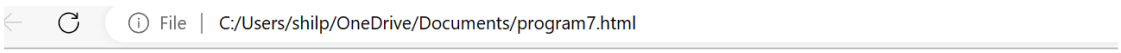
Program No. 5

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 .

Code:

```
<!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></head><body><script>

document.write( "<table><tr><thcolspan='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:



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 No.6

Write a JavaScript code that displays text "TEXT-GROWING" with increasing font size in the interval of 100 ms in RED COLOR, when the font size reaches 50 pt it displays "TEXT SHRINKING" in BLUE colour. Then the font size decreases <!DOCTYPE HTML>

Code:

```
<!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:

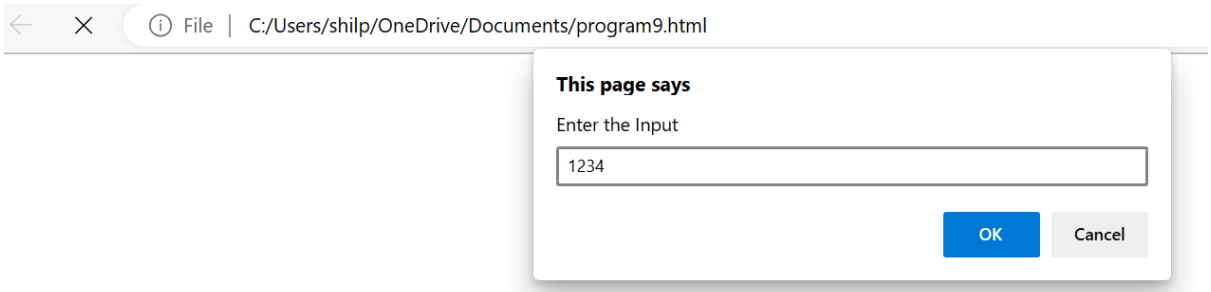
Program No.7

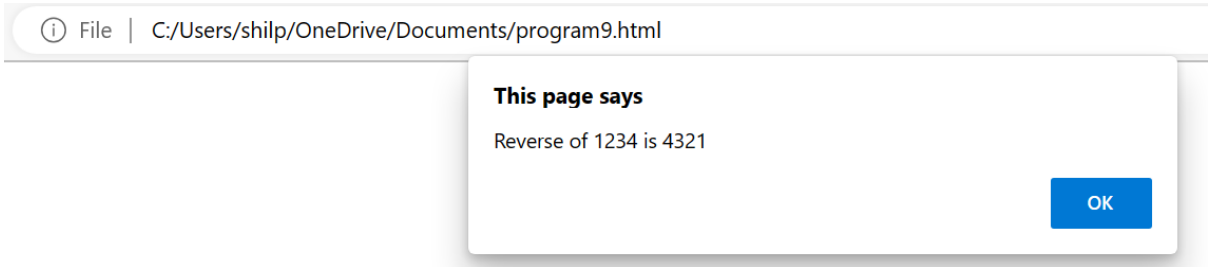
Develop and demonstrate a HTML5 file that includes JavaScript script that uses functions for the following problems:

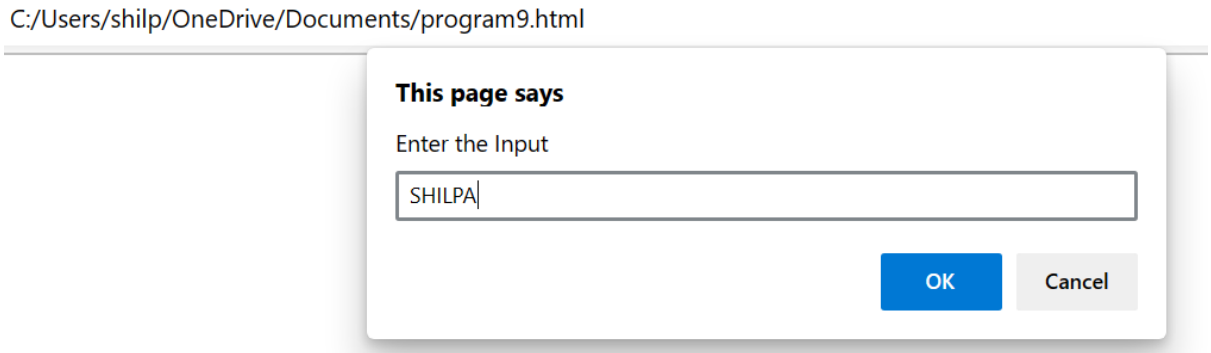
1. **Parameter: A string**
2. **Output: The position in the string of the left-most vowel**
3. **Parameter: A number**
4. **Output: The number with its digits in the reverse order.**

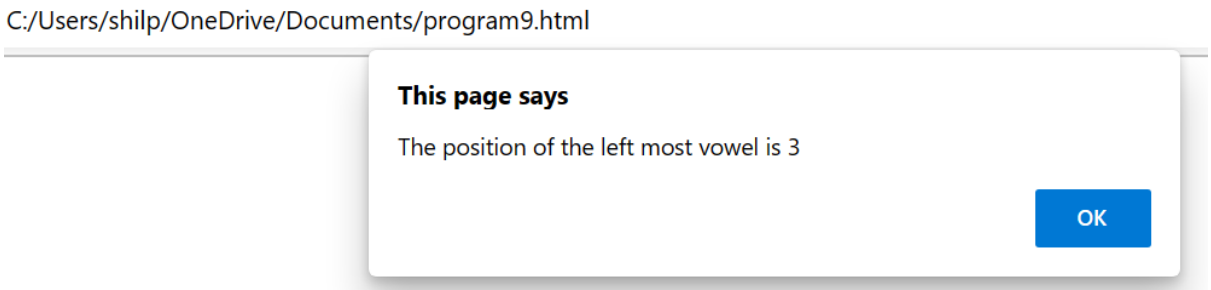
```
<!DOCTYPE HTML>
<html>
<body>
<script type="text/javascript">
var str = prompt("Enter the Input","");
if(!(isNaN(str)))
{
var num,rev=0,remainder;
num = parseInt(str);
while(num!=0) {
remainder = num%10;
num = parseInt(num/10);
rev = rev * 10 + remainder;
}
alert("Reverse of "+str+" is "+rev);
}
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:


File | C:/Users/shilp/OneDrive/Documents/program9.html
This page says
Enter the Input
1234
OK
Cancel

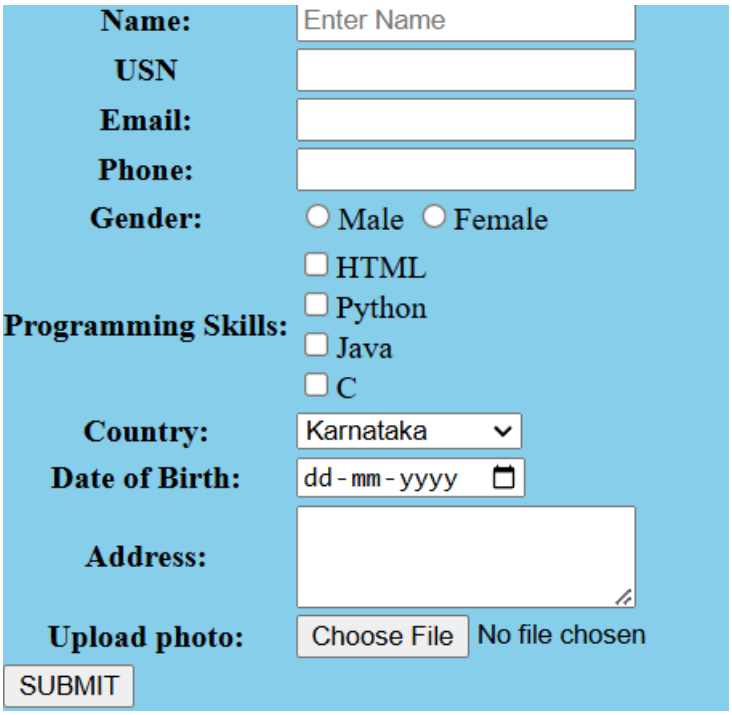

File | C:/Users/shilp/OneDrive/Documents/program9.html
This page says
Reverse of 1234 is 4321
OK


C:/Users/shilp/OneDrive/Documents/program9.html
This page says
Enter the Input
SHILPA
OK
Cancel


C:/Users/shilp/OneDrive/Documents/program9.html
This page says
The position of the left most vowel is 3
OK

Program No. 8

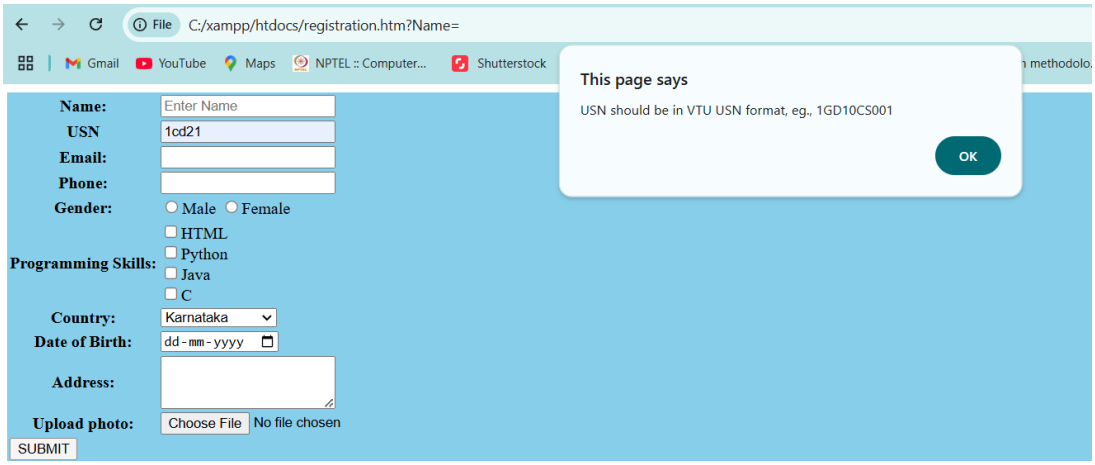
Write a JavaScript program for validating REGISTRATION FORM

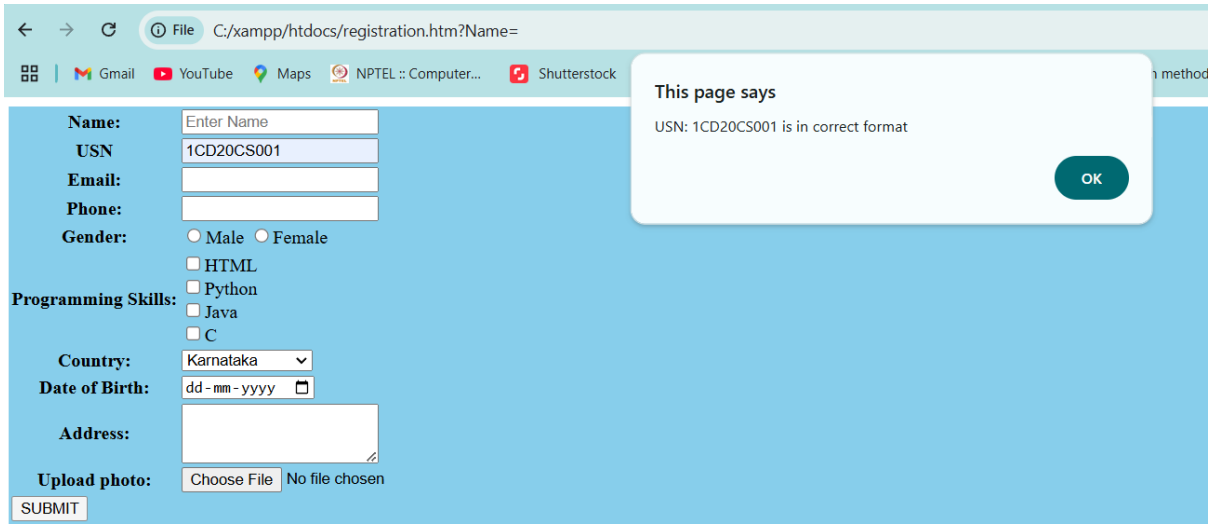



```
<html>
 <head>
 <title> USN validator </title>
 <script type="text/javascript">
function formValidator()
{
var usn = document.getElementById('usnFrm');
usnExp=/[1-4][A-Z][A-Z]\d{2}[A-Z][A-Z]\d{3}/
if(usn.value.length==0)
{
alert("USN is empty.");
usn.focus();
return false;
}
else if(!usn.value.match(usnExp))
 {
alert("USN should be in VTU USN format, eg., 1GD10CS001");
usn.focus();
return false;
 }

alert("USN: "+usn.value+" is in correct format");

return true;
}
```

```
</script>
 </head>
<body>
<form style=background-color:skyblue; onSubmit = "formValidator()">
<table>
<tr><th>Name:</th><td><input type="text" name="Name" size="20"
placeholder="Enter Name"></td></tr>
<tr><th>USN</th><td><input type="text" id="usnFrm"></td></tr>
<tr><th>Email:</th><td><input type="email"></td></tr>
<tr><th>Phone:</th><td><input type="tel"></td></tr>
<tr><th>Gender:</th><td>
<input type="radio" name="Gender">Male
<input type="radio" name="Gender">Female</td></tr>
<tr><th>Programming Skills:</th><td>
<input type="checkbox" name="Programming Skills">HTML<br>
<input type="checkbox" name="Programming Skills">Python<br>
<input type="checkbox" name="Programming Skills">Java<br>
<input type="checkbox" name="Programming Skills">C</td></tr>
<tr><th>Country:</th><td><select>
<option>Karnataka</option>
<option>Andra Pradesh</option>
<option>Tamil Nadu</option>
</select></td></tr>
<tr><th>Date of Birth:</th><td><input type="date"></td></tr>
<tr><th>Address:</th><td><textarea rows="3" cols="20"></textarea></td></tr>
<tr><th>Upload photo:</th><td><input type="file" ></td></tr>
<tr><td><input type ="submit" value="SUBMIT"/>
</td></tr>
</table>
</form></body></html>
```

Output:




File C:/xampp/htdocs/registration.htm?Name=
Gmail
YouTube
Maps
NPTEL :: Computer...
Shutterstock
This page says
USN: 1CD20CS001 is in correct format
OK
Name:
Enter Name
USN
1CD20CS001
Email:
Phone:
Gender:
Male
Female
Programming Skills:
HTML
Python
Java
C
Country:
Karnataka
Date of Birth:
dd-mm-yyyy
Address:
Upload photo:
Choose File
No file chosen
SUBMIT

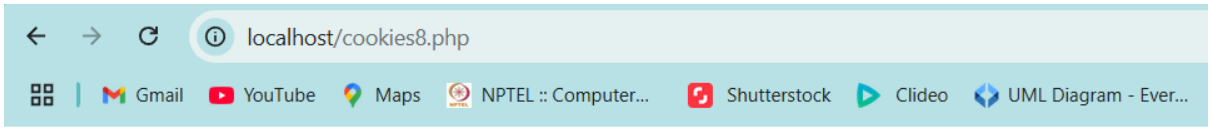
Program No.9

a)Write a PHP program to store the current date-time in a COOKIE and display the 'Last visited on' date-time on the web page upon reopening the same page.

b)write a PHP program to keep track of the number of visitors visiting the web page.

```
<html>
<body>
   <h2> Last visited time on the web page</h2>
   <?php
   $intm = 60 * 60 * 24 * 60 + time();
   setcookie('lastVisit', date("G:i - m/d/y"), $intm);
   if (isset($_COOKIE['lastVisit'])) {
      $visit = $_COOKIE['lastVisit'];
      echo "Your last visit was - " . $visit;
   } else
      echo "You have not visited this website before!";
   ?>
</body>
</html>
```

Output:

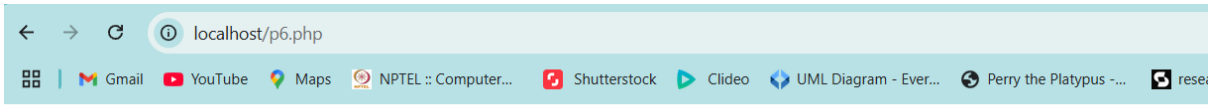


Last visited time on the web page

Your last visit was - 11:52 - 02/04/25

b)write a php program to keep track of the number of visitors visiting the web page.

```
<?php
        echo "<h1 style='text-align:center'> Count Page </h1>" ;
          // This is simple XD
        $name = 'counter.txt' ;
        $c = file_get_contents($name) ;
        echo "The number of users visited : ".$c ;
        file_put_contents($name, $c+1);
?>
```



Count Page

The number of users visited : 24

Program No.10

Create an HTML form with Name, Address Line 1, Address Line 2, and E-mail text fields. On submitting, store the values in MySQL table. Retrieve and display the data based on Name.

Learning Component: PHP and Mysql,storing and retrieving data form database.
Steps:
i)install XAMPP SOFTWARE.
ii)Open XAMPP control penal.
iii)start Apache and MySql
iv) click ADMIN in MySql to create a database named " web" and a table named "student1" with name, addr1, addr2, and email column
v)write HTML page and php page.
vi) Run the HTML page on the browser to enter data and store it in the database

create html file to insert data.

```
<html>
      <h2>Insert Info</h2>
        <form action="personelinfo.php">
           Name:<input type=text name=name /><br>
           Address Line 1:<input type=text name=addr1><br>
           Address Line 2:<input type=text name=addr2><br>
           Email-ID:<input type=text name=email><br>
           <input type=submit value=insert />
           <input type=reset value=reset />
        </form>

  </html>
```

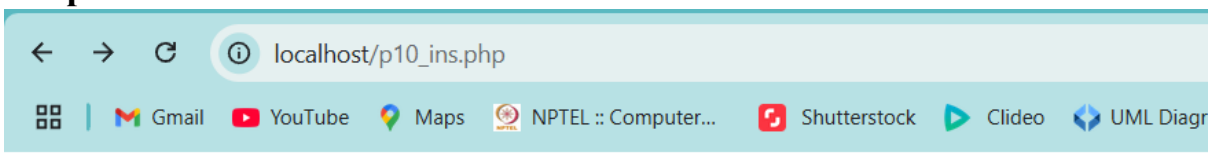
create a PHP (personelinfo.php) file which is called by html file to insert data into database and retrieve.

```
<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 = "web";

$a=[];
$conn = mysqli_connect($servername, $username, $password, $dbname);

if (!$conn)
die("Connection failed: " . $conn->connect_error);

# take inputs & store in local variables
      $name = $_REQUEST['name'];
      $addr1 = $_REQUEST['addr1'];
      $addr2 = $_REQUEST['addr2'];
      $email = $_REQUEST['email'];

$crt1="INSERT INTO `student1`(`name`, `addr1`, `addr2`, `email`) VALUES
('$name','$addr1','$addr2','$email')";

$result1= mysqli_query($conn,$crt1);

$sql = "SELECT * FROM student1";

$result = mysqli_query($conn,$sql);

echo "<br>";
echo "<table border='2'>";
echo "<tr>";
echo
"<th>NAME</th><th>Address1</th><th>Address2</th><th>EMAIL</th></tr>";

if ($result->num_rows> 0)
{
while($row = $result->fetch_assoc())
{
echo "<tr>";
echo "<td>". $row["name"]."</td>";
echo "<td>". $row["addr1"]."</td>";
echo "<td>". $row["addr2"]."</td>";

echo "<td>". $row["email"]."</td></tr>";
array_push($a,$row["name"]);
}
}
else
```

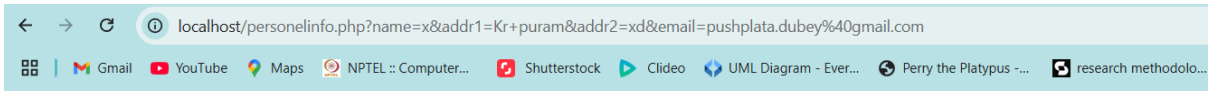
```
 echo "Table is Empty";
 echo "</table>";
$conn->close();
?>
</body>
</html>
```

Output:



Insert Info

Name: x
Address Line 1: Kr puram
Address Line 2: xd
Email-ID: aa@gmail.com
insert reset



NAME	Address1	Address2	EMAIL
a	s	s	s
c	c	c	f
v	v	v	cf
x	Kr puram	xd	pushplata.dubey@gmai