



RAJARAJESWARI COLLEGE OF ENGINEERING

**Approved by AICTE, New Delhi, Govt. of Karnataka,
Affiliated to Visvesvaraya Technological University,
Ramohalli Cross, Kumbalagodu Post, Bengaluru-74**



DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



IV SEMESTER

WEB PROGRAMMING LAB MANUAL

[21CSL481]

PREPARED BY:

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Course Details

Course Name: Web Programming

Course Code: 21CSL481

Course prerequisite: HTML, Java Script, XHTML

Course Objectives

Upon completion of this course, students are expected to:

1. Learn web tool box and history of web browsers
2. Learn HTML, XHTML tags with utilization
3. Know CSS with dynamic document utilization
4. Learn Java script with element access in java script
5. Logically plan and develop web pages

21CSL481 WEB PROGRAMMING SYLLABUS

WEB PROGRAMMING (Practical based)			
Course Code	21CSL481	CIE Marks	50
Teaching Hours/Week (L:T:P: S)	0:0:2:0	SEE Marks	50
Total Hours of Pedagogy	12T + 12P	Total Marks	100
Credits	01	Exam Hours	02
Course Objectives: CLO 1. Learn Web tool box and history of web browsers. CLO 2. Learn HTML, XHTML tags with utilizations. CLO 3. Know CSS with dynamic document utilizations. CLO 4. Learn JavaScript with Element access in JavaScript. CLO 5. Logically plan and develop web pages..			
Teaching-Learning Process (General Instructions) These are sample Strategies, which teachers can use to accelerate the attainment of the various course outcomes. <ol style="list-style-type: none"> 1. Lecturer method (L) need not to be only a traditional lecture method, but alternative effective teaching methods could be adopted to attain the outcomes. 2. Use of Video/Animation to explain functioning of various concepts. 3. Encourage collaborative (Group Learning) Learning in the class. 4. Ask at least three HOT (Higher order Thinking) questions in the class, which promotes critical thinking. 5. Adopt Problem Based Learning (PBL), which fosters students' Analytical skills, develop design thinking skills such as the ability to design, evaluate, generalize, and analyze information rather than simply recall it. 6. Introduce Topics in manifold representations. 7. Show the different ways to solve the same problem with different circuits/logic and encourage the students to come up with their own creative ways to solve them. 8. Discuss how every concept can be applied to the real world - and when that's possible, it helps improve the students' understanding. 			

Module-1	
Introduction to WEB Programming: Internet, WWW, Web Browsers, and Web Servers, URLs, MIME, HTTP, Security, The Web Programmers Toolbox.	
Textbook 1: Chapter 1(1.1 to 1.9)	
Teaching-Learning Process	Chalk and board, Active Learning, practical based learning
Module-2	
HTML and XHTML: Origins of HTML and XHTML, Basic syntax, Standard XHTML document structure, Basic text markup, Images, Hypertext Links, Lists, Tables. Forms, Frames in HTML and XHTML, Syntactic differences between HTML and XHTML.	
Textbook 1: Chapter 2(2.1 to 2.10)	
Teaching-Learning Process	Chalk and board, Active Learning, Demonstration, presentation, problem solving
Module-3	
CSS: Introduction, Levels of style sheets, Style specification formats, Selector forms, Property value forms, Font properties, List properties, Color, Alignment of text, Background images, tags.	
Textbook 1: Chapter 3(3.1 to 3.12)	
Teaching-Learning Process	Chalk and board, Demonstration, problem solving
Module-4	
Java Script – I: Object orientation and JavaScript; General syntactic characteristics; Primitives, Operations, and expressions; Screen output and keyboard input.	
Textbook 1: Chapter 4(4.1 to 4.5)	
Teaching-Learning Process	Chalk and board, Practical based learning, practical's
Module-5	
Java Script – II: Control statements, Object creation and Modification; Arrays; Functions; Constructor; Pattern matching using expressions; Errors, Element access in JavaScript.	
Textbook 1: Chapter 4(4.6 to 4.14)	
Teaching-Learning Process	Chalk and board, MOOC
Course Outcomes (Course Skill Set): At the end of the course the student will be able to: <ul style="list-style-type: none"> CO 1. Describe the fundamentals of web and concept of HTML. CO 2. Use the concepts of HTML, XHTML to construct the web pages. CO 3. Interpret CSS for dynamic documents. CO 4. Evaluate different concepts of JavaScript & Construct dynamic documents. CO 5. Design a small project with JavaScript and XHTML. 	

INDEX

S.NO	LIST OF PROGRAM	Pg.no
1	Design a website using HTML: a) Use Basic Text Formatting, Images	
2	Use HTML5 for performing following tasks: a) Draw a square using HTML5, fill the square with green color and make 6px brown stroke width b) Write the following mathematical expression by using HTML5 Math ML: $d = x^2 - y^2$. c) Redirecting current page to another page after 5 seconds using HTML5 Meta tag.	
3	Create employee registration webpage using HTML form objects	
4	Write a JavaScript to design a simple calculator to perform the following operations: sum, product, difference and quotient.	
5	Write a program in html using a table col span and row span demonstration of employee table.	
6	Create a webpage containing 3 overlapping images using HTML, CSS and JS. Further when the mouse is over any image, it should be on the top and fully displayed.	
7	Write a JavaScript that calculator 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	
8	Write an HTML page including JavaScript that takes a given set of integer numbers and shows them after sorting in descending order.	
9	Create following table using XHTML tags. Properly align cells, give suitable cell padding and cell spacing, and apply background color, bold and emphasis necessary	
10	Write a HTML program for creating a class time-table by using tables	

1. Design a website using HTML:

a) Use Basic Text Formatting, Images

PROGRAM

[illegible]

font size : HTML

font size : HTML

font color-"red" : HTML

font size-15 and color -red : HTML

bold,underline and italic : <u><i>WEB BOOKS</i></u>

Bold :HTML

Strong :HTML

Underline :<u>HTML</u>

Italic :<i>HTML</i>

Empasis :HTML

Strike :<s>HTML</s>

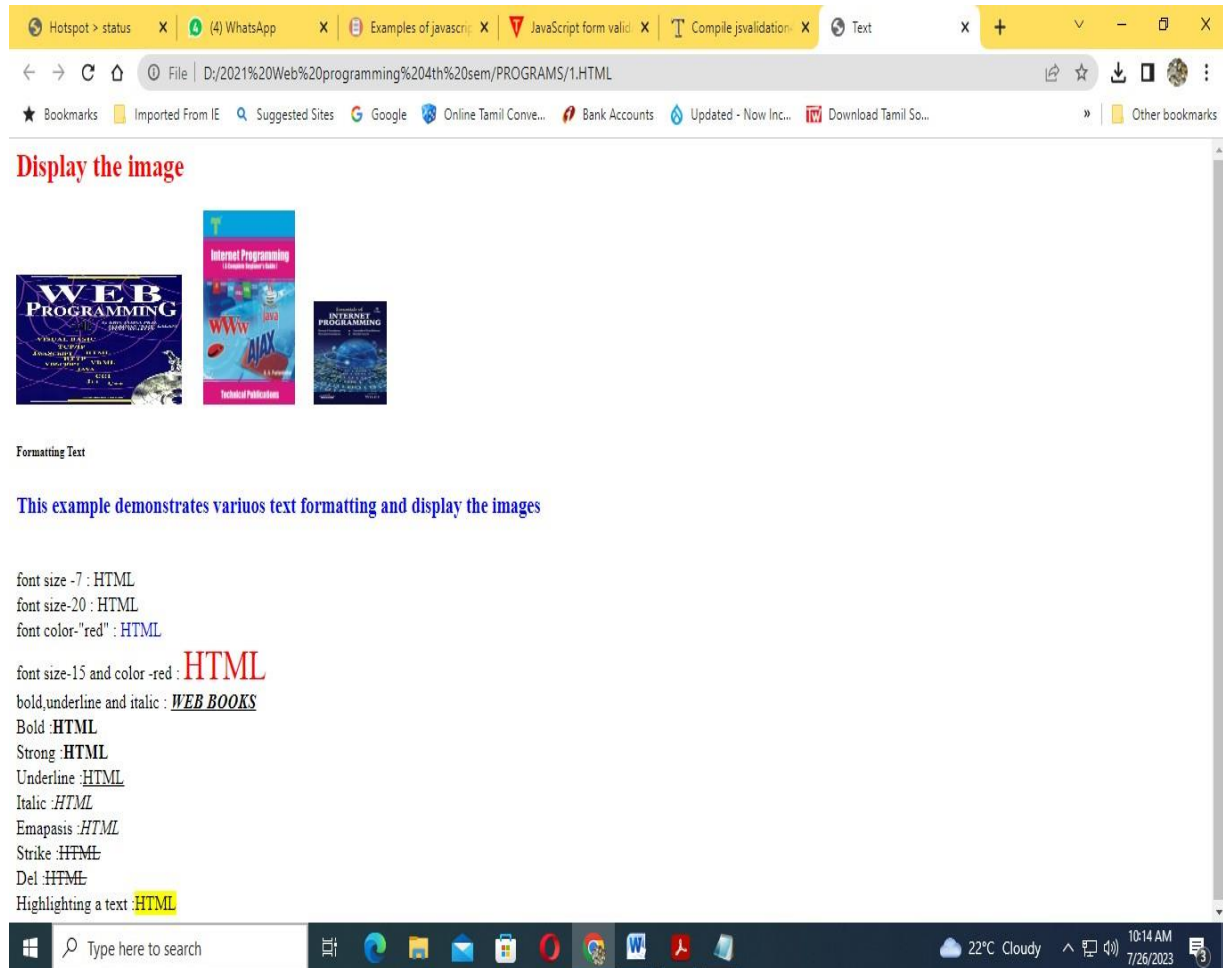
Del :HTML

Highlighting a text :<mark>HTML</mark>

</body>

</html>

Output



2. Use HTML5 for performing following tasks:

- a) Draw a square using HTML5, fill the square with green color and make 6px brown stroke width
- b) Write the following mathematical expression by using HTML5 Math ML: $d = x^2 - y^2$.
- c) Redirecting current page to another page after 5 seconds using HTML5 Meta tag.

PROGRAM

```
<!DOCTYPE html>

<html>

<head>

<meta charset="utf-8" />

<title>HTML5 Demo</title>

<meta http-equiv="refresh" content="5; URL=http://www.vtu.ac.in">

</head>

<body>

<h3>HTML5 SVG</h3>

<svg width="200" height="200" align="centre">

<rect x="50" y="50" width="100" height="100" fill="green" stroke="orange"

stroke-width="6px"/>

</svg>

<h3>HTML5 MathML</h3>

<math xmlns = "http://www.w3.org/1998/Math/MathML">

<mrow>

<msup><mi>d</mi></msup>

<mo> = </mo>
```

<msup><mi>x</mi><mn>2</mn></msup>

<mo>--</mo>

<msup><mi>y</mi><mn>2</mn></msup>

</mrow>

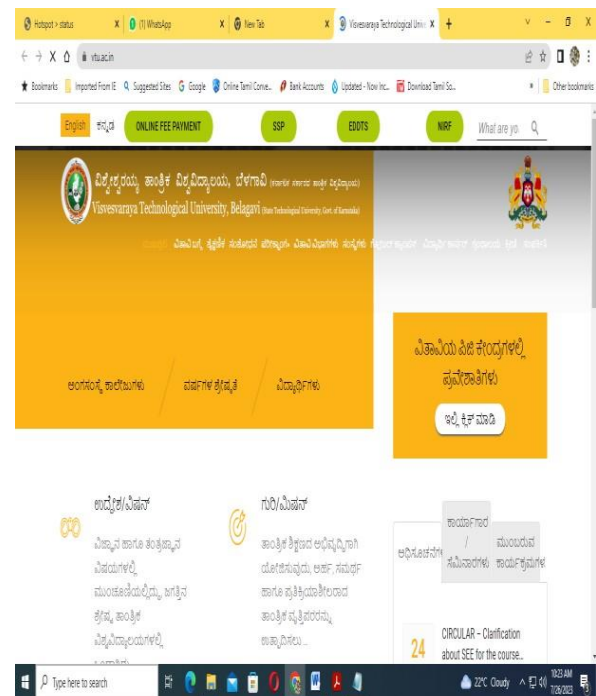
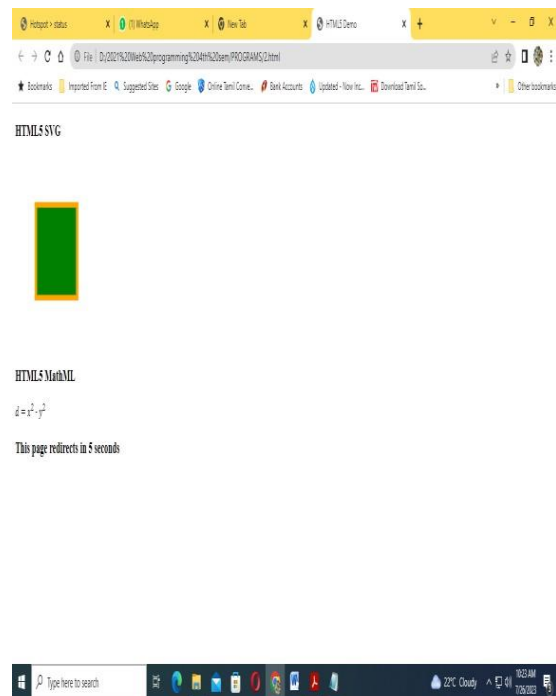
</math>

<h3>This page redirects in 5 seconds</h3>

</body>

</html>

OUTPUT



3. Create employee registration webpage using HTML form objects.

PROGRAM

```
<html>

<body>

<Center>



<Font size="+10" color=red>Employee Registration Form</font>

<form method=post action="prac.html">

<table>

<tr>

<td></td>

<td><input type=radio name=initial checked>Mr.

<input type=radio name=initial>Mrs.

<input type=radio name=initial>Ms.</td>

</tr><tr>

<td>First Name</td>

<td><input type=text name=fn placeholder="First Name"></td>

</tr><tr>

<td>Last Name</td>

<td><input type=text name=ln placeholder="Last Name"></td>

</tr> <tr>

<td>Mail Address1</td>

<td><input type=text name=add1></td>

</tr><tr>

<td>Mail Address2</td>
```

```
<td><input type=text name=add2></td>

</tr><tr>

<td>City</td>

<td><input type=text name=ct></td>

</tr><tr>

<td>State</td>

<td><select name=state>

<option value="Gujarat">Gujarat

<option value="Maharastra">Maharastra

<option value="Karnataka">Karnataka

<option value="Delhi">Delhi

</select>

</td>

</tr><tr>

<td>Zip</td>

<td><input type=text name=zp></td>

</tr><tr>

<td>Upload Photo</td>

<td><input type=file name=photo></td>

</tr><tr>

<td>E-Mail</td>

<td><input type=text name=email size=30></td>

</tr><tr>

<td>Mobile</td>

<td><input type=text name=mob placeholder="+91"></td>
```

```
</tr><tr>
<td>Languages known</td>
<td><input type=checkbox name=lk value=Gujarati
checked>Gujarati</td>
</tr><tr>
<td></td>
<td><input type=checkbox name=lk value=Hindi
checked>Hindi</td>
</tr><tr>
<td></td>
<td><input type=checkbox name=lk value=English
checked>English</td>
</tr><tr>
<td></td>
<td><input type=checkbox name=lk value=Marathi >Marathi</td>
</tr><tr>
<td>Additional Information</td>
<td><textarea name=add rows=3 cols=20 placeholder="Optional"
wrap></textarea></td>
</tr><tr>
<td></td>
<td><input type=submit value=submit>&nbsp;<input type=reset
value=reset></td>
</table>
</form>
```

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

PRAC.html

```
<html>
```

```
<body bgcolor="orange">
```

```
<center>
```

```
<br>
```

```
<font face="Brush Script MT" size="5" color="blue">
```

```
<h1><b>submit successfully!!!</b></font><br />
```

```
</center>
```

```
</body>
```

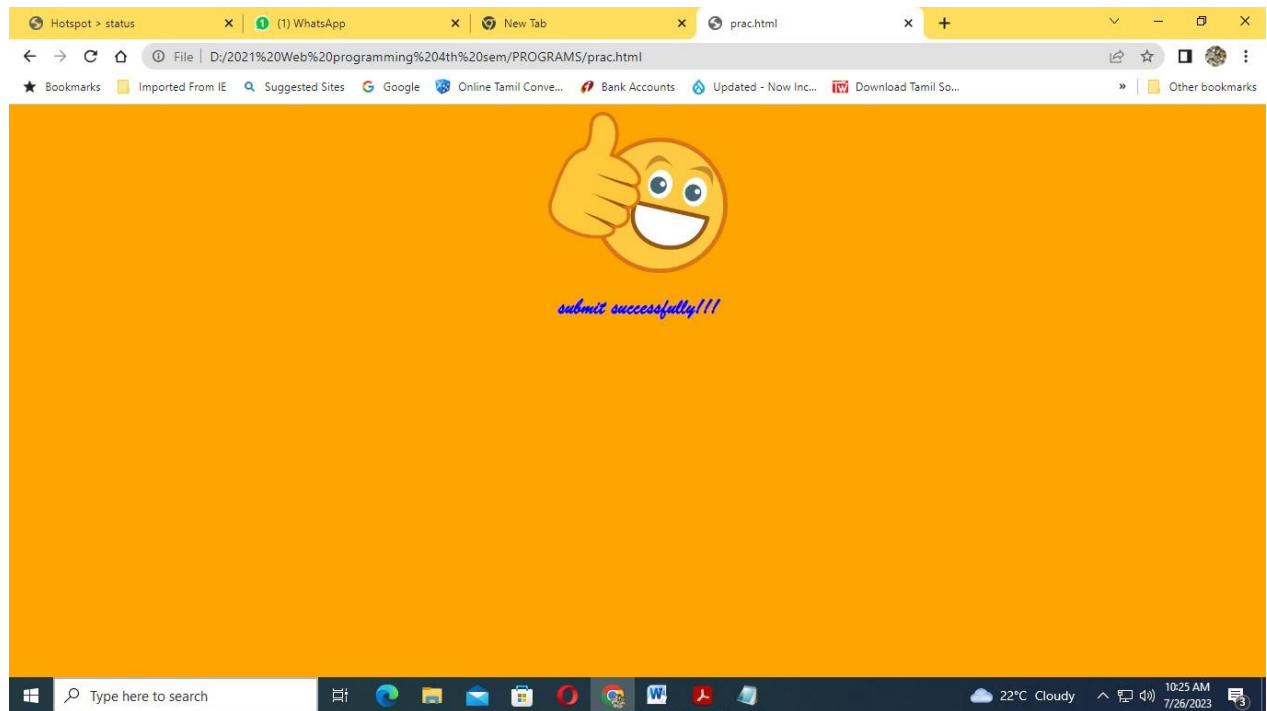
```
</html>
```

OUTPUT

The screenshot shows a web browser window with the title 'Employee Registration Form'. The form is displayed on a yellow background. It includes the following fields and options:

- Gender: ☒ Mr. ☐ Mrs. ☐ Ms.
- First Name:
- Last Name:
- Mail Address1:
- Mail Address2:
- City:
- State:
- Zip:
- Upload Photo:
- E-Mail:
- Mobile:
- Languages known: ☐ Gujarati, ☒ Hindi, ☒ English, ☐ Marathi
- Additional Information:
- Buttons:

The browser's address bar shows the file path: D:\2021%20Web%20programming%204th%20sem\PROGRAMS\3.html. The Windows taskbar at the bottom shows the time as 10:24 AM on 7/26/2023, with a temperature of 22°C and a cloudy sky.



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

PROGRAM

```
<html>
```

```
<head>
```

```
<title>My calculator</title>
```

```
<script type="text/javascript">
```

```
function call(click_id)
```

```
{
```

```
var v1=parseFloat(document.getElementById("ip1").value);
```

```
var v2=parseFloat(document.getElementById("ip2").value);
```

```
if(isNaN(v1) || isNaN(v2))
```

```
    alert("enter a valid number");
    else if(click_id=="add")
    document.getElementById("output").value=v1+v2;
    else if(click_id=="sub")
    document.getElementById("output").value=v1-v2;
    else if(click_id=="mul")
    document.getElementById("output").value=v1*v2;
    else if(click_id=="div")
    document.getElementById("output").value=v1/v2;
    }
</script>
</head>
<body>
<center>
<h1> A SIMPLE CALCULATOR PROGRAM</h1>
<table style="background-color:yellow" align=="center">
<tr>
<td>
<form method="get" action="">
<div width=50% align="center">
<label>OP1<input type="text" id="ip1"/></label>
<label>op2<input type="text" id="ip2"/></label>
<label>total<input type="text" id="output"/></label>
```


</div>

<div width=50% align="center">

<input type="button" value="+" id="add" onclick="call(this.id)"/>

<input type="button" value="-" id="sub" onclick="call(this.id)"/>

<input type="button" value="*" id="mul" onclick="call(this.id)"/>

<input type="button" value="/" id="div" onclick="call(this.id)"/>

<input type="reset" value="clear"/>

</div>

</form>

</td>

</tr>

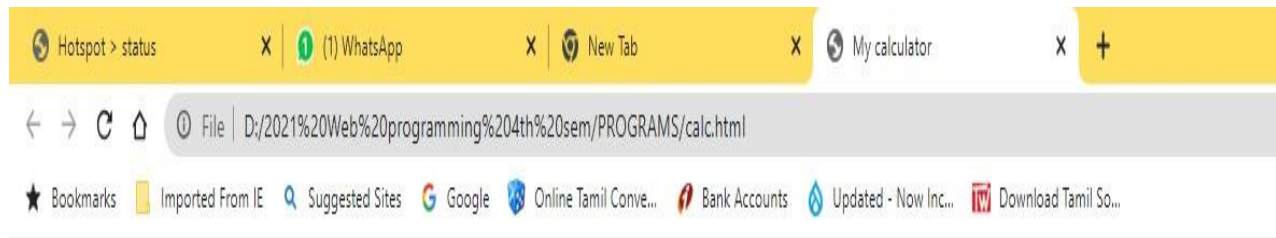
</table>

</center>

</body>

</html>

OUTPUT



A SIMPLE CALCULATOR PROGRAM

OP1	<input type="text" value="525"/>	op2	<input type="text" value="578"/>	total	<input type="text" value="1103"/>
<div><input type="button" value="+"/> <input type="button" value="-"/> <input type="button" value="*"/> <input type="button" value="/"/> <input type="button" value="clear"/></div>					

5. Write a program in html using a table col span and row span demonstration of employee table.

PROGRAM

COLSPAN

```
<!DOCTYPE html>

<html>

<head>

<style>
table, th, td {
    border: 1px solid black;
border-collapse: collapse;
border:double;
}
</style>
</head>

<body>

<h2>COLSPAN DEMONSTRATION</h2>

<table style="width:40% ">

<tr>

<th>EMP ID</th>

<th colspan="2">EMPLOYEE NAME</th>

<th>AGE</th>

<th>SALARY</th>

</tr>

<tr>
```

```
<td>001</td>
<td>RAM</td>
<td>KUMAR</td>
<td>43</td>
<td>40000</td>
</tr>
<tr>
<td>002</td>
<td>SHIV</td>
<td>DATTA</td>
<td>50</td>
<td>38000</td>
</tr>
</table></body></html>
```

ROWSPAN

```
<!DOCTYPE html>
<html>
<head>
<style>
table, th, td
{
border: 1px solid black;
border-collapse: collapse;
}
</style>
```

```
</head>

<body>

<h2>ROWSPAN DEMONSTRATION</h2>

<table style="width:40%">

<tr>

<th>EMPLOYEE NAME</th>

<td>RAM KUMAR</td>

</tr>

<tr>

<th rowspan="2">Phone</th>

<td>9886563210</td>

</tr> <tr>

<td>8884901136</td>

</tr><tr>

<th>EMPLOYEE NAME</th>

<td>SHIV DUTT</td>

</tr>

<tr>

<th rowspan="2">Phone</th>

<td>9886563210</td>

</tr> <tr>

<td>8884901136</td>

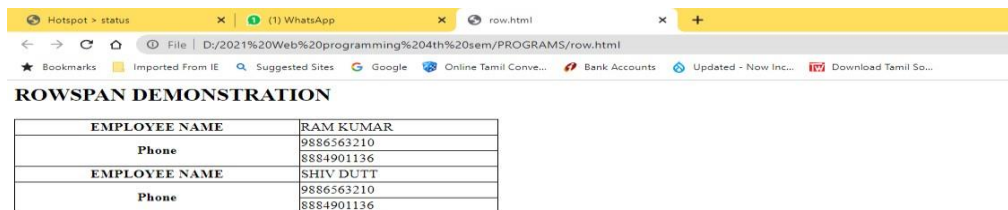
</tr></table></body></html>
```

OUTPUT



COLLSPAN DEMONSTRATION

EMP ID	EMPLOYEE NAME		AGE	SALARY
001	RAM	KUMAR	43	40000
002	SHIV	DATTA	50	38000



ROWSPAN DEMONSTRATION

EMPLOYEE NAME	RAM KUMAR
Phone	9886563210
EMPLOYEE NAME	SHIV DUTT
Phone	9886563210

6. Create a webpage containing 3 overlapping images using HTML, CSS and JS. Further when the mouse is over any image, it should be on the top and fully displayed.

PROGRAM

```
<html lang="en">
```

```
<head>
```

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

```
<meta name="author" content="Putta" >
```

```
<title>Animal Stacking</title>
```

```
<style>
```

```
h1 {text-align: center;}

.dog {
position: absolute;
left: 10%; top: 10%;
z-index: 0;
}

.cat {
position: absolute;
left: 30%; top: 30%;
z-index: 1;
}

.horse {
position: absolute;
left: 50%; top: 50%;
z-index: 2;
}

</style>

<script>

var topIndex = 2;

function moveToTop(picture) {
picture.style.zIndex = ++topIndex; }

</script>

</head>

<body>

<h1>Image Overlap Demo</h1>
```

```
<div id="image-container">





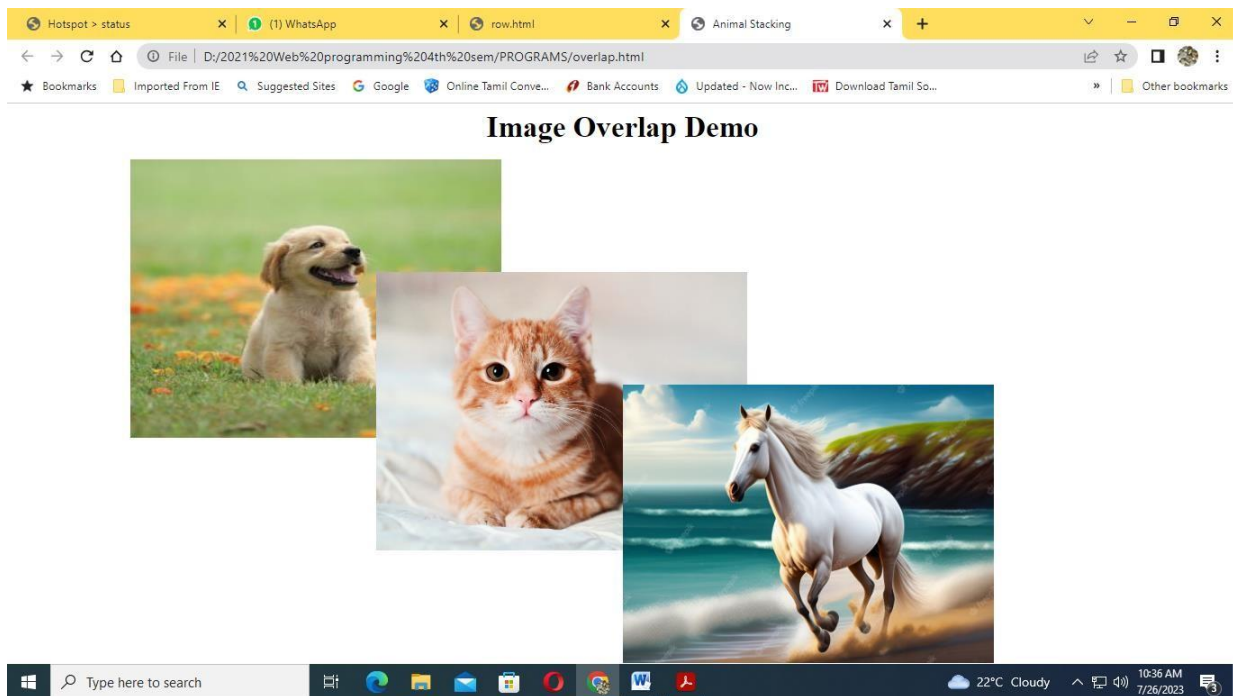


</div>

</body>

</html>
```

OUTPUT



7. Write a JavaScript that calculator 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>

</head>

<body>

<table align="center" border=5>

<tr><td>number</td><td>square</td><td>cube</td></tr>

<script type="text/javascript">

for(var n=0; n<=30; n++)

{

document.write( "<tr><td>" + n + "</td><td>" + n*n + "</td><td>" + n*n*n

+ "</td></tr>" );

}

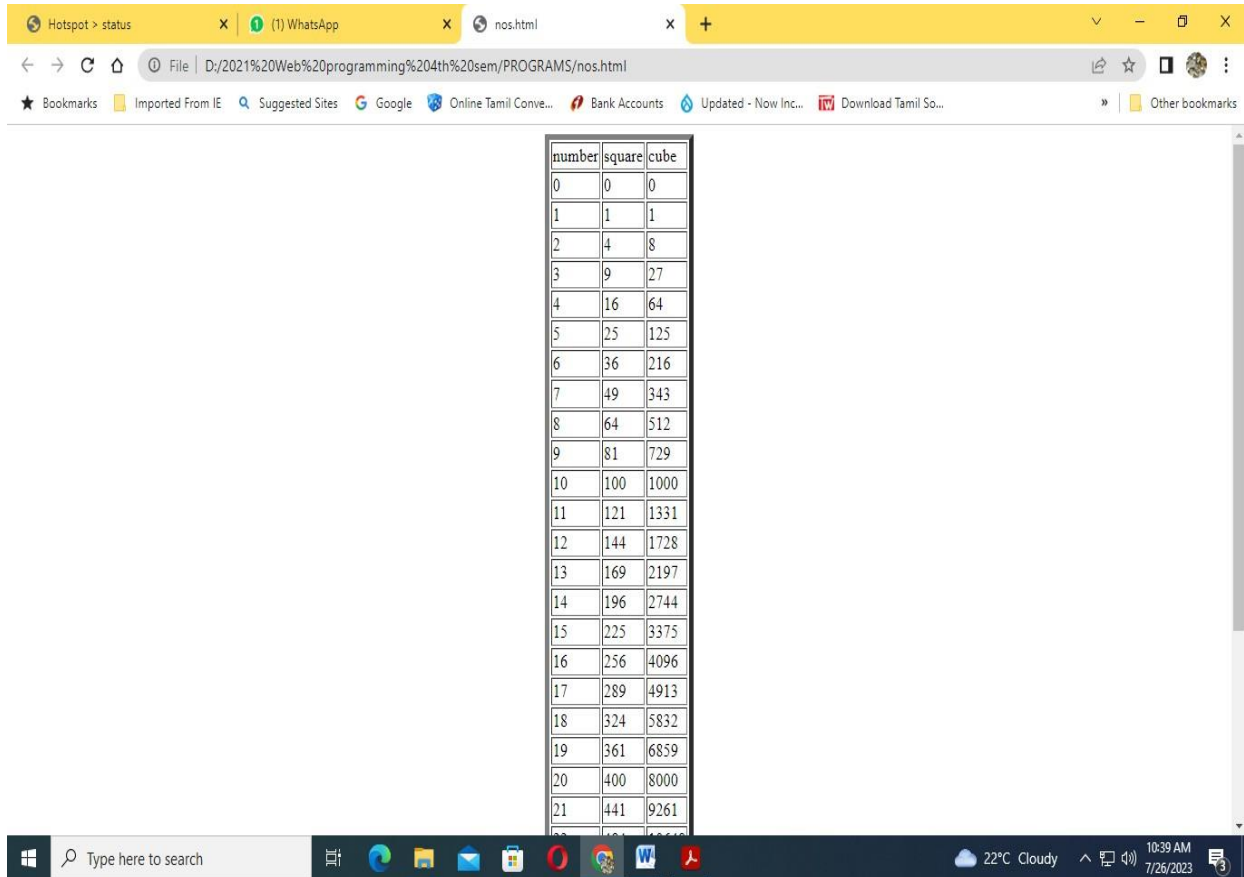
</script>

</table>

</body>

</html>
```

OUTPUT



The screenshot shows a web browser window with a yellow title bar. The address bar displays the file path: File | D:/2021%20Web%20programming%204th%20sem/PROGRAMS/nos.html. The browser's bookmark bar is visible below the address bar. The main content area displays a table with three columns: 'number', 'square', and 'cube'. The table contains data for numbers from 0 to 21. The Windows taskbar is visible at the bottom of the screen, showing the search bar, task view icon, and various application icons. The system tray on the right indicates a temperature of 22°C, cloudy weather, and the time 10:39 AM on 7/26/2023.

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
11	121	1331
12	144	1728
13	169	2197
14	196	2744
15	225	3375
16	256	4096
17	289	4913
18	324	5832
19	361	6859
20	400	8000
21	441	9261

8. Write an HTML page including JavaScript that takes a given set of integer numbers and shows them after sorting in descending order.

PROGRAM

```
<html>
```

```
<head>
```

```
<title>Number in Descending Order</title>
```

```
<script language="javascript">
```

```
function ndesc()
```

```
{
var num_array=new Array();
var num=document.forms["frm1"].num.value;
document.forms["frm1"].desc.value="";
var nums = num.split(',');
var len=num.split(',').length;
for(var i=0;i<len;i++)
{
num_array.push(nums[i]);
}
function sortN(a,b)
{ return b - a;
}
document.forms["frm1"].desc.value= num_array.sort(sortN);
}
</script>
</head>
<body>
<form name="frm1">
<center>
<h3> Numbers in Descending Order</h3>
</center>
<br/>
<center>Enter Numbers separated by Comma : <input type="text"
name="num"></input><br/></center>
```


<center>

<input type="button" name="inwords" value="In Descending Order"
onclick="ndesc()"></input>

</center>

<center>Number in Descending Order : <input type="text" name="desc"></input></center>

</form>

</body>

</html>

OUTPUT

Hotspot > status x (1) WhatsApp x Number in Descending Order x +

File | D:/2021%20Web%20programming%204th%20sem/PROGRAMS/asc.html

Bookmarks Imported From IE Suggested Sites Google Online Tamil Conve... Bank Accounts Updated - Now Inc... Download Tamil So...

Numbers in Descending Order

Enter Numbers separated by Comma :

Number in Descending Order :

9. Create following table using XHTML tags. Properly align cells, give suitable cell padding and cell spacing, and apply background color, bold and emphasis necessary

PROGRAM

```
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en">
<head>
<title>Table Demo XHTML PAGE</title>
<style>
table, th, td
{
border: 1px solid black;
border-collapse: collapse;
}
th, td
{
padding-left: 10px;
padding-bottom: 20px
}
Table
{
border-spacing: 30px;
}
</style>
</head>
<body>
<h3>Tables in XHTML</h3>
<table align="center" width="70%" style="height:450px">
<tr >
<td rowspan="9" align="center" bgcolor=DFFFFFFF>
<b>Department</b>
</td>
<td rowspan="3" align="center" bgcolor=9E7BA0>
<b>Sem1</b>
</td>
<td padding:15px>
<em>SubjectA</em>
</td>
</tr>
<tr>
<td ><em>SubjectB</em></td>
</tr>
<tr>
<td ><em>SubjectC</em></td>
```

```
</tr>
<tr>
<td rowspan="3" align="center" bgcolor=9E7BA0>
<b>Sem2</b>
</td>
<td ><em>SubjectE</em></td>
</tr>
<tr>
<td ><em>SubjectF</em></td>
</tr>
<tr>
<td ><em>SubjectG</em></td>
</tr>

<tr>
<td rowspan="3" align="center" bgcolor=9E7BA0>
<b>Sem3</b>
</td>
<td ><em>SubjectH</em></td>
</tr>
<tr>
<td ><em>SubjectI</em></td>
</tr>
<tr>
<td ><em>SubjectJ</em></td>
</tr>

</table>

</body>
</html>
```

OUTPUT

Hotspot > status x (2) WhatsApp x Table Demo XHTML PAGE x +

File | D:/2021%20Web%20programming%204th%20sem/PROGRAMS/table.html

★ Bookmarks Imported From IE Suggested Sites Google Online Tamil Conve... Bank Accounts Updated - Now Inc... Download Tamil So... Other bookmarks

Tables in XHTML

Department	Sem1	SubjectA
		SubjectB
		SubjectC
	Sem2	SubjectE
		SubjectF
		SubjectG
	Sem3	SubjectH
		SubjectI
		SubjectJ

Activate Windows
Go to Settings to activate Windows.

Type here to search

22°C Cloudy 12:00 PM 7/26/2023

10. Write a HTML program for creating a class time-table by using tables.

PROGRAM

```
<html>
<head>
<title>Timetable</title>
</head>
<body>
<h1 align="center"><font color="Salmon">Timetable of III
CSE</font></h1><br>
<table align="center" border="2" cellspacing="0" cellpadding="15">
<tr align="center" valign="middle">
<th>DAY</th>
<th>I</th>
<th>II</th>
<th
rowspan="7"><b>T<br>E<br>A<br><br>B<br>R<br>E<br>A<br>K</b></th>
<th>III</th>
<th>IV</th>
```

```

<th
rowspan="7"><b>L<br>U<br>N<br>C<br>H<br><br>B<br>R<br>E<br>A<br>K</
b></th>
<th>V</th>
<th>VI</th>
<th>VII</th>
</tr>
<tr align="center">
<th>MON</th>
<td>IS</td>
<td>WT</td>
<td>SEM</td>
<td>OOAD</td>
<td>SCI</td>
<td>C#</td>
<td>COMP</td>
</tr>
<tr align="center">
<th>TUE</th>
<td>AP</td>
<td>AP Lab</td>
<td colspan="2">AP Lab</td>
<td>WT</td>
<td>IS</td>
<td>OOAD</td>
</tr>
<tr align="center">
<th>WED</th>
<td>WT</td>
<td>IS</td>
<td>C#</td>
<td>SCI</td>
<td colspan="3">MOOC'S</td>
</tr>
<tr align="center">
<th>THU</th>
<td>IS</td>
<td>LIB</td>
<td>OOAD</td>
<td>WT</td>
<td colspan="3">WT Lab</td>
</tr>
<tr align="center">
<th>FRI</th>
<td>AP</td>
<td>AP</td>

```

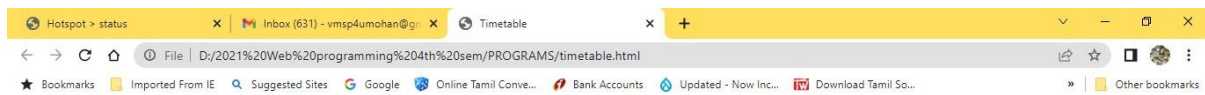


```

<td>C#</td>
<td>OOAD</td>
<td colspan="3">C# Lab</td>
</tr>
<tr align="center">
<th>SAT</th>
<td>OOAD</td>
<td>SCI</td>
<td>WT</td>
<td>SEM</td>
<td>AP</td>
<td>AP</td>
<td>C#</td>
</tr>
</table>
</body>
</html>

```

OUTPUT



Timetable of III CSE

DAY	I	II	T E A	III	IV	L U N C H	V	VI	VII
MON	IS	WT		SEM	OOAD		SCI	C#	COMP
TUE	AP	AP Lab	B R E A K	AP Lab		B R E A K	WT	IS	OOAD
WED	WT	IS		C#	SCI		MOOC'S		
THU	IS	LIB		OOAD	WT		WT Lab		
FRI	AP	AP		C#	OOAD		C# Lab		
SAT	OOAD	SCI		WT	SEM		AP	AP	C#

