Program 1:

Demonstrate all the text formatting tags in a single HTML page.

HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
</head>
<body>
    <p >
        <b >this is bold</b><br>
        <i >this is italic</i><br>
        <em >this is emphasize</em><br>
        <strong >strong tag</strong><br>
        <mark >marked text</mark><br>
        <del>deketed text</del><br>
        <ins>inserted text</ins><br>
        <p>this is <sub >subscript text</sub></p><br>
        <p>this is <sup >superscript </sup></p><br>
    </p>
<pre>Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1</pre>
</body>
</html>
```

Output:

http://127.0.0.1:3000/html/test.html

this is bold
this is italic
this is emphasize
strong tag
<mark>marked text</mark>
~~deketed text~~
<u>inserted text</u>

this is _{subscript text}

this is ^{superscript}

```
Name: Priyanshu Negi    Std.Id: 22011884    Sem: 6th    Sec: C1
```

Program 2:

Write an HTML code to draw the following Figure:

```
            *
        *       *       *
    *       *       *       *       *
*       *       *       *       *       *       *
```

HTML Code-:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <pre>
   *
  * * *
 * * * * *
* * * * * * *
  </pre>
<pre>Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1</pre>
</body>
</html>
```
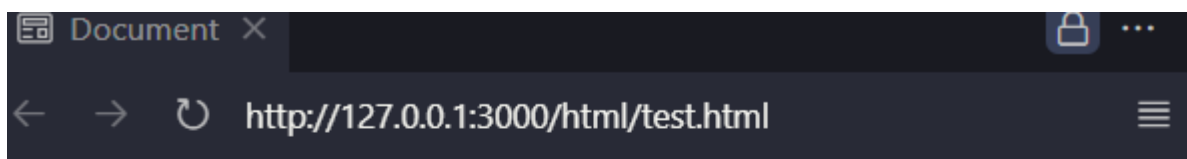
Output:-

Program 3:

Create a web page to print the following table:

List of Course-wise Subjects

Sr. No.	Course	Subject	Marks		Category		Practical/ Theory
			Internal	External	Internal	External	
1	MBA	Management Accounting	30	70	-	✔	Theory
		Information Technology	30	70	-	✔	T and P
		Basics of Marketing	30	70	-	✔	Theory
		E-Commerce	50	-	✔	-	Theory
2	MCM	Visual Basic	30	70	-	✔	T and P
		Internet Technology	30	70	-	✔	T and P
		Network Technology	30	70	-	✔	Theory
		VB.Net	30	70	-	✔	T and P
		Linux	30	70	-	✔	T and P
		ISA	50	-	✔	-	Theory

HTML Code-:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Table </title>
</head>
<body>
  <br>
  <b><center>List of course-wise Subjects</center></b><br>
  <table border="1px">
    <tr>
      <th rowspan="2">Sr. No.</th>
      <th rowspan="2">Course</th>
      <th rowspan="2">Subject</th>
      <th colspan="2">Marks</th>
      <th colspan="2">Category</th>
      <th rowspan="2">Practical/Theory</th>
    </tr>
```

```html
<tr>
  <th>Internal</th>
  <th>External</th>
  <th>Internal</th>
  <th>External</th>
</tr>
<tr>
  <td rowspan="4">1</td>
  <td rowspan="4">MBA</td>
  <td >Management Accounting</td>
  <td >30</td>
  <td >70</td>
  <td >-</td>
  <td >&check;</td>
  <td>Theory</td>
</tr>
<tr>
  <td >Information Technology</td>
  <td >30</td>
  <td >70</td>
  <td >-</td>
  <td >&check;</td>
  <td>T and P</td>
</tr>
<tr>
  <td >Basics of Marketing</td>
  <td >30</td>
  <td >70</td>
  <td >-</td>
  <td >&check;</td>
  <td>Theory</td>
</tr>
<tr>
  <td >E-Commerce</td>
  <td >50</td>
  <td >-</td>
  <td >&check;</td>
  <td >-</td>
  <td>Theory</td>
</tr>
<tr>
```

```html
        <td rowspan="6">2</td>
        <td rowspan="6">MCM</td>
        <td >Virtual Basics</td>
        <td >30</td>
        <td >70</td>
        <td >-</td>
        <td >&check;</td>
        <td>T and P</td>
    </tr>
    <tr>
        <td >Internet Technology</td>
        <td >30</td>
        <td >70</td>
        <td >-</td>
        <td >&check;</td>
        <td>T and P</td>
    </tr>
    <tr>
        <td >Network Technology</td>
        <td >30</td>
        <td >70</td>
        <td >-</td>
        <td >&check;</td>
        <td>Theory</td>
    </tr>
    <tr>
        <td >VB.Net</td>
        <td >30</td>
        <td >70</td>
        <td >-</td>
        <td >&check;</td>
        <td>T and P</td>
    </tr>
    <tr>
        <td >Linux</td>
        <td >30</td>
        <td >70</td>
        <td >-</td>
        <td >&check;</td>
        <td>T and P</td>
    </tr>
```

```
      <tr>
        <td >ISA</td>
        <td >50</td>
        <td >70</td>
        <td >&check;</td>
        <td >-</td>
        <td>Theory</td>
      </tr>
    </table>
<pre>Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1</pre>
</body>
</html>
```

Output:

List of course-wise Subjects

Sr. No.	Course	Subject	Marks		Category		Practical/Theory
			Internal	External	Internal	External	
1	MBA	Management Accounting	30	70	-	✓	Theory
		Information Technology	30	70	-	✓	T and P
		Basics of Marketing	30	70	-	✓	Theory
		E-Commerce	50	-	✓	-	Theory
2	MCM	Virtual Basics	30	70	-	✓	T and P
		Internet Technology	30	70	-	✓	T and P
		Network Technology	30	70	-	✓	Theory
		VB.Net	30	70	-	✓	T and P
		Linux	30	70	-	✓	T and P
		ISA	50	70	✓	-	Theory

Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1

Program 4

Using table related tags align the images with hyperlinks.

HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>ISP</title>
  <style>
    .pict{
      width: 150px;
      height: 100px;
    }
  </style>
</head>
<body>
  <table border="1px">
    <tr>
      <td><a href="https://bsnl.co.in/"><img src="https://shorturl.at/owOEe" alt="bsnl"
class="pict"></a></td>
```

```html
        <td><a href="https://www.myvi.in/"><img src="https://shorturl.at/vPKkS" alt="vodafone"class="pict"></a></td>
        <td><a href="https://www.airtel.in/"><img src="https://shorturl.at/rK7OD" alt="airtel" class="pict"></a></td>
        <td><a href="https://www.docomo.ne.jp/english/"><img src="https://shorturl.at/3y01D" alt="docomo"class="pict"></a></td>
    </tr>
    <tr>
        <td><a href="https://www.telenor.com/"><img src="https://shorturl.at/XlGtE" alt="telenor" class="pict"></a></td>
        <td colspan="2"><center>Table with images</center></td>
        <td><a href="https://www.aircel.com/"><img src="https://tinyurl.com/hy4cdy43" alt="aircel" class="pict"></a></td>
    </tr>
    <tr>
        <td><a href="https://www.mtctelcom.com/"><img src="https://tinyurl.com/1asnx91jsx" alt="mtc" class="pict"></a></td>
        <td><a href="https://hutch.lk/"><img src="https://tinyurl.com/qsxb88q" alt="hutch" class="pict"></a></td>
        <td><a href="https://www.mtctelcom.com/"><img src="https://tinyurl.com/cj0921hsc" alt="mtc" class="pict"></a></td>
        <td><a href="https://www.tatacommunications.com/solutions/move/mobile-virtual-network-enabler-services/"><img src="https://tinyurl.com/qcmnq89y9c" alt="tata" class="pict"></a></td>
    </tr>
  </table>
<pre>Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1</pre>
</body>
</html>
```

Output:

Program 5.

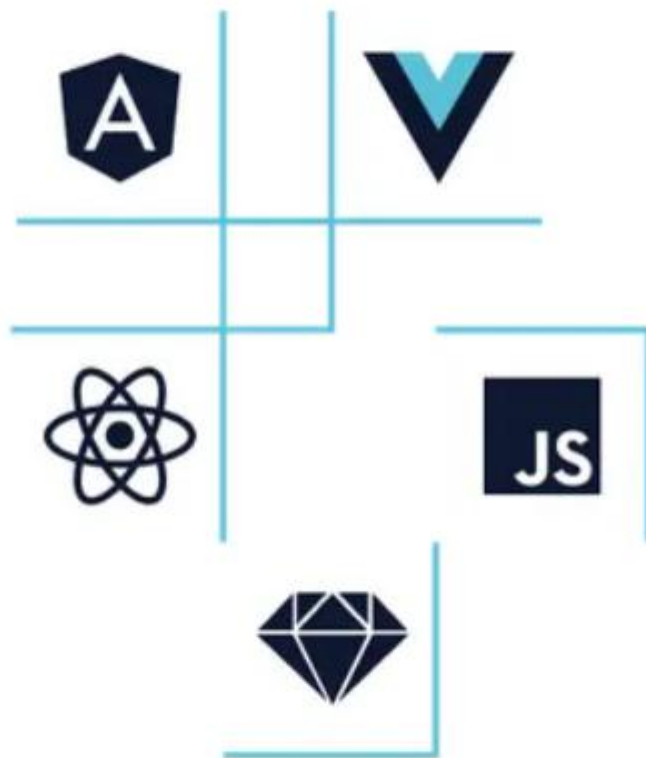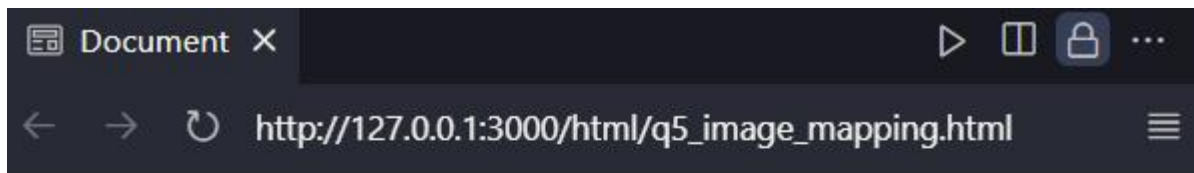**Create a web page with the following using HTML:**

     I.   **To embed an image map in a web page**
     II.   **To fix the hot spots**
     III.   **Show all the related information when the hot spots are clicked.**

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <img src="lang.webp" alt="" usemap="#map1">
  <map name="map1">
    <area shape="rectangle" coords="124px 100px 205px 182px"
href="https://angular.dev/" target="_blank" alt="">
    <area shape="rectangle" coords="250px 100px 333px 184px"
href="https://vite.dev/" target="_blank" alt="">
    <area shape="rectangle" coords="122px 228px 205px 313px"
href="https://react.dev/" target="_blank" alt="">
    <area shape="rectangle" coords="292px 230px 377px 314px"
href="https://www.javascript.com/" target="_blank" alt="">
    <area shape="rectangle" coords="207px 314px 289px 397px"
href="https://www.ruby-lang.org/en/" target="_blank" alt="">
  </map>
<pre>Name: Priyanshu Negi  Std.Id: 22011884  Sem: 6th  Sec: C1</pre>
</body>
</html>
```

Output:

Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1

Program 6:

Create a web page having frames as follows:

Your Name Punch line etc.		
Objective Personal Information Family Information Educational Information Experience Achievements Other	Display information here of selected link	Display relevant images here
Your contact details		

HTML Code:

1. Main code

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>IFrame</title>
</head>
<body>
  <table border="1">
    <tr>
      <th colspan="3">Priyanshu Negi</th>
    </tr>
    <tr>
      <td>
        <iframe src="links.html" ></iframe>
      </td>
      <td>
        <iframe src="" name="iframe2"></iframe>
      </td>
      <td>
        <iframe src="iframe3.html"></iframe>
      </td>
    </tr>
```

```
    <tr>
      <td colspan="3"><center>Contact Details: </center></td>
    </tr>
  </table>
<pre>Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1</pre>
</body>
</html>
```

2. Links code

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <a href="obj.html" target="iframe2">Objective</a><br>
  <a href="personal.html"target="iframe2">Personal Information</a><br>
  <a href="family.html"target="iframe2">Family Information</a><br>
  <a href="education.html"target="iframe2">Education Information</a><br>
  <a href="experience.html"target="iframe2">Experience</a><br>
  <a href="achievement.html"target="iframe2">Achievements</a><br>
  <a href="other.html"target="iframe2">Other</a>

</body>
</html>
```

Output:

Program 7:

Write a HTML code for the following snapshot.

HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Form</title>
</head>
<body>
  <form action="">
    <fieldset>
      <legend>Basic Information</legend><br>
      <label for="name">Full Name: </label>
      <input type="text" name="" id="name"><br><br>
      <label for="dob">Birth Date: </label>
      <input type="text" name="" id="dob"><br><br>
      <label>Gender: </label>
      <input type="radio" name="" id="male">
```

```html
      <label for="male">Male</label>
      <input type="radio" name="" id="female">
      <label for="female">Female</label><br><br>
      <label for="address">Address: </label>
      <input type="text" name="" id="address"><br><br>
      <label for="p_no">Phone Number: </label>
      <input type="text" name="" id="p_no"><br><br>
    </fieldset>
    <fieldset>
      <legend>Extra Information</legend><br>
      <label for="">Interests: </label>
      <input type="checkbox" name="" id="books">
      <label for="books">Books</label>
      <input type="checkbox" name="" id="movies">
      <label for="movies">Movies</label>
      <input type="checkbox" name="" id="videogames">
      <label for="videogames">Videogames</label><br><br>
      <label for="color">Favorite color</label>
      <input type="color" name="" id="color"><br><br>
    </fieldset>
    <br>
    <button type="submit">Send data</button>
    <button type="reset">Reset form</button>
  </form>
<pre>Name: Priyanshu Negi  Std.Id: 22011884  Sem: 6th  Sec: C1</pre>
</body>
</html>
```
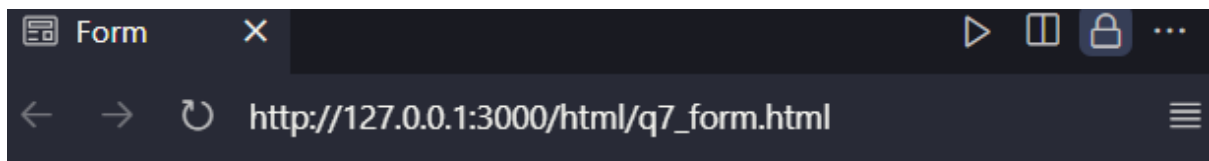
Output:

┌─Basic Information──────────────────────────────────┐
│   │
│ Full Name: [   ]   │
│   │
│ Birth Date: [   ]   │
│   │
│ Gender: ○ Male ○ Female   │
│   │
│ Address: [   ]   │
│   │
│ Phone Number: [   ]   │
│   │
└──┘
┌─Extra Information──────────────────────────────────┐
│   │
│ Interests: □ Books □ Movies □ Videogames   │
│   │
│ Favorite color [███████]   │
│   │
└──┘

[Send data] [Reset form]

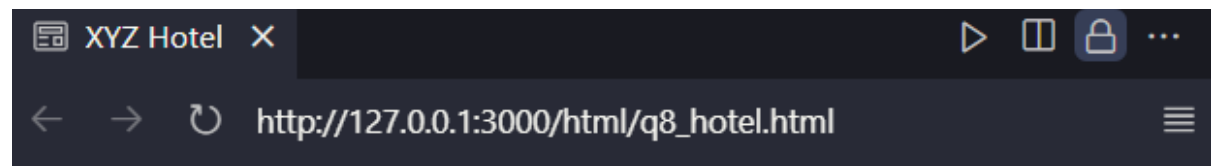Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1

Program 8:

Create a web page of customer profile for data entry of customers in a Hotel, The profile should include Name, Address, Age, gender, Room Type (A/C, Non-A/C or Deluxe), Type of payment (Cash, Credit/Debit Card or Coupons).

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>XYZ Hotel</title>
</head>
<body>
  <h1>Customer Profile </h1>
  <form >
    <fieldset>
      <legend>Personal Information</legend><br>
      <label for="name">Name: </label>
      <input type="text" name="" id="name"><br><br>
      <label for="add">Address: </label>
      <input type="text" name="" id="add"><br><br>
      <label for="age">Age: </label>
      <input type="number" name="" id="age"><br><br>
      <label>Gender: </label>
      <input type="radio" name="" id="m">
      <label for="m">Male </label>
      <input type="radio" name="" id="f">
      <label for="f">Female </label><br><br>
    </fieldset>
    <br>
    <fieldset>
      <legend>Room details</legend><br>
      <label for="">Room Type: </label>
      <input type="radio" name="" id="ac">
      <label for="ac">A/C</label>
      <input type="radio" name="" id="nac">
      <label for="nac">Non-A/C</label>
      <input type="radio" name="" id="Deluxe">
      <label for="Deluxe">Deluxe</label><br><br>
```

```html
      </fieldset><br>
      <fieldset>
        <legend>Payment details</legend><br>
        <label for="">Type of Payment: </label>
        <input type="radio" name="" id="cash">
        <label for="cash">Cash</label>
        <input type="radio" name="" id="card">
        <label for="card">Credit/Debit card</label>
        <input type="radio" name="" id="coupon">
        <label for="coupon">Coupons</label><br><br>
      </fieldset>
      <br>
      <button type="submit">Submit</button>
      <button type="reset">reset </button>
   </form>
<pre>Name: Priyanshu Negi  Std.Id: 22011884  Sem: 6th  Sec: C1</pre>
</body>
</html>
```

Output:

Customer Profile

┌─ Personal Information ──────────────────────────────┐
│   │
│ Name: [_____]   │
│   │
│ Address: [_____]   │
│   │
│ Age: [_____]   │
│   │
│ Gender: ○ Male ○ Female   │
│   │
└──┘

┌─ Room details ──────────────────────────────────────┐
│   │
│ Room Type: ○ A/C ○ Non-A/C ○ Deluxe   │
│   │
└──┘

┌─ Payment details ───────────────────────────────────┐
│   │
│ Type of Payment: ○ Cash ○ Credit/Debit card ○ Coupons │
│   │
└──┘

[Submit] [reset]

Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1

Program 10:

Design an HTML page to create the following list.

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Programming and Web Development</title>
  <style>
    body {
      font-family: Arial, sans-serif;
    }
    ul {
      list-style-type: disc;
    }
    ul ul {
      list-style-type: square;
    }
    ul ul ul {
      list-style-type: circle;
    }
  </style>
</head>
<body>
  <h2>1. <strong>Programming Languages</strong></h2>
  <ul>
    <li><strong>Python</strong>
      <ul>
        <li>Frameworks
          <ol>
            <li>Django</li>
            <li>Flask</li>
          </ol>
        </li>
        <li>Libraries
          <ul>
            <li>NumPy</li>
            <li>Pandas</li>
            <li>Matplotlib</li>
          </ul>
        </li>
      </ul>
    </li>
    <li><strong>Java</strong>
      <ul>
```

```html
            <li>Core Concepts
              <ul>
                <li>OOP</li>
                <li>Multithreading</li>
                <li>Exception Handling</li>
              </ul>
            </li>
            <li>Frameworks
              <ol>
                <li>Spring</li>
                <li>Hibernate</li>
              </ol>
            </li>
          </ul>
        </li>
      </ul>
      <h2>2. <strong>Web Development</strong></h2>
      <ul>
        <li><strong>Frontend</strong>
          <ul>
            <li>HTML</li>
            <li>CSS</li>
            <li>JavaScript
              <ul>
                <li>React</li>
                <li>Vue.js</li>
                <li>Angular</li>
              </ul>
            </li>
          </ul>
        </li>
        <li><strong>Backend</strong>
          <ul>
            <li>Node.js</li>
            <li>PHP</li>
            <li>Ruby on Rails</li>
          </ul>
        </li>
      </ul>
      <pre>Name: Priyanshu Negi   Std.Id: 22011884   Sem: 6th   Sec: C1</pre>
</body>
</html>
```

Program 20:

Design a web page to validate credit card numbers per the specifications below. The following tables outline the major credit cards you want to validate and allow prefixes and lengths.

Card Type	Prefix	Length
Master Card	51–55	16
Visa	4	13,16
American Express	34,37	15

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <label for="">Enter card number</label>
  <input type="number" name="" id="inp"><br><br>
  <button type="button" onclick="validate_str()">validate</button>
  <div id="ans"></div>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>
  <script>

    function validate_str(){
      var num= document.getElementById("inp").value;
      var sub1= num.substring(0,2);
      var sub2= num.substring(0,1);
      if(num.length==16 && (sub1>=51 && sub1<=55)){
        document.getElementById("ans").innerHTML="master card";
      }
      else if((num.length==16 || num.length==13) && (sub2==4)){
        document.getElementById("ans").innerHTML="visa card";
      }
```

```
        else if(num.length==15 && (sub1==37 || sub1==34)){
            document.getElementById("ans").innerHTML="ameerican express card";
        }
        else{
            document.getElementById("ans").innerHTML="invalid";
        }
    }
  </script>
</body>
</html>
```

Output

Enter card number 5326475869382645

validate
master card

Name: Priyanshu Negi   Student Id:22011884   Sem: 6th   Sec: C1

Program 21:
Design a web page to validate the following according to the standard conditions.
        a. Name
        b. E-Mail-id
        c. Password.

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <h1>Name</h1>
  <input type="text" placeholder="Enter name" name="" id="name"><br><br>
  <button type="button" onclick="validate_name()" >validate</button>
  <div id="name_out"></div><br>
  <h1>Email</h1>
  <input type="text" placeholder="Enter email" name="" id="email"><br><br>
  <button type="button" onclick="validate_email()">validate</button>
  <div id="email_out"></div><br>
  <h1>Password</h1>
  <input type="text" placeholder="Enter password" name="" id="pass"><br><br>
  <button type="button" onclick="validate_pass()">validate</button>
  <div id="pass_out"></div><br>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>
  <script>
    function validate_name(){
      var name=document.getElementById("name").value;
      if(/^[a-zA-Z ]+$/.test(name)){
        document.getElementById("name_out").innerHTML="valid";
      }
      else{
        document.getElementById("name_out").innerHTML="invalid";
      }
    }
    function validate_email(){
```

```
    var email=document.getElementById("email").value;
    if(/^[a-zA-Z0-9]+@[a-zA-Z]+\.[a-zA-Z]{2,}$/.test(email)){
        document.getElementById("email_out").innerHTML="valid";
    }
    else{
        document.getElementById("email_out").innerHTML="invalid";
    }
}
function validate_pass(){
    var pass=document.getElementById("pass").value;
    if(/[a-zA-Z0-9]+[@#$%&_]*/.test(pass)){
    //if(/^(?=.*[a-z])(?=.*[A-Z])(?=.*[0-9])(?=.*[!@#\$%\^&\*])(?=.{8,})/.test(pass)){
        document.getElementById("pass_out").innerHTML="valid";
    }
    else{
        document.getElementById("pass_out").innerHTML="invalid";
    }
}
  </script>
</body>
</html>
```

Output:

Name

Priyanshu

validate

valid

Email

Priyanshu@example.com

validate

valid

Password

Password@1209

validate

valid

Name: Priyanshu Negi   Student Id:22011884   Sem: 6th   Sec: C1

Program 22

Store some country names and their capitals. Ask the user to select a country and its capital from two lists. If the match is correct, display "Correct answer"; otherwise, display an error message and tell the correct answer.

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <label for="country">Choose country: </label>
  <select id="country">
    <option value="india">India</option>
    <option value="usa">USA</option>
    <option value="uk">UK</option>
    <option value="australia">Australia</option>
    <option value="france">France</option>
  </select><br>
  <label for="capital">Choose country: </label>
  <select name="" id="capital">
    <option value="london">London</option>
    <option value="delhi">Delhi</option>
    <option value="washington">Washington</option>
    <option value="paris">Paris</option>
    <option value="canberra">Canberra</option>
  </select><br>
  <button type="button" onclick="validate()">validate</button>
  <div id="ans"></div><br>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>
  <script>
    function validate(){
      const ctry={
        "india":"delhi",
```

```
            "usa":"washington",
            "uk":"london",
            "australia":"canberra",
            "france":"paris"
        }

        var country=document.getElementById("country").value;
        var capital=document.getElementById("capital").value;
        if(ctry[country]==capital){
            document.getElementById("ans").innerHTML="correct";
        }
        else{
            document.getElementById("ans").innerHTML="incorrect";
        }
    }
  </script>
</body>
</html>
```

Output:

Program 23

Design the simple Calculator

HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <input type="number" placeholder="Enter number" name="" id="in1"><br><br>
  <input type="number" placeholder="Enter number" name="" id="in2"><br><br>
  <select name="" id="operator">
    <option value="+">+</option>
    <option value="-">-</option>
    <option value="*">*</option>
    <option value="/">/</option>
  </select>
  <button type="button" onclick="calculate()">calculate</button>
  <div id="ans"></div><br>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>
  <script>
    function calculate(){
      var num1 = Number(document.getElementById("in1").value);
      var num2 = Number(document.getElementById("in2").value);
      var op =document.getElementById("operator").value;
      var ans;
      if(op=='+'){
        ans=num1+num2;
      }
      else if(op=='-'){
        ans=num1-num2;
      }
      else if(op=='*'){
        ans=num1*num2;
      }
      else if(op=='/'){
```

```
        ans=num1/num2;
      }
      else{
        ans="invalid";
      }
      document.getElementById("ans").innerHTML=ans;
    }
  </script>
</body>
</html>
```

Output:

Program 24

Design a web page that is self-modifying itself after every minute.

HTML Code:

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <div id="loc"></div>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>

  <script>
    function myfun(){
      var d = new Date();
      document.getElementById("loc").innerHTML = d;
    }
    setInterval(myfun,1000);
  </script>
</body>
</html>
```

Output:

```
Wed Mar 26 2025 21:02:41 GMT+0530 (India Standard Time)

Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1
```

Program 25

Write a code for a web application that accepts the user's birthdate in a textbox and displays the day of the week in a message box at the click of a button.

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <label for="">Enter birth date</label>
  <input type="date" id="bd"><br>
  <button type="button" onclick="myfun()">get day</button>
  <div id="loc"></div>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>

  <script>
    function myfun(){
      const week=["Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"];
      var bd = document.getElementById("bd").value;
      var d = new Date(bd);
      var day=d.getDay();
      day=week[day];
      document.getElementById("loc").innerHTML = day;
    }
  </script>
</body>
</html>
```

Output:

Enter birth date 25-08-2004 📅
get day
Wednesday

Name: Priyanshu Negi   Student Id:22011884   Sem: 6th   Sec: C1

Program 26

Write a script that inputs a telephone number as a string in the form (555)555-555. The script should use the strings method split to extract the area code as a token and the last four digits of the phone numbers as a token. Display the area code in one test field and the seven-digit phone number in another text field.

HTML Code

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <label for="">Enter phone number</label>
  <input type="number" name="" id="inp"><br><br>
  <label for="">area code</label>
  <textarea name="" id="ac"></textarea><br>
  <label for="">number</label>
  <textarea name="" id="an"></textarea><br>
  <button type="button" onclick="extract()">validate</button>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>
  <script>
    function extract(){
      var num= document.getElementById("inp").value;
      var ac= num.substring(0,3);
      var an= num.substring(3,9);
      document.getElementById("ac").innerHTML=ac;
      document.getElementById("an").innerHTML=an;
    }
  </script>
</body>
</html>
```

Output

Enter phone number 837275639

area code 837
number 275639
validate

Name: Priyanshu Negi   Student Id:22011884   Sem: 6th   Sec: C1

Program 27

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

     a. Parameter: A string

       Output: The position in the string of the left-most vowel

     b. Parameter: A number

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

HTML Code:

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <label for="str">Enter a string: </label>
  <input type="text" name="" id="str"><br><br>
  <button type="button" onclick="find_first_vowel()">Find vowel</button>
  <div id="vow"></div><br><br>
  <label for="num">Enter a  number: </label>
  <input type="number" name="" id="num"><br><br>
  <button type="button" onclick="reverse_number()">Reverse number</button>
  <div id="rev"></div><br><br>
  <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>

  <script>
    function find_first_vowel(){
      var str= document.getElementById("str").value;
      var vowels="aeiouAEIOU";
      for(var i=0;i<str.length;i++){
        if(vowels.includes(str[i])){
```

```
        document.getElementById("vow").innerHTML="First vowel is at: "+i;
        break;
      }
    }
  }
  function reverse_number(){
    var num= document.getElementById("num").value;
    var rev=0;
    while(num>0){
      var rem= num%10;
      rev= rev*10+rem;
      num= parseInt(num/10);
    }
    document.getElementById("rev").innerHTML="Reversed number is: "+rev;
  }
 </script>
</body>
</html>
```

Output:

```
Enter a string: Hello World

Find vowel
First vowel is at: 1


Enter a number: 9873874321

Reverse number
Reversed number is: 1234783789



Name: Priyanshu Negi   Student Id:22011884   Sem: 6th   Sec: C1
```

Program 28
Write a JavaScript function that takes a string that has lower and upper case letters as a parameter and converts upper case letters to lower case and lower case letters to upper case.

HTML Code:
```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>Document</title>
    <style>
        body{
            border: 5px solid black;
            padding: 20px;
            margin: 20px;
        }
    </style>
</head>
<body>
    <label for="">Enter a string</label>
    <input type="text" name="" id="inp"><br>
    <button type="button" onclick="inverse_case()">Change case</button>
    <div id="ans"></div>
    <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>

    <script>
        function inverse_case(){
            var str= document.getElementById("inp").value;
            var ans="";
            for(var i=0;i<str.length;i++){
                if(str[i]==str[i].toUpperCase()){
                    ans+=str[i].toLowerCase();
                }
                else{
                    ans+=str[i].toUpperCase();
                }
            }
            document.getElementById("ans").innerHTML=ans;
        }
```

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

Output

Enter a string Hello World

Change case

hELLO wORLD

Name: Priyanshu Negi   Student Id:22011884   Sem: 6th   Sec: C1

Program 29

Design a web page to perform a survey on four different models of Maruti (Maruti -K10, ZenAstelo, Wagnor, Maruti- SX4) owned by people living in four metro cities(Delhi, Mumbai, Chennai & Kolkatta). Display tabulated report like format given below:

	Maruti-K10	Zen-Astelo	Wagnor	Maruti-SX4
Delhi				
Mumbai				
Cheenai				
Kolkatta				

Calculate the number of cars of different models in each metro city.

HTML Code

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
  <style>
    body{
      border: 5px solid black;
      padding: 20px;
      margin: 20px;
    }
  </style>
</head>
<body>
  <label for="city">City</label>
  <select name="" id="city">
    <option value="D">Delhi</option>
    <option value="M">Mumbai</option>
    <option value="C">Chennai</option>
    <option value="K">Kolkata</option>
  </select>
  <label for="car">car</label>
  <select name="" id="car">
    <option value="mk">Maruti-K10</option>
```

```html
        <option value="z">Zen-Astelo</option>
        <option value="w">Wagnor</option>
        <option value="ms">Maruti-SX4</option>
</select><br>
<button type="button" onclick="addCar()">Submit</button>
<table border="1px">
    <tr>
        <th>City</th>
        <th>Maruti-K10</th>
        <th>Zen-Astelo</th>
        <th>Wagnor</th>
        <th>Maruti-SX4</th>
    </tr>
    <tr>
        <td>Delhi</td>
        <td id="Dmk">0</td>
        <td id="Dz">0</td>
        <td id="Dw">0</td>
        <td id="Dms">0</td>
    </tr>
    <tr>
        <td>Mumbai</td>
        <td id="Mmk">0</td>
        <td id="Mz">0</td>
        <td id="Mw">0</td>
        <td id="Mms">0</td>
    </tr>
    <tr>
        <td>Chennai</td>
        <td id="Cmk">0</td>
        <td id="Cz">0</td>
        <td id="Cw">0</td>
        <td id="Cms">0</td>
    </tr>
    <tr>
        <td>Kolkata</td>
        <td id="Kmk">0</td>
        <td id="Kz">0</td>
        <td id="Kw">0</td>
        <td id="Kms">0</td>
    </tr>
```

```
    </table>
    <div id="loc"></div>
    <pre>Name: Priyanshu Negi  Student Id:22011884  Sem: 6th  Sec: C1</pre>

    <script>
       function addCar(){
          var city= document.getElementById('city').value;
          var car= document.getElementById('car').value;
          var toadd=city+car;
          var count=Number(document.getElementById(toadd).innerHTML);
          count++;
          document.getElementById(toadd).innerHTML=count;
        }
    </script>
</body>
</html>
```

Output:

City	Maruti-K10	Zen-Astelo	Wagnor	Maruti-SX4
Delhi	1	7	0	0
Mumbai	1	0	0	0
Chennai	0	8	0	10
Kolkata	9	0	0	0

City Chennai ˅ car Maruti-SX4 ˅
Submit

Name: Priyanshu Negi   Student Id:22011884   Sem: 6th   Sec: C1