

# Institute of Computer Technology

## B. Tech Computer Science and Engineering

### Sub: Internet Programming (2CSE101)

#### Assignment – 2

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Enrolment No.: CS 32

Class A Batch 13

Selector	Example	Description
#id	#firstname	Select the element with id="firstname"
class	.h1	Select all elements with class="h1"
element class	.p h1	Select only <p> element with class="intro"
*	*	Select all elements.
element	p	Select all <p> elements
element, element.	div. p	Select all <div> elements and all <p> elements.

Q2) Explain the importance of CSS by giving live website example.

1) Modify your site designs to look how you want them to look web designers at work but these templates rarely inspired by their elegance, so your website will look like every other site on the internet. By learning CSS you can modify these templates so that they display your colors and styles.

2) Save Money:

→ Woman putting quarter in piggybank. There are a lot of web designers who will build your website or your CSS for you. But paying someone else to maintain your website or blog can get expensive and as you practice, you'll be able to fix bigger and more complex problems.

3) Earn Money:

→ Young business children make faces holding lots of mom. Once you know CSS really well, you can sell these services to other websites. And if you're looking to become a freelance web designer, you won't get far if you don't know CSS.

4) Browser dependent:

→ The only major limitation of CSS is that its performance depends largely on browser support.

Q-3) List out types of CSS and compare them in terms of merits and demerits. Explain inline and embedded CSS style sheet with example.

Ans: Type of CSS:-

Q 4)

1) Inline CSS:-

2) Internal / Embedded style sheet.

3) External style sheet.

• Merits:-

→ You can quickly and easily insert CSS rules into an HTML page, which is useful for testing or previewing changes and performing quick fixes on your website.

→ You can use class and ID selector in the style sheet.

→ Since the CSS code in a separate document, your HTML files will have a cleaner structure and smaller in size and can use the same CSS file for multiple pages.

- Demerits :-

→ Adding css rules to each HTML element takes time and makes your HTML

→ Adding the code to the HTML document can increase the page size and loading time.

→ Your pages may not be renders correctly until the external css is loaded.

Q4) Give List of pseudo classes which are used with CSS. Write a program such that it includes all the pseudo classes. Give proper comments and reasons for use in program.

Ans.

1) hover - Pseudo-class:-

→ The pseudo class is used to add special effect to an element when our mouse pointer is over it. It is used in above program to change colour of box mouse over.

2) Active Pseudo-class:-

→ This pseudo class is used to select an element which is activated when the user clicks on it. It is used to in above program to select box is active.

### 3) Focus - psy Pseudo - classes :-

Q-6 Li

→ This Pseudo class is used to select an element which is currently focused by the user. It works on uses input elements used in form it program to select the input that has focus.

H  
→ J

I

F

→ T

### 4) Visited Pseudo class :-

→ This Pseudo class is used to select the links which have been already visited by the user. It program to select that link is visited by user.

→

→

### 5) First - child Pseudo - classes :-

→ First - child Pseudo class matches specifies element that is the first child to another element it program to select. <p> elements that is the first child of its program.

Q-7).

→

Q-6 List various ways to add Javascript with HTML document Explain all with example.

→ JavaScript in <body>

In this example a javascript function is placed in the <body> section of an HTML page.

→ The function is invoked when a button is clicked.

⇒ External javascript :-

→ Scripts can also be placed in external files:-

External File: myscript.js

```
function myFunction() {  
    document.getElementById("demo").  
    innerHTML = "Paragraph changed";  
}
```

Q-7) Explain Javascript Function with argument and return type. Create Email signup form and call custom function validate() on subject button to validate form data.

→ Function Argument:-

→ Functions are blocks of reusable code. Functions repetition in your programs and help organize it to make it more readable often when you want to reuse a block of code, you may want it to behave differently based on obtain inputs. You can do this by using function arguments.

2  
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```
function sum (value1, value2) {  
    var total = value1 + value2;  
    console.log ('The sum of ' + value1 + ' and '  
    + value2 + ' is ' + total);
```

⇒ Return Values:-

→ A function can return a value as well but only one single value per function call, the return statement which is return back to the caller. If admitted, an undefined value is returned.

```
function sum (value1, value2) {  
    var total = value1 + value2;  
    return total;  
}
```

⇒ function validate (from Data)

```
// validate from Data  
if (form Data name && form Data email  
&& form Data password)
```

```
{  
    return true;
```

```
}  
return false;
```

```
<Form id="signupForm" action="method=Post">
```

```
</table> Email </table>
<input type="email" name="email" id="email" />
</table> Password </table>
<input type="password" name="password" id="password" />
<input type="Submit" value="Submit" />

</form>
<script>
on
ned
document.getElementById('signupform')
    .addEventListener('submit', function(e) {
        e.preventDefault();
        // get form values
        let email = document.getElementById('email').value;
        let password = document.getElementById('password').value;
        // call validate() function
        if(validate(email, password))
            {
                // submit form
                this.submit();
            }
        else
            {
                // show error message
                alert('Invalid email or password!');
            }
    });
</script>
```

Q-8 Describe Array object and string object of Javascript in detail Demonstrate with example.

⇒ Array object:

→ The array in Java until package is a part of the java collection Framework. This class provide statics methods to dynamically create and access java arrays. It consists of only static methods and the methods of Object class. The methods of this class can be used by the class name itself.

java.lang.Object  
java.util.Arrays

⇒ Syntax :-

Arrays <functionname>;

⇒ Example.

// Java program to Demonstrate Arrays class  
// via asList() method.

// Importing Arrays utility class  
// from java.util package.  
import java.util.Arrays;

```
//main class  
class GE49  
{  
    //main driver method  
    public static void main (String [] args)  
    {  
        //Get the array.  
        int [] arr = {10,20,15,22,35};  
  
        //To convert the elements as list.  
        System.out.printIn("Integers Array as list  
                           + Arrays.asList (intan);  
    }  
}
```

⇒ String object:

→ string str = new string ("ICT");

→ If we compare performance of string literal  
and string object, string object will always  
take more time to execute than string literal  
because it will construct a new string every  
time it is executed.

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Q-9 Explain methods and properties for document object model.

Q-1

Property / method	Description
active Element	Returns the currently focussed element in the document.
add Event Listener()	Attaches an event handles to the document.
adopt Node()	Adopts a node from another document.
base URI	Returns the absolute base URI of a document
body	Set or returns the documents body
character set	Returns the character encoding for the document
close()	close the output stream previously opened with document open().

Q-10 Explain javascript Event Handler with Example.

→ Event handlers can be used to handle and verify user input, user actions, and browser actions.

- Things that should be done every time a page loads.
- Things that should be done when the pages closed
- Action that should be performed when a user clicks a button.
- Content that should be verify when a user inputs data.

→ Many different method can be used to let javascript work with events.

- HTML events attributes can execute javascript code directly.
- HTML events attributes can call javascript function
- You can assign your own event handles function to HTML elements.
- You can prevent event from being sent or being handled.

★ Example :-

<body>

<button click="myfunction()">Click here</button>

<script>

function myfunction() {  
 alert("You clicked the button");  
}

</script>  
</body>

Q-11 Write a Javascript to which demonstrate all properties and methods for Date and Number object:

Property	Description
EPSILON	The difference between 1 and the smallest JS number
MAX_VALUE	The largest number possible in javascript;
MIN_VALUE	The smallest number possible in javascript.
MAX_SAFE_INTEGER	The maximum safe integer ( $2^{53}-1$ )
MIN_SAFE_INTEGER	The minimum safe integer ( $2^{53}-1$ )
POSITIVE_INFINITY	Infinity (returned on overflow)
NEGATIVE_INFINITY	Negative Infinity (returned on overflow)
NaN	A "Not-a-Number" value.

- These number methods can be used on all JavaScript Number.

Method	Description
to string ()	Returns a number as a string
to Exponential ()	Returns a number written in exponential notation
value of ()	Return a number as a number
to Fixed	Returns a number written with 2 decimals.

Q-12 Implement a javascript program which shows implementation of all predefined string function

Method	Description
charAt	Returns the character at a specific index.
indexof	Find the first index of a character.
lastindexof	Find the last index of a character.
substr	Return a section of a string
replace	Replace a specified value with another value in a string
tolowercase	Convert a string to lower case.
touppercase	Convert a string to uppercase.

Q.3) List out types of CSS and compare them in terms of merits and demerits.  
Explain inline and embedded CSS style sheet with example.

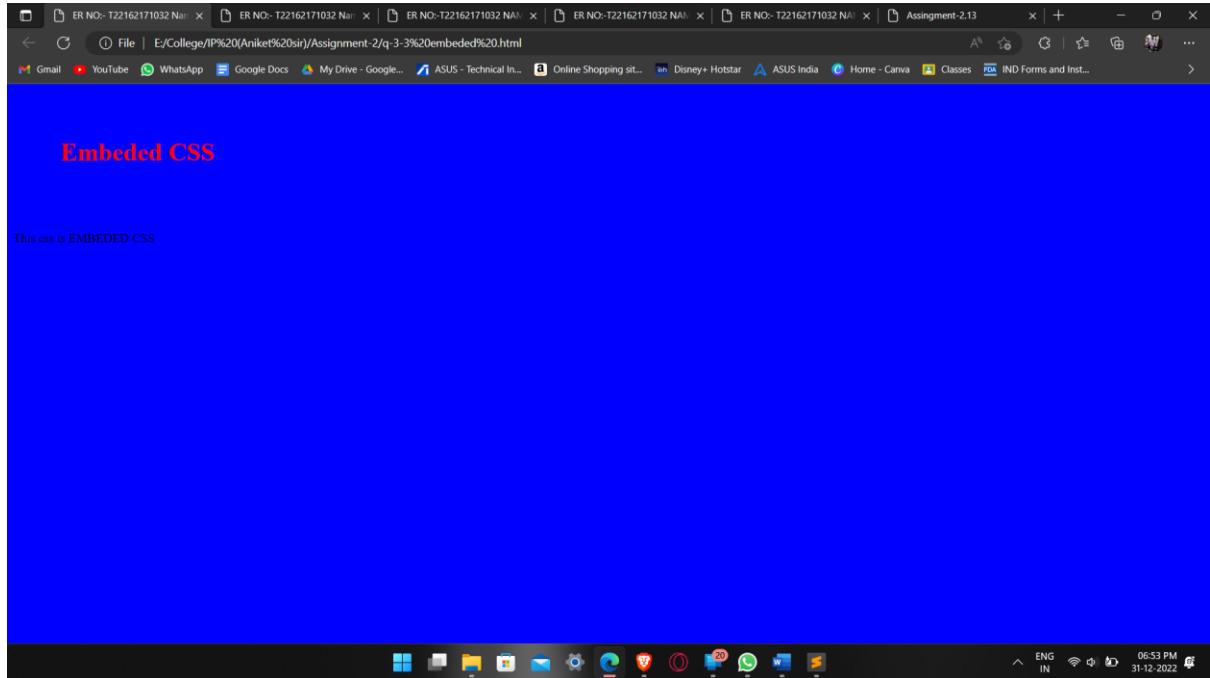
Embedded CSS:

Code:

```
<html>
<head>
    <title>
        ER NO:- T22162171032
        Name:- Patel Ayush
    </title>
<style>
body{
    background-color:blue;
}
h1{
    color:red;
    padding:60px;
}
</style>
</head>
<body>
    <h1>
        Embedded CSS
    </h1>
    <p>
        This css is EMBEDDED CSS
    </p>
</body>
</html>
```

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

## Output:



## Inline CSS:

### Code:

```
<HTML>  
<title>  
ER NO:- T22162171032  
Name:-Patel Ayush  
</title>  
<body style="background-color:black">  
<h1 style="color: white ; padding: 30px;">  
INLINE CSS
```

```
</h1>

<p style="color:white;>

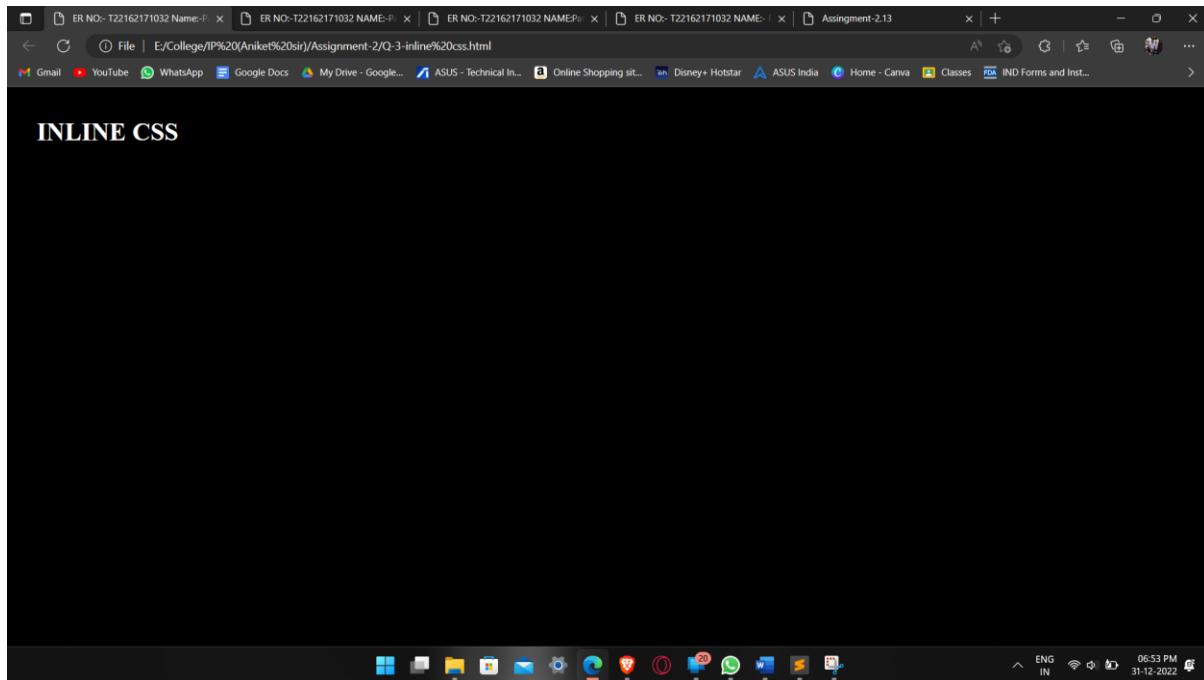
INLINE CSS USE IN BODY

<p>

</body>

</HTML>
```

## Output:



4. Give list of pseudo classes which are used with CSS. Write a program such that it includes all the pseudo classes. Give proper comments and reasons for use in program.

## Code:

```
<html>

<head>

<style>
```

```
body{
background-color: skyblue;
width: 300px;
height:200px;
margin:auto;
font-size:40px;
text-align:center;
}

.box:hover{
background-color:orange;
}

.box:active{
background-color:orange;
intput:focust;
background-color:gray;
}

a.visited{
color:red;
text-align:center;
}

p.first-child{
color:green;
}

</style>
</head>
<title>
```

ER NO:-T22162171032

NAME:-Patel Ayush

</title>

<body>

<p> This will be displayed in yellow</p>

<p> This is some text </p>

<h2> :hover pseudo-class</h2>

<div class="box">

My color changes

</div>

<form>

<label for="username"> Username </label>

<input type="text" placeholder="Enter Your Username" name="Username"/>

<br>

</form>

<a

href="https://www.google.com/search?q=tom+and+jerry+video&rlz=1C1RXQR\_enIN1022IN1022&sxsrf=ALiCzsYjfJ7OEHbAZ34bpxR4KSX3UeZM3A:1671106928570&source=lnms&tbo=isch&sa=X&ved=2ahUKEwitsu-2zvv7AhV0R2wGHYazBBQQ\_AUoA3oECAEQBQ&biw=1280&bih=601&dpr=1.5"

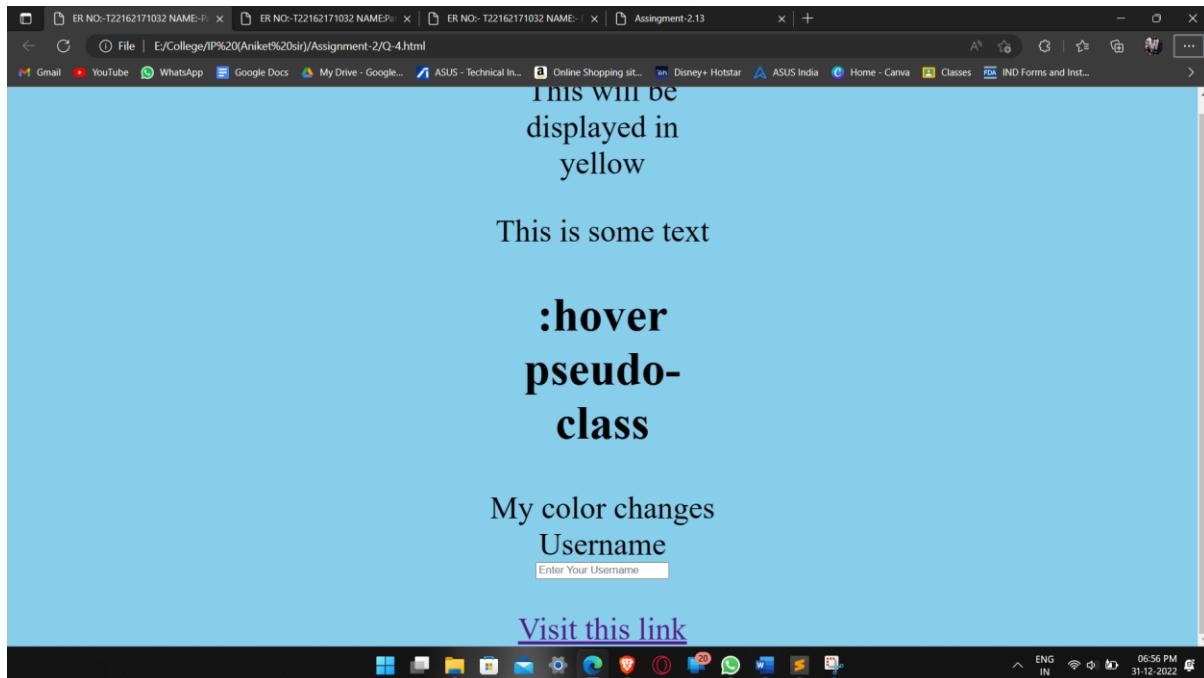
target="\_blank">

Visit this link </a>

</body>

</html>

## Output:



5. Create a webpage having horizontal menu shown below. When we click on CSS Topics menu, submenu is open as shown below. By clicking on submenu items cursor is move on particular topics within a page with importance of that topic.

Code:

```
<!DOCTYPE html>

<html>

<title>
ER NO:-T22162171032

NAME:Patel Ayush

</title>

<head>

<style>

body
```

```
{text-align: center;}  
  
.dropbtn {  
    color: blue;  
    padding: 16px;  
    font-size: 16px;  
    border: 5px inset #00ff00;  
    cursor: pointer;  
}  
  
}
```

```
.dropdown {  
    position: relative;  
    display: inline-block;  
}  
  
}
```

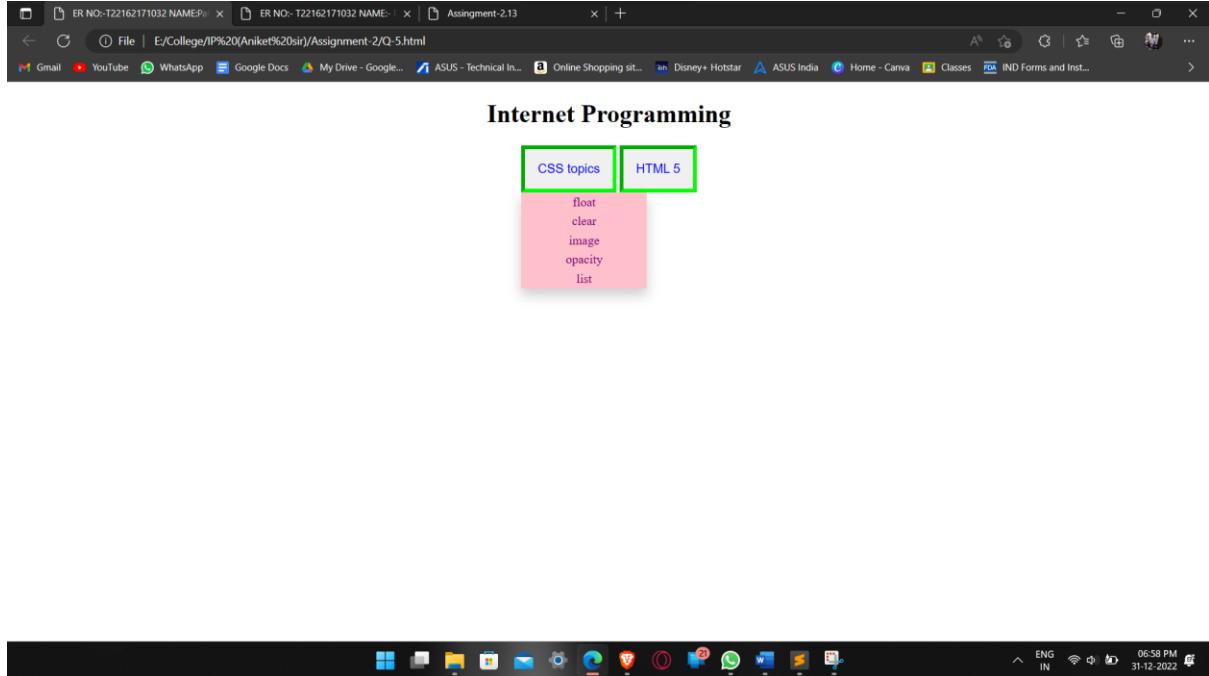
```
.dropdown-content {  
    display: none;  
    position: absolute;  
    background-color: #f9f9f9;  
    min-width: 160px;  
    box-shadow: 0px 8px 16px 0px rgba(0,0,0,0.2);  
    z-index: 1;  
}  
  
}
```

```
.dropdown-content a {  
    color: purple;  
    background-color: pink;  
    padding: 3px 3px;
```

```
text-decoration: none;  
display: block;  
}  
  
.dropdown-content a:hover {background-color: #f1f1f1}  
  
.dropdown:hover .dropdown-content {  
display: block;  
}  
</style>  
</head>  
<body>  
  
<h1><strong>Internet Programming</strong></h1>  
<div class="dropdown">  
  <button class="dropbtn">CSS topics</button>  
  <button class="dropbtn">HTML 5</button>  
  <div class="dropdown-content">  
    <a href="#">float</a>  
    <a href="#">clear</a>  
    <a href="#">image</a>  
    <a href="#">opacity</a>  
    <a href="#">list</a>  
  </div>  
</div>  
</body>
```

```
</html>
```

**Output:**



6. List various ways to add JavaScript with HTML Document. Explain all with example.

**Code:**

```
<html>
<title>
ER NO:- T22162171032
NAME:- Patel Ayush
</title>
<body>
<h2>
JAVA script
```

```
</h2>

<p id="e"> A Paragraph</p>

<button type="button" onclick="my function()">
try it </button>

<script>
function my function(){
document.getElementById("e").innerHTML=paragraph changed;"}
</script>

<body>
</html>
```

Output:

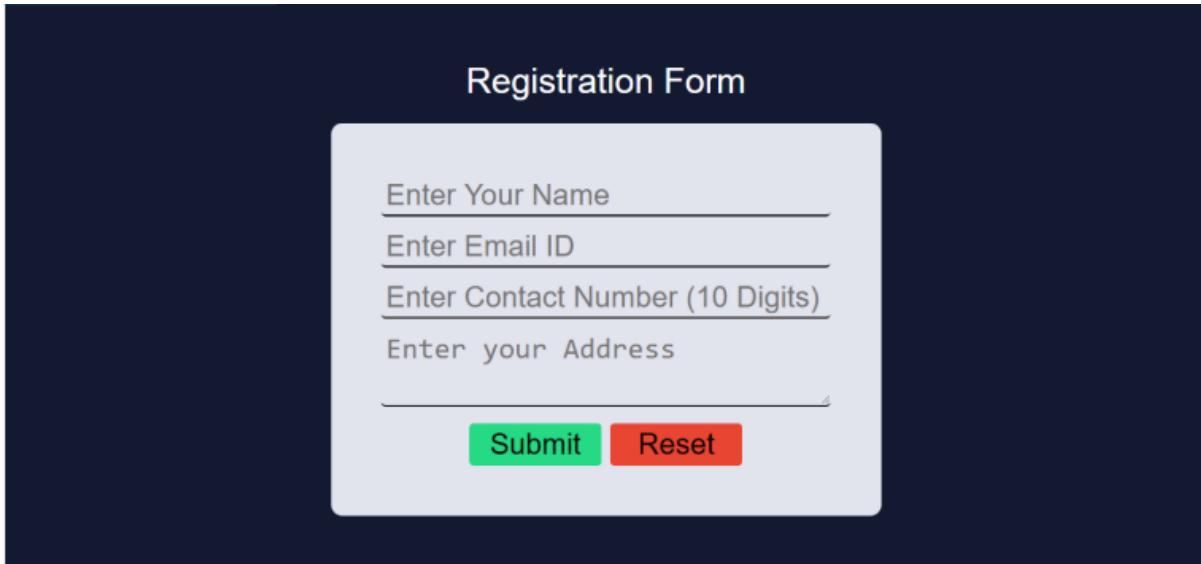


JAVA script

A Paragraph



13. Rahil wants to prepare registration form for his upcoming event. Implement HTML & CSS code for following output.



The image shows a registration form titled "Registration Form". It contains four input fields: "Enter Your Name", "Enter Email ID", "Enter Contact Number (10 Digits)", and "Enter your Address". Below the address field is a horizontal line. At the bottom are two buttons: a green "Submit" button and a red "Reset" button.

Code:

```
<html>
<head>
<title>
Assingment-2.13
</title>
<style>
body{
background-color: #101931;
}
h1{
margin-top: 100px;
color: white;
}
.form{
```

```
margin-bottom: 10px;  
margin-top: 10px;  
margin-right: 500px;  
margin-left: 500px;  
background-color: #E2E4ED;  
border-radius: 15px;  
width:300px;  
height:200px;  
}  
.btn1{background-color: #4CAF50;  
border:0px;  
}  
.btn2  
{background-color: #f44336;  
border:0px;  
}  
input{  
border:transparent;  
background-color: #E2E4ED;  
border-bottom:1px solid black;  
}  
.hii  
{  
border:transparent;  
background-color: #E2E4ED;
```

```
border-bottom:10px black;  
size:20em;  
}  
  
a{  
border-bottom:1px solid black;  
border-top:1px solid #E2E4ED;  
border-radius:1px;  
}  
  
</style>  
  
<link rel="stylesheet" text="texk/css" href="13.css">  
</head>  
  
<body>  
<center>  
<h1>  
Registration form  
</h1>  
  
<form class="form"><label>  
    <br>  
    <a><input type="text" placeholder="Enter Your Name" background="none" size="30"></a><br><br>  
    <a><input text="Email" placeholder="Enter Your Email" size="30"></a><br><br>  
    <a><input text="Enter Contact Number(10 Digits)" placeholder="Enter Contact Number(10 Digits)" size="30"></a><br>  
    <a><textarea class="hii" rows="2" cols="27" placeholder="Enter Your Addrees"></a><br><br>  
    <button class="btn1">Submit</button> <button class="btn2"> Reset </button>
```

</form>

Output:

