

Internet Tools and Technology

CSS

Java script



CSS

CSS stands for Cascading Style Sheet.

To apply style on HTML tags.



Syntax

A CSS rule set contains a selector and a declaration block.

Selector{Property1: value1; Property2: value2;;}

H1 {color: yellow; margin-left: 80px;}



Types of CSS

1. Inline CSS

2. Internal CSS

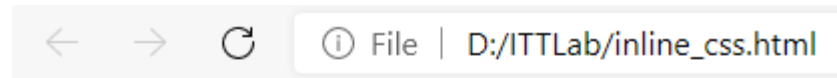
3. External CSS

4. Imported CSS



1. Inline CSS

```
<html>  
<body>  
<h1 style="color:red;margin-left:40px;">welcome.</h1>  
<h1 >hello world</h1>  
</body>  
</html>
```



welcome.

hello world



Internal CSS

```
<html>
  <head>
    <style>
      body { background-color: yellowgreen; }
      h1 { color: red; margin-left: 80px; }
    </style>
  </head>
  <body>
    <h1>welcome</h1>
    <h1>hello world</h1>
  </body>
</html>
```



External CSS

```
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="mystyle.css">
  </head>
  <body>
    <h1>welcome</h1>
    <h1>hello world</h1>
  </body>
</html>
```



File : mystyle.css

```
body { background-color:yellowgreen; }

h1 { color: red; margin-left: 80px; }
```



Imported CSS



```
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="mystyle2.css">
  </head>
  <body>
    <h1>welcome</h1>
    <h1>hello world</h1>
    <h2>hello world</h2>
  </body>
</html>
```



File : mystyle.css

```
body { background-color:yellowgreen; }
h1 { color: red; margin-left: 80px; }
```

File : mystyle2.css

```
@import "mystyle.css";
h2 { color: blue; margin-left: 80px; }
```

Java Script

Java script is a client side scripting language.

Used to create interactive and dynamic web page

Enhance appearance and functionality of web page.

JavaScript are run by an interpreter built in the web browser



Java Script

Performing simple computations on the client side

Validating the user's input



Java Script

Syntax:

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

JavaScript code

```
</script>
```



```
<html>
```

```
<body>
```

```
    <script type="text/javascript">  
        document.write("welcome");
```

```
    </script>
```

```
<h1>hello world</h1>
```

```
</body>
```

```
</html>
```

How to specify JavaScript code

- Embedded scripts

- Embed JavaScript code in an HTML document

```
<script type="text/javascript">  
    document.writeln( "hello" );  
</script>
```



- Inserting external scripts

- Insert a file with “.js” extension that contains JavaScript code

```
<script type="text/javascript" src="external.js" />
```

Data Types

Numbers, eg. 123, 120.50 etc.

Strings of text e.g. "This text string" etc.

Boolean e.g. true or false.

Variable Declaration



```
var name = "Ali";
```

```
var money;
```

```
money = 2000.50;
```

Some of the Java Script String Methods



`charAt(pos)`

```
var str = "HELLO WORLD";  
str.charAt(0);
```

`split()`

`concat()`

`indexOf()`

```
var str = "How are you doing today?";  
var res = str.split(" ");
```

`substring()`

`substr()`

```
var txt = "manipal";  
var l = txt.length
```

Length property to find length of a string

Array

```
var array_name = [item1, item2, item3];
```

```
var ages = [3, 10, 18, 20];
```

```
var fruits = ["Banana", "Orange", "Apple", "Mango"];
```

```
<html>
<body>
  <script type="text/javascript">
    a= [10,20,30,40,50]
    for(i=0;i<5;i++)
      document.write(" ",a[i]);
  </script>
<h1>hello world</h1>
</body>
</html>
```


Some of the Java Script array Methods

concat()

indexOf()

join()

lastIndexOf()

sort()

```
var hege = ["Cecilie", "Lone"];  
var stale = ["Emil", "Tobias", "Linus"];  
var children = hege.concat(stale);
```



Object

```
var object_name = { variable, method }
```

```
var point = { x:10, y:20 }
```



```
<html>
<body>
  <script type="text/javascript">
    var point = { x:10, y:20 }
    document.write(point.x, " ", point.y);
  </script>
<h1>hello world</h1>
</body>
</html>
```

Operators

Arithmetic operator : +,-,*,/,%

Relational operator : <, >,<=,>=,==,!=

Logical operator : &&,||,!

Compound assignment operators: +=,-=,*= etc

Increment and decrement operators : ++, --



```
<html>
<body>
  <script type="text/javascript">
    var a=2,b=3
    document.write(a+b);
  </script>
  <h1>hello world</h1>
</body>
</html>
```

Control Structures

- Selection structure
 - if
 - if...else
 - switch
- Repetition structure
 - while
 - do...while
 - For

break and continue statement

```
<html>
<body>
  <script type="text/javascript">
    for(i=1;i<=5;i++)
      document.write(i);
  </script>
<h1>hello world</h1>
</body>
</html>
```



Java script function

Syntax:

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

```
function functionname(parameter-list)
{
statements
}
</script>
```

```
html>
<head>
  <script type="text/javascript">
    function sum(n)
    { var s=0;
      for(i=1;i<=n;i++)
        s=s+i;
      return s;  }
  </script>
</head>
<body>
  <script type="text/javascript">
    document.write("sum =",sum(5));
  </script>
<h1>hello world</h1>
</body>
</html>
```



Document Object Model

- When a web page is loaded, the browser creates a **Document Object Model** of the page
- With HTML DOM, JavaScript can access and change all the HTML elements/HTML attributes / CSS styles in the page
- Provides set of methods/property to access html elements



```
<body>
<p id="p2"></p>
<script>
    document.getElementById("p2").innerHTML = "Welcome to ICT ";
    document.getElementById("p2").style.color = "blue";
</script>
</body>
```

```
<html>
  <body>
    <div id="p2"></div>
    <script>
      var flag=0; col="red", t="MIT";
      function disp()
      {
        document.getElementById("p2").style.color = col;
        document.getElementById("p2").style.fontSize = 20;
        document.getElementById("p2").innerHTML = t;
        if(flag==0)
        {
          flag=1;
          col="blue";
          t="ICT;  }
        else
        {
          flag=0;
          col="red";
          t="MIT";  }
        setTimeout(disp,1000);
      }
      disp();
    </script>
  </body>
</html>
```



