

<meta name = "author" content = "Harshit">

<meta ^{name} description " content = "Meta tutorial">

<meta name = "keywords" content = "lesson, tutorial, HTML">

What is CSS

CSS: Cascading Style Sheets

CSS turns our boring looking HTML WEB PAGE to Good looking websites.

1996 : CSS 1

1998 : CSS 2

1998 : Started working on CSS 3 (current version)

We will never get CSS 4

Hakon Wium Lie



Hakon He proposed the Concept of CSS

While working with Tim Berners-Lee & Robert Cailliau at CERN in 1994, he proposed the concept of Cascading style sheets.

Different ways to apply CSS

inline attribute

<body>

<h1 style = "color: green">Heading </h1>

</body>

We can use style tag

```
<head>
```

```
<style>
```

```
h1 {
```

```
color: green;
```

```
}
```

```
</style>
```

```
</head>
```

```
<body>
```

```
<h1> Heading </h1>
```

```
</body>
```

Style tag is better than inline attribute

External css file

index.html file

```
<head>
```

```
<link rel="stylesheet" href="style.css">
```

```
</head>
```

```
<body>
```

```
<h1> Heading </h1>
```

```
</body>
```

link the css file

style.css file

```
h1 {
```

```
color: green;
```

```
}
```


CSS fonts

serif vs
sans serif

<body>

<h1> Main Heading </h1>

<p> lorem 200 </p>

</body>

style.css

→ google fonts

@import url('https://fonts.googleapis.com/css2?family=Roboto:wght@400;500&display=swap');
body {

font-family: Arial, Helvetica, sans-serif

font-family: 'Roboto', sans-serif

font-weight: 500;

}

CSS colors

→ color picker, hex color

h1 {

color: #ff0000;

}

CSS selectors

<body>

<div id="main-Heading">

<h1> Main Heading </h1>

</div>

<div class="main-Section">

<h2> Sub Heading </h2>

<p> lorem 200 </p>

</div> </body>

my companion

style.css

body {

font-family: Arial;

}

#main-Heading {

background-color: #ff0000;

}

.main-section {

background-color: #ff00ff;

}

More CSS Selectors

index.html

<body>

<header>

<p> short paragraph inside header </p>

<h1 class = "main - logo"> main logo </h1>

 Home

 About us

 Contact

<p> short paragraph inside header </p>

</header>

<main>

<h2> Main Content of our web page </h2>

<section class = my-articles>

<h2> Articles Section </h2>

<article>

<h2> Article Heading </h2>

<p> lorem20 </p>

</article>

<article>

<h2> Article Heading </h2>

<p> lorem20 </p>

</article>

</section>

</main>

</body>



→ Universal selector
* { color: blue; }

header {
background-color: #f0ebeb;
}

section.my-article {
background-color: #f2e9e9;
}

header p { → descendant selector
color: red;
}

li a {
color: blue;
}

section.my-articles h2 {
color: green;
}

→ direct child selector/combinator
section.my-articles > h2 {
color: green;
}

→ adjacent selector
section.my-articles h2 + p {
color: orange; red;
}

ul + p {
color: green;
}

CSS Attribute Selector

<body>

<h2> links </h2>

 Google India

 Google UK

 Flipkart

 Facebook

<h2> form </h2>

<form>

<label for = "fname"> First name: </label>

<input type = "text" id = "fname">

<label for = "lname"> Last Name: </label>

<input type = "text" id = "lname">

<label for = "pass"> Password: </label>

<input type = "password" id = "pass">

<input type = "button" value = "Submit">

</form>

</body>

style.css

```
input [type = "text"] {  
  color: red;  
  background-color: aliceblue;  
}
```

```
input [type = "password"] {  
  background-color: pink;  
}
```

```
a [href = "https://google.co.in"] {  
  color: red;  
}
```

```
a [href * = "google"] {  
  color: red;  
}
```

```
a [href ^ = "https"] {  
  color: green;  
}
```

```
a [href $ = ".com"] {  
  color: red;  
}
```

CSS specificity Part 1

<body>

<h1> Hello </h1> <h1 class = "Aclass" id = "Aid1">

</body>

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style = "color: brown"

↓
Inline style attribute

style.css

/* inline style attribute > id selector > class selector > element selector

h1 {

color: green;

}

h1 class {

color: red;

}

h1 id { ^{→ !important}

color: blue;

}

h1 heading {

color: magenta;

}

h1 heading {

color: magenta;

}

/* 0, 0, 1, 1 */

h1 class {

color: red;

}

/* 0, 0, 1, 0 */

Specificity part 2

<body>

<div id="container">

<ul class="my-songs">

 closer

<li class="favourite"> dove me like ya do

 Despacito

 I'm nider

</div>

</body>

style2.css

div#container ul.my-songs li{

color: brown;

background: yellow;

/* Calculate Specificity */

/* 0, 1, 1, 3 ---> 113 */

.favourite { → let's increase specificity

color: yellow;

background: brown;

/* 0, 0, 1, 0 ---> 10 */

div#container ul.my-songs li.favourite {

color: yellow;

background: brown;

/* 0, 1, 2, 3 ---> 123 */

CSS border

<body>

<div class = "header">

<li class = 'home'> home

 about

</div>

<h2> Main heading </h2>

<p> this is paragraph </p>

</body>

style.css

img {

border: 4px solid red; → short hand

}

div {

border: 8px solid green;

}

h2 {

border-width: 4px;

border-style: solid, dashed, dotted, ridge, groove, inset, outset

border-color: red;

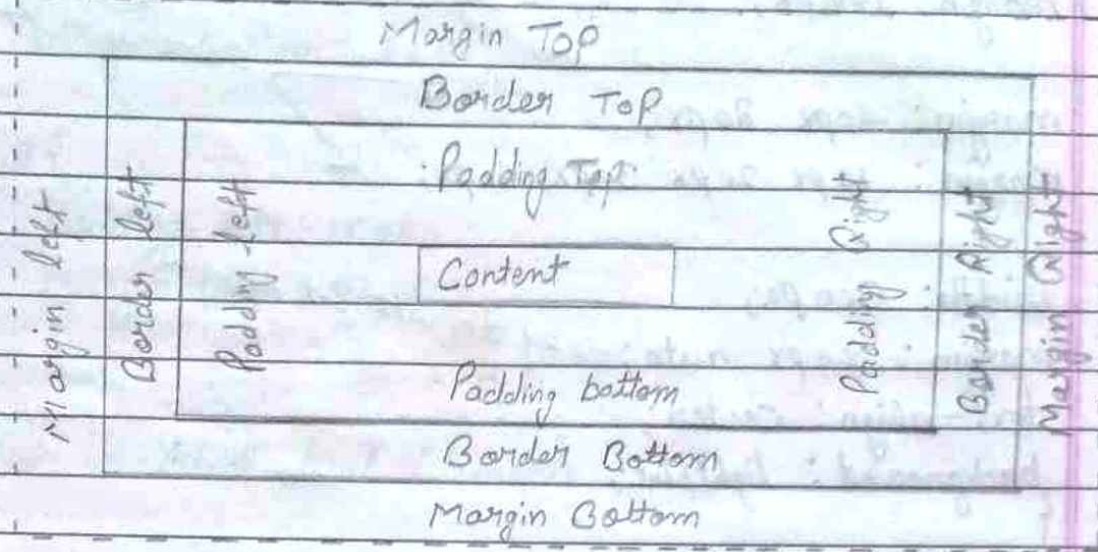
border-radius: 5px;

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border के तीन है और उस पर जो भी है

companion

CSS box model



< body >

< h2 > Heading < / h2 >

< / body >

style.css

h1 {

border: 20px solid red;

padding-left: 40px;

padding-top: 80px;

padding-bottom: 20px;

padding-right: 40px;

padding: 40px;
 → for whole

padding: 20px 40px;
 Top, Bottom → Right left

padding: 20px 30px 40px 50px → clockwise

margin-left: 100px;

margin-top: 50px;
margin: 100px;

margin: 40px 80px;
margin: 10px 20px 30px 40px;

Same as padding

width: 500px;
margin: 20px auto; → by default set margin
text-align: center;
background: lightblue;
}

Margin Collapsing

```
<body>  
<div class="div1">  
<h2> My Heading </h2>
```

```
<p> Lorem20 </p>  
</div>  
<div class="div2">  
<h2> Heading Content </h2>
```

```
<p> Lorem20 </p>  
</div>  
</body>
```

style.css

```
div1 {  
  border: 1px solid red;  
}
```



```



```

```



```

Inline vs Block Level Elements

Example of Block level Elements :->

Heading (1-6), p, div, ul, li, form, article, aside, main, nav

Example of Inline element :->

span, img, a, textarea

<body> ----> block level element

<h1> This is a heading </h1> -> starts with new line

<h2> One More Heading </h2> -> by default it takes complete width

</body>

style.css

```

body {
  font-family: Arial;
  color: #444;
}

```

inline Element --> link 1

link 2

-> it takes amount of width needed.

A1, R2 {

```
border: 2px solid red;  
width: 500px;  
height: 100px;  
}
```

a {

```
border: 2px solid red;  
width: 500px;  
height: 100px;  
margin: 100px;
```

```
{ display: block;
```

img diff from inline element

<body>

</body>

style.css

img {

```
width: 300px;  
border: 2px solid black;  
padding: 10px;
```

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if we mentioned any type of width / height in inline element it doesn't affect.

→ In inline element margin is only given in left & right not in top & bottom.

→ If we add padding in inline it overlaps the area. it completely mess up the element.

We use display property to change inline element into block level & block level element into inline element.

adjust the height in a vice-versa.

In text related element we can't add all this but in img we do so.


```
margin: 5px;
```

Inline block Display

```
<body>
```

```
<a href = "#"> My website </a>
```

```
<a href = "#"> My new webs
```

```
style.css
```

```
a {
```

```
border: 2px solid black;
```

```
margin: 50px;
```

```
padding: 50px;
```

```
height: 100px;
```

```
}
```

```
a {
```

```
border: 2px solid black;
```

```
display: inline-block;
```

```
margin: 20px;
```

```
padding: 20px;
```

```
width: 150px;
```

```
height: 100px;
```

CSS Box Sizing

```
<div class = "box1">
```

```
<h3>Heading</h3>
```

```
<p>lorem ipsum</p>
```

```
</div>
```

```
</body>
```

When we were using inline element we have a lot of disadvantages like we can't add padding, margin, height, width.

But when we use inline block display we can use all the features of inline as well as block level.

Box Sizing property is used to fix the width of the box and if we add margin, border, padding the width of the box doesn't change.

style.css

h1 {

width: 500px;

border: 0.5px dashed black;

margin-left: 0;

box1 {

border-sizing: border-box, content-box;

width: 500px;

background: lightcoral;

border: 10px solid red;

padding: 50px;

margin-bottom: 10px;

Default browser Style & CSS Reset

<body>

<h2>Heading</h2>

<p>lorem100</p>

</body>

style.css

* {

margin: 0px;

padding: 0px;

box-sizing: border-box;

}

CSS Reset

if we want reset all the default browser style we use CSS Reset. and all the styles which are used by browser is default

→ CSS Reset property

CSS Inheritance

```
<body>
<h2> Main Heading </h2>
<a href = "#"> My website </a>
```

```
<div class = ".box1">
<h2> inside the body </h2>
<p> Paragraph inside my Computer </p>
</div>
```

```
<div class = "box2">
<h2> Inside my Container! </h2>
<p> Paragraph inside my container </p>
</div>
</body>
```

style.css

```
body {
  color: red;
}
.box1 {
  color: green;
}
.box2 {
  color: blue;
}
a {
  color: brown; text-decoration: none;
}
```

In CSS inheritance the property is inherited by child as from selected parent.
The color tag doesn't change because default browser style but we change it by selecting a tag

Text - Align Property

```
<body>
  <h1> Heading </h1>
  <a href = "#"> My Website </a>
</body>
```

style: CSS

h1{

background: lightblue;

width: 500px;

text-align: right;

} padding-right: 10px;

a{

display: inline-block;

width: 500px;

background: lightcoral;

} text-align: center;

CSS font-Size & weight

```
<body>
```

```
  <h1>Heading</h1>
```

```
  <p> Lorem </p>
```

```
</body>
```

Text align property works with block level element it works according to the width. block element takes complete width so text-align works with the complete width.

when text-align property works with inline it doesn't effect much because inline takes amount of width they needed so we use display property & change inline into block level.

style.css

p {

font-family: 'Poppins', sans-serif;

font-weight: normal, 400;

}
h1 {

font-family: 'Poppins', sans-serif;

font-weight: 400;

font-style: italic;

CSS more text related property

<body>

<h1> My Heading </h1>

<p> Lorem Ipsum </p>

</body>

style.css

h1 {

letter-spacing: 4px;

font-size: 46px;

text-decoration: underline wavy red;

}

p {

line-height: 30px;

word-spacing: 8px;

font-size: 46px;

letter-spacing: 4px;

}

Grid layout in CSS

How to use Grid

position in Grid
explicit & implicit Grid

1 / - 1 \rightarrow mean it takes complete width as require.

Center div in Grid

minmax Content ()
Responsive layout

media queries

```
@media { (max-width: 300px) {  
  .class { color: blue; }  
}
```

```
li: nth-child (2n+0) {  
  color: red;  
}
```

```
li: nth-child (3n+3) {  
  color: blue;  
}
```

```
li: nth-child (odd) {
```


media queries, Box Shadow, text shadow,
CSS variables,

javascript

How to print word in js?
alert, document.write

Variable in js