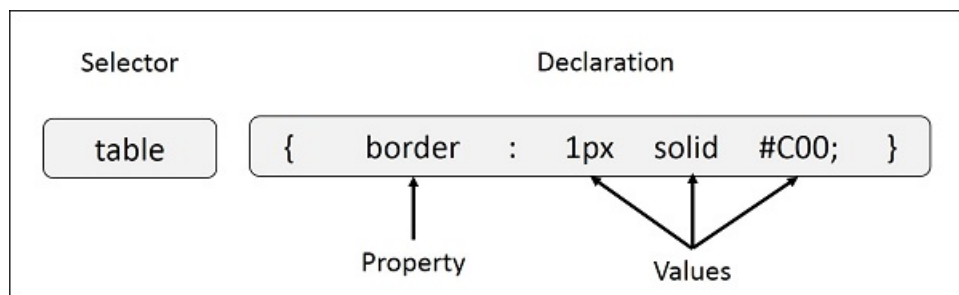


4. CSS Basics

Table of Content

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2. Selectors in CSS
3. CSS Color property
4. Units in CSS
5. Box Model, Margin & Padding

CSS Syntax



Inline, Internal, and External CSS

▼ Inline CSS

An inline style may apply a unique style for a single element.

To use inline styles, add the style attribute to the relevant element. The style attribute can contain any CSS property.

```
<h1 style="color:blue;text-align:center;">This is a heading</h1>
<p style="color:red;">This is a paragraph.</p>
```

▼ Internal CSS

An internal style sheet may be used if one single HTML page has a unique style.

The internal style is defined inside the `<style>` element, inside the head section.

▼ External CSS

With an external style sheet, you can change the look of an entire website by changing just one file!

Each HTML page must include a reference to the external style sheet file inside the `<link>` element, inside the head section.

```
<head>
<link rel="stylesheet" href="mystyle.css">
</head>
```

Selectors in CSS

▼ Simple Selectors

- Element Selector

The element selector selects HTML elements based on the element name.

```
p {
  text-align: center;
  color: red;
}
```

- class Selector

The class selector selects HTML elements with a specific class attribute.

To select elements with a specific class, write a period (.) character, followed by the class name.

```
.center {  
  text-align: center;  
  color: red;  
}
```

- id Selector

The id selector uses the id attribute of an HTML element to select a specific element.

The id of an element is unique within a page, so the id selector is used to select one unique element!

To select an element with a specific id, write a hash (#) character, followed by the id of the element.

```
#para1 {  
  text-align: center;  
  color: red;  
}
```

▼ Universal Selector : *

The universal selector (*) selects all HTML elements on the page.

```
* {  
  text-align: center;  
  color: blue;  
}
```

▼ Grouping Selector

The grouping selector selects all the HTML elements with the same style definitions.

To group selectors, separate each selector with a comma.

```
h1, h2, p {  
  text-align: center;  
  color: red;  
}
```

▼ Nested Selector

The nested selectors select an HTML Element inside another HTML element by making a nested reference. To make a nested selector, separate each selector with a space in the hierarchy.

```
body .center p {  
  text-align: center;  
  color: red;  
}
```

CSS Color property

Colors are specified using predefined color names, or RGB, HEX, HSL, RGBA, HSLA values. In CSS, a color can be specified by using a predefined color name:

Play With the color properties in different color names.

| Play with the CSS RGB, HSL and HEX values inside w3schools.

CSS RGB Colors

An RGB color value represents RED, GREEN, and BLUE light sources. In CSS, a color can be specified as an RGB value, using this formula: Each parameter (red, green, and blue) defines the

 https://www.w3schools.com/css/css_colors_rgb.asp



Units in CSS

▼ Absolute Unit

- px unit

px unit is fixed in size no matter what screen size you choose. That's why the *px unit is always preferred for borders because borders are also kept fixed across all screen sizes.*

▼ Percentage Unit

This is used for setting the width of an element and it's always relative to its immediate parent element size. If there's no defined parent then by default body is considered the parent.

▼ Relative Unit

- Relative to font size:

- em unit

the em unit is always relative to the font size of its immediate parent. 1em == to the size of the parent's font size. The default font size is 16px if not overridden, let's say in the parent element the font size is 48px then in the child element 1em == 48px.

- rem unit (r stands for *root em*)

and unlike em it's always relative to the root font size no matter what font size it's very next parent element has. if the root has redefined font-size like 60px then 1rem == 60px in child.

- Relative to view port/document

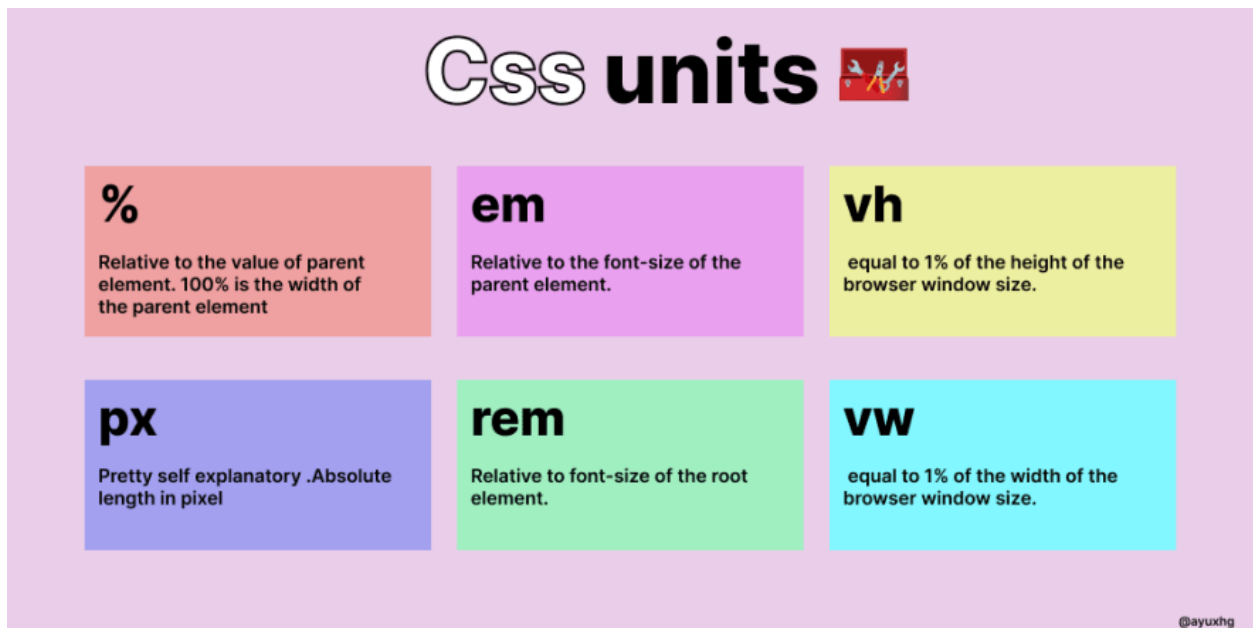
- vw and vh units

vw stands for the viewport width which means vw is always relative to the 1% of the width of root, irrespective of parent element's width. So, if 1vw == 1% then 100vw == 100% of the viewport width.

Similarly vh stands for viewprot height like vw it's also relative to the 1% height of root/document.

How to decide CSS Units for a responsive website:

- px unit for borders.
- % unit for width relative to the parent.
- em unit for margin and padding relative to fonts size of element.
- rem unit for fonts size relative to root.
- vw and vh for width and height relative to root.



CSS Box Model

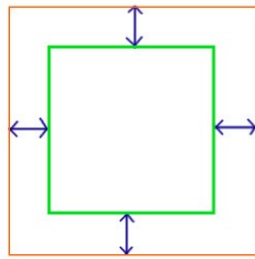
▼ The Div Tag

The `<div>` tag defines a division or a section in an HTML document. The `<div>` tag is used as a container for HTML elements - which is then styled with CSS or manipulated with JavaScript.

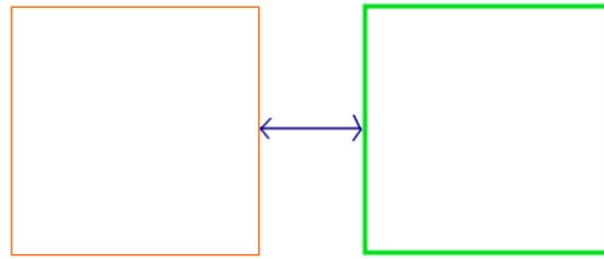
The `<div>` tag is easily styled by using the class or id attribute.

Any sort of content can be put inside the `<div>` tag!

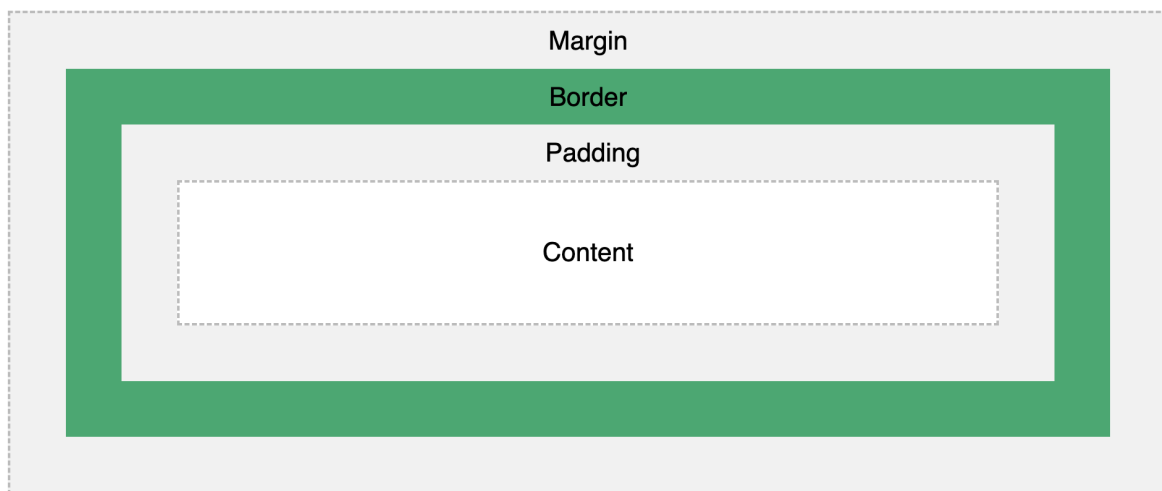
▼ Margin vs Padding



Padding



Margin



Explanation of the different parts:

- **Content** - The content of the box, where text and images appear
- **Padding** - Clears an area around the content. The padding is transparent
- **Border** - A border that goes around the padding and content
- **Margin** - Clears an area outside the border. The margin is transparent

We use **margin** and **padding** attributes with left, right, top and bottom extensions to further fine-tune the values.

Further Readings

- CSS Background Properties

CSS Backgrounds

The CSS background properties are used to add background effects for elements. In these chapters, you will learn about the following CSS background properties: The background-color

 https://www.w3schools.com/css/css_background.asp



Assignments

1. Add different background colors to each part of our personal website (made in the last assignment). Add padding and margin as well.
2. Build alerts like this:

Info! Some text...

Warning! Some text...

3. Build a card like this:



New York

Fri 27 Nov 2016

Praesent tincidunt sed tellus ut rutrum sed vitae justo.

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