CSS FOR BEGINNERS

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Intro to CSS

Overview

Topics that introduce CSS and its fundamental concepts.

- CSS Introduction
- CSS Syntax
- CSS Selectors
- How To Add CSS
- CSS Comments
- CSS Colors

Intro to CSS

Structure

Topics that build on the layout, spacing, and design system of a page.

- CSS Backgrounds
- CSS Height, Width and Max-width
- CSS Borders
- CSS Margins
- CSS Padding
- CSS Box Model
- CSS Text
- CSS Fonts
- CSS Links
- CSS Lists
- CSS Layout - The z-index Property

Intro to CSS

Advanced Topics

Advanced techniques for dynamic design and responsiveness.

- CSS Gradients
- CSS Transitions
- CSS Animations
- CSS Flexbox (Advanced)
- CSS Grid (Advanced)

What is CSS?

- CSS stands for Cascading Style Sheets
- CSS describes how HTML elements are to be displayed on screen, paper, or in other media
- CSS saves a lot of work. It can control the layout of multiple web pages all at once
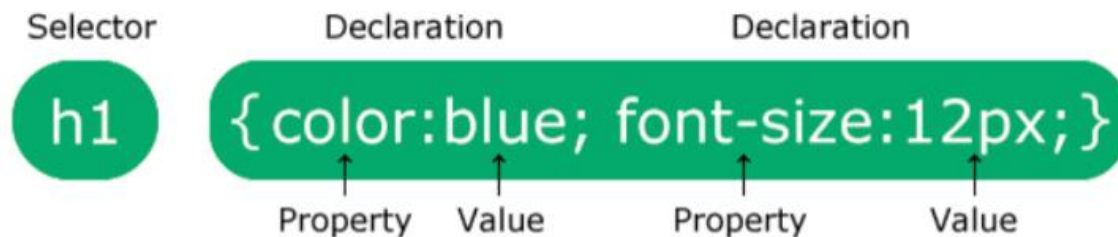- External stylesheets are stored in CSS files

WHY IS CSS?

CSS is used to define styles for your web pages, including the design, layout and variations in display for different devices and screen sizes.

CSS Syntax

A CSS rule consists of a selector and a declaration block.

- The selector points to the HTML element you want to style.
- The declaration block contains one or more declarations separated by semicolons.
- Each declaration includes a CSS property name and a value, separated by a colon.
- Multiple CSS declarations are separated with semicolons, and declaration blocks are surrounded by curly braces.

CSS SELECTORS

CSS selectors are used to "find" (or select) the HTML elements you want to style.

We can divide CSS selectors into five categories:

- Simple selectors (select elements based on name, id, class)
- Combinator selectors (select elements based on a specific relationship between them)
- Pseudo-class selectors (select elements based on a certain state)
- Pseudo-elements selectors (select and style a part of an element)
- Attribute selectors (select elements based on an attribute or attribute value)

How To Add CSS

When a browser reads a style sheet, it will format the HTML document according to the information in the style sheet.

Three Ways to Insert CSS

- There are three ways of inserting a style sheet:
- External CSS
- Internal CSS
- Inline CSS

CSS COMMENTS

- Comments are used to explain the code, and may help when you edit the source code at a later date.
- Comments are ignored by browsers.

A CSS comment is placed inside the <style> element, and starts with /* and ends with */:

Example:

```
p {
  color: red;  /* Set text color to red */
}
```

CSS COLORS

Colors are specified using predefined color names, or RGB, HEX, HSL, RGBA, HSLA values.

CSS Color Values

○ In CSS, colors can also be specified using RGB values, HEX values, HSL values, RGBA values, and HSLA values:

rgb(255, 99, 71)

#ff6347

hsl(9, 100%, 64%)

CSS Backgrounds

- The CSS background properties are used to add background effects for elements.

 following CSS background properties:

- background-color
- background-image
- background-repeat
- background-attachment
- background-position
- background (shorthand property)

```css
h1 {
  background-color: green;
}
body {
  background-image: url("bg.jpg");
}
    body {
      background-image: url("bg.png");
      background-repeat: repeat-x;
    }
```

```css
body {
  background-image: url("img.png");
  background-repeat: no-repeat;
  background-position: right top;
  background-attachment: scroll;
}
```

```css
body {
  background: #ffffff url("img_tree.png") no-repeat right top;
}
```

CSS HEIGHT, WIDTH AND MAX-WIDTH

- The CSS height and width properties are used to set the height and width of an element.

- The CSS max-width property is used to set the maximum width of an element.

The height and width properties may have the following values:

- auto - This is default. The browser calculates the height and width
- length - Defines the height/width in px, cm, etc.
- % - Defines the height/width in percent of the containing block.

CSS BORDERS

- The border property is a shorthand property for the following individual border properties:

- border-width
- border-style (required)
- border-color

- Example

Values

Property Width Style Color

p {

border: 5px solid red;

}

CSS MARGINS

- The CSS margin properties are used to create space around elements, outside of any defined borders.

- With CSS, you have full control over the margins. There are properties for setting the margin for each side of an element (top, right, bottom, and left).

- The margin property is a shorthand property for the following individual margin properties:

- margin-top
- margin-right
- margin-bottom
- margin-left

Example:
p {
  margin: 25px 50px 75px 100px;
}

CSS PADDING

- The CSS padding properties are used to generate space around an element's content, inside of any defined borders.

- With CSS, you have full control over the padding. There are properties for setting the padding for each side of an element (top, right, bottom, and left).

- CSS has properties for specifying the padding for each side of an element:

- padding-top
- padding-right
- padding-bottom
- padding-left

Example:
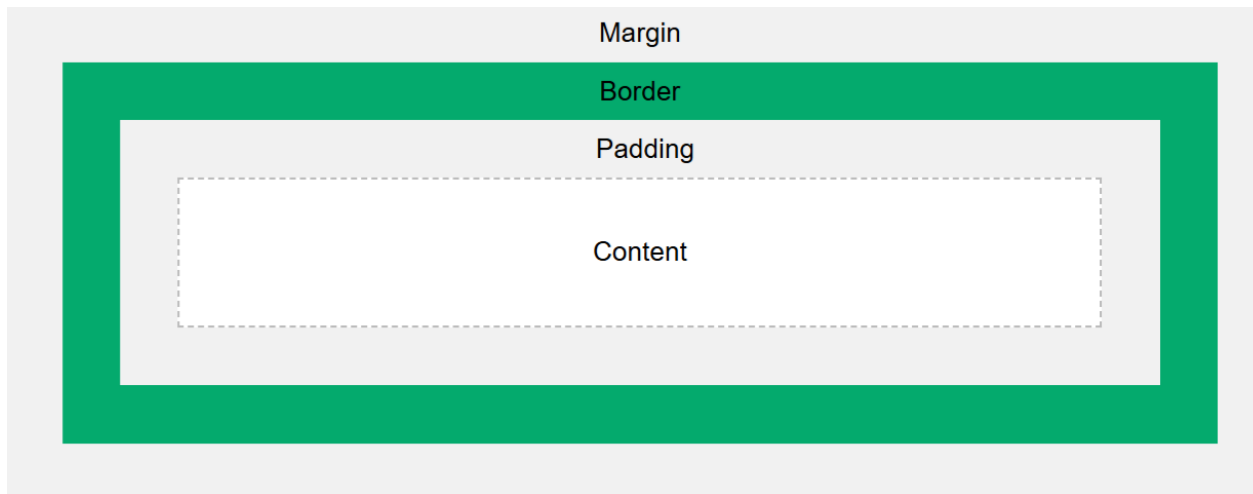div {
  padding: 25px 50px 75px 100px;
}

CSS Box Model

- In CSS, the term "box model" is used when talking about design and layout.

- The CSS box model is essentially a box that wraps around every HTML element. It consists of: content, padding, borders and margins. The image below illustrates the box model:

Margin

Border

Padding

Content

Example:
```
div {
  width: 300px;
  border: 15px solid green;
  padding: 50px;
  margin: 20px;
}
```

CSS TEXT

CSS has a lot of properties for formatting text.

- Text Color

- Text Alignment

- Text Decoration

- Text Transformation

- Text Spacing

- Text Shadow

```
h1 {
    color: green;
}

h1 {
    text-align: center;
}

h3 {
    text-decoration: underline;
}

p.uppercase {
    text-transform: uppercase;
}

p.one {
    word-spacing: 10px;
}

h1 {
    text-shadow: 2px 1px;
}
```

CSS FONTS

- Choosing the right font has a huge impact on how the readers experience a website.

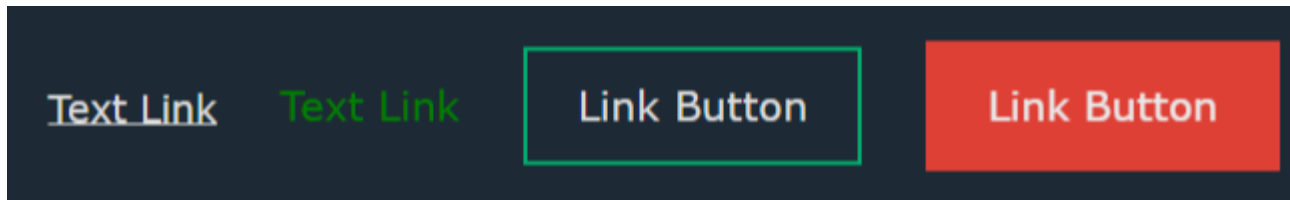- The right font can create a strong identity for your brand.

All CSS Font Properties

Property	Description
font	Sets all the font properties in one declaration
font-family	Specifies the font family for text
font-size	Specifies the font size of text
font-style	Specifies the font style for text
font-variant	Specifies whether or not a text should be displayed in a small-caps font
font-weight	Specifies the weight of a font

CSS LINKS

- With CSS, links can be styled in many different ways.

The four links states are:

- a:link - a normal, unvisited link
- a:visited - a link the user has visited
- a:hover - a link when the user mouses over it
- a:active - a link the moment it is clicked

CSS Lists

HTML Lists and CSS List Properties

In HTML, there are two main types of lists:

- unordered lists (<ul>) **-** the list items are marked with bullets
- ordered lists (<ol>) **-** the list items are marked with numbers or letters.

The CSS list properties allow you to:

- Set different list item markers for ordered lists
- Set different list item markers for unordered lists
- Set an image as the list item marker
- Add background colors to lists and list items

CSS Layout - The z-index Property

- When elements are positioned, they can overlap other elements.

- The z-index property specifies the stack order of an element (which element should be placed in front of, or behind, the others).

CSS APPLIED

- Hands-on CSS