

What is CSS

- **C**ascading **S**tyle **S**heets
- Contains the rules for the **presentation** domain of a web page .
- CSS was introduced to keep the **presentation** information **separate** from **HTML** markup (content).

The Cascade

- The power of CSS is found in the “cascade” which is the combination of the browser’s default styles, external style sheets, embedded, inline, and even user-defined styles.
- The cascade sets priorities on the individual styles which effects inheritance.

CSS Inheritance

- Allows elements to “inherit” styles from parent elements.
- Helpful in reducing the amount of CSS to set styles for child elements.
- Unless a more specific style is set on a child element, the element looks to the parent element for its styles.
- Each style has a numeric specificity value that is given based on its selector.

Types of Style Sheets

- External Style Sheet

```
<link rel="stylesheet" href="external.css" type="text/css" />
```

This is the Preferred method.

- Embedded Styles

```
<html>
  <head>
    <title>Welcome to CSS 101!</title>
    <style>
      .footer {
        width:90%;
      }
    </style>
  </html>
```

- Inline Styles

```
<div style="font-weight: bold;">I am bold</div>
```

CSS Syntax

```
selector{  
  property: value;  
}
```

The selector can either be a grouping of elements, an identifier, class attribute, or single HTML element (body, div, etc.)

Element Selector

Specify the style(s) for a single HTML element.

```
body {  
  margin: 0;  
  padding: 0;  
  border-top: 1px solid #ff0;  
}
```

Grouping Elements

Allows you to specify a single style for multiple elements at the same time.

```
h1, h2, h3, h4, h5, h6 {  
    font-family: "Trebuchet MS", sans-serif;  
}
```

The Class Selector

```
<p class="intro">This is my introductory text</p>
```

```
.intro {  
  font: 12px verdana, sans-serif;  
  margin: 10px;  
}
```


The Identifier Selector

```
<p id="intro"> This is my introduction text</p>
```

```
#intro {  
    border-bottom: 2px dashed #fff;  
}
```

CSS Selectors

- Identifier or class? What's the difference?
 - An identifier is specified only once on a page.
 - A class is reusable as many times as needed in a page.
 - Use identifiers for main sections and sub-sections of your document.

Adjacent Sibling Selector
Descendant Selector
Child Selector
Universal Selectors
Attribute Selectors

CSS Pseudo Classes

selector:pseudo-class { property: value }

:link

:visited

:hover

:active

} Link (A tag) related pseudo classes

:after

:before

:first-child

:focus

:first-letter

:first-line

:lang

CSS Property Values

- **Words:** text-align:center;.
- **Numerical values:** Numerical values are usually followed by a unit type.
font-size:12px;
12 is the numerical value and px is the unit type pixels.
 - Absolute Values – in, pc, px, cm, mm, pt
 - Relative Values – em, ex, %
- **Color values:** color: #336699 or color #369 or rgb(255, 255, 255).

Cascade Re-visited

The CSS cascade assigns a weight to each style rule. When several rules apply, the one with the greatest weight takes precedence.

Order of preference for various styles:

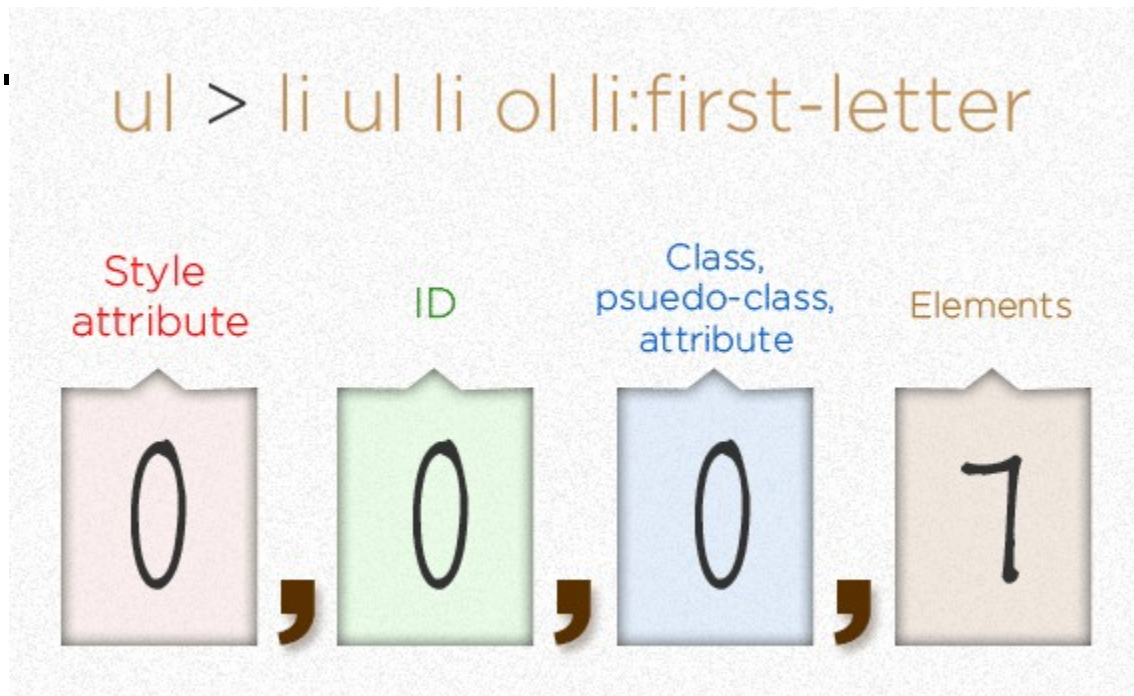
- Default browser style sheet (**weakest**)
- User style sheet
- Author style sheet
- Author embedded styles
- Author inline styles (**strongest**)



CSS Specificity

Rule 1. CSS File >> Embedded >> Inline

Rule 2.

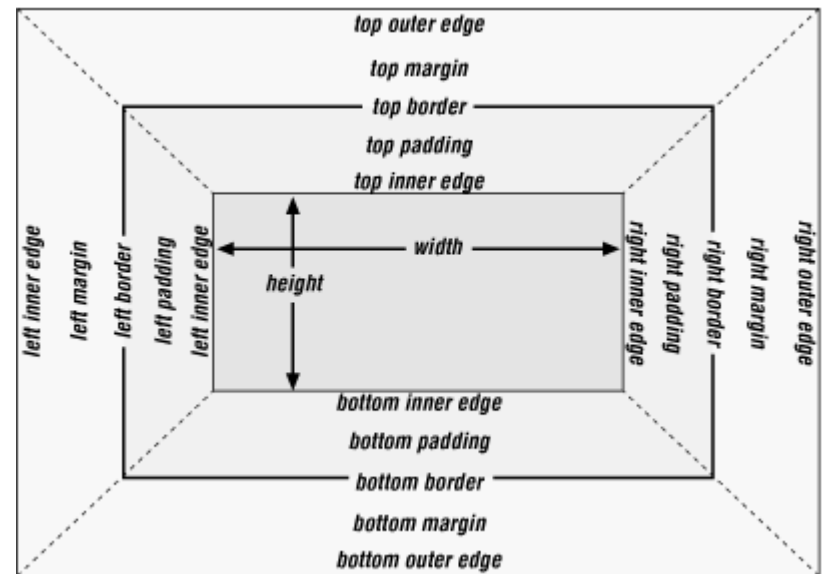


Inheritance

- Styles that relate to **text and appearance** are **inherited** by the descendant elements.
- Styles that relate to the appearance of boxes created by styling DIVs, paragraphs, and other elements, such as **borders, padding, margins** are **not inherited**.

The Box Model

- Every element in the DOM (Document Object Model) has a conceptual “box” for presentation.
- The box consists of margin, padding, border, content (width, height), and offset (top, left)



Categories of CSS properties

- Positioning and layout handling related.
- Background related properties.
- Font and text related
- Links related(e.g. hover state of links, text-decoration).
- Lists related. (e.g. list-style)
- Table related

CSS Fonts

- Font-family
- Font-weight
- Font-style
- Font-size