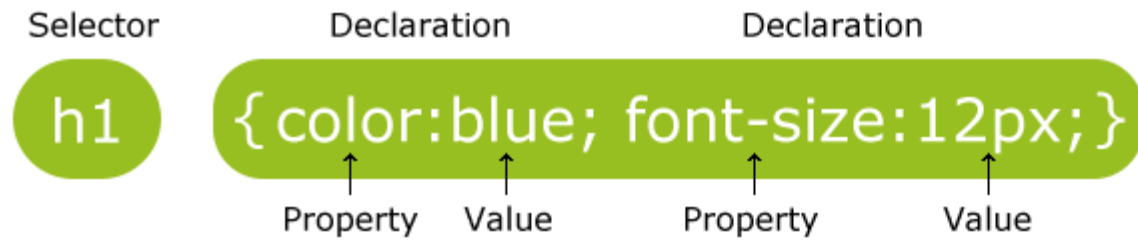


# CSS

CSS stands for Cascading Style Sheets

# CSS Syntax

A CSS rule set 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 property name and a value, separated by a colon.

# CSS Selectors

- ▶ CSS Selectors
- ▶ The id Selector
- ▶ The class Selector
- ▶ Grouping Selectors

# How To Insert CSS In to HTML

## ▶ Three Ways to Insert CSS

### ▶ External style sheet

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

### ▶ Internal style sheet

```
▶ <head>  
  <style>  
    body {  
      background-color: linen;  
    }  
  
    h1 {  
      color: maroon;  
      margin-left: 40px;  
    }  
  </style>  
</head>
```

### ▶ Inline style

```
▶ <h1 style="color:blue;margin-left:30px;">This is a heading.</h1>
```

## All CSS Background Properties

Property	Description
<a href="#"><u>background</u></a>	Sets all the background properties in one declaration
<a href="#"><u>background-attachment</u></a>	Sets whether a background image is fixed or scrolls with the rest of the page
<a href="#"><u>background-color</u></a>	Sets the background color of an element
<a href="#"><u>background-image</u></a>	Sets the background image for an element
<a href="#"><u>background-position</u></a>	Sets the starting position of a background image
<a href="#"><u>background-repeat</u></a>	Sets how a background image will be repeated

# All CSS Text Properties

Property	Description
<a href="#"><u>color</u></a>	Sets the color of text
<a href="#"><u>direction</u></a>	Specifies the text direction/writing direction
<a href="#"><u>letter-spacing</u></a>	Increases or decreases the space between characters in a text
<a href="#"><u>line-height</u></a>	Sets the line height
<a href="#"><u>text-align</u></a>	Specifies the horizontal alignment of text
<a href="#"><u>text-decoration</u></a>	Specifies the decoration added to text
<a href="#"><u>text-indent</u></a>	Specifies the indentation of the first line in a text-block
<a href="#"><u>text-shadow</u></a>	Specifies the shadow effect added to text
<a href="#"><u>text-transform</u></a>	Controls the capitalization of text
<a href="#"><u>unicode-bidi</u></a>	Used together with the <a href="#"><u>direction</u></a> property to set or return whether the text should be overridden to support multiple languages in the same document
<a href="#"><u>vertical-align</u></a>	Sets the vertical alignment of an element
<a href="#"><u>white-space</u></a>	Specifies how white-space inside an element is handled
<a href="#"><u>word-spacing</u></a>	Increases or decreases the space between words in a text

# CSS Fonts

## All CSS Font Properties

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

# CSS Lists

- ▶ 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

## All CSS List Properties

Property	Description
<a href="#"><u>list-style</u></a>	Sets all the properties for a list in one declaration
<a href="#"><u>list-style-image</u></a>	Specifies an image as the list-item marker
<a href="#"><u>list-style-position</u></a>	Specifies if the list-item markers should appear inside or outside the content flow
<a href="#"><u>list-style-type</u></a>	Specifies the type of list-item marker



# CSS Tables

- ▶ **Table Borders**

- ▶ **Collapse Borders**

- ▶ `table {  
border-collapse: collapse;  
}`

- `table, th, td {  
border: 1px solid black;  
}`

- ▶ **Table Width and Height**

- ▶ **Horizontal Text Alignment**

- ▶ **Vertical Text Alignment**

- ▶ **Table Padding**

- ▶ **Table Color**

# CSS Box Model



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

# All CSS Margin Properties

Property	Description
<u><a href="#">margin</a></u>	A shorthand property for setting the margin properties in one declaration
<u><a href="#">margin-bottom</a></u>	Sets the bottom margin of an element
<u><a href="#">margin-left</a></u>	Sets the left margin of an element
<u><a href="#">margin-right</a></u>	Sets the right margin of an element
<u><a href="#">margin-top</a></u>	Sets the top margin of an element

# CSS Dimension

## All CSS Dimension Properties

Property	Description	Values
<code>height</code>	Sets the height of an element	<code>auto</code> <code>length</code> <code>%</code> <code>inherit</code>
<code>max-height</code>	Sets the maximum height of an element	<code>none</code> <code>length</code> <code>%</code> <code>inherit</code>
<code>max-width</code>	Sets the maximum width of an element	<code>none</code> <code>length</code> <code>%</code> <code>inherit</code>
<code>min-height</code>	Sets the minimum height of an element	<code>length</code> <code>%</code> <code>inherit</code>
<code>min-width</code>	Sets the minimum width of an element	<code>length</code> <code>%</code> <code>inherit</code>
<code>width</code>	Sets the width of an element	<code>auto</code> <code>length</code> <code>%</code> <code>inherit</code>

# CSS Display and Visibility

- ▶ **Hiding an Element - `display:none` or `visibility:hidden`**
  - ▶ `visibility: hidden;`
  - ▶ `display: none;`
  - ▶ `display: inline;`
  - ▶ `display: block;`

# CSS Positioning

- ▶ Static Positioning
- ▶ Fixed Positioning
- ▶ Relative Positioning
- ▶ Absolute Positioning

# CSS Float

- ▶ What is CSS Float?
- ▶ Floating Elements Next to Each Other
- ▶ Turning off Float - Using Clear

# CSS Horizontal Align

- ▶ **Aligning Block Elements**
- ▶ **Center Aligning Using the margin Property**
- ▶ **Left and Right Aligning Using the position Property**
- ▶ **Left and Right Aligning Using the float Property**



# CSS Combinators

- ▶ There are four different combinators in CSS3:

- ▶ descendant selector

- ▶ The descendant selector matches all elements that are descendants of a specified element.

- ▶ 

```
div p {  
  background-color: yellow;  
}
```

- ▶ child selector

- ▶ The child selector selects all elements that are the immediate children of a specified element.

- ▶ 

```
div > p {  
  background-color: yellow;  
}
```

- ▶ adjacent sibling selector

- ▶ The adjacent sibling selector selects all elements that are the adjacent siblings of a specified element.

- ▶ 

```
div + p {  
  background-color: yellow;  
}
```

- ▶ general sibling selector

- ▶ The general sibling selector selects all elements that are siblings of a specified element.

- ▶ 

```
div ~ p {  
  background-color: yellow;  
}
```

# CSS Pseudo-classes

- ▶ A pseudo-class is used to define a special state of an element.
- ▶ For example, it can be used to:
  - ▶ Style an element when a user mouses over it
  - ▶ Style visited and unvisited links differently
- ▶ **Syntax**
- ▶ The syntax of pseudo-classes:
  - ▶ `selector:pseudo-class {  
    property:value;  
}`

# Pseudo-classes and CSS Classes

- ▶ **CSS - The :first-child Pseudo-class**

- ▶ In the following example, the selector matches any <p> element that is the first child of any element:

- ▶ `p:first-child {  
    color: blue;  
}`

- ▶ **Match the first <i> element in all <p> elements**

- ▶ `p i:first-child {  
    color: blue;  
}`

- ▶ **Match all <i> elements in all first child <p> elements**

- ▶ `p:first-child i {  
    color: blue;  
}`

# All CSS Pseudo Classes

Selector	Example	Example description
<a href="#"><u>:active</u></a>	a:active	Selects the active link
<a href="#"><u>:checked</u></a>	input:checked	Selects every checked <input> element
<a href="#"><u>:disabled</u></a>	input:disabled	Selects every disabled <input> element
<a href="#"><u>:empty</u></a>	p:empty	Selects every <p> element that has no children
<a href="#"><u>:enabled</u></a>	input:enabled	Selects every enabled <input> element
<a href="#"><u>:first-child</u></a>	p:first-child	Selects every <p> elements that is the first child of its parent
<a href="#"><u>:first-of-type</u></a>	p:first-of-type	Selects every <p> element that is the first <p> element of its parent
<a href="#"><u>:focus</u></a>	input:focus	Selects the <input> element that has focus
<a href="#"><u>:hover</u></a>	a:hover	Selects links on mouse over
<a href="#"><u>:in-range</u></a>	input:in-range	Selects <input> elements with a value within a specified range
<a href="#"><u>:invalid</u></a>	input:invalid	Selects all <input> elements with an invalid value
<a href="#"><u>:lang(<i>language</i>)</u></a>	p:lang(it)	Selects every <p> element with a lang attribute value starting with "it"
<a href="#"><u>:last-child</u></a>	p:last-child	Selects every <p> elements that is the last child of its parent
<a href="#"><u>:last-of-type</u></a>	p:last-of-type	Selects every <p> element that is the last <p> element of its parent
<a href="#"><u>:link</u></a>	a:link	Selects all unvisited links

## All CSS Pseudo Elements

Selector	Example	Example description
<u><a href="#">::after</a></u>	p::after	Insert content after every <p> element
<u><a href="#">::before</a></u>	p::before	Insert content before every <p> element
<u><a href="#">::first-letter</a></u>	p::first-letter	Selects the first letter of every <p> element
<u><a href="#">::first-line</a></u>	p::first-line	Selects the first line of every <p> element
<u><a href="#">::selection</a></u>	p::selection	Selects the portion of an element that is selected by a user

# What are Pseudo-Elements?

- ▶ A CSS pseudo-element is used to style specified parts of an element.
  - ▶ Style the first letter, or line, of an element
  - ▶ Insert content before, or after, the content of an element .
- ▶ The syntax of pseudo-elements:
- ▶ `selector::pseudo-element {  
 property:value;  
}`
- ▶ **The ::first-line Pseudo-element**
- ▶ The ::first-line pseudo-element is used to add a special style to the first line of a text.
- ▶ The ::first-line pseudo-element can only be applied to block elements.

# CSS Image Opacity / Transparency

- ▶ The CSS3 property for transparency is **opacity**.
- ▶ **Example**
- ▶ 

```
img {  
  opacity: 0.4;  
  filter: alpha(opacity=40); /* For IE8 and earlier */  
}
```

# CSS Image Sprites

- ▶ An image sprite is a collection of images put into a single image.
- ▶ A web page with many images can take a long time to load and generates multiple server requests.
- ▶ Using image sprites will reduce the number of server requests and save bandwidth.
- ▶ **Image Sprites - Hover Effect**
- ▶ **The :hover selector is used to select elements when you mouse over them.**

**Tip:** The :hover selector can be used on all elements, not only on links.



# CSS Media Types

- ▶ **The @media Rule**
- ▶ The @media rule makes it possible to define different style rules for different media types in the same stylesheet.

```
▶ @media screen {  
    p {  
        font-family: verdana, sans-serif;  
        font-size: 17px;  
    }  
}
```

```
@media print {  
    p {  
        font-family: georgia, serif;  
        font-size: 14px;  
        color: blue;  
    }  
}
```

## Other Media Types

Media Type	Description
all	Used for all media type devices
aural	Used for speech and sound synthesizers
braille	Used for braille tactile feedback devices
embossed	Used for paged braille printers
handheld	Used for small or handheld devices
print	Used for printers
projection	Used for projected presentations, like slides
screen	Used for computer screens
tty	Used for media using a fixed-pitch character grid, like teletypes and terminals
tv	Used for television-type devices

# CSS3 Multiple Columns

## CSS3 Multi-columns Properties

The following table lists all the multi-columns properties:

Property	Description
<a href="#"><u>column-count</u></a>	Specifies the number of columns an element should be divided into
<a href="#"><u>column-fill</u></a>	Specifies how to fill columns
<a href="#"><u>column-gap</u></a>	Specifies the gap between the columns
<a href="#"><u>column-rule</u></a>	A shorthand property for setting all the column-rule-* properties
<a href="#"><u>column-rule-color</u></a>	Specifies the color of the rule between columns
<a href="#"><u>column-rule-style</u></a>	Specifies the style of the rule between columns
<a href="#"><u>column-rule-width</u></a>	Specifies the width of the rule between columns
<a href="#"><u>column-span</u></a>	Specifies how many columns an element should span across
<a href="#"><u>column-width</u></a>	Specifies a suggested, optimal width for the columns
<a href="#"><u>columns</u></a>	A shorthand property for setting column-width and column-count