



CSCI-UA-4-005

Intro to Web Design + Computer Principles

CSS

Professor Emily Zhao

M/W 12:30PM – 1:45PM



Agenda

- ***HTML Errors:*** Warm-Up/Review
- Introduce CSS
- ***NYC Website Demo:*** CSS
- Introduce Assignment #3

Find the 6 HTML Errors

```
<!DOCTYPE html>
<html>
<head>
  <title>My Page with Errors</title>
</head>
<body>
  <h1>Welcome to My Page</h2>

  <p>This is a <strong>paragraph.</p>

  

  <a href=https://www.example.com>Visit Example.com<a>

  <div>This is a div</div>

  <ul>
    <li>Item 1</li>
    <li>Item 2
      <ul>
        <li>Subitem 1
        <li>Subitem 2</li>
      </ul>
    </li>
  </ul>
</body>
</html>
```

CSS

```
body {  
  background-color: white;  
}  
  
h1 {  
  color: #2d2d2d;  
  font-family: Helvetica, sans-serif;  
  font-size: 1.3em;  
}  
  
.title {  
  font-size: 1.7em;  
}  
  
p {  
  color: #2d2d2d;  
  font-family: Georgia, serif;  
  font-size: 1em;  
  line-height: 1.4em;  
}  
  
a:link, a:visited {  
  color: black;  
  text-decoration: underline;  
}  
  
a:hover {  
  color: black;  
  background: orange;  
}
```

History of CSS

- 1990s: Web pages were commonly styled with HTML tags and structured with tables
- 1996: To separate content from presentation, the concept of CSS was proposed. In 1996, the World Wide Web Consortium (W3C) released the first CSS specification, [CSS1](#) [fonts, colors, margins]
- 1998: [CSS2](#) [absolute positioning, improved support for tables, more sophisticated selectors for targeting elements]
- Ongoing: [CSS3](#) [gradients, animations, transitions, media queries, and more]

Cascading Style Sheets (CSS)

- Separates the content (HTML) from its presentation (styling)
- Allows you to style elements such as text, fonts, colors, backgrounds, borders, and spacing
- Enables you to define the layout of pages, including the positioning of elements, responsive design for various screen sizes, and multi-column layouts



CSS ZEN GARDEN

The Beauty of CSS Design

[VIEW ALL DESIGNS](#)



A demonstration of what can be accomplished through CSS-based design. Select any style sheet from the list to load it into this page.

Download the example  HTML FILE and  CSS FILE

THE ROAD TO ENLIGHTENMENT

Littering a dark and dreary road lay the past relics of browser-specific tags, incompatible DOMs, broken CSS support, and abandoned browsers.

We must clear the mind of the past. Web enlightenment has been achieved thanks to the tireless efforts of folk like the W3C, WASP, and the major browser creators.

The CSS Zen Garden invites you to relax and meditate on the important lessons of the masters. Begin to see with clarity. Learn to use the time-honored techniques in new and invigorating fashion. Become one with the web.

MID CENTURY MODERN

by Andrew Lohman

GARMENTS

by Dan Mall

STEEL

by Steffen Knoeller

APOTHECARY

by Trent Walton

SCREEN FILLER

by Elliot Jay Stocks

CSS Application

CSS can be applied in 3 different ways to a web page:

1. Inline with HTML code
2. In the `<head>` section of an HTML document
3. In an external `.css` file*

**preferred method*

Filter

CSS

Tutorials

CSS basics

▶ CSS first steps

▶ CSS building blocks

▶ Styling text

▶ CSS layout

Reference

▶ Modules

▶ Properties

▶ Selectors

▶ Combinators

▶ Pseudo-classes

▶ Pseudo-elements

▶ At-rules

▶ Functions

▶ Types

CSS reference

Use this **CSS reference** to browse an [alphabetical index](#) of all of the standard **CSS** properties, [pseudo-classes](#), [pseudo-elements](#), [data types](#), [functional notations](#) and [at-rules](#). You can also browse [key CSS concepts](#) and a list of [selectors organized by type](#). Also included is a brief [DOM-CSS / CSSOM reference](#).

Basic rule syntax

Style rule syntax

CSS

```
style-rule ::=
  selectors-list {
    properties-list
  }
```

Where:

CSS

```
selectors-list ::=
  selector[:pseudo-class] [::pseudo-element]
  [, selectors-list]

properties-list ::=
  [property : value] [; properties-list]
```

In this article

[Basic rule syntax](#)[Index](#)[Selectors](#)[Concepts](#)[DOM-CSS / CSSOM](#)[See also](#)[External Links](#)

CSS Rule Set

Selector

Indicates which HTML element will be formatted

Property/Value pair(s)

Specifies formatting to apply

Style rules are separated by a semicolon

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

Specifying colors in CSS

[Named color](#)

```
background-color: red;
```

Hexadecimal code

```
background-color: #FF0000;
```

Red, green, blue (RGB)

```
background-color: rgb(255, 0, 0);
```

Hue, saturation, lightness (HSL)

```
background-color: hsl(0, 100%, 50%);
```

Cascade

The principle of the “cascade” is applied when style rules are in conflict

Three primary factors determine which style rule wins out:

- Inheritance
- Specificity
- Location

Styling Links

There are four primary link states:

link	Describes the styles that illustrate to the user that an element is a link; default is <u>blue underlined text</u>
visited	What a link looks like after it has been clicked on; default is <u>purple underlined text</u>
hover	What a link looks like when the mouse cursor is hovering on it
active	What a link looks like when you are actively clicking on the link

Units of Length

There are two types of length units in CSS: **relative** and **absolute**.

Relative units of length include:

- em (relative to font size)
- % (relative to the containing element)

Absolute units of length include:

- px (pixels)

Alternatively specifications:

- auto (browser calculates length)
- inherit (from the parent element)

ids

- An attribute used to uniquely identify a specific HTML element within a webpage
- Selected using a # followed by the id name.
- Only ONE instance of a id can be used on a HTML page

HTML

```
<h1 id="title">  
    ...  
</h1>
```

CSS

```
#title {  
    color: yellow;  
}
```

classes

- An attribute used to uniquely identify a specific HTML element within a webpage
- Selected using a . followed by the class name.
- Several instances of a style can be used on a HTML page

HTML

```
<article class="blog-post">  
    ...  
</article>
```

CSS

```
.blog-post {  
    background: yellow;  
}
```