Introduction to CSS

CSS

- CSS is the acronym of "Cascading Style Sheets"." which are equally called CSS files (.css).

- Initial release - 7 December 1996; 27 years ago

- CSS was first proposed by Hakon Wium Lie on 10 October 1994

HTML and CSS

The Cottage Garden

The *cottage garden* is a distinct style of garden that uses an informal design, dense plantings, and a mixture of ornamental and edible plants.

The Cottage Garden originated in England and its history can be traced back for centuries, although they were re-invented in 1870's England, when stylized versions were formed as a reaction to the more structured and rigorously maintained English estate gardens.

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Specification

BOXES	TEXT	Specific
- Width and height - Borders (color, width, and style) - Background color and images - Position in the browser window	- Typeface - Size - Color - Italics, bold, uppercase, lowercase, small-caps	There are also specific ways in which you can style certain elements such as lists, tables, and forms.

CSS Associates Style rules with HTML elements

CSS Properties Affect How Elements Are Displayed

```
h1, h2, h3 {
                font-family: Arial;
                color: yellow;}
```

PROPERTY   VALUE

This rule indicates that all <h1>, <h2> and <h3> elements should be shown in the Arial typeface, in a yellow color.

Properties indicate the aspects of the element you want to change. For example, color, font, width, height and border.

Values specify the settings you want to use for the chosen properties. For example, if you want to specify a color property then the value is the color you want the text in these elements to be.

EXAMPLE

From Garden to Plate

A *potager* is a French term for an ornamental vegetable or kitchen garden. Often flowers (edible and non-edible) and herbs are planted with the vegetables to enhance the garden's beauty. The goal is to make the function of providing food aesthetically pleasing.

What to Plant

Plants are chosen as much for their functionality as for their color and form. Many are trained to grow upward. A well-designed potager can provide food, cut flowers and herbs for the home with very little maintenance. Potagers can disguise their function of providing for a home in a wide array of forms - from the carefree style of the cottage garden to the formality of a knot garden.

```
<!DOCTYPE html>
<html>
  <head>
    <title>Introducing CSS</title>
    <link href="css/example.css" type="text/css"
        rel="stylesheet" />
  </head>
  <body>
    <h1>From Garden to Plate</h1>
    <p>A <i>potager</i> is a French term for an
        ornamental vegetable or kitchen garden ... </p>
    <h2>What to Plant</h2>
    <p>Plants are chosen as much for their functionality
        as for their color and form ... </p>
  </body>
</html>
```

```
body {
  font-family: Arial, Verdana, sans-serif;}
h1, h2 {
  color: #ee3e80;}
p {
  color: #665544;}
```

Using External CSS

```
<!DOCTYPE html>
<html>
  <head>
    <title>Using External CSS</title>
    <link href="css/styles.css" type="text/css"
      rel="stylesheet" />
  </head>
  <body>
    <h1>Potatoes</h1>
    <p>There are dozens of different potato
      varieties. They are usually described as
      early, second early and maincrop.</p>
  </body>
</html>
```

chapter-10/styles.css   **CSS**

```
body {
    font-family: arial;
    background-color: rgb(185,179,175);}
h1 {
    color: rgb(255,255,255);}
```

RESULT

Potatoes

There are dozens of different potato varieties. They are usually described as early, second early and maincrop potatoes.

<link>

The <link> element can be used in an HTML document to tell the browser where to find the CSS file used to style the page. It is an empty element (meaning it does not need a closing tag), and it lives inside the <head> element. It should use three attributes:

href

This specifies the path to the CSS file (which is often placed in a folder called css or styles).

type

This attribute specifies the type of document being linked to. The value should be text/css.

rel

This specifies the relationship between the HTML page and the file it is linked to. The value should be stylesheet when linking to a CSS file.

Using Internal CSS

```html
<!DOCTYPE html>
<html>
  <head>
    <title>Using Internal CSS</title>
    <style type="text/css">
      body {
          font-family: arial;
          background-color: rgb(185,179,175);}
        h1 {
          color: rgb(255,255,255);}
    </style>
  </head>
  <body>
    <h1>Potatoes</h1>
    <p>There are dozens of different potato
       varieties. They are usually described as
       early, second early and maincrop.</p>
  </body>
</html>
```

RESULT

Potatoes

There are dozens of different potato varieties. They are usually described as early, second early and maincrop potatoes.

CSS Selectors

SELECTOR	MEANING	EXAMPLE
UNIVERSAL SELECTOR	Applies to all elements in the document	`* {}` Targets all elements on the page
TYPE SELECTOR	Matches element names	`h1, h2, h3 {}` Targets the `<h1>`, `<h2>` and `<h3>` elements

CLASS SELECTOR	Matches an element whose class attribute has a value that matches the one specified after the period (or full stop) symbol	`.note {}`
		Targets any element whose class attribute has a value of note
		`p.note {}`
		Targets only `<p>` elements whose class attribute has a value of note

ID SELECTOR	Matches an element whose id attribute has a value that matches the one specified after the pound or hash symbol	`#introduction {}` Targets the element whose id attribute has a value of introduction
CHILD SELECTOR	Matches an element that is a direct child of another	`li>a {}` Targets any `<a>` elements that are children of an `<li>` element (but not other `<a>` elements in the page)

DESCENDANT SELECTOR	Matches an element that is a descendent of another specified element (not just a direct child of that element)	`p a {}` Targets any `<a>` elements that sit inside a `<p>` element, even if there are other elements nested between them
ADJACENT SIBLING SELECTOR	Matches an element that is the next sibling of another	`h1+p {}` Targets the first `<p>` element after any `<h1>` element (but not other `<p>` elements)
GENERAL SIBLING SELECTOR	Matches an element that is a sibling of another, although it does not have to be the directly preceding element	`h1~p {}` If you had two `<p>` elements that are siblings of an `<h1>` element, this rule would apply to both

How Css Rules Cascade

```
<h1>Potatoes</h1>
<p id="intro">There are <i>dozens</i> of different
    <b>potato</b> varieties.</p>
<p>They are usually described as early, second early
    and maincrop potatoes.</p>
```

CSS

```
* {
    font-family: Arial, Verdana, sans-serif;}
h1 {
    font-family: "Courier New", monospace;}
i {
    color: green;}
i {
    color: red;}
b {
    color: pink;}
p b {
    color: blue !important;}
p b {
    color: violet;}
p#intro {
    font-size: 100%;}
p {
    font-size: 75%;}
```

RESULT

Potatoes

There are *dozens* of different **potato** varieties.

They are usually described as early, second early and maincrop potatoes.

LAST RULE
If the two selectors are identical, the latter of the two will take precedence. Here you can see the second i selector takes precedence over the first.

SPECIFICITY
If one selector is more specific than the others, the more specific rule will take precedence over more general ones. In this example:

h1 is more specific than *
p b is more specific than p
p#intro is more specific than p

IMPORTANT
You can add !important after any property value to indicate that it should be considered more important than other rules that apply to the same element.

Inheritance

```
<div class="page">
  <h1>Potatoes</h1>
  <p>There are dozens of different potato
    varieties.</p>
  <p>They are usually described as early, second
    early and maincrop potatoes.</p>
</div>
```

CSS

```
body {
  font-family: Arial, Verdana, sans-serif;
  color: #665544;
  padding: 10px;}
.page {
  border: 1px solid #665544;
  background-color: #efefef;
  padding: inherit;}
```

RESULT

Potatoes

There are dozens of different potato varieties.

They are usually described as early, second early and maincrop potatoes.

If you specify the **font-family** or **color** properties on the **<body>** element, they will apply to most child elements. This is because the value of the **font-family** property is **inherited** by child elements. It saves you from having to apply these properties to as many elements (and results in simpler style sheets).

Exercise

From Garden to Plate

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Why use External Style Sheets?

- When building a website there are several advantages to placing your rules in a separate style sheet.

- Sometimes you might consider placing CSS rules in the same page as your HTML code.

CSS1 was released in 1996 and CSS2 followed two years later. Work on CSS3 has been ongoing but the major browsers have already started to implement it.

Exercise

Create an HTML file named index.html.

Add a title to your webpage (e.g., "My Favorite Hobby").

Include a header section with a title for your hobby.

Create a main content section that includes:

- An image related to your hobby.

- A paragraph describing why you enjoy this hobby.

Style your webpage using CSS:

- Set a background color for the page.

- Style the header section with a different background color, font color, and padding.

- Style the main content section with a border, padding, and margin.

- Center-align the text in the main content section.

- Set a specific font family for the text.