

Introduction to CSS

RWD I1

Exercises from last time

Questions

Recap images

```

```

- **src:** URL to the picture/image to show
- **alt:** Description of the picture – shown if the picture can't be seen
Can be read by screen readers
- **title:** Description of the picture
Often shown as tool tip when hovering
over the picture



Recap - Thumbnail Image

A small image configured to link to a larger version of that image



```
<a href="big.jpg" ></a>
```

What is CSS?

- CSS is an acronym for **C**ascading **S**tyle **S**heets
- CSS is a style language that defines layout of HTML documents
- CSS offers more options and is more accurate and sophisticated than inline styling in HTML
- ***HTML is used to structure content***
- ***CSS is used for formatting structured content***

Understanding CSS:

Thinking Inside the Box

The Cottage Garden

The cottage garden is a distinct style of garden that uses an informal design, dense planting 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.

The earliest cottage gardens were more practical than their modern descendants, with an emphasis on vegetables and herbs, along with some fruit trees.

The HTML code

```
<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>
```

Result

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.

It can be done better!

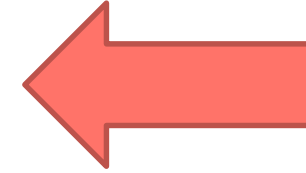


Cascading Style Sheets

Types of Cascading Style Sheets

- **Inline Styles**

- Configured in the body of the Web page
- Use the style attribute of an HTML tag
- Apply only to the specific element



- **Embedded Styles**

- Configured in the header section of a Web page.
- Use the HTML <style> element
- Apply to the entire Web page document

- **External Styles/Imported styles**

- Configured in a separate text file with .css file extension
- The HTML <link /> element in the header section of a Web page associates it with the .css file

Inline Styles

- Nearly all HTML tags has attributes
 - One is **style**

```
<p style="font-family:sans-serif;font-size:2em;color:#FFFFFF; background-color:#000000; text-align:right;">White text on black background aligned to the right</p>
```



White text on black background aligned to the right

The font-family Property

- Not everyone has the same fonts installed on their computer
 - Configure a list of fonts and include a generic family name as the last fallback possibility

Font-family Category	Font Typeface
serif	Times New Roman, Georgia, Times
sans-serif	Arial, Verdana, Geneva
monospace	Courier New, Lucida Console
cursive	Brush Script MT, Comic Sans MS
fantasy	Jokerman, Curlz MT

```
<p style="font-family: Arial, Verdana, sans-serif">Here is some text</p>
```

The font-size Property

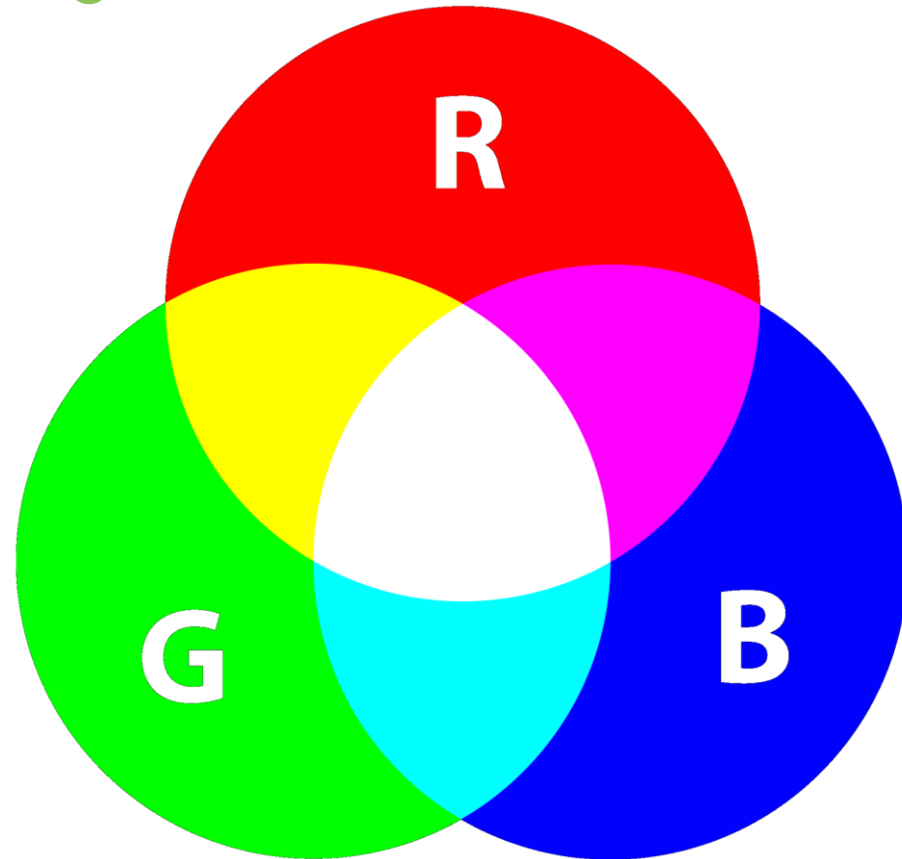
Text Values	Em Units	Px Units	Pt Units	Percentage
xx-small	.5 em	10 px	6 pt	50%
x-small	.60 em	11 px	8 pt	60%
small	.75 em	13 px	10 pt	75%
medium	1 em	16 px	12 pt	100%
x-large	1.5 em	24 px	18 pt	150%
xx-large	2 em	28 px	24 pt	200%

Accessibility Recommendation:

Use **em** or **percentage** font sizes – these can be easily enlarged in all browsers by users

Color

- Colors are combined using their **red**, **green**, and **blue** values
- This is called RGB
- The values range from 0 to 255
- `rgb(0, 0, 0)` is black.
- `rgb(255, 255, 255)` is white



Converting RGB to hexadecimal

- # is used to indicate a hexadecimal value

#FFFFFF	#FFFFCC	#FFFF99	#FFFF66	#FFFF33	#FFFF00
#FFCCFF	#FFCCCC	#FFCC99	#FFCC66	#FFCC33	#FFCC00
#FF99FF	#FF99CC	#FF9999	#FF9966	#FF9933	#FF9900

- Three hex value pairs describe an RGB color (16,777,216 different colors)

#000000 black

#FF0000 red

#00FF00 green

#0000FF blue

#CCCCCC grey

Alternative color names can be used
(147 predefined colors)

Take a look here:

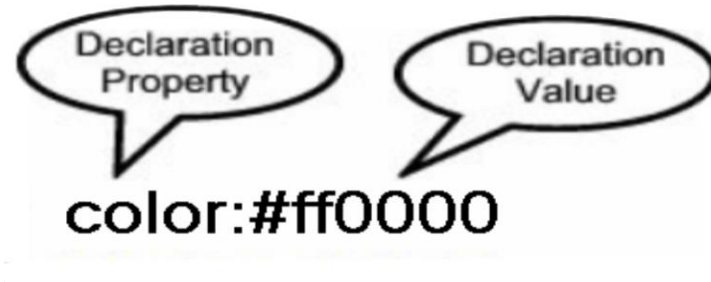
http://www.w3schools.com/html/html_colornames.asp

Configuring Color with Inline css

- The Style Attribute
 - Value: one or more style declaration property and value pairs

color defines the text color

Example: configure red color text in an <h1> element:



```
<h1 style="color:#ff0000">Heading text is red</h1>
```

Heading text is red

Configuring Color with Inline CSS

Example 2: configure the red text in the heading
configure a gray background in the heading

```
<h1 style="color:#FF0000;background-color:#cccccc">This is displayed as a red heading with gray background</h1>
```

This is displayed as a red heading with gray background

Separate style rule declarations with



15 minutes

- Try to play around with the `color` and `background-color` properties for different elements in one of your HTML files
 - Play with the text properties for some of your text
 - Try to combine color and text styling
- Use the **style** attribute for styling HTML elements
 - `background-color`
 - `color`
 - `font-family`
 - `font-size`
 - `text-align`

Why external style sheets?

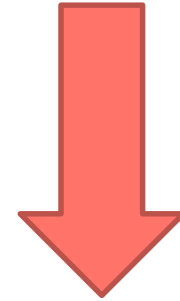
- All layout and formatting are separated from contents
 - Same CSS can be used for every page of the website (pages link to same .css-file).
 - The HTML files are exactly the same
 - No need to copy style code into each webpage
 - Changes to CSS automatically apply to the entire website

Types of Cascading Style Sheets

- **Inline Styles**

- Configured in the body of a HTML document
- Use the style attribute of an HTML tag
- Apply only to the specific element

TRY TO AVOID USING
INLINE STYLES



- **Embedded Styles**

- Configured in the head section of a HTML document
- Use the HTML <style> element
- Apply to the entire Web page document

- **External Styles**

- Configured in a separate text file with .css file extension
- The HTML <link /> element in the header section of a HTML document associates it with the .css file

USE
EXTERNAL
STYLES !!!!

CSS syntax

SELECTOR



p {

font-family: Arial; }



DECLARATION

CSS syntax

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



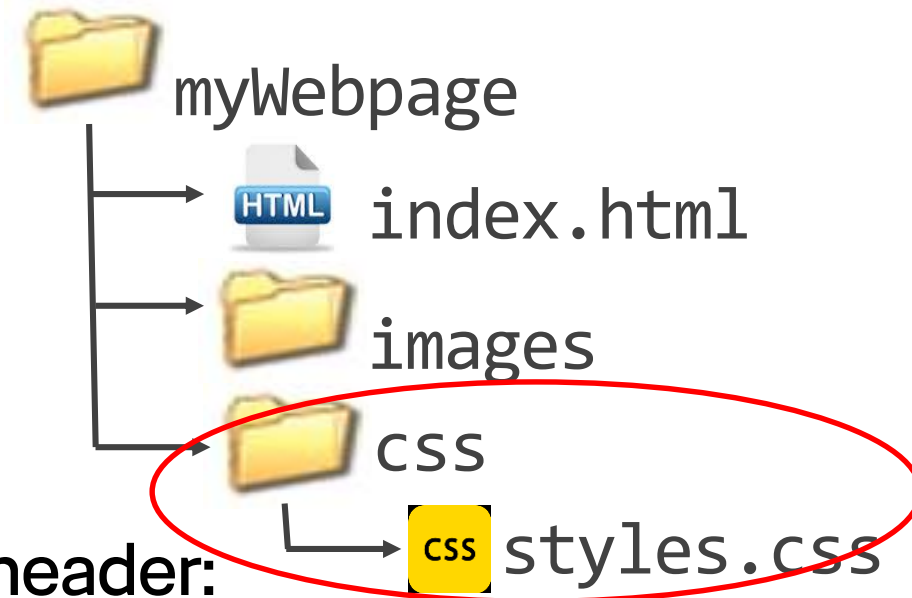
PROPERTY VALUE

Embedded Styles

```
<head>
  <title>Some page title</title>
  <style type="text/css">
    body {
      background-image: url("background.jpg");
      color: #FFFFFF;
    }
    h1 {
      background-color: #cccccc;
      color: #FF0000;
    }
  </style>
</head>
<body>
  . . .
```

External Styles – Separate File

- Separate file(s) with the .css extension
- Often placed in dedicated subdirectory
- Included in a HTML doc through a link in the header:



```
<head>
<title>Some page title</title>
<link href="css/styles.css" type="text/css" rel="stylesheet" />
</head>
<body>
...
```

Always the same

Inside the .css-file

```
* {  
  font-size: 1.2em;  
}  
  
body {  
  background-image: url("background.jpg");  
  color: #FFFFFF;  
}  
  
h1 {  
  background-color: #cccccc;  
  color: #FF0000;  
}
```

When to use CSS in the HTML document?



Only when a few extra rules should be implemented for one page!

Exercises

- CSS at www.w3schools.com
- Creating a .css-file in Brackets
- **Today's Exercise:**
 - Improve the Star Pizza webpage using CSS. The relevant files can be found on Studienet