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# **About your instructor**

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## **How I got Started on the Web**

- 1996: Taught myself HTML after becoming fascinated with the Internet, built first personal site on geocities
- 2005: Became a full-time web freelancer, opened Websmith Solutions
- 2008: Got a job doing WordPress websites at a small agency, made over 300 sites
- 2012: Became a WordPress Evangelist at a hosting company, spoke at 25 WordCamps in 10 states
- 2014: Worked as a front-end Developer at a large WordPress Agency
- 2015: Web Design, Development, Training and Consulting as Suzette.Pro



Follow me on Twitter:
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#### Welcome!

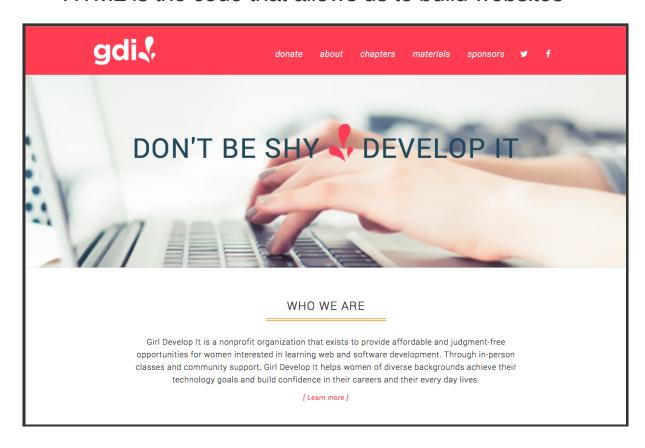
#### Tell us about yourself.

- Who are you?
- What do you hope to get out of the class?
- What's your favorite thing about California?



#### What is HTML?

HTML is the code that allows us to build websites



#### What is HTML?

#### If you 'view the source', you see this

```
2 <html lang="en-US">
    <title>Girl Develop It</title>
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <script src="/assets/jquery.mapael-10b4f90f7f931efd9a617404dd1c50de.js"></script>
    <script src="/assets/usa states-7fc7a2fcc43e2acdb7dce2f87993cbe0.js"></script>
    <script src=*/assets/chapter map-dd08cc8e47cf73f6cdc71c91d6f07a84.js*></script>
    <script src="/assets/main-cbfa78345e15f007e71fcce96ff43bbb.js"></script>
    khref="/assets/favicon-0c3b20033708d79d4ea49edda321bfbf.ico" rel="shortcut icon" type="image/vnd.microsoft.icon" />
    <meta content="authenticity_token" name="csrf-param" />
   <meta content="o11kAHRD4kRaJPOIGJJ11bDe4Peh289PrhutG3yKq0Q=" name="csrf-token" />
   (function(i,s,o,g,r,a,m){i['GoogleAnalyticsObject']=r;i[r]=i[r]||function(){
   ga('create', 'UA-19096645-1', 'auto');
   ga('send', 'pageview');
26 </script>
   </head>
    <a id="skipnav" href="#main-content">Skip to main content</a>
  dahref="https://github.com/girldevelopit/gdi-new-site" class="fork-me">.<img style="position: absolute; top: 0; right: 0; border: 0; *
src="https://camo.githubusercontent.com/52760788cde945287fbb584134c4cbc2bc36f904/68747470733a2f2f73332e6i6d617a6f6e6177732e636f6d2f6769746875622f726962626f6e7
32f6e6f728b66555f726967687455f75685974655f666666665665620706e6f* alt="Pork me on Github" data-camonical-</pre>
  src="https://s3.amazonaws.com/github/ribbons/forkme_right_white_ffffff.png"></a>
   <!-- load header partial -->
   <nav class="navigation">
      <a href="/donate">donate</a>
      <a href="/about">about</a>
      <a href="/chapters">chapters</a><a href="/materials">materials</a>
      <a href="/sponsors">sponsors</a>
     <a target="_blank" href="https://twitter.com/girldevelopit">
       <i class="fa fa-twitter"></i></i>
       </a>
      <a target="_blank" href="https://www.facebook.com/girldevelopit">
        <i class="fa fa-facebook"></i>
       </a>
     </nav>
```

### **History of HTML**

- Invented by Tim Berners-Lee
- Created "hypertext" to share scientific papers
- First web page August 6, 1991
- Standardized by w3 Consortium (pack of super nerds)

# **History of HTML**

- HyperText Markup Language
- Early 90s
- HTML 4 in 1997
- XHTML in 2000
- HTML 5 in 2008

#### **Terms**

• Web design

The process of planning, structuring and creating a website

• Web development

The process of programming dynamic web applications

Front-end

The outwardly visible elements of a website or application

Back-end

The inner workings and functionality of a website or application.

#### **Tools**

Browser

**Chrome** 

Firefox

• Development Toolkit

Chrome - Inspector

Firefox - Firebug

Text Editor

TextWrangler - Mac

Notepad ++ - Windows

**Sublime Text - Linux, Mac or Windows** 

gedit - Linux

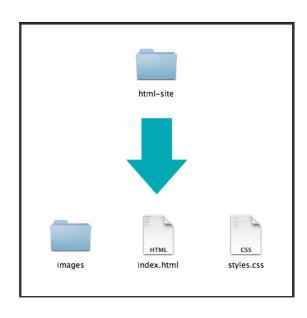
#### **Get Started: Folder Structure**

All the files for your site should be stored within the same folder.

#### This includes:

- HTML Files
- CSS Files
- Images
- Script files
- Anything else that will appear on your site

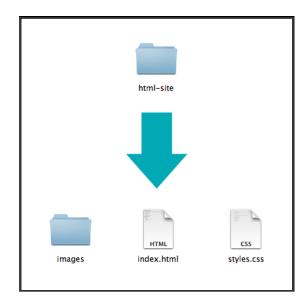
Note: File names should not include spaces or special characters. File names ARE case sensitive.



### **Let's Develop it!**

#### Let's get our development environment set up

- 1. Open Sublime Text 2
- 2. Create a folder on your desktop with an images folder and empty text files named index.html and style.css
- 3. Drag folder from desktop onto Sublime Window
- 4. Open index.html in your browser



# What we'll be building today

Today we will be learning how to code a site from scratch using paragraphs, headings, links, images, and lists.



### **Anatomy of a website**

**Your Content** 

+ HTML: Structure

+ CSS: Presentation

= Your Website

A website is a way to present your content to the world, using HTML and CSS to present that content & make it look good.

### **Anatomy of a website**

#### Concrete example

- A paragraph is your content
- Putting your content into an HTML tag to make it look like a paragraph is Structure

A paragraph is your content

Make the font of your paragraph blue and 18pt is presentation
 A paragraph is your content

### **Anatomy of an HTML element**

#### Element

- An individual component of HTML
- Paragraph, heading, table, list, div, link, image, etc.

#### • Tag

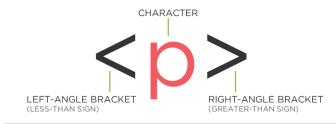
- Marks the beginning & end of an element
- Opening Tag and Closing Tag
- Tags contain characters that indicate the tag's purpose

<tagname>Stuff in the middle</tagname>

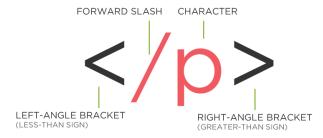
This is a sample paragraph.

# **Tag Breakdown**

#### **OPENING TAG**



#### **CLOSING TAG**



### **Anatomy of an HTML element**

- Container Element
  - An element that can contain other elements or content
  - A paragraph () contains text
- Stand Alone Element
  - An element that cannot contain anything else

```
<br/><img/>
```

### **Anatomy of an HTML element**

#### Attribute

- Provides additional information about the HTML element
- Class, ID, language, style, identity, source
- Placed inside an opening tag, before the right angle bracket.

#### Value

- Value is the value assigned to a given attribute.
- Values must be contained inside quotation marks.

```
<div id="copyright">© GDI 2015</div>
<img src="my_picture.jpg"/>
<ahref="http://girldevelopit.com">GDI</a>
```

### **Doctype**

The first thing on an HTML page is the doctype, which tells the browser which version of the markup language the page is using.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML
4.01 Transitional//EN" "http://
www.w3.org/TR/html4/loose.dtd">
```

<!DOCTYPE html>

\* The doctype is case-insensitive.

DOCtype, doctype, DocType and DoCtYpe are all valid.

# **HTML Tag**

After <doctype>, the page content must be contained between <html> tags.

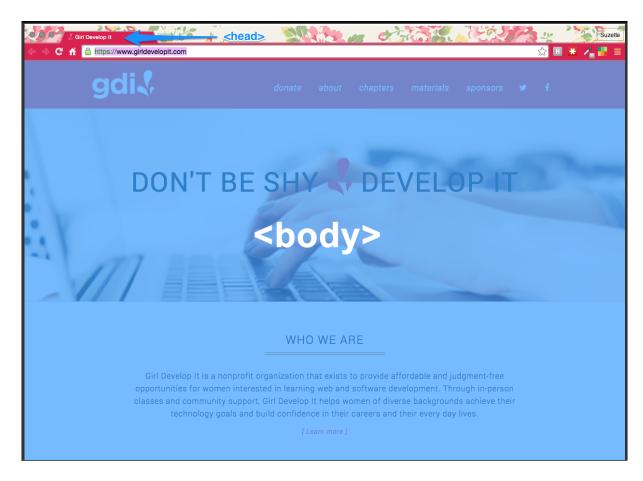
```
<!DOCTYPE html>
<html>
```

#### **Head and Body Tags**

Head: The head contains the title of the page & meta information about the page. Meta information is not visible to the user, but has many purposes. One of which is to tell search engines about your page, who created it, and a description.

Body: The body contains the actual content of the page. Everything that is contained in the body is visible to the user.

### **Head and Body Tags: Example**



# **Head and Body Tags**

```
<!DOCTYPE html>
<html>
<head>
</ittle>Title of the page </title>
</head>
<body>
The page content here.
</body>
</html>
```

### Let's develop it!

Let's get our web page set up with a doctype, head, title and body.

- 1. In your index.html, add the doctype.
- 2. Add the html opening and closing tags.
- 3. Add a head tag with a nested title tag.
- 4. Add the body tag with some space between for content which we will add later.

## **Nesting**

#### All elements "nest" inside one another

Nesting is what happens when you put other containing tags inside other containing tags. For example, you would put the inside of the <body> tags. The is now nested inside the <body>



Whichever element OPENS first CLOSES last

## **Nesting: Example**

Elements are 'nested' inside the <body> tag.

Paragraphs 'nested' inside list items.

```
    A paragraph inside a list item
```

# **Element: Paragraph**

\* White space is only for humans!

```
Paragraph 1

(p) Paragraph 1 
(p) Paragraph 2 
(p) Paragraph 3 
(p) Paragraph 1 
(p) Paragraph 2 
(p) Paragraph 2 
(p) Paragraph 3 
(p) Paragraph 3
```

### **Example: Paragraphs**

Paragraphs allow you to format your content in a readable fashion.

Starting with the higher resolution is my preferred way to design apps for Apple devices, as it allows me to set the appearance of each single pixel, and add details which won't be visible on the scaled-down version. In the worst case, if you have to use bitmap textures for some reason, the scaled-down version will look a lot better than a scaled-up one (which will have blurry textures).

When designing in 2x resolution, you have to think a bit more about what you're doing. For example, you have to avoid sizes like 3 or 5 pixels for border widths, and the same applies to effects like drop shadows — a scaled-down blur ratio of 5 pixels would result in 2 or 3 px blur, and neither would be the result you want to achieve when aiming for real perfection.

I have seen other designers doing it the other way: starting with the normal size, and scaling the whole design up when it is done. Either way is absolutely fine — I think it always depends on the designer's personal preference. However, in this article I will only describe the way to start with the 2x resolution graphics first.

<sup>\*</sup> You can edit how paragraphs are displayed with CSS

### **Element: Heading**

<h1>Heading 1</h1>

<h2>Heading 2</h2>

<h3>Heading 3</h3><h4>Heading 4</h4>

<h5>Heading 5</h5>

<h6>Heading 6</h6>

**Heading 1** 

**Heading 2** 

**Heading 3** 

**Heading 4** 

**Heading 5** 

**Heading 6** 

\* Heading number indicates hierarchy, not size. Think: Outlines from high school papers

(semantic markup, rather than presentational)

#### **Example: Headings**

#### From 63% to 99% Profile Completion

HiredMyWay takes the traditional recruiting process online, connecting candidates, effective hiring process.

A Forbes 2012 Top Career Site.

#### Treat your users like humans again.

It's just common sense: a fun game is better than a jumble of letters you can't read. That's why 98% of users prefer PlayThru to CAPTCHA. And the other 2%? Well, some people are gluttons for punishment.

#### **USE WORDPRESS**

It may seem self-evident, but using WordPress for yoursel could be publishing your own personal blog or building a member. Find a way to use WordPress. It's a little crazy to to the top of something when you've never experienced the user.

#### I'm Not A Developer! What Car

You do not need to know how to write code to g involved in WordPress were developers, then Wo today. Here are some of the things you can do:

#### **Formatted text**

 Here is a paragraph with <em>Emphasized</em> text and <strong>Impo rtant</strong> text. Here is a paragraph with Emphasized text and Important text.

\* Notice: em and strong are meant to indicate meaning rather than style. (Semantic) If you want to have italicized for appearance and not to communicate meaning, you should use CSS.

### **Let's Develop it!**

#### Let's add some content to our site!

- 1. Add one of each level of heading with 1-2 short paragraphs of text below each heading.
- 2. Use Cupcakelpsum.com for text
- 3. Mark some text as emphasized and important

#### **Element: Link**

#### Links have three components

- Tag: <a></a>
- Href attribute: "http://www.girldevelopit.com"
- Title attribute: "Girl Develop It"

<ahref="http://www.girldevelopit.com" title="Girl Develop It Homepage">GDI</a>

#### **GDI**

The <a> tag surrounds text or images to turn them into links

#### **Link Attributes**

Links can have attributes that tell the link to do different actions like open in a new tab, or launch your e-mail program.

<a href="home.html" target="\_blank">Link Text</a>

Link opens in a new window/tab with target="\_blank"

<ahref="mailto:info@girldevelopit.com">E-mailus!</a>

Link opens mail program by inserting mailto: directly before the email address.

# Relative vs. Absolute paths for links & images

#### Relative

- Relative paths change depending upon the page the link is on.
  - Links within the same directory need no path information. "filename.jpg"
  - Subdirectories are listed without preceding slashes. "images/filename.jpg"

#### Absolute

 Absolute paths refer to a specific location of a file, including the domain.

"http://www.girldevelopit.com/chapters/los-angeles"

Typically used when pointing to a link that is not within your own domain.

### **Let's Develop It**

#### Let's add links to our site!

- 1. Create an empty contact.html file in the same folder as your index.html
- 2. On your index.html, create a relative (internal) link to open in the same window for Contact page
- 3. Create an abosolute (external) link to a new window
- 4. Email link to an e-mail address

### **Element: Image**

Images have three components

- Tag: <img/>
- Src attribute: "http://wilt.xyz/pink-logo.png"
- Alt attribute: "Girl Develop It logo"

<img src ="http://wilt.xyz/pink-logo.png" alt = "Girl Develop It Logo"/>



\* Notice: This tag is our first example of a stand-alone or "self-closing" element.

#### **Element: Line Break**

Imagine there's no Heaven <br/>It's easy if you try <br/>No hell belowus <br/>Above us only sky

Imagine there's no Heaven It's easy if you try No hell below us Above us only sky

#### **Let's Develop It!**

Let's add some images and line breaks to our page.

We can even turn our images into links!

- 1. Add some line breaks
- 2. Add an image from your computer using a relative path
- Add an image from the internet using the absolute path ( http://lorempixel.com/)
- 4. Add hyperlinks around the image

#### **Element: Unordered and ordered lists**

```
  List Item
  AnotherList Item

    List Item
    List Item
    List Item
    AnotherList Item
    AnotherList Item
    (1)
```

Unordered list (bullets)

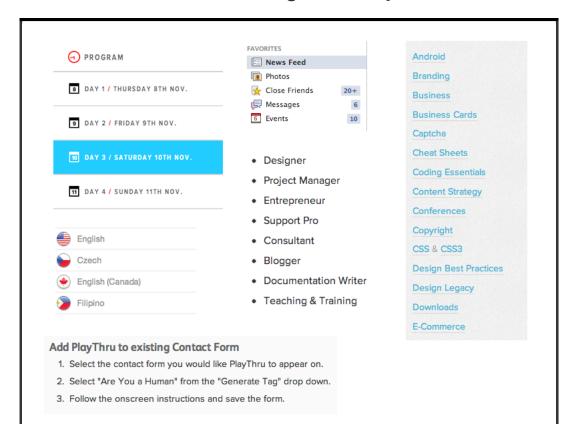
- List Item
- AnotherList Item

Ordered list (sequence)

- 1. List Item
- 2. AnotherList Item

### **Lists: Examples**

Lists can be used to organize any list of items.



You'd be surprised how often lists are used in web design.

#### **Let's Develop it!**

Let's add some ordered and unordered lists to our page.
We can make a list of links or even a list of images!

- 1. Make an unordered list of your top 5 favorite foods using the UL tag
- 2. Make an ordered list of your top 5 favorite songs using OL tag
- 3. Add hyperlinks to each list item, remember to close each tag in the same order you opened them

#### **Comments**

You can add comments to your code that will not be seen by the browser, but only visible when viewing the code.

```
<!-- Comment goes here -->
```

Comments can be used to organize your code into sections so you (or someone else) can easily understand your code. It can also be used to 'comment out' large chunks of code to hide it from the browser.

### **Let's Develop it!**

Let's add some comments to our page.

- 1. Add a comment before your unordered list describing what the content is.
- 2. Comment out fist the ordered list on your page

#### **Tables**

Tables are a way to represent complex information in a grid format.

Tables are made up of rows and columns.

```
table>

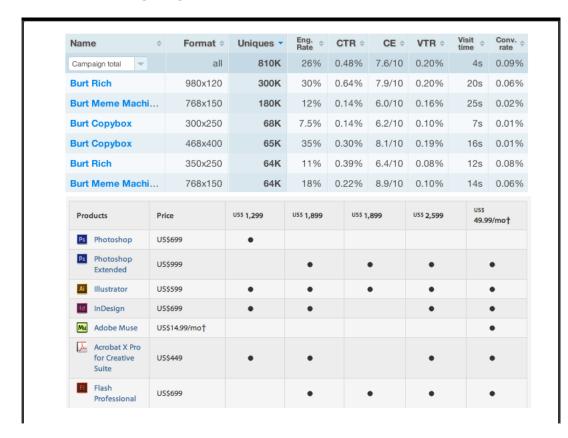
Head

</ta>
```



#### **Tables: Examples**

Tables can be styled with CSS to add zebra striping or to highlight important rows/columns.



#### **Character codes**

There are character codes for many different characters in many different languages

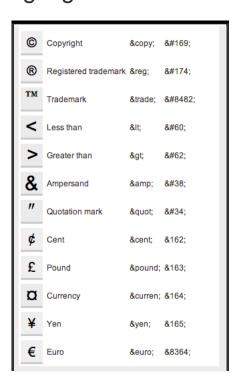
Delta: δ δ

 Copyright symbol: © ©

• Grave: ` `

• An grave a: à à

 A full list is available at htmlandcssbook.com



### **Let's Develop it!**

Let's add some special characters to our page.

1. Add a copyright statement with a hyperlink to your email address

Copyright ©2015 by Suzette Franck.

### **Break Time**

### **Anatomy of a website**

Presentation

+ HTML: Structure

+ CSS: Presentation

= Your Website

A website is a way to present your content to the world, using HTML and CSS to present that content & make it look good.

#### **CSS: What is it?**

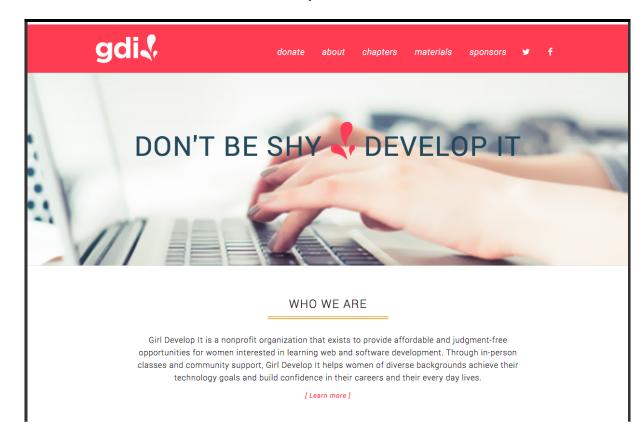
CSS = Cascading Style Sheets

CSS is a "style sheet language" that lets you style the elements on your page.

CSS is works in conjunction with HTML, but is not HTML itself.

#### **CSS: What can it do?**

All colored text, position, and size



#### **CSS: What does it look like?**

```
body {-
   font: 100% "Gotham", sans-serif;
   width: 100%;-
    padding: 0;-
    margin: 0;-
header{-
    clear:both;-
    width: 100%;-
h3{-
    font-size: 110%; -
    font-weight: normal;-
   letter-spacing: 1px;¬
    margin-bottom: 12px;-
    margin-top: 10px;-
    text-transform: uppercase;
a{¬
    color: #01A9B4;-
    text-decoration: none;-
    background-color: transparent;-
a:hover⊸
{−
   color: #222;-
#page, #site_bar_content, .header, .footer {-
  max-width: 1200px;-
  min-width: 480px;-
  margin: 0px auto;-
.header{-
    padding: 10px 15px;-
```

#### **The CSS Rule**



#### **The CSS Rule**

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

A block of CSS code is a rule.

The rule starts with a selector.

It has sets of properties and values.

A property-value pair is a declaration.

### **CSS Syntax**

Declarations: Property and value of style you plan use on HTML element.

Declarations end with a semicolon

Declaration groups are surrounded by curly brackets.

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

#### **Selector: Element**

```
p {
  property: value;
}
```

Selects all paragraph elements.

```
img {
  property: value;
}
```

Selects all image elements.

#### **Selector: ID**

```
#footer {
  property: value;
}
```

Selects all elements with an id of "footer".

Copyright 2015

The associated HTML.

#### **Selector: Class**

```
.warning {
  color: red;
}
```

Selects all elements with a class of "warning".

```
<pclass="warning">Run away!
```

The associated HTML.

#### **IDs vs. Classes**

ID -- Should only apply to one element on a webpage. I.E. A webpage only has one footer.

The "#" is how you tell CSS "this is an id."

Class -- Lots of elements can have the same class. I.E. There can be many .warning declarations on one webpage.

The "." is how you tell CSS "this is a class name."

#### **Selector: Position**

```
pem {
  color: yellow;
}
```

Selects all em elements that are within a paragraph

This is <em>important.</em>

The associated HTML.

## **Property Values**

Each property can have one or more comma separated values.

```
p{
  color: white;
  background-color: red;
  font-family: Arial, sans-serif;
}
```

#### **Property: Color**

The color property changes the color of the text.

```
p {
  color: red;
  color: #ff0000;
  color: rgb(255, 0, 0);
}
```

- Color name
- Hexadecimal value
- RGB value

The 17 standard colors from the HTML specification are: aqua, black, blue, fuchsia, gray, green, lime, maroon, navy, olive, purple, red, silver, teal, , and yellow.

### **Property: Background-color**

The background-color property changes the color of the background.

```
p {
  background-color: black;
  background-color: #000000;
  background-color: rgb(0,0,0);
}
```

### **Property: Background Image**

The background-image property allows you to apply an image to the background of elements.

```
body {
  background-image: url(images/image.jpg);
}
```

#### **Property: Background-position**

To position your background image properly use the background-position property.

Use top, left, bottom & right, values.

You can also use numerical values. Calculated from the top & left.

```
body {
  background-position: top left;
}
body {
  background-position: 50px 10px;
}
```

### **Property: Background-repeat**

To set how and if the background will repeat, use the background-repeat property.

Don't repeat

background-repeat: repeat-y;

# **Property: Background (shorthand)**

```
body {
background: url(images/image.jpg) no-repeat top left red;
}
```

### **Property: Font-family**

The font-family property defines which font is used.

```
p {
  font-family: "Times New Roman";
  font-family: serif;
  font-family: "Arial", sans-serif;
}
```

Specific font name
Generic name
Comma-separated list

### **Property: Font-size**

The font-size property specifies the size of the font.

```
p {
  font-size: 12px;
  font-size: 1.5em;
  font-size: 100%;
}
```

Pixels
"em"
Percentage

# **Property: Fonts (shorthand)**

```
p {
    font-style: italic;
    font-weight: bold;
    font-size: 10px;
    font-family: sans-serif;
}

OR

p {
    font: italic bold 10px sans-serif;
}
```

# **Connecting CSS to HTML**

3 ways

"Inline"

"Embedded"

"External"

### **Connecting CSS to HTML: Inline**

<pstyle="color:red">Some text.

Uses the HTML attribute style.

Difficult to use in large projects

Not preferred.

### **Connecting CSS to HTML: Embedded**

```
<head>
  <style type="text/css">
  p {
     color: blue;
     font-size: 12px;
  }
  </style>
  </head>
```

Inside <head> element.

Uses <style> tag.

Can only be used in one html file

### **Connecting CSS to HTML: Linked**

Shared resource for several pages.

Reduced file size & bandwidth

Easy to maintain in larger projects.

Preferred by nerds everywhere!

#### **Let's Develop It**

Let's link our style sheet to our web page and add some styles

- 1. Open style.css in Sublime.
- 2. Add a link to this file in head of your index.html.
- 3. Add some ids and classes to change specific elements to index.html.
- 4. In style.css, add styles to elements, classes, and ids to change the colors and background colors

### **Cascading**

#### Styles "cascade" down until changed

```
p{
  color:blue;
  font-family: 'Helvetica';
}
.red{
  color:red;
}
#special{
  font-family: Arial;
}

Paragraph
   Paragraph
   Paragraph
   Paragraph
```

### **CSS Properties**

Many CSS properties have self-explanatory names:

- background-color
- font-family
- font-size
- font-style
- font-weight
- text-align
- text-decoration
- text-size
- text-transform

**Comprehensive list of all CSS properties**