



Beginning HTML and CSS

Class 1

Getting Started

Terms

Web design

The process of planning, structuring and creating a website

Web development

The process of programming dynamic web applications

Front end

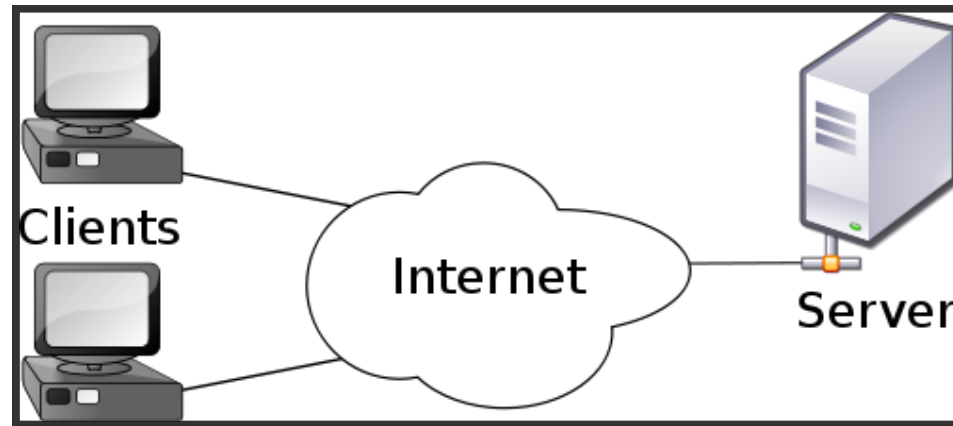
The outwardly visible elements of a website or application

Back end

The inner workings and functionality of a website or application.

Terms: Clients and Servers

How your computer accesses websites



Client-side

The "front end"; what happens on the user's computer

Server-side

The "back end"; what happens before a page reaches the client

Tools

Browser — The software that displays webpages

Chrome, Firefox, Internet Explorer, Safari, etc...

Development Toolkit — Helpful tools for learning and troubleshooting

Chrome Dev Tools, Firebug, Safari Web Inspector, IE Developer Tools

Text Editor — The software you write your code with

Sublime Text, Notepad++, Brackets, Komodo Edit, TextWrangler, etc...

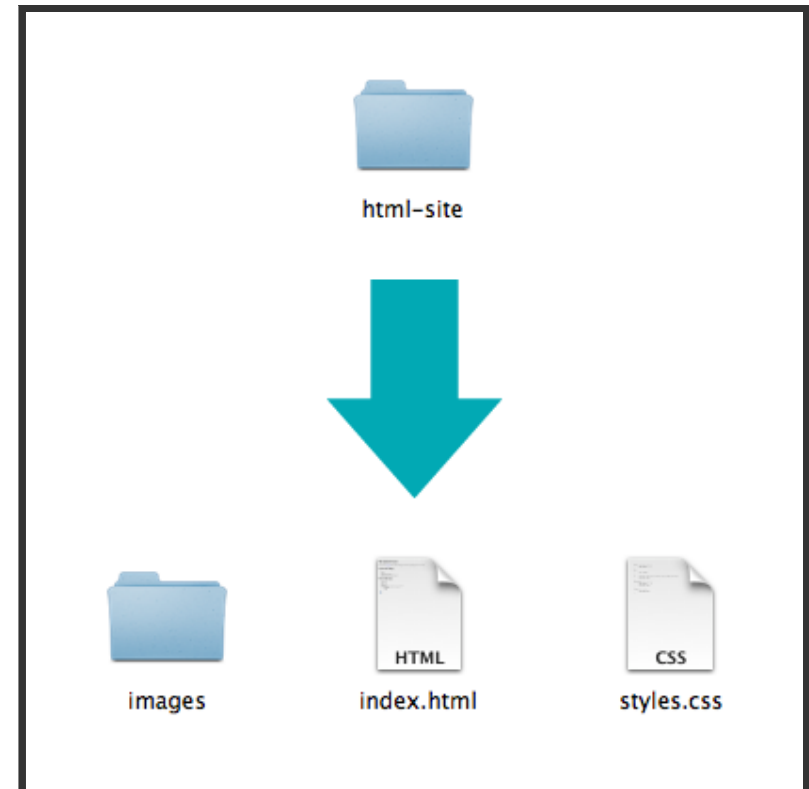
Folder Structure

All site files should be stored in the same folder!

This includes:

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

File names should not include spaces or special characters, and are case sensitive.



Text Editor Projects

Most development-focused text editors make it simple to have an entire folder open. Try **File > Open...**, then select a *folder*, not a file.

This lets you easily see all the files in your project so that you don't have to switch back and forth between the text editor and your operating system's file explorer.

Anatomy of a Website

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 of text is your **content**
- Putting your content into an HTML tag to mark it up as a paragraph is **structure**

`<p>A paragraph of text is your content</p>`

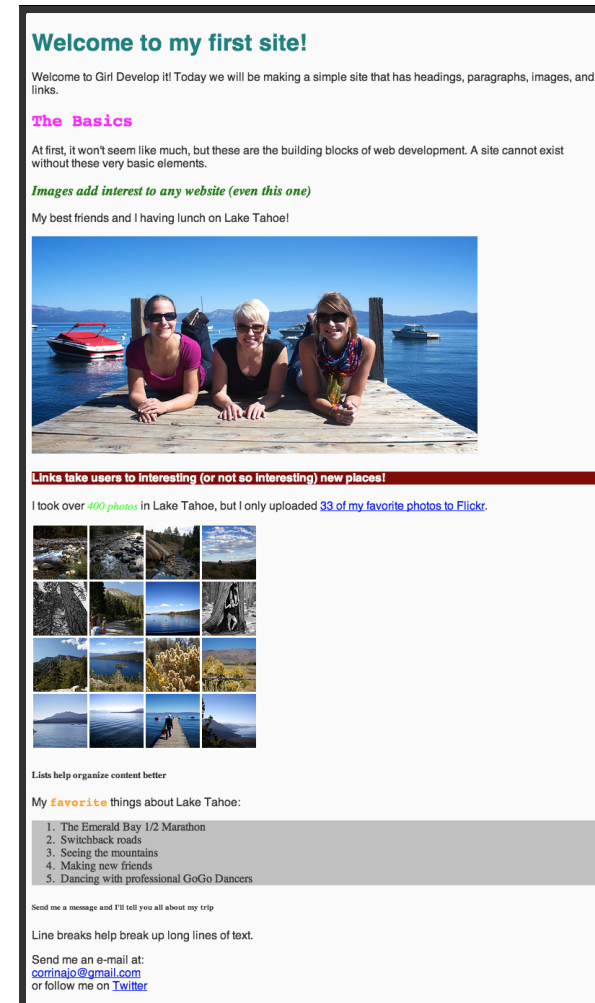
- Making your paragraph text green and 48px is **presentation**

A paragraph of text is your content

What We'll Build Today

Today we'll learn how to code a site from scratch using paragraphs, headings, links, images, and lists.

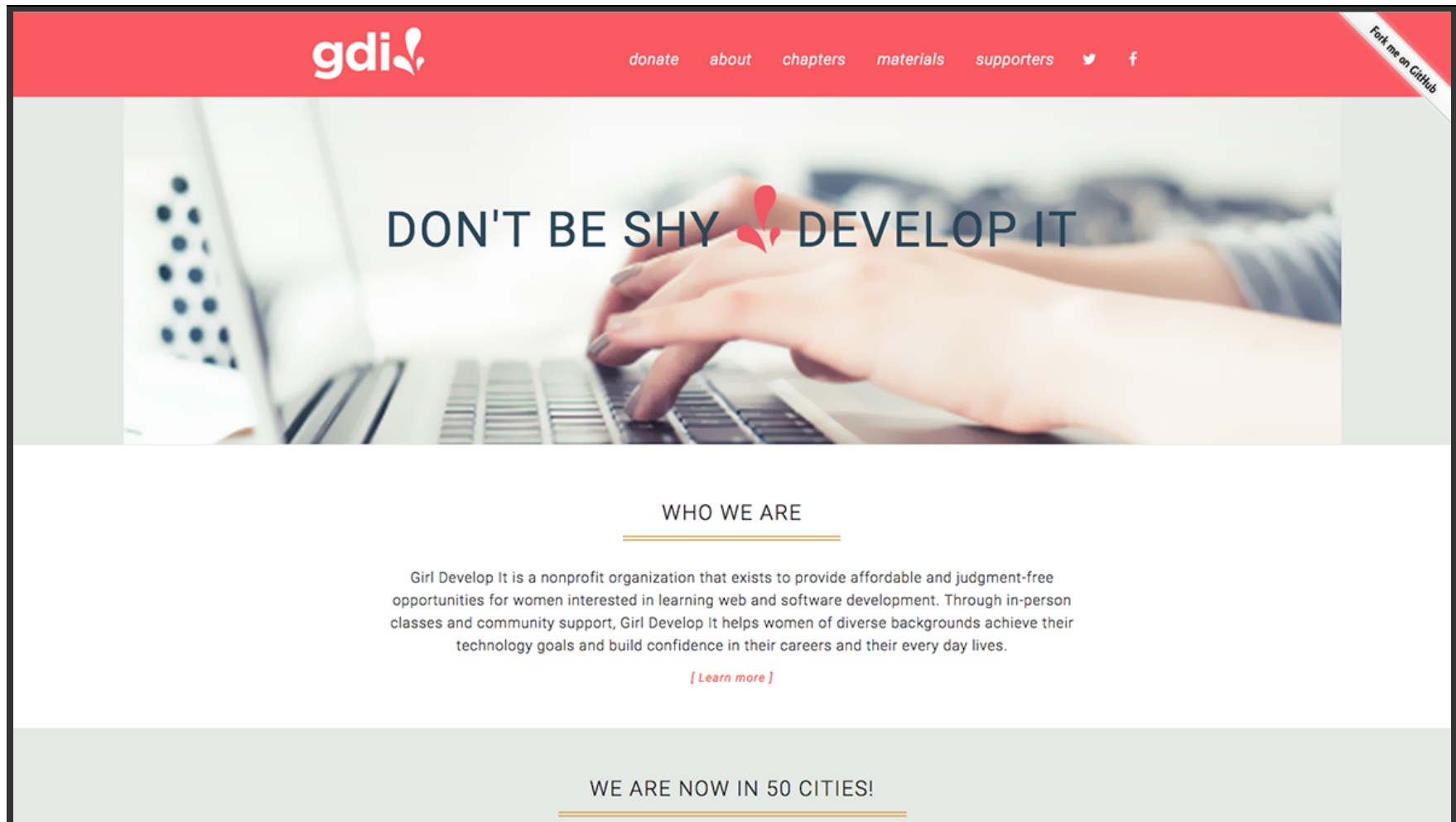
It'll look pretty plain until we learn about CSS in our next session.



Intro to HTML

What is HTML?

HTML is the code that allows us to build websites



What is HTML?

If you 'view the source', you see this

```
35 <a class="logo" href="/"></a>
36 <nav class="navigation">
37   <ul>
38     <li><a href="/donate">donate</a></li>
39     <li><a href="/about">about</a></li>
40     <li><a href="/chapters">chapters</a></li>
41     <li><a href="/materials">materials</a></li>
42     <li><a href="/supporters">supporters</a></li>
43   </ul>
44   <ul>
45     <li>
46       <a target="blank" href="https://twitter.com/girldevelopit">
47         <i class="fa fa-twitter"></i>
48       </a>
49     </li>
50     <li>
51       <a target="blank" href="https://www.facebook.com/girldevelopit">
52         <i class="fa fa-facebook"></i>
53       </a>
54     </li>
55   </ul>
56 </nav>
57 </div>
58 </header>
59
60 <p class="notice"></p>
61 <p class="alert"></p>
62
63 <div id="main-content" tabindex="-1">
64   <div class="opener">
65     <h1><span class="animated fadeInLeft">Don't be shy</span>  <span class="animated
66     fadeInRight">Develop it</span></h1>
67   </div>
68   <div class="container">
69     <section class="mission-statement">
70       <div class="underlined-headline">
71         <h2>Who We Are</h2>
72       </div>
73       <div>
74         <p class="large">Girl Develop It is a nonprofit organization that exists to provide affordable and judgment-free opportunities for women interested in learning web and software development. Through
75         in-person classes and community support, Girl Develop It helps women of diverse backgrounds achieve their technology goals and build confidence in their careers and their every day lives.</p>
76         <a class="subtitle" href="/about">[ Learn more ]</a>
77       </div>
78     </section>
79     <section class="map">
80       <div class="container">
81         <div class="underlined-headline">
82           <h2>We are now in 50 cities!</h2>
83         </div>
84         <p class="subtitle hide">
85           Don't see your hometown?
86           <a href="https://docs.google.com/a/girldevelopit.com/forms/d/1IwGncJ6_69MHa2_rrik05Q3DLrIA04Eq9x0BUnxkwTw/viewform?edit_requested=true#start=invite">Start a new chapter!</a>
87         </p>
88         <a class="subtitle show-inline" href="/chapters">Find GDI in your hometown!</a>
89       </div>
90       <div class="us_map hide">
91         <div class="map"></div>
92       </div>
93     </div>
94   </section>
```

History of HTML

- Invented by Tim Berners-Lee
- Created "hypertext" to share scientific papers
- First web page August 6, 1991
- Standardized by the World Wide Web Consortium (W3C)

History of HTML

HTML stands for HyperText Markup Language

Important Milestones:

- HTML 4 in 1997
- XHTML in 2000
- HTML 5 in 2008

... and it's still evolving.

HTML Element Basics

Anatomy of an HTML Element

Element

An individual component of HTML: paragraph, heading, table, list, section, link, image, & many more.

Tag

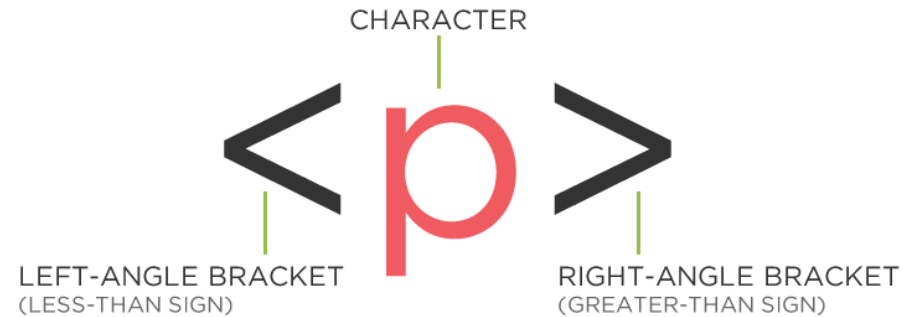
- Opening tag marks the beginning of an element
- Closing tag marks the end of an element
- The *syntax* involves special characters—>, < and /—wrapping the tag name

```
<tagname>Stuff in the middle</tagname>
```

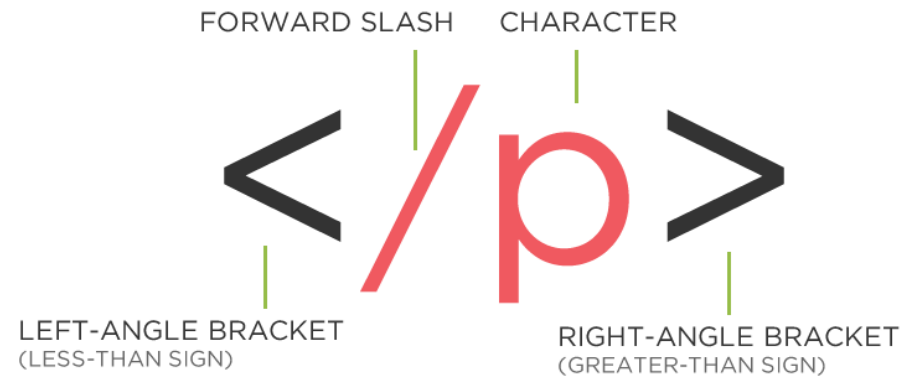
```
<p>This is a sample paragraph.</p>
```

Tag Breakdown

OPENING TAG



CLOSING TAG



Tag Types

Container Element

An element that can contain other elements or content.
Has both an opening and closing tag.

```
<p>A paragraph contains text</p>
```

Standalone Element

An element that does not contain anything. Known as a
self-closing tag.

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

Attribute/Value Pairs

Opening tags can have info beyond just the tag name.

Attribute

Provides additional information about the HTML element: class, id, language, source, title, & many others.

Value

Values are assigned to attributes, and must be surrounded by quotation marks.

```
<tagname attribute="value">content</tagname>
```

```

```

```
<a href="http://girldevelopit.com">GDI</a>
```

The Basic Document

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.

HTML 5

```
<!DOCTYPE html>
```

Old-style

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

HTML Tag

After **<!DOCTYPE>**, the page content must be contained between **<html>** tags.

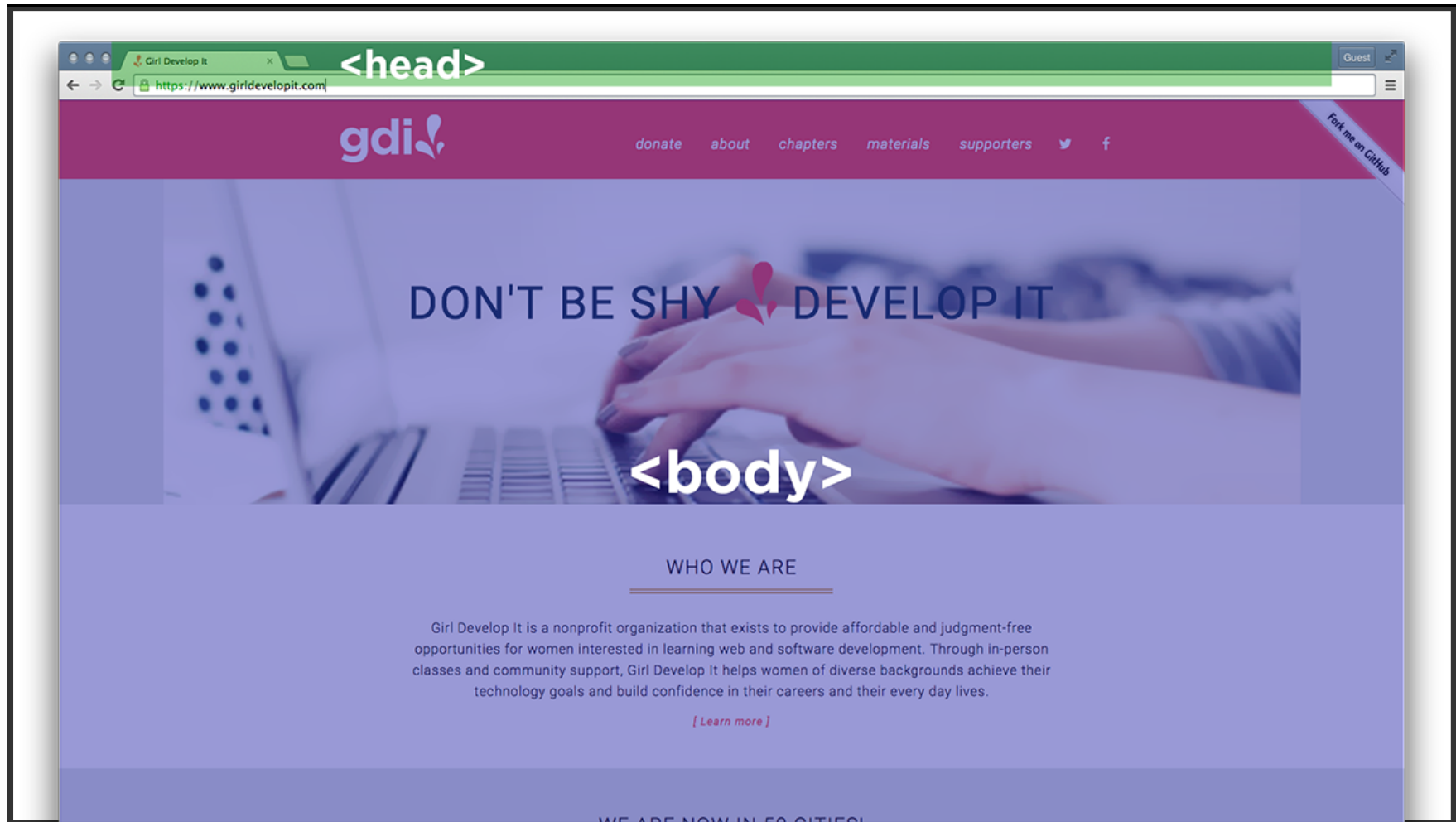
```
<!DOCTYPE html>  
<html>  
  
</html>
```


Head & Body Tags

Head: The head contains the title of the page and meta information about the page. Meta information is not visible to the user, but has important information for search engines and the browser.

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

Head & Body Tags



Head & Body Tags

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

Adding Content

Nesting

All elements "nest" inside one another.

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



Whichever element OPENS first CLOSES last

Nesting: Example

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

```
<body>
  <p>A paragraph inside the body tag</p>
</body>
```

Paragraphs 'nested' inside list items.

```
<ul>
  <li>
    <p>A paragraph inside a list item</p>
  </li>
</ul>
```

Element: Paragraph

<p></p>

<p>Paragraph 1</p>

<p>Paragraph 2</p>

<p>Paragraph 3</p>

Paragraph 1

Paragraph 2

Paragraph 3

<p>Paragraph 1</p> <p>Paragraph 2
</p> <p>Paragraph 3</p>

* White space is only for humans!
Aside from single spaces in your content,
spaces, tabs, and new lines don't show up for
the user.

<p>Paragraph 1</p>

<p>Paragraph 2</p>

<p>Paragraph 3</p>

Example: Paragraph

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.

* You can edit how paragraphs are displayed with CSS

Element: Heading

`<h1></h1>`

`<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 school papers.

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 yourself could be publishing your own personal blog or building a member. Find a way to use WordPress. It's a little crazy to the top of something when you've never experienced it the user.

I'm Not A Developer! What Can

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

Formatted Text

``, ``

`<p>`

Here is a paragraph with ``Emphasized`` text and ``Important`` text.

`</p>`

Here is a paragraph with *Emphasized* text and **Important** text.

* `` and `` are meant to indicate meaning through code. If you want text to be italicized for appearance and not to communicate meaning, you should use CSS.

Element: Link

`<a>`

Links need two attributes

- **Href:** `http://www.girldevelopit.com`
- **Title:** The Girl Develop It Homepage

```
<a href="http://www.girldevelopit.com" title="The Girl Develop It  
Homepage">Girl Develop It</a>
```

Girl Develop It

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"**

```
<a href="mailto:info@girldevelopit.com">E-mail us!</a>
```

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

Relative vs. Absolute Paths

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"`
- "Root-relative" paths start with a slash. `"/materials/class1.zip"`

Absolute

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

- Ex: `"http://www.girldevelopit.com/materials/html-intro"`
- Most commonly used when pointing to a link on another website (i.e. "external" links).

Element: Image

``

Images need two attributes

- Source (src):
`http://www.girldevelopit.com/assets/flourish-med-587a82b8b186d39045f1fadfe47784f8.png`
- Alt text (alt):
`Girl Develop It flourish`

```

```



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

Element: Line Break

`
`

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

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

* Use the break tag sparingly. CSS can help us add spacing between paragraphs and other elements.

Element: Lists

``, ``, ``

```
<ul>
  <li>List Item</li>
  <li>Another List Item</li>
</ul>
```

Unordered list (bullets)

- List Item
- Another List Item

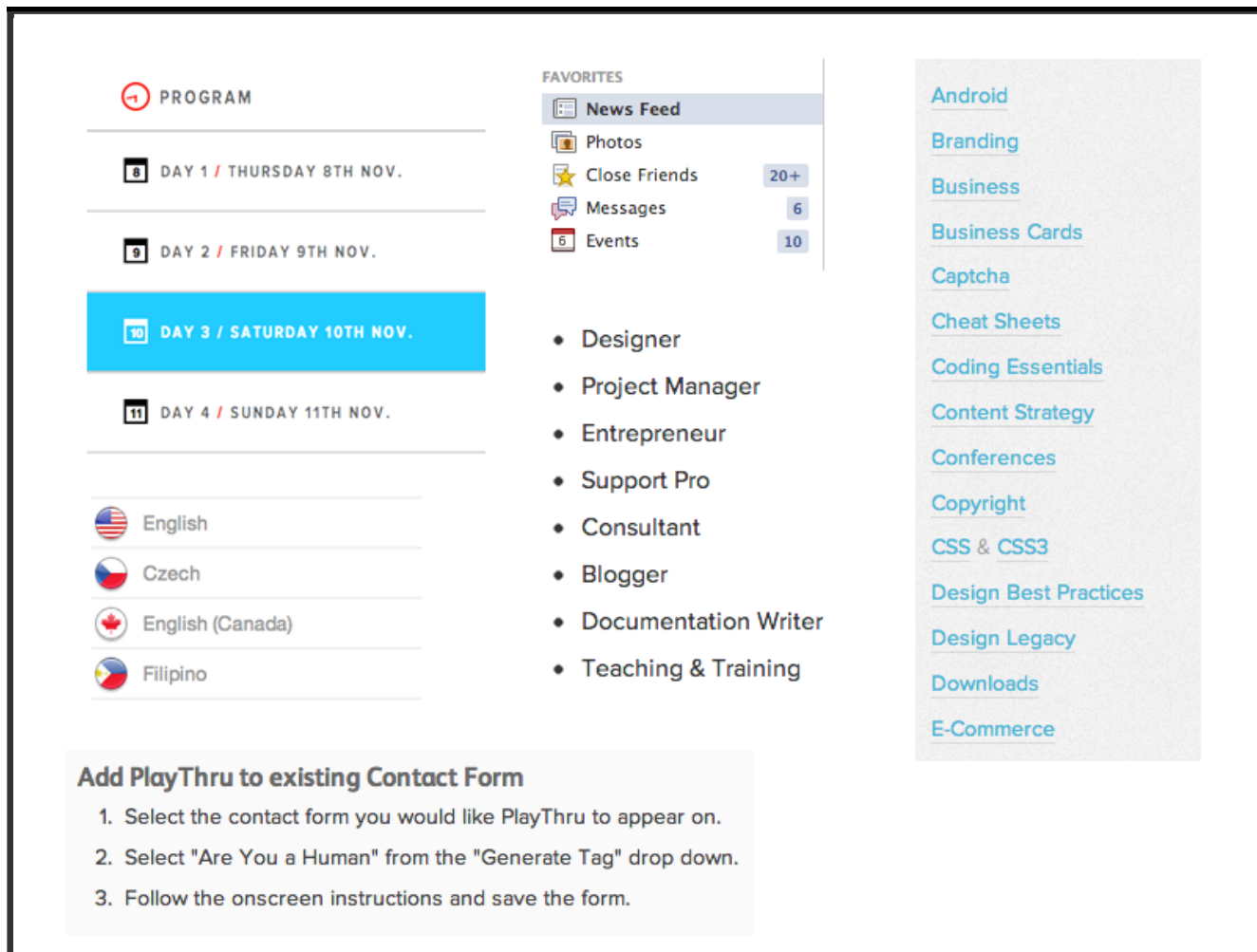
```
<ol>
  <li>List Item</li>
  <li>Another List Item</li>
</ol>
```

Ordered list (sequence)

1. List Item
2. Another List 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.

Comments

You can add comments that will not be seen by the browser, but are visible when viewing the source code.

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

```
<!-- Beginning of header -->  
  <div id="header">Header Content </div>  
<!-- End of header -->  
<!--  
  <ol>  
    <li>List Item</li>  
    <li>Another List Item</li>  
  </ol>  
-->
```

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 temporarily hide it from displaying in the browser.

Tables

`<table></table>`, `<tr></tr>`,
`<th></th>`, `<td></td>`

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

They have **table rows** (`<tr>`) and two types of cells:
table headings (`<th>`) and **table data** (`<td>`).








```
<table>
  <tr>
    <th>Head</th>
    <th>Head</th>
  </tr>
  <tr>
    <td>Data</td>
    <td>Data</td>
  </tr>
</table>
```

Head	Head
Data	Data

Tables: Examples

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

Name ↕	Format ↕	Uniques ▾	Eng. Rate ↕	CTR ↕	CE ↕	VTR ↕	Visit time ↕	Conv. rate ↕
Campaign total ▾	all	810K	26%	0.48%	7.6/10	0.20%	4s	0.09%
Burt Rich	980x120	300K	30%	0.64%	7.9/10	0.20%	20s	0.06%
Burt Meme Machi...	768x150	180K	12%	0.14%	6.0/10	0.16%	25s	0.02%
Burt Copybox	300x250	68K	7.5%	0.14%	6.2/10	0.10%	7s	0.01%
Burt Copybox	468x400	65K	35%	0.30%	8.1/10	0.19%	16s	0.01%
Burt Rich	350x250	64K	11%	0.39%	6.4/10	0.08%	12s	0.08%
Burt Meme Machi...	768x150	64K	18%	0.22%	8.9/10	0.10%	14s	0.06%

Products	Price	US\$ 1,299	US\$ 1,899	US\$ 1,899	US\$ 2,599	US\$ 49.99/mo†
 Photoshop	US\$699	●				
 Photoshop Extended	US\$999		●	●	●	●
 Illustrator	US\$599	●	●	●	●	●
 InDesign	US\$699	●	●		●	●
 Adobe Muse	US\$14.99/mo†					●
 Acrobat X Pro for Creative Suite	US\$449	●	●		●	●
 Flash Professional	US\$699		●	●	●	●

Special Characters

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

	Name	Code
•	Bullet	•
©	Copyright	©
&	Ampersand	&
Ç	C w/ cedilla	Ç

A full list is available at character-code.com

©	Copyright	©	©
®	Registered trademark	®	®
™	Trademark	™	™
<	Less than	<	<
>	Greater than	>	>
&	Ampersand	&	&
"	Quotation mark	"	"
¢	Cent	¢	¢
£	Pound	£	£
¤	Currency	¤	¤
¥	Yen	¥	¥
€	Euro	€	€

Questions?

