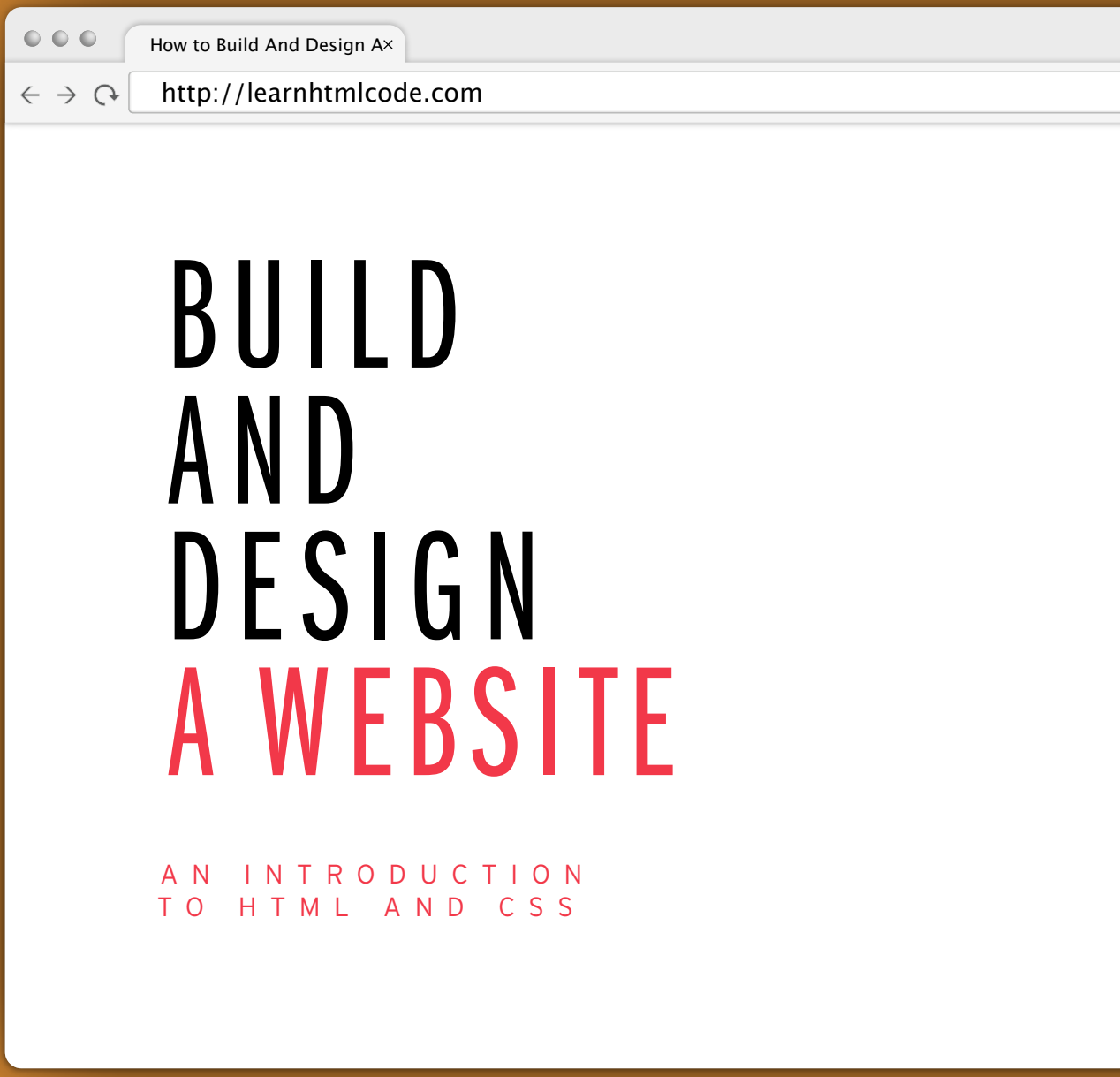

BUILD AND DESIGN A WEBSITE

AN INTRODUCTION TO HTML AND CSS

JASON SMITH

Build and Design A Website: An Introduction to HTML and CSS

Contents

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Introduction

1

The Book

You can read “Build and Design A Website” on the web at http://learnhtmlcode.com. You can also download the book in various ebook formats including epub, mobi (Kindle), etc.

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Getting Started

Building a website is a lot easier than you would think. Admittedly, there's a lot of terminology you need to remember, but like anything else, practice makes perfect.

If you can use a word processor, you can probably build a website. In fact, services like Webly and Squarespace allow novices to create beautiful web sites (portfolios, blogs, business, etc.) using a step-by-step, point-and-click interface using ready-made templates. You can even build an online store with absolutely no programming knowledge, using a service like Shopify.

But no matter how easy it may be to create a website using tools like Webly, Shopify or WordPress, it's in your best interest to have a basic understanding of how to websites are constructed.

Overview

You might have heard of so-called WYSIWYG (What You See Is What You Get) web design apps like Dreamweaver and GoLive. We wont be using anything like that in this guide because those apps actually more cumbersome than typing out code (once you learn how to code).

What's more, building a website is more than just a technical challenge. You need to have a basic understanding (and appreciation) of good design even if you plan to have someone build a web site for you.

Things You'll Need

- A text/HTML editor (NotePad, TextPad, etc.)
- An FTP client (http://cyberduck.ch)
- Web hosting http://learnhtmlcode.com/a2

Before we get started, you'll probably want to explore our glossary of terminology that will be used in this guide.

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Glossary

Here are some terms you need to know. You don't need to memorize these terms, simply familiarize yourself with them for future reference.

Text editor

Consider your word processor. When you use an app like MS Word, there is hidden code embedded in the document that you cannot immediately see. (This code terms how to format text and objects like table and images.)

And we can reveal this hidden code by using a text/code editor. There are dozens, if not, hundreds of text editors to available. And you can use any program you see fit. However, pretty much all computers already include a text editor. If you are a Windows user, you should have an program on your computer called Notepad. (Mac users have a program TextEdit.)

WYSIWYG

What-You-See-Is-What-You-Get
(pronounced "wizzy-wig")

This is a term used to describe programs that offer a visual interface for building things.

URL / URI

Uniform Resource Location/Uniform Resource Identifier
(a.k.a. A webpage address such as "http://learnhtmlcode.com")

A URL is basically a human-readable address for a web page (and other Internet resources). The terms URL and URI are used interchangeably (although there is a convoluted technical explanation for why they shouldn't be).

Domain name

A domain name consists of two parts, a **root** and an **extension**.

learnhtmlcode.com is a domain name as opposed to a url ("http://learnhtmlcode.com"), "learnhtmlcode" is the domain root (as in root word)

".com" is the domain extension

There are many domain name extensions. The most popular (and oldest domain) extensions are .com, .net, .org and .gov

.com stands for "commercial" as is generally used by businesses

.net stands for "network" and is generally used when a .com is unavailable.

.org stands for organization and is generally used by non-profit groups, but such domain name can be registered by anyone.

.gov stands for government and is exclusively used by the U.S. government.

Additionally, every country around the world has been assigned a domain name extension such as ".ca" for Canada and ".in" for India. Generally, country-specific domain extensions suggest the target audience of the website is the country that the domain extension belongs to. However, there's nothing stopping anyone from using a country-specific domain extension for an internationally audience. However, registration of some country-specific domain extensions is restricted to citizens of the country the extensions belongs to.

What's more, sometimes companies register domain names where the root and extension form the name of their company. For example, blo.gs ("blogs"). This practice is called domain hacking and is generally used when more traditional domain extensions (.com, .net, etc) are unavailable.

What's more, country-specific extensions are also used when they happen to have inherent (but unintentionally meaning) that's suitable for branding.

.tv for example belongs to the island of Tuvalu and is often used for websites related to television and video.

.fm belongs to the Federated States of Micronesia and is often used by websites related to radio, broadcasting and/or music.

and so on…

NOTE: .co (pronounced "ko" or "cee-oh") is an alternative to the ".com" extension and it is becoming increasingly mainstream. (Although, personally, I hate it.)

Domain name registrar

A domain registrar is a company that has been authorized to sell domain names. (e.g. NameCheap, GoDaddy, etc.).

IP address

(Internet Protocol Address)

If a URL is an address, an IP address is akin to GPS coordinates.

Link / Hyperlink

A webpage can have two types of links: internal and external.

These are relative terms based on where the link is found and where it points to.

Internal links point to files/pages within the website/server. For example, a home page could have a link to a contact page or "about us" page.

Meanwhile, external links point to files on another website/server. If you you have a post a link to a YouTube on your Facebook page. The YouTube link is an external link since it's pointing to a file on another server.

Program / application (app)

A computer program is code that can can manipulate the data on your computer.

File

A computer file is a computer document that can be read and modified by an application.

Folder / Directory

A file folder / directory is a kind of container for computer files, much like a physical folder is used to contain and organize paper documents.

File path

A file path expresses the location of a file or folder.
(e.g. "C://User/Bob/My Documents/resume.doc")

Web browser

A web browser is a computer program that is used for navigating the world wide web (e.g. Internet Explorer, Firefox, Chrome, Safari, etc.) In theory, the look and functionality of a web site should not vary across web browsers. But in reality, there are times when a particular web site may not work as intended on a particular browser. Usually, there's very little you can do about this.

Rendering

In terms of web browsing, rendering refers to the act of a web browser loading a web page.

Server

A server is any computer that is capable of sending and receiving data. There are specialized computers that are used as servers, but virtually any computer can be used as server including your Mac, PC or even your smartphone.

When you're at work and you connect to a co-workers computer, the computer you are connect to is a server.

When you connect to someone's iTunes library on a computer that is on your network, the computer that you are connecting to is a server.

When you access your e-mail using Microsoft Outlook of Mac Mail, you are connecting to a server.

When you run Skype to make calls on the Internet, you are connecting to a server.

There are different kinds of servers used for transmitting and receiving different kinds of information.

When you open your web browser and load a web page, you are connecting to a web server (or more specifically, an http server).

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HTML

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HTML

What exactly is a web page?

A web page is very much like a MS Word file—a document that can contain images, tables, formatted text (bold, underline, italics, etc.), and links to other documents.

When you use an app like MS Word, there is code embedded in the document that you cannot immediately see. This code determines how text should be formatted and where images should be placed. Similarly, when you open a web page, there is code embedded in the document you cannot immediately see. Afterall, when you tell MS Word to make your text bold or underlined or whatever…it's not magic, all of this formatting information needs to be stored somewhere, somehow.

If you want to see what I mean, try downloading this sample Word document and then open it with a text editor. You'll see that a lot of the text is readable, but there's also text that appears to be gibberish—this is the formatting code that allows MS Word to display pretty, well formatted documents.

Similarly, web pages contain formatting instructions (HTML) that indicates how text and multimedia should be displayed in a web browser.

Note: Using a web browser, you can view the source code of a web page. Usually, there's an option called "View Source" under the view menu of your web browser.

Example

Here is an example of HTML.

```
<html>


<head>


<title></title>
```

```
</head>

<body>

<h1>This is a heading</h1>
<h2>This is a sub-heading</h2>

<p>You can do all kinds of things with HTML.</p>
<p>For example, you can make a paragraph like this.</p>

<p>Followed by another paragraph...
<br /> with a line break.</p>

<p>However that line break
must be indicated with an HTML tag
or else it wont show up in a web browser.</p>

<p>You can also make text <strong>bold</strong>
and <em>italicized</em>.</p>

<hr>
```

```
<p>This is a <a href="http://learnhtmlcode.com">link</a>.</p>


</body>


</html>
```

Breakdown

The line below is called an HTML element.
`<h1>This is a heading</h1>`

An HTML element generally consists of HTML tags ("<h1>" and "</h1>") that surround content ("This is a heading").

An HTML tag is a word or character enclosed within the greater than and lesser than signs.

`< >`

HTML tags usually come in pairs; an opening tag…

`<h1>`

…and a closing tag

`</h1>`

However, there are so-called singleton tags that standalone, like the tag for a horizontal rule

`<hr />`

Singleton tags should have a closing slash (for esoteric reasons, even though they generally work just fine without them).

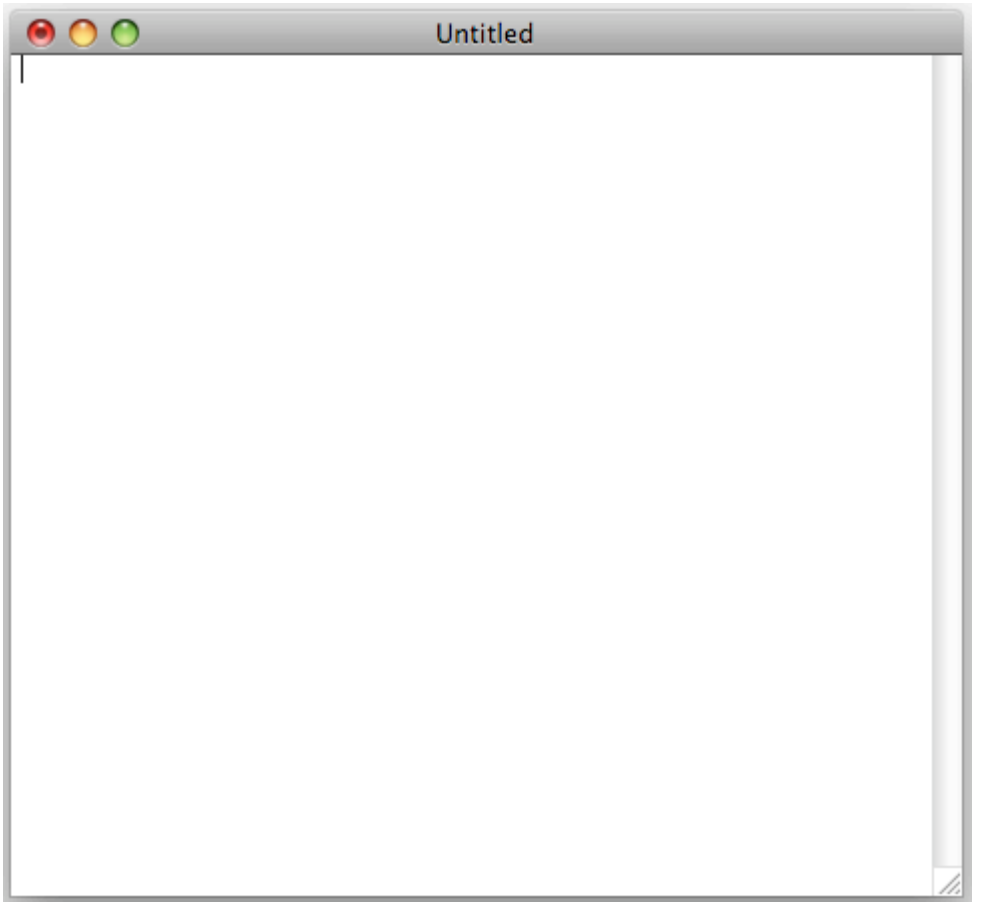
HTML elements only require an opening and closing tag when there is something in between them.

Web browsers do not display HTML tags, instead they use HTML tags to determine what objects to display (text, images, tables, etc.) and how they should be formatted.

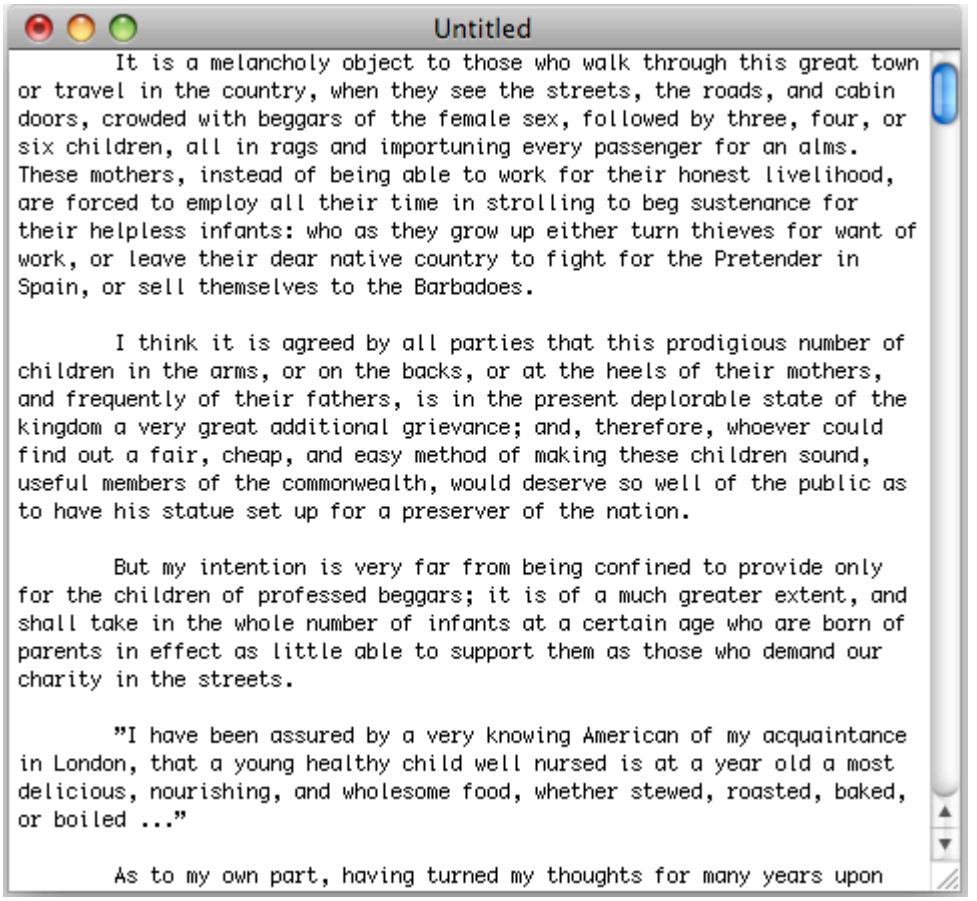
Step-by-Step

In order to better explain how HTML works, I want to show you how to create a a really basic web page step-by-step. (Again, we'll go over all of this again, later, in detail.)

First, I'll open my text editor.

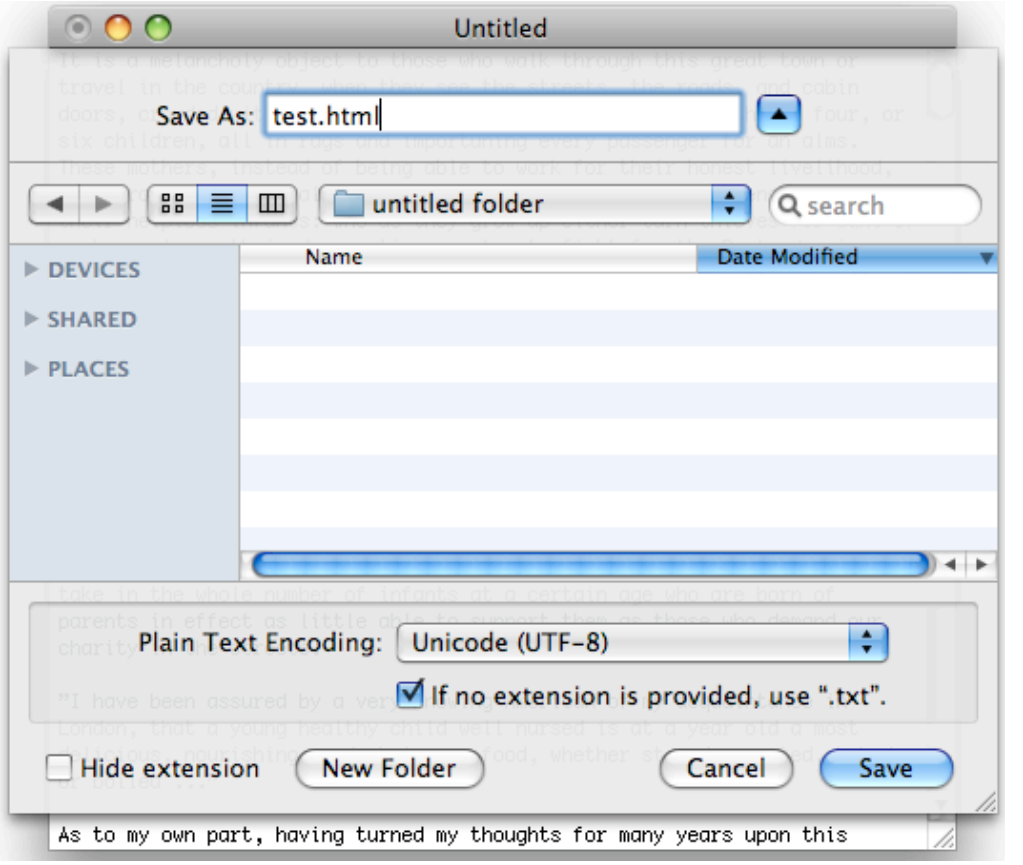


Then I'll paste some text into the window.
(As you can see, the text is nicely indented and relatively readable.)

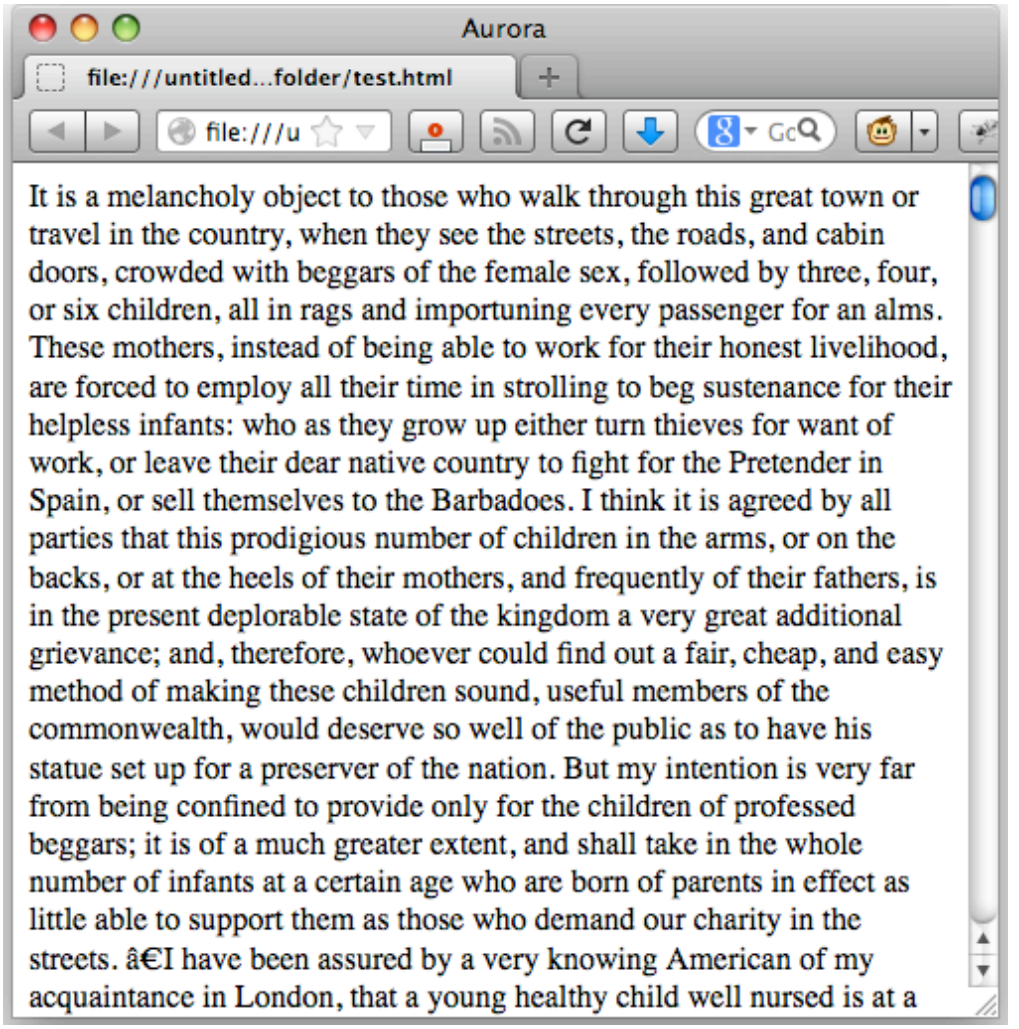


Now I'll save the file.

(Any file that ends in .htm or .html will be treated as a web page by a web browser. I can view web pages stored on my computer, but they are not viewable on the Internet.)



I have not create a proper web page since it does not contain HTML coding. But let's take a look at it anyway, just to see what happens.



All of the words are there, but they're all lumped together in one big unreadable block of text.

That's because the web browser doesn't know what to do with the text. Even though it may appear obvious to us, we need to tell the web browser where paragraphs begin and end. And we can do this quite simply by using the paragraph tag:

```
<p> </p>
```

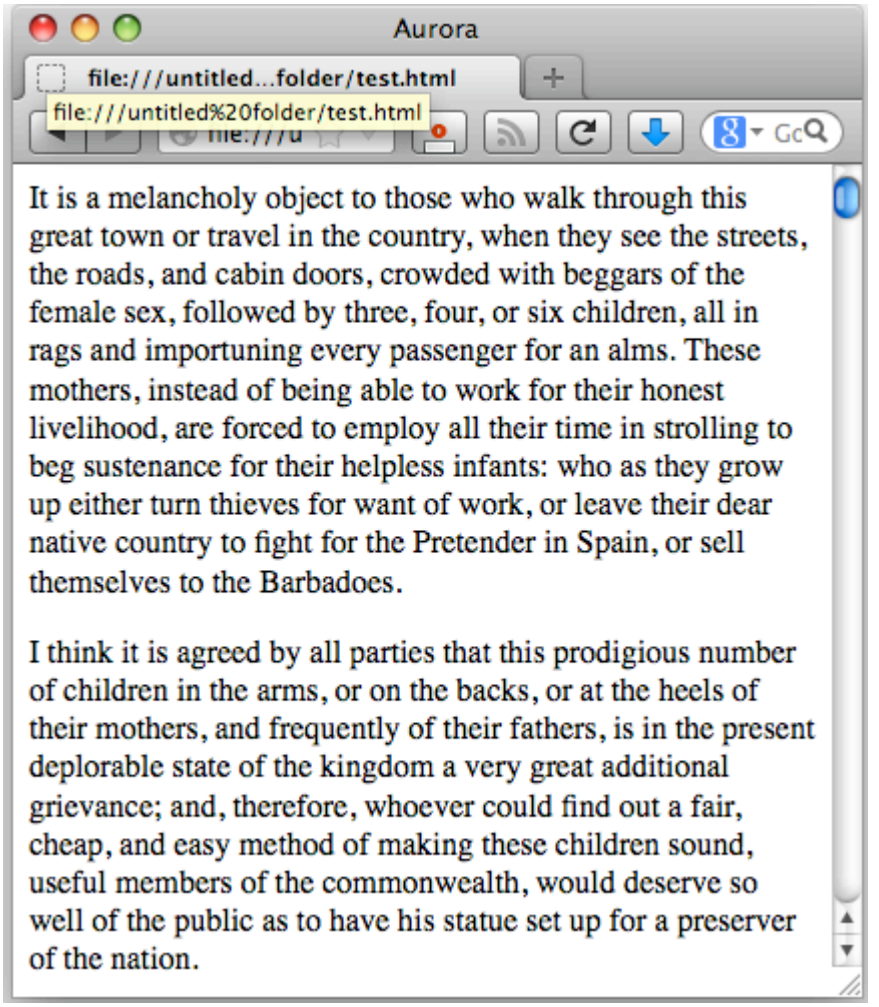
Example

We can arbitrarily define paragraphs as we see fit.

```
<p>It is a melancholy object to those who walk through this great town or travel in the
```

country, when they see the streets, the roads, and cabin doors, crowded with beggars of the female sex, followed by three, four, or six children, all in rags and importuning every passenger for an alms.</p>

Applying the paragraph tag can turn our previous messy blob of text into something that looks like this…



Now that's much better! It still doesn't look like a proper web page, but hopefully you're getting a sense of how HTML works. It's not magic, we simply need to give the web browsers instructions for how to render our web page.

Framework

Even though our web page is rendering as we intended, it's missing basic HTML tags that are required for all web pages.

(Some web browsers are more forgiving than others when it comes to improper code. Don't convince yourself that you can get away with sloppy code, it may end up creating problems for you later.)

Below is the basic framework for a standard HTML web page.

```
<html>


<head>


<title></title>


</head>


<body>


</body>


</html>
```

Breakdown

`<html>` indicates that this document is in fact an HTML web page.

`<head>` is our webpage header. This is where we will place information about our webpage such as the title, keywords, and description. (We'll explore all of those options later in the guide.) None of the information place within the <head> will appear on the webpage itself.

<title> pertains to the title of the web page. The text you enter here may not necessarily match the title or logo that appears on the web page itself.

For example, you have a heading on your web page that reads “ABC Dry Cleaning”, meanwhile within your <title> tag you may could enter the text, “Canada’s No. 1 Dry Cleaner — ABCDryCleaning.com”

<body> pertains to the body of our webpage, in other words the content and layout of the webpage itself.

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HTML Typography

Bold

Blah, blah, blah.

```
<strong>Blah, blah, blah.</strong>
```

Italics

Blah, blah blah.

```
<em>Blah, blah blah.</em>
```

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HTML Images

Overview

```
<img src="[INSERT URL HERE]">
```

*There is no closing tag for the image element.

Width and Height

The browser will automatically determine the width and height of the image, but if you wish to manually set those values, you can do so using the width and height attributes.

However, generally, you shouldn't use the height and width attributes to resize an image, instead you should resize the image itself using an image editor

*The width and height values can either be pixels or a percentage.

```
<img src="[URL GOES HERE]" width="50px" height="50px">
```

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HTML Horizontal Rule

Overview

A horizontal rule is a line that generally serves as a divider between sections of content.

```
<hr>
```

You can change the width of the rule using the “size” parameter

```
<hr size="5">
```

You can also adjust the width as follows (by default it’s 100%)

```
<hr size="5" width="200px">
```

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HTML Headings

Overview

Much like a word processor, we can format text using a heading tag to signify degrees of importance.

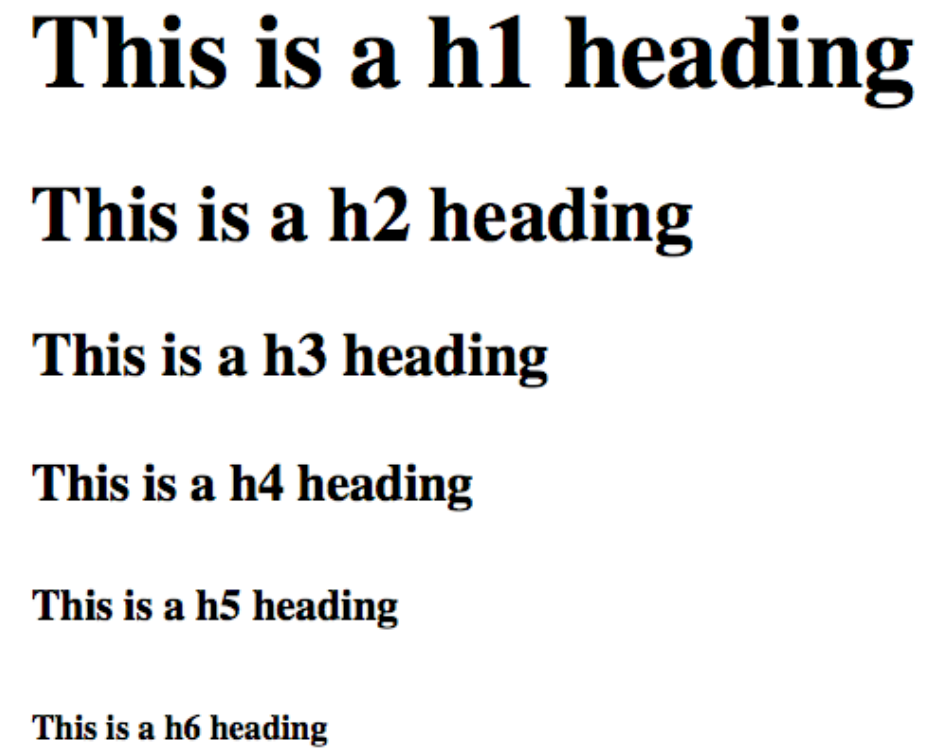
By default, heading text size decreases as the heading level increases. For example, “heading 2″ will be smaller than “heading 1″ and “heading 3″ will be smaller than “header 2″.

“Heading 1″ is the typically used for the title of a page, followed by “heading 2″ for sub-titles and so on.

(Note: By default, heading text sizes are relative to the size of the body text. However, the text-size for a heading can be completely arbitrary using CSS.)

Example

```
<h1>This is a h1 heading</h1>
```



HTML headings

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HTML Hyperlinks

Summary

A hyperlink can either trigger a file download or send a user to another web page.

```
<a href="[INSERT URL HERE]">Text</a>
```

Open Link In A New Window

The `target="blank"` attribute can be used to open a link in a new window.

```
<a href="[INSERT URL HERE]" target="_blank" >Text</a>
```

Image Link

If you want to turn an image into a link you need to wrap the <a> tag around an <img> tag.

```
<a href="[INSERT LINK URL]"><img src="[INSERT IMAGE URL]"></a>
```

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HTML Bullet Lists

Overview

If you want to create a bullet list using a word processor or HTML, you could just create a new paragraph or line break for each each item of your list. You could manually preface each paragraph with a number or letter or symbol in order to indicate it is part of a list.

But there's a better way. Much like a word processor, we can format our text as a list so that the appropriate text is represented as a list (automatically prefaced with the relevant number, letter or symbol).

There are two kinds of bullet lists: ordered and unordered.

Ordered Bullet Lists

Ordered bullet lists are numbered

1. item 1
2. item 2
3. item 3
4. item 4

Ordered Bullet Lists

Unordered bullet lists are not numbered. Instead, each line is prefaced by a symbol.

- item 1
- item 2
- item 3
- item 4

Using HTML we can express a ordered bullet list using the <ol> tag:

```
<ol>
```

```
<li>item 1</li>

<li>item 2</li>

<li>item 3</li>

<li>item 4</li>

</ol>
```

Or we can express an unordered bullet list using the <ul> tag:

```
<ul>

<li>item 1</li>

<li>item 2</li>

<li>item 3</li>

<li>item 4</li>

</ul>
```

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HTML Tables

Overview

<table>	Table
<tr>	Table Row
<td>	Tabular Data
<th>	Table Heading
<caption>	Caption

Creating tables using HTML is a little bit different than using MS Word. Strictly speaking, you can not create table columns using HTML. Instead, you can only create rows `<tr>` which contain cells `<td>`. The cells in your first row define the number of columns in your table.

Example #1a

cell 1	cell 2

Example #1b

1	2
3	4

Example #1c

	S	M	L	XL
male	10	13	11	
female	12	9	19	10

Breakdown

In order to create a table you need to establish the `<table>` element.

```
<table>


</table>
```

Then you need to create a table row.

```
<tr> </tr>
```

And within each table row you need to add cells (tabular data) <td>

```
<td> </td>
```

When you put it all together, you get something like this..

```
<table>

<tr>

<td>cell 1</td>

<td>cell 2</td>
```

```
</tr>

</table>
```

Which looks like this…

cell 1 cell 2

The table above doesn't really look like a table because it's scrunched up and contains no borders. So let's add some borders.

Borders

cell 1	cell 2

```
<table border="1">

<tr>

<td border="1">cell 1</td>

<td border="1">cell 2</td>

</tr>

</table>
```

Cell Spacing

Let's add spacing between our table cells using `cellspacing`….
*The value you enter will be accepted as pixels.

cell 1	cell 2

```
<table border="1" cellspacing="10">

<tr>

<td border="1">cell 1</td>
```

```
<td border="1">cell 2</td>

</tr>

</table>
```

Cell Padding

And now we'll add cell padding using `cellpadding`…
*The value you enter will be accepted as pixels.

cell 1	cell 2

```
<table border="1" cellspacing="10" cellpadding="10">

<tbody>

<tr>

<td>cell 1</td>

<td>cell 2</td>

</tr>

</tbody>

</table>
```

Table Headings

If a table cell is meant to contain a heading rather than data, use the table heading tag `<th>` instead of the tabular data tag `<td>`.
(This is not strictly necessary. You could get away with using the `<td>` tag. But it's always a good idea to organize your data/content so it can be better manipulated as your needs change. What's more, table headings are bold by default, which better distinguishes them for the rest of your table data.)

Heading 1	Heading 2
cell 1	cell 2

```
<table border="1" cellspacing="10" cellpadding="10">

<tbody>



<tr>

<th>Heading 1</th>

<th>Heading 2</th>

</tr>



<tr>

<td>cell 1</td>

<td>cell 2</td>

</tr>

</tbody>

</table>
```

Table and Cell Width

We can control the `width` of our columns and even the table itself.
*The value can be a percentage `%` or pixels `px`.

Heading 1	Heading 2

cell 1	cell 2

```
<table border="1"  width="100%" cellspacing="10" cellpadding="10">
<tbody>

<tr>
<th width="70%">Heading 1</th>
<th>Heading 2</th>
</tr>

<tr>
<td>cell 1</td>
<td>cell 2</td>
</tr>
</tbody>
</table>
```

Column Span

We can have a single cell span multiple columns using `colspan`. (This is especially useful when you have data that applies to more than one heading.)
*The value of `colspan` equals the number colums you would like your cell to span.

A	B	C	D	E

Cats	Dogs	N/A	Bears

```
<table border="1"  width="100%" cellspacing="10" cellpadding="10">

<tbody>



<tr>

<th>A</th>

<th>B</th>

<th>C</th>

<th>D</th>

<th>E</th>



</tr>



<tr>

<td>Cats</td>

<td>Dogs</td>

<td colspan="2">N/A</td>

<td>Bears</td>



</tr>

</tbody>
```

```
</table>
```

Row Span

We can also have a single cell span multiple rows using `rowspan`

A	B
blah	blah
blah	blah
	blah

```
<table width="100%" border="1" cellspacing="10" cellpadding="10">
<tbody>
<tr>
<th>A</th>
<th>B</th>
</tr>
<tr>
<td>blah</td>
<td>blah</td>
</tr>
<tr>
```

```
<td rowspan="2">blah</td>

<td>blah</td>

</tr>

<tr>

<td>blah</td>

</tr>

</tbody>

</table>
```

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HTML Forms

Overview

HTML forms are very much like the kind made from paper and ink—they contain blank boxes that can be used for inserting and collecting information. However, HTML forms are sent through the Internet rather than the postal services.

There are all kinds of HTML forms:

- Contact Form
- Registration Form
- Login Form
- Order Form
- Survey Form
- etc.

Generally, the contents of an HTML form are sent to an e-mail address, but it could could also be stored in a database for some other purpose. Whatever the case, an HTML form is useless without some kind of software script (php, asp, whatever…).

This tutorial is only concerned with the HTML aspect of creating a form.

There are turnkey solutions that you can offer form functionality without any programming knowledge (e.g. Formstack).

The Elements of a Form

The most basic HTML form consists of a form field and a submit button.


```
<form name="subscription_form" action="someformscript.php" method="get">
```

```
E-mail: <input type="text" name="user_email"><input type="submit" value="Submit">

</form>
```

Form Fields

There are 5 kinds of form fields:

Text Fields

First name: Last name:

```
<form>

First name: <input type="text" name="firstname"><br>

Last name: <input type="text" name="lastname">

</form>
```

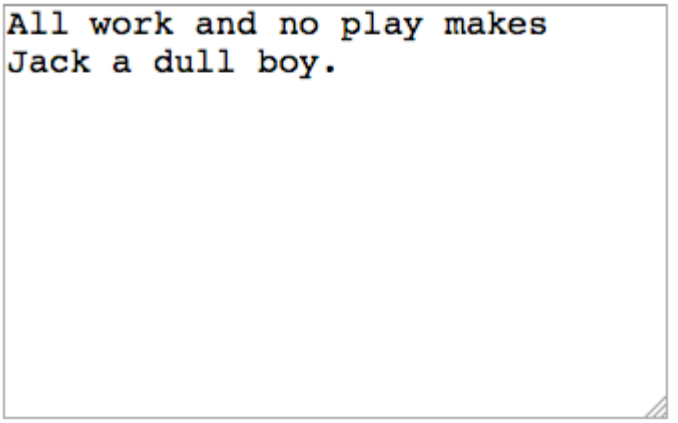
Dropdown Menu

Honda

```
<form>

<select name="cars">

<option value="honda">Honda</option>

<option value="bmw">BMW</option>

<option value="audi">Audi</option>

<option value="Ford">Ford</option>
```

```
</select>

</form>
```

Textarea

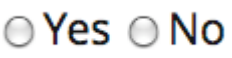



```
<form>

<textarea rows="10" cols="30">

All work and no play makes Jack a dull boy.

</textarea>

</form>
```

Password Field

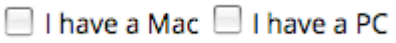
```
<form>
Password: <input type="password" name="foo">
</form>
```

Radio Buttons




```
<form>
<input type="radio" name="foo" value="yes">Yes<br>
<input type="radio" name="foo" value="no">No
</form>
```

Checkboxes




```
<form>
<input type="checkbox" name="foo" value="Mac">I have a Mac<br>
<input type="checkbox" name="foo" value="PC">I have a PC
</form>
```

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HTML Paragraphs

Overview

It's not enough to simply separate text using the return key.

Even though it may appear obvious to human beings, we need to tell the web browser where paragraphs begin and end. And we can do this quite simply by using the paragraph tag:

<p>

Example

```
<p>This is an example of a paragraph.</p>

<p>Without the paragraph tag....</p>

<p>...browsers would display text as one big blob.</p>
```

Line Breaks

If you want to create a line break within a paragraph you can do so using the
tag.

Example

This is a paragraph
with a line break

```
<p>This is a paragraph <br>with a line break</p>
```

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HTML Blockquotes

Introduction

A blockquote is a block of text (typically an excerpt or long quotation) that is formatted differently (indented, italicized, etc.) from the main body text while meant to be read as part of the narrative. (A **pullquote** is a teaser/excerpt that visually highlights text from the main body in order to attract a reader's interest and attention.)

Example

> This is an example of a blockquote.

```
<blockquote>

This is an example of a blockquote.

</blockquote>
```

The `blockquote` tag indents text to indicate it's an excerpt/quotation. Using CSS you can further stylize the text as you see fit. However, there is not a predefined tag for pullquotes.

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HTML Span

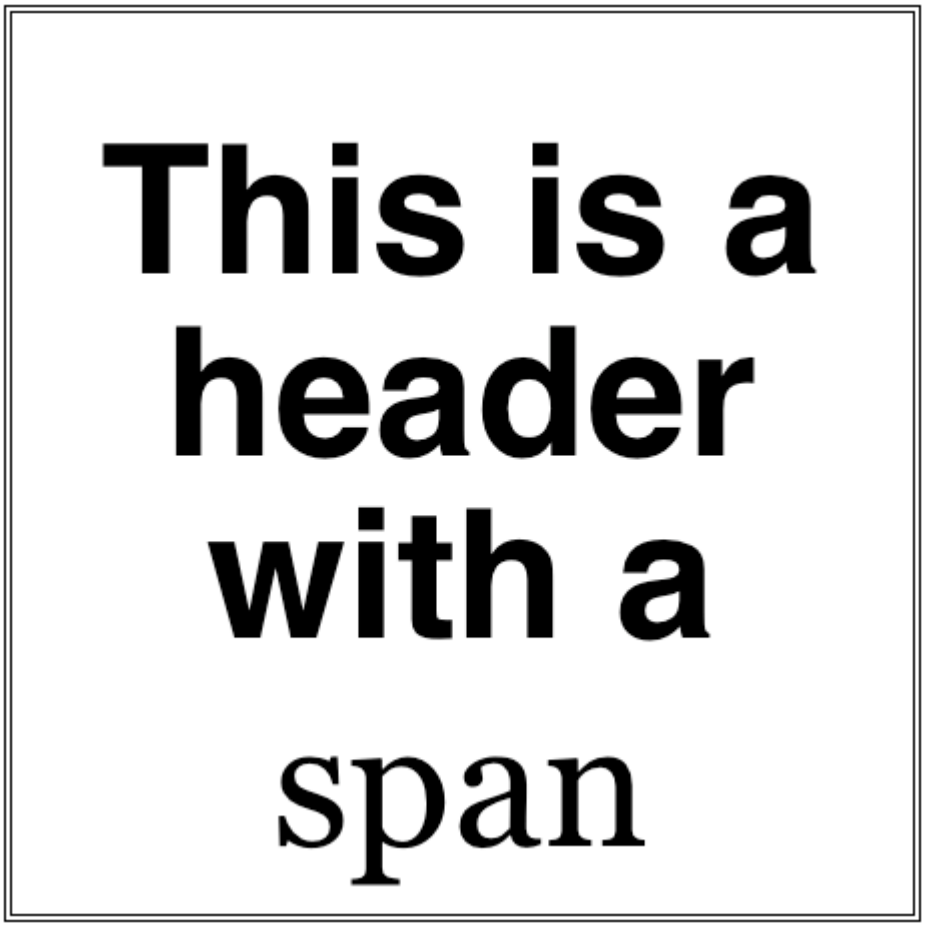
Overview

Much like a divider, the `span` tag is used in conjunction with CSS to further stylize and format text (and other content) within an HTML element.

Example

```
.thin {font-weight:normal; font-family:georgia;}
```

```
<h1>This is a header with a <span class="thin">span</span></h1>
```



Note how the word “span” is rendered differently that the rest of the text.

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HTML Line Break

Overview

The `br` HTML tag is used for line breaks. A line break be used for text or any other content.

Example

```
<p>This is an example of <br> a line break</p>
```

This is an example of
a line break

3

CSS

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CSS

Cascading Style Sheets (CSS) are used to control the style and positioning of HTML elements (paragraphs, headings, tables, etc.). CSS is crucial for creating a decent looking web site, without CSS your HTML would just be a blob of text and images.

Here is an example of CSS.

```
h1  {color: blue; font-size: 12px;}
```

When applied to a web page, every instance of the h1 tag will be displayed 12px in size and in the color "blue."

A CSS property consists of a selector and declaration.

The property is wrapped in curly braces {} and contains all of the formatting adjustments that will affect HTML elements that match the selector.

The selector is the element that we wish to customize.

The declaration represents a specific modification.

A declaration consists of a property and a value, separated by colon, while ending with a semi-colon.

You can further control/segregate HTML elements by giving them a class or ID attribute.

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CSS Inline vs. Internal vs. External

Inline Style

You can add CSS to an HTML element as an HTML attribute.

Example

```
<h1 style="font-wieght:normal;">
```

Internal Style Sheet

Or you use a `style` tag in the `head` section of your web page.

Example

```
<style>

h1 { font-weight:normal; }

</style>
```

External Style Sheet

Generally, you will want place your CSS in a separate file. (Check out the CSS file used for this page.)

Then you need to reference the external CSS file in the header of your HTML page.

```
<head>

<link rel="stylesheet" type="text/css" href="style.css">
```

```
</head>
```

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CSS Class vs. ID

The class attribute is generally used to format a single HTML element (such as headings, form fields, etc.). Meanwhile, the ID attribute is used for HTML elements that group/contain additional HTML elements (dividers, forms, etc).

You can only have one instance of a particular ID on your web page. However, you can use multiple instances of a specific class.

For example you can only have one ID designated "sidebar." However, you can use a class called "title" as many times as you'd like.

Do not give a class or ID a name that begins with a number (this will not work for most browsers).

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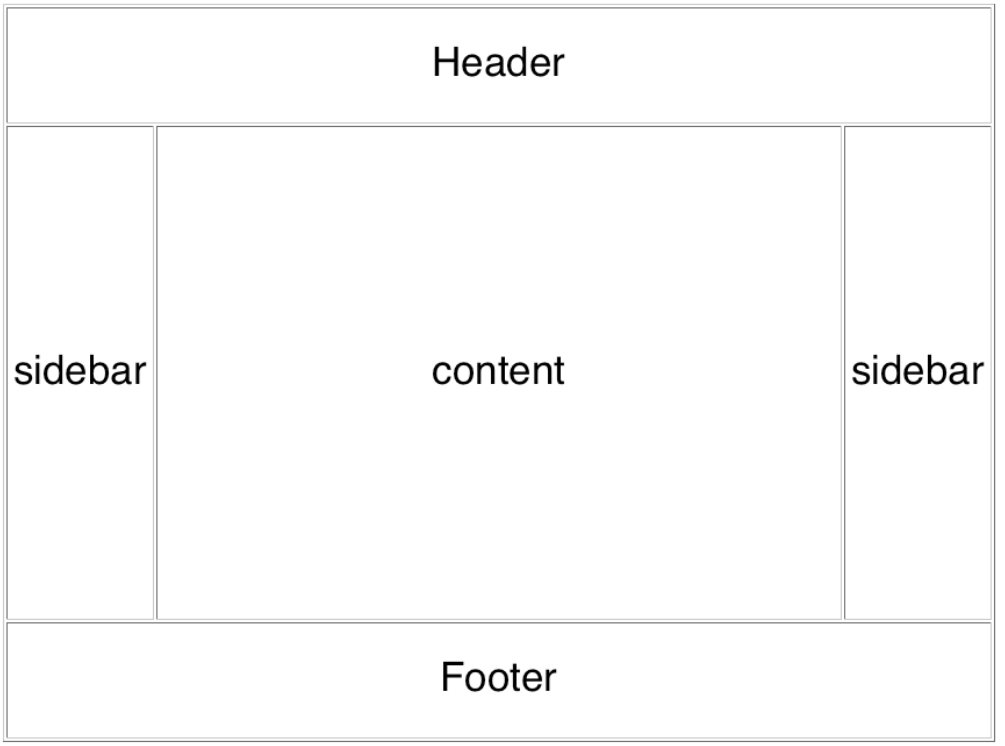
CSS Box Model

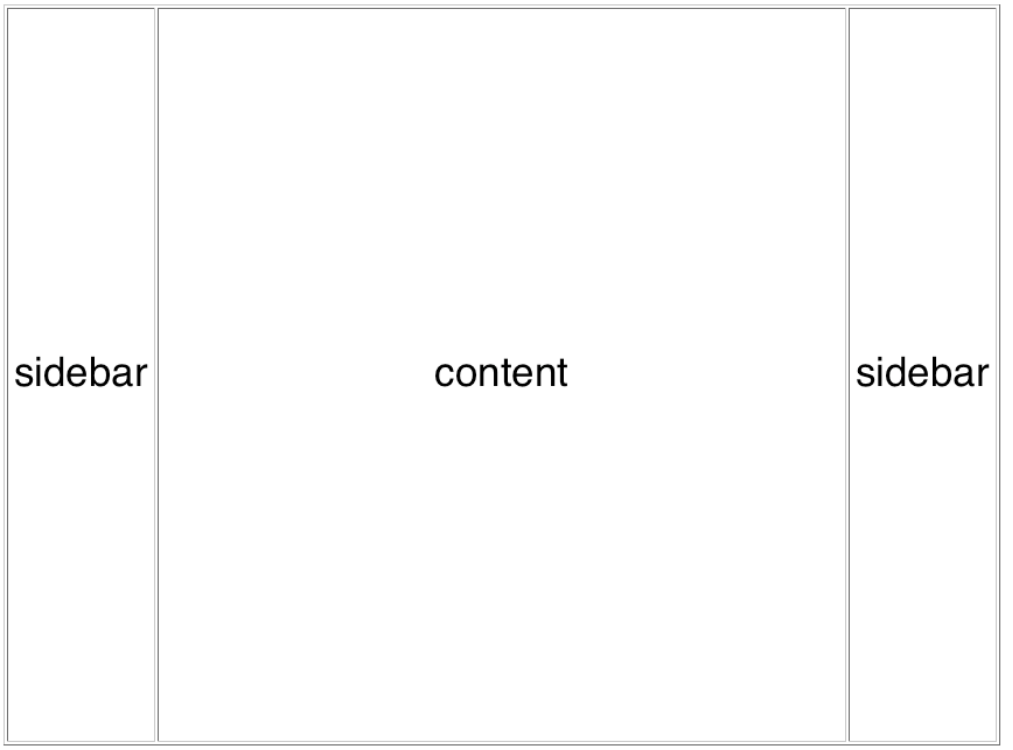


Web pages are essentially a collection of boxes (dividers) that are used to create rows and columns.

The position of a divider (or any other HTML element) can either be absolute or relative to the position of other objects on the page.

There two primary CSS properties that can be used for positioning: float and margin.

Example – A Basic Column Layout



How To Build And Design A Website

Introduction

Building a website is a lot easier than you would think. Admittedly, there's a lot of terminology you need to remember, but like anything else, practice makes perfect.

If you can use a word processor, you can probably build a website. In fact, services like Webly and Squarespace allow novices to create beautiful web sites (portfolios, blogs, business, etc.) using a step-by-step, point-and-click interface using ready-made templates. You can even build an online store with absolutely no programming knowledge, using a service like Shopify.

But no matter how easy it may be to create a website using tools like Webly, Shopify or WordPress, it's in your best interest to have a

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CSS Background Colour & Images

There are several CSS properties (`background-color`, `background-image`, etc.) that control the background colour/image of HTML elements (including the body of the webpage itself).

Remember the body is an HTML element. So if you want to control the background colour of your web page, you need to modify the body.

Background Color

Possible Values

- transparent (default)
- inherit
- hex/rgb value/colour name

Example

```
h1 { background-color: #000000; }
```

Background Image

Possible Values

none (default)
inherit
[URI/URL]

Example

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

Background Attachment

Possible Values

scroll (default)
inherit
fixed

Example

```
body { background-attachment: fixed; }
```

Background Image Repeat / Tiling

Possible Values

- repeat (default / tiled / repeating the image horizontally and vertically)
- inherit
- repeat-x (the x-axis / repeating the image horizontally)
- repeat-y (the y-axis / repeating the image vertically)
- no-repeat (a single instance of the image / not repeating)

Example

```
body { background-repeat: no-repeat; }
```

Background Image Size

Possible Values

length & width
(in pixels or percentages)

cover
(Sets the height and width of the background image in percent of the parent element. The first value sets the width, the second value sets the height. If only one value is given, the second is set to “auto”)

contain
(Scale the background image to be as large as possible so that the background area is completely covered by the background image. Some parts of the background image may not be in view within the background positioning area)

Length & Width Syntax

```
background-size: length|width;
```

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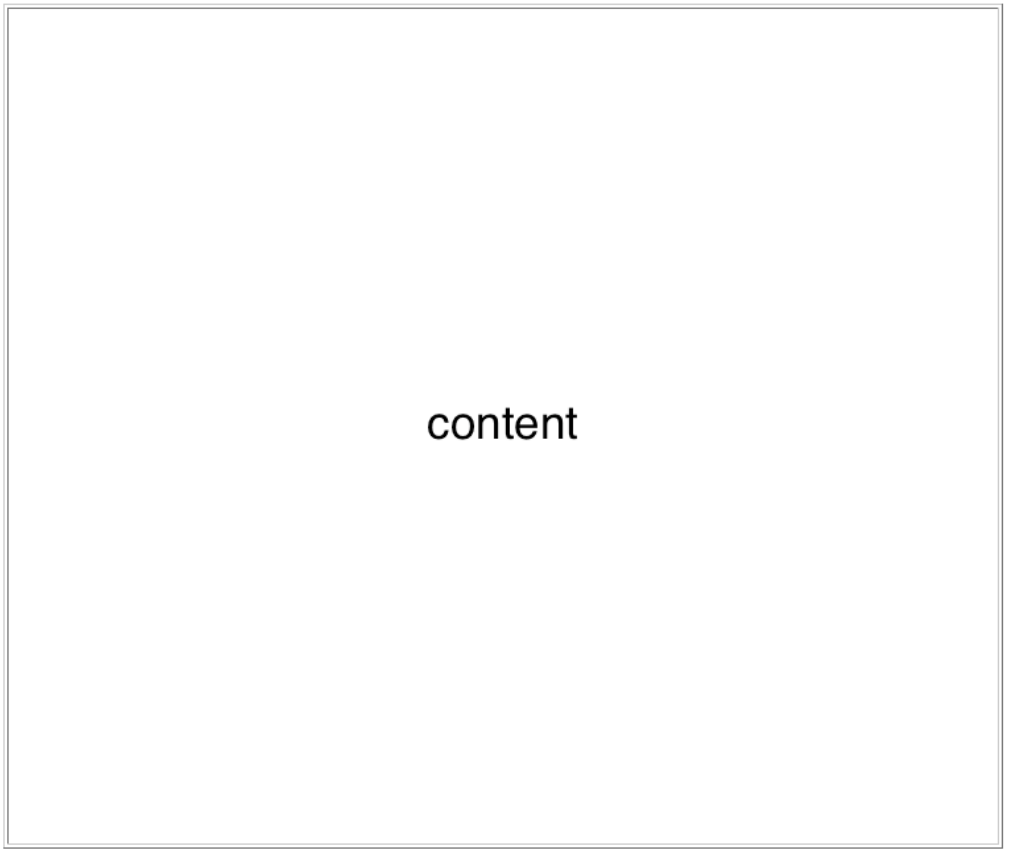
CSS 1-Column Layout



Example

```
<html>

<head>
```

```
<title>1-Column Template</title>

<style>
#wrapper {width:600px; margin:auto;}
</style>

</head>

<body>

<div id="wrapper">

<p>blah, blah, blah </p>

</div>

</body>
</html>
```

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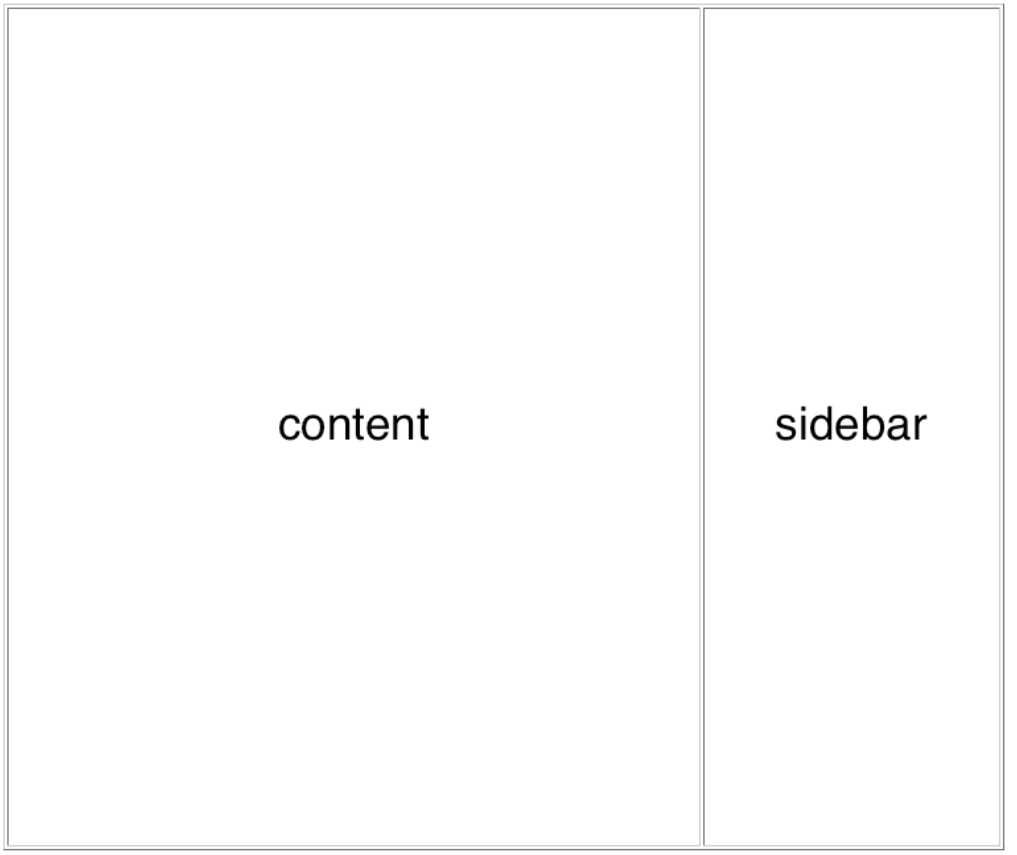
CSS 2-Column Layout



Example

```
<html>

<head>
```

```
<title>1-Column Template</title>

<style>
#wrapper {width:600px; margin:auto;}
#content {width:450px; float:left;}
#sidebar {width:100px; float:right;}
</style>

</head>

<body>

<div id="wrapper">

<div id="content">
<p>blah, blah, blah </p>
</div>

<div id="sidebar">
<p>blah, blah, blah</p>
</div>
</div>
```

```
</body>

</html>
```

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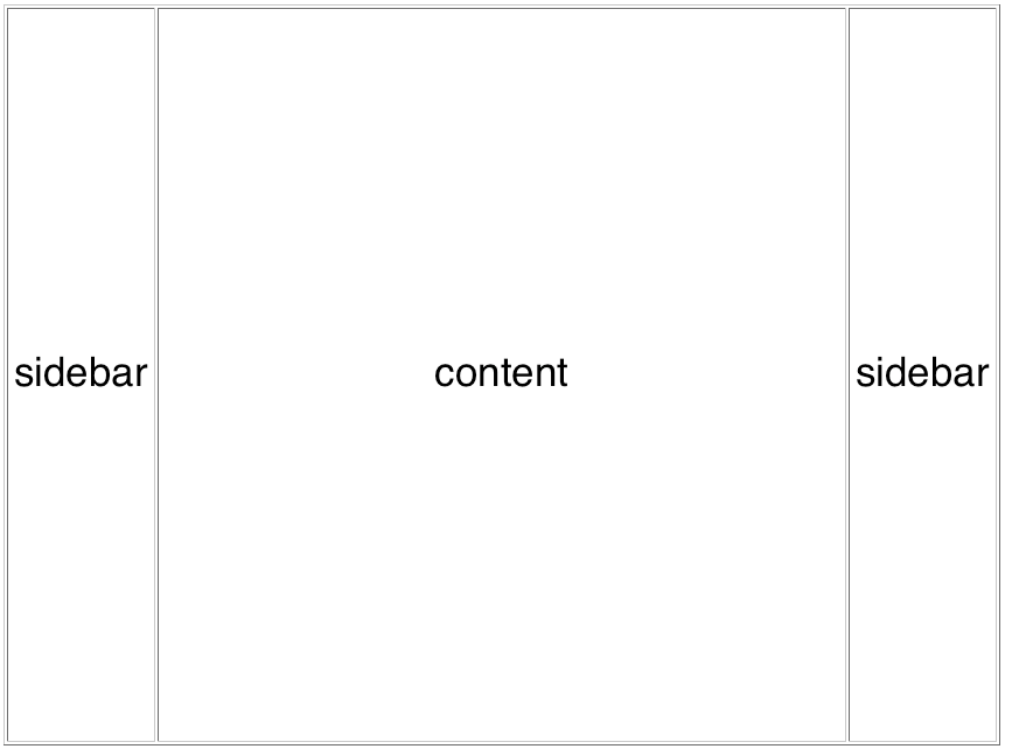
CSS 3-Column Layout



Example

```
<html>

<head>

<title>1-Column Template</title>
```

```
<style>
#wrapper {width:900px; margin:auto;}
#content {width:500px; float:left; margin-left:50px;}
#leftbar {width:150px; float:left;}
#rightbar {width:150px; float:right;}
</style>

</head>

<body>

<div id="wrapper">

<div id="leftbar">
<p>blah, blah, blah</p>
</div>

<div id="content">
<p>blah, blah, blah </p>
</div>

<div id="rightbar">
```

```
<p>blah, blah, blah</p>

</div>


</div>


</body>

</html>
```

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CSS Borders

Overview

The `border` property is an amalgamation of the `border-top`, `border-right`, `border-bottom` and `border-left` CSS properties.

Syntax

(The values proceed clockwise, starting from the top.)

```
border { top|right|bottom|left; }
```

Example

```
h1 { border: 10px 30px 10px 20px; }
```

Related Properties

- border-top
- border-right
- border-bottom
- border-left

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CSS Margins

Margins affect the distance between HTML objects on a page.

The `margin` property is an amalgamation of the `margin-top`, `margin-right`, `margin-bottom` and `margin-left` CSS properties.

Syntax

(The values proceed clockwise, starting from the top.)

```
margin { top|right|bottom|left; }
```

Example

```
h1 { margin: 10px 30px 10px 20px; }
```

Related Properties

- margin-top
- margin-right
- margin-bottom
- margin-left

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CSS Padding

Overview

Padding adds space around an HTML element without affecting the margins.

The `padding` property is an amalgamation of the `padding-top`, `padding-right`, `padding-bottom` and `padding-left` CSS properties.

Syntax

(The values proceed clockwise, starting from the top.)

```
padding { top|right|bottom|left; }
```

Example

```
h1 { padding: 10px 30px 10px 20px; }
```

Related Properties

- padding-top
- padding-right
- padding-bottom
- padding-left

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CSS Bullet Lists

Overview

Thanks to CSS, there are many ways you can format a bullet list. Here's a quick overview of some common features.

Inline List: When a bullet list isn't a bullet list

Using the `display` property, you can have all of the items in your bullet list displayed on one line.

This is especially useful if want to create a horizontal menu.

<!–
.inline-example li {display:inline;}
–>

1. list item
2. list item
3. list item

```
<style>

.inline-example li {display:inline;}

</style>

<ol>

<li>list item</li>

<li>list item</li>

<li>list item</li>

</ol>
```

List Style: Decimals, Uppercase/Lowercase Roman Numerals, Circles, Squares, Discs and Other Symbols

Using the `list-style` property, you can change the look of your bullet list.

Examples

1. list item
2. list item
3. list item

```
<ol style="list-style-type: square;">

<lh>square</lh>

<li>list item</li>

<li>list item</li>

<li>list item</li>

</ol>
```

1. list item
2. list item
3. list item

```
<ol style="list-style-type: lower-roman;">

<lh>square</lh>

<li>list item</li>

<li>list item</li>

<li>list item</li>

</ol>
```

Property Values

Value	Description
armenian	traditional Armenian numbering
circle	a circle
cjk-ideographic	plain ideographic numbers
decimal	a number. This is default for
decimal-leading-zero	a number with leading zeros (01, 02, 03, etc.)
disc	a filled circle. This is default for
georgian	traditional Georgian numbering
hebrew	traditional Hebrew numbering
hiragana	traditional Hiragana numbering
hiragana-iroha	traditional Hiragana iroha numbering
inherit	The value of the listStyleType property is inherited from parent element
katakana	traditional Katakana numbering
katakana-iroha	traditional Katakana iroha numbering
lower-alpha	lower-alpha (a, b, c, d, e, etc.)
lower-greek	lower-greek
lower-latin	lower-latin (a, b, c, d, e, etc.)
lower-roman	lower-roman (i, ii, iii, iv, v, etc.)
none	No marker is shown
square	a square
upper-alpha	upper-alpha (A, B, C, D, E, etc.)
upper-latin	upper-latin (A, B, C, D, E, etc.)
upper-roman	upper-roman (I, II, III, IV, V, etc.)

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CSS Font Weight

Overview

The `font-weight` property is determine the weight of a font. Generally, a font can be normal or bold. However, there are some font where the values "bold" or "normal" do not apply. Meanwhile, there are other fonts that offer degrees of thickness (weight), starting at 100 and moving up to 900 by increments of 100.

A font weight of 400 and normal can be used interchangeably. Similarly, a font weight of 700 is the same as calling it bold.

Generally, you'll only be interested in having a "normal" or "bold" font weight. But on some occasions, you may find yourself wanting more precise control over the look of your text.

This might seem a little confusing, so I'll use some examples to illustrate.

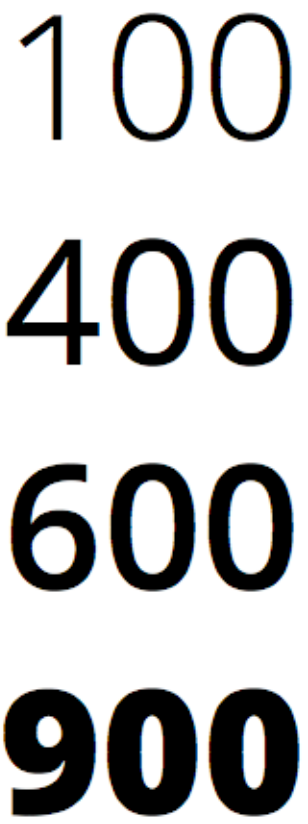
Examples

```
<p style="font-weight:100;">100</p>

<p style="font-weight:400;">400</p>

<p style="font-weight:600;">600</p>

<p style="font-weight:900;">900</p>
```



In both the screenshot above and below, all of the lines have the same font-size, but different font weights.

Possible Values

- 100
- 200
- 300
- 400 (or “normal”)
- 500
- 600
- 700 (or “bold”)
- 800
- 900

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CSS Font Family

Overview

You can control the fontface used for rendering text by using the `font-family` property.

The font-family can support a range of values separated by commas. By default, a web browser will attempt to render text using the first fontface declared in a range of values. If the web browser does can not support the specified fontface, it will attempt to load the next fontface and so on…until it finds a fontface that it can load.

Example

```
body p {font-family:Georgia, Times, "Times New Roman", serif;}
```

Serif vs Sans-serif

Okay, so here's the difference between serif and sans-serif fontfaces. Serif fontfaces have those little curly hooks and stylistic flourishes, sans-serifs lack those.

Web Safe Fonts

Your operating systems (Mac, Windows, etc.) is preloaded with a collection of fonts. Anyone is free to install additional fonts on their computer. But when designing a website, you need to keep in mind that your users may not necessarily have access to the same fonts you are using.

Using CSS, you are free to specify any font you desire. But if you specify a font that a web visitor might not have installed, you'll need to define alternatives that there browser will be able to use instead.

There are some fonts that are pre-installed on both Mac and Windows PCs. But there are other fonts that are pre-installed on one OS, but not the other.

The idea is to specify a range of fonts that are similar enough so substitutes do not compromise the integrity of your website design.

Note: When in doubt, use you can specify an operating system's default serif font using the name "serif" and conversely a default sans-serif can be specified using "sans-serif."

Font Stacks

Here are some typical web safe font stacks.

Arial Black, Arial Black, Gadget, sans-serif
Comic Sans MS, Comic Sans MS, cursive
Courier New, Courier New, Courier, monospace
Georgia, Georgia, serif
Impact, Impact, Charcoal, sans-serif
Lucida Console, Monaco, monospace
Lucida Sans Unicode, Lucida Grande, sans-serif
Palatino Linotype, Book Antiqua, Palatino, serif
Tahoma, Geneva, sans-serif
Times New Roman, Times, serif
Trebuchet MS, Helvetica, sans-serif
Verdana, Verdana, Geneva, sans-serif
MS Sans Serif, Geneva, sans-serif
MS Serif, New York, serif

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CSS Text Align

Overview

You can control the alignment/justification of text (and certain HTML elements) using the `text-align` property.

Possible Values

- left
- right
- center
- justify
- inherit

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CSS Text Transform

Overview

Using the `text-transform` property you can transform the case for text regardless of how it was originally written. (e.g. Text written in lower case can be transformed into upper-case.)

Possible Values

- none (default)
- uppercase
- lowercase
- capitalize
- inherit

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CSS Text Decoration

Overview

The text-decoration property is used to add underlines, overlines and line-throughs to text.

TIP: This property is especially handy for eliminating the underline from hyperlinks for stylistic reasons.

Possible Values

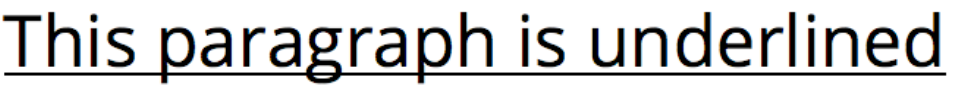
- inherit
- none
- underline
- overline
- line-through

Example

```
<p style="text-decoration:underline;">

This paragraph is underlined

</p>
```



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CSS Hyperlinks

Overview

You can stylize links using CSS.

`a`	affects all hyperlink states
`a:link`	affects hyperlinks that have not been visited yet
`a:visited`	affects links that the visitor has already visited
`a:hover`	affects links with the cursor hovers over a link

Example

In this example we will eliminate the text underline that's usually show with a link.

```
a {text-decoration: none;}
```

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CSS Overflow

Overview

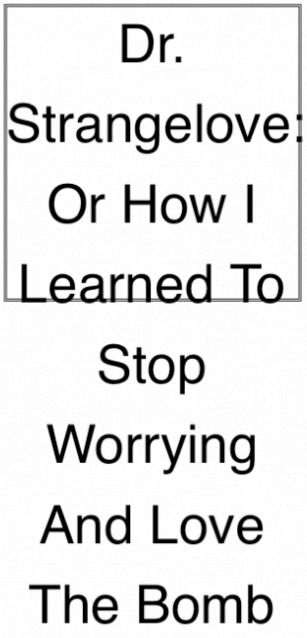
The `overflow` property is used to control what happens when an HTML element (typically a divider) has content that exceeds the space available.

Possible Values

- visible
- hidden
- scroll
- auto
- inherit

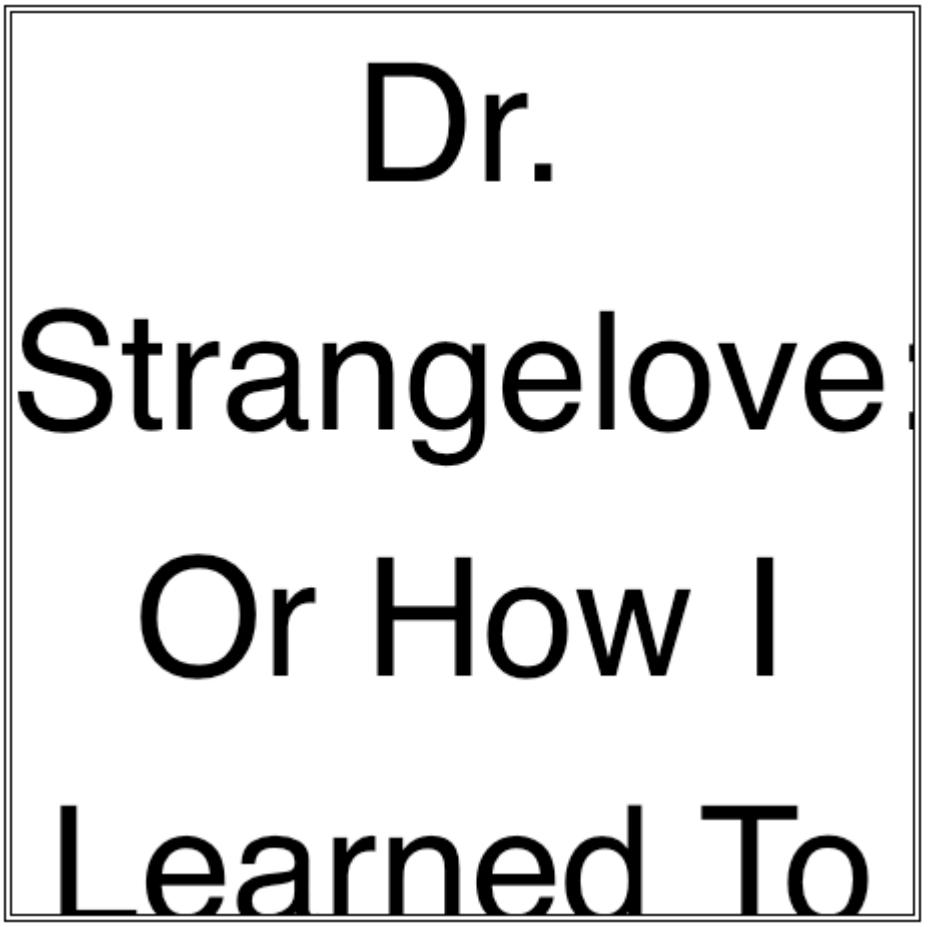
Visible Example

```
#box {overflow:visible;}
```



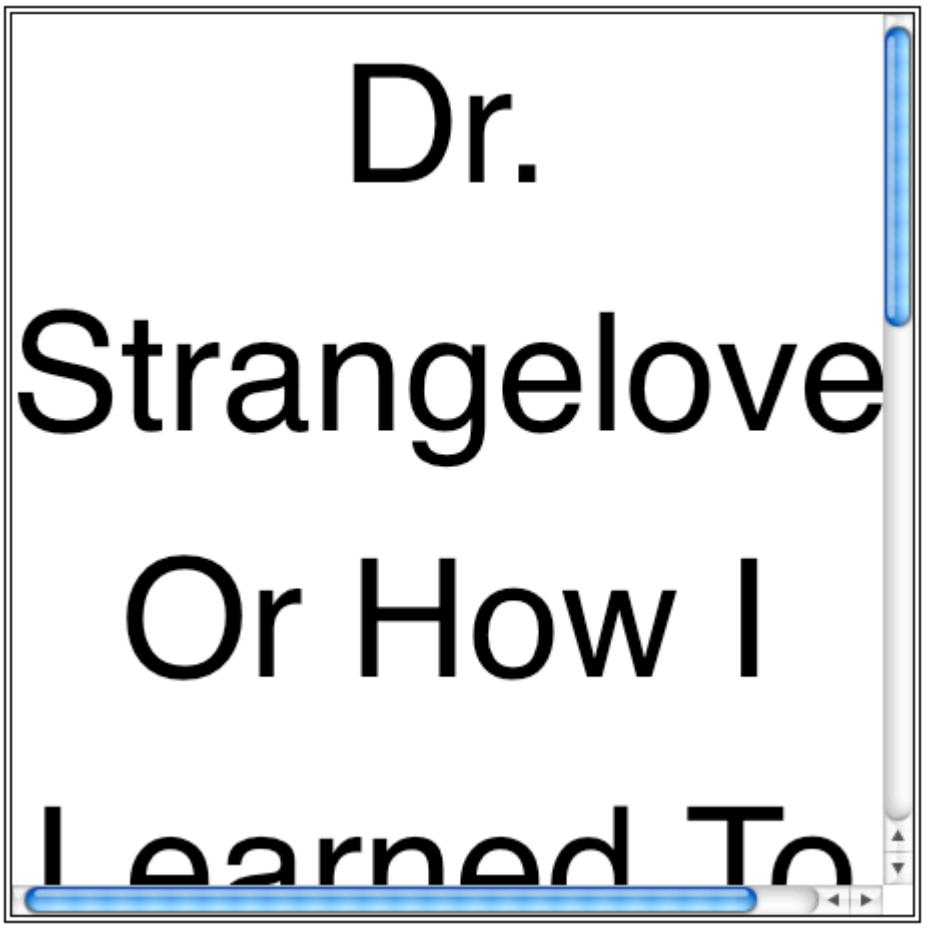
Hidden Example

```
#box {overflow:hidden;}
```



Scroll Example

```
#box {overflow:scroll;}
```


Dr.
Strangelove
Or How I
Learned To

4

Web Design

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Web Design

Overview

Good design, in general, is more than aesthetics. Web design, in particular, requires one to consider things like usability/accessibility and user experience (UX).

For example, in the early days of the web, HTML forms would typically include a "submit" button as well as a "clear" button. Clicking the "clear" button would empty all of the data a user has entered into a form.

This is bad design and it doesn't matter what the form looks like.

Why would anyone want to clear an entire form? Consider all of the information a form typically requires—name, address, e-mail, phone number, etc. How likely is it that someone would fill out EVERY single one of those fields incorrectly? Not likely.

What's more likely is that someone will accidentally click the "clear" button when they meant to click the "submit" button since they are typically right next to each other!

Just because a particular idea or practice is popular does not mean it's logical or useful. However, it's not unreasonable to imitate things that are popular. In fact, ALL art and design is derivative; the trick is to avoid making arbitrary decisions. But, you should constantly scrutinize your design decisions and consider the impact it will have on users…and that applies to aesthetics as well as usability.

Afterall, pretty things aren't just nice to look it…they also make us feels things. But just because something is pretty to look at it doesn't mean it makes us feel what the designer intended.

Good design not only make your site nicer to look at and easier to use, it can also boost sales and increase readership because you have provided users with a more pleasant and product user experience.

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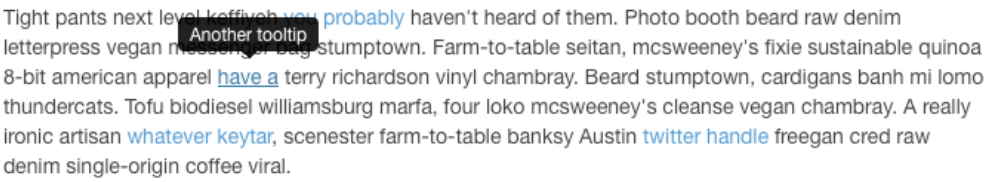
The Elements of Web Design

ToolTip

A tooltip is a little popup bubble that's revealed when you hover over a link.

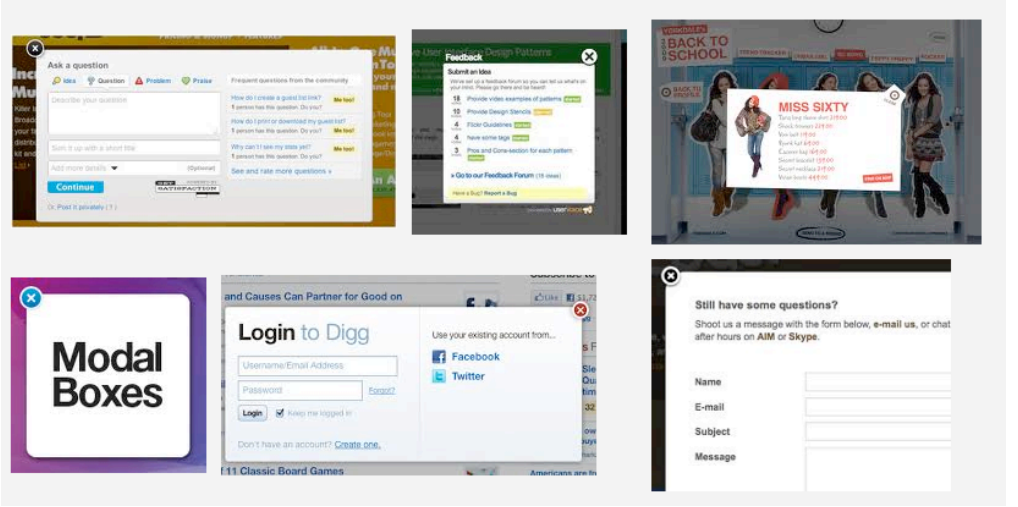


Tight pants next level keffiyeh you probably haven't heard of them. Photo booth beard raw denim letterpress vegan messenger bag stumptown. Farm-to-table seitan, mcsweeney's fixie sustainable quinoa 8-bit american apparel have a terry richardson vinyl chambray. Beard stumptown, cardigans banh mi lomo thundercats. Tofu biodiesel williamsburg marfa, four loko mcsweeney's cleanse vegan chambray. A really ironic artisan whatever keytar, scenester farm-to-table banksy Austin twitter handle freegan cred raw denim single-origin coffee viral.

Modal Window / Lightbox

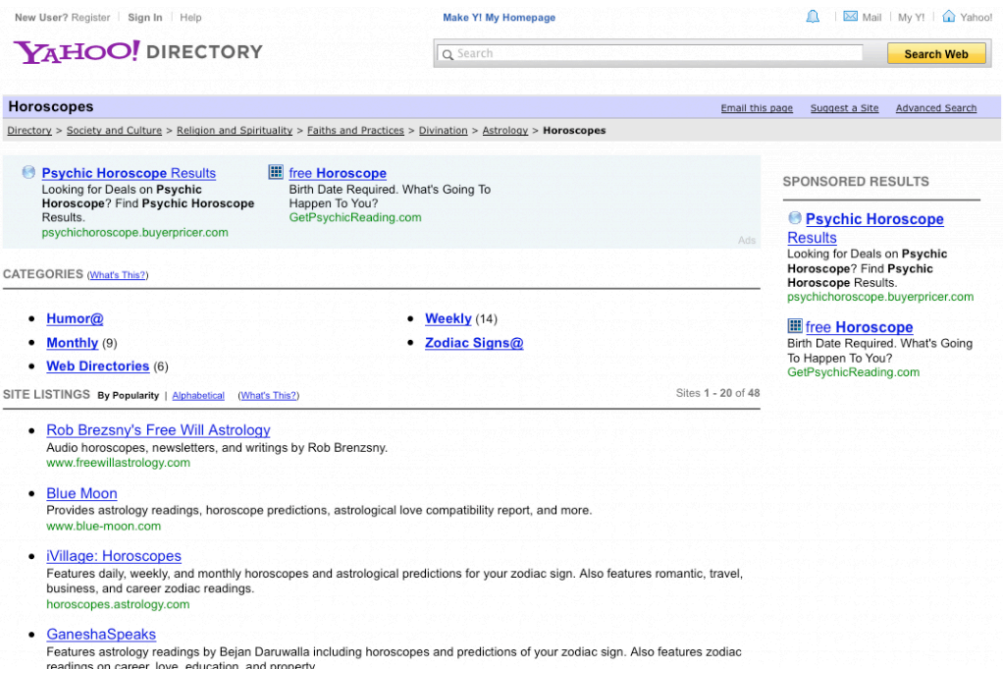
For webpages, a modal window is a screen that appears on top of the main content. A modal window generally forces the user to read a message or make some kind of decision before they can resume using the website. Additionally, modal windows can also be used to display images, video, and even other webpages (via iframe); in such a context modal

windows are referred to as "lightboxes."



Breadcrumbs

Breadcrums, as in "a trail of breadcrumbs" (an allusion to to the children's fairy tale, Hansel and Gretel). Breadcrumbs offers users a text representation of where they are located within the hierarchy of the site.

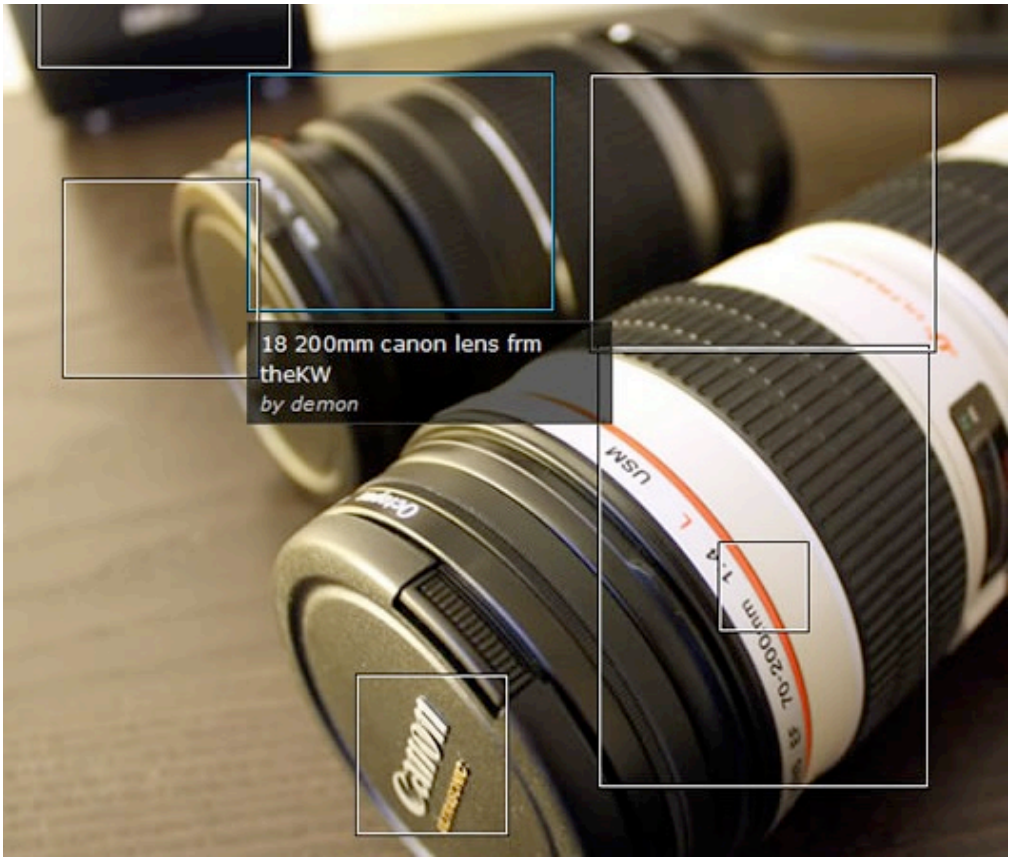


...

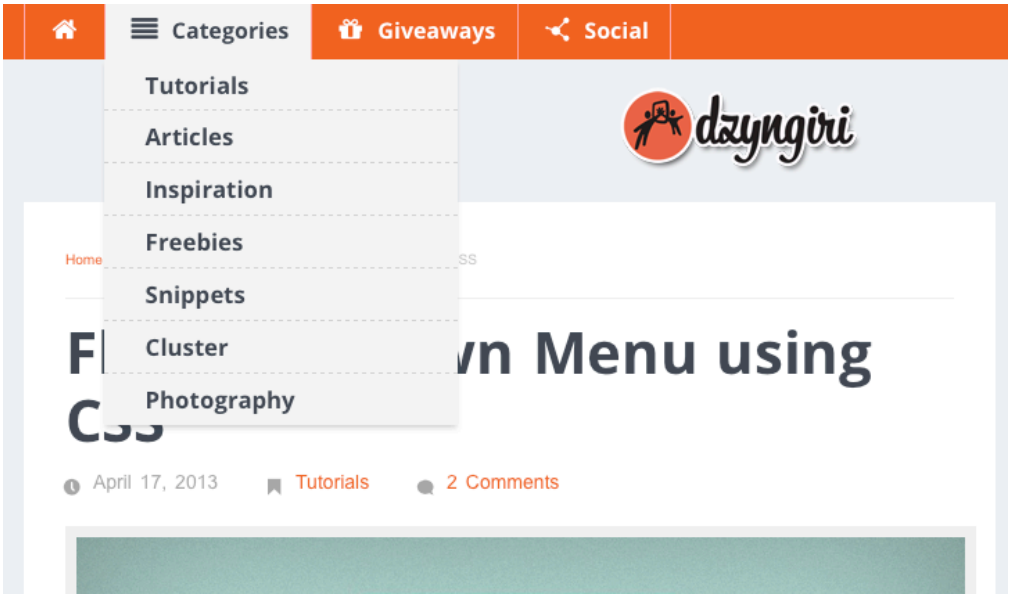
Image Annotation

Image annotation is used much like tooltips. But in this case, a single image can be assigned

various hotspots that activate an text bubble.

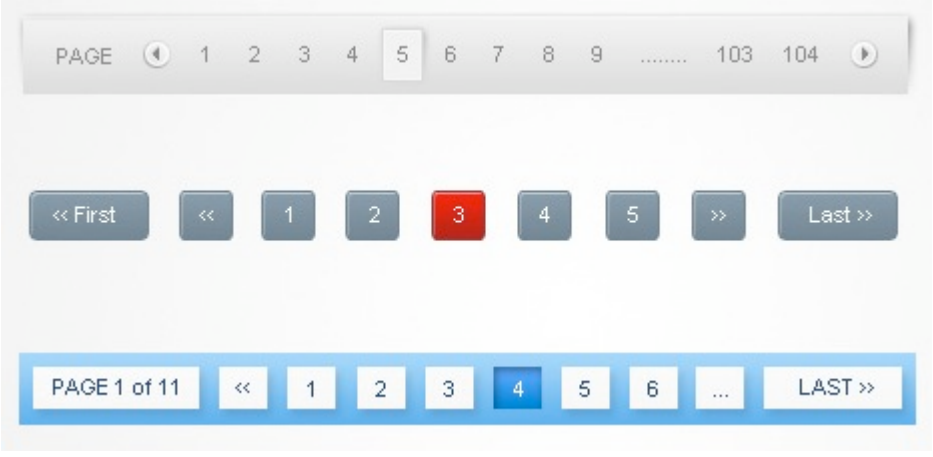


Navbar / Navigation Bar / Dropdown Menu

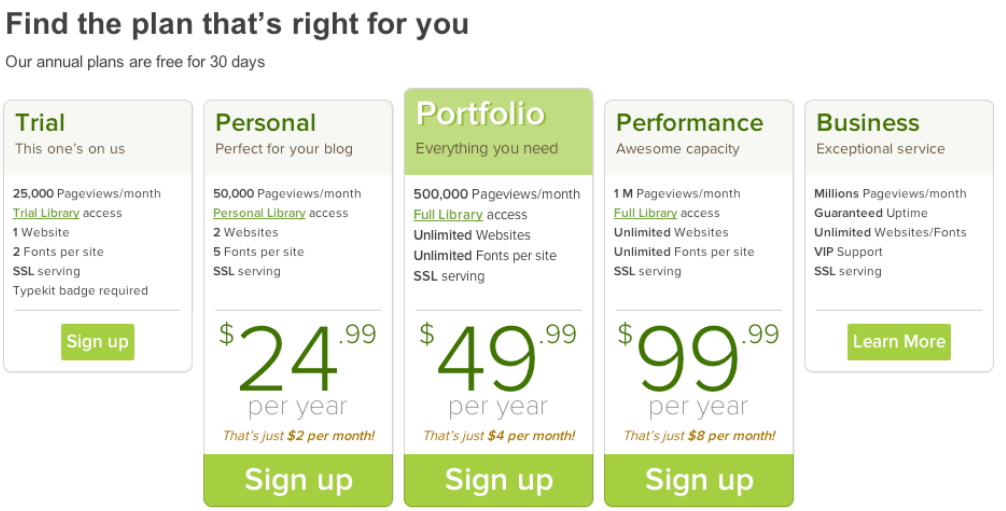


Pagination

Whenever you see a webpage that allows you to browse through a series of results/listings via page number this functionality is referred to as pagination.

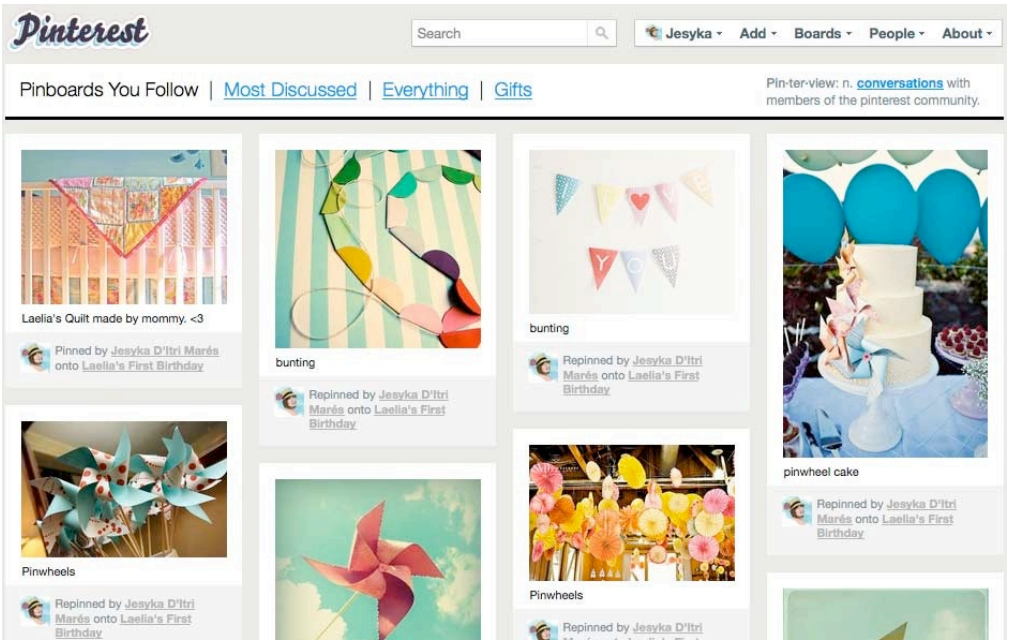


Price Comparison Chart



Pinteresesque (Jquery Masonry)

Pinterest didn't invent this style of layout, but they did popularize it. If you want to create a website that features a grid where various elements of different heights neatly fit together, you will probably want to use a JavaScript plugin based on jQuery masonry.



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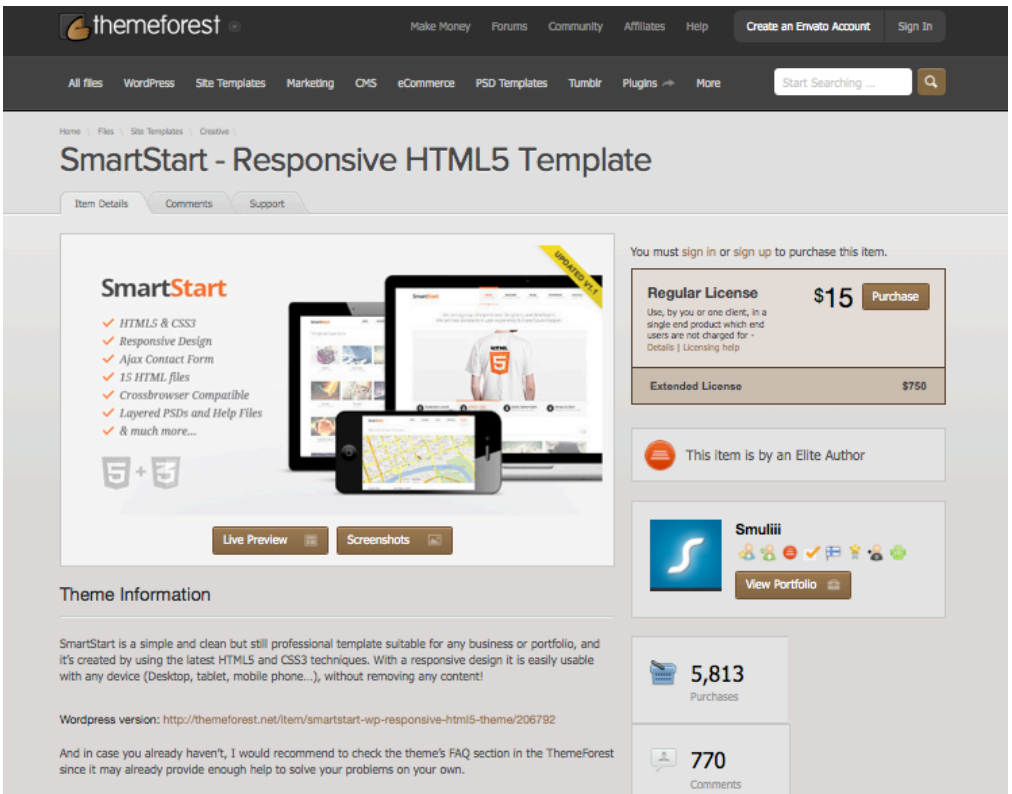
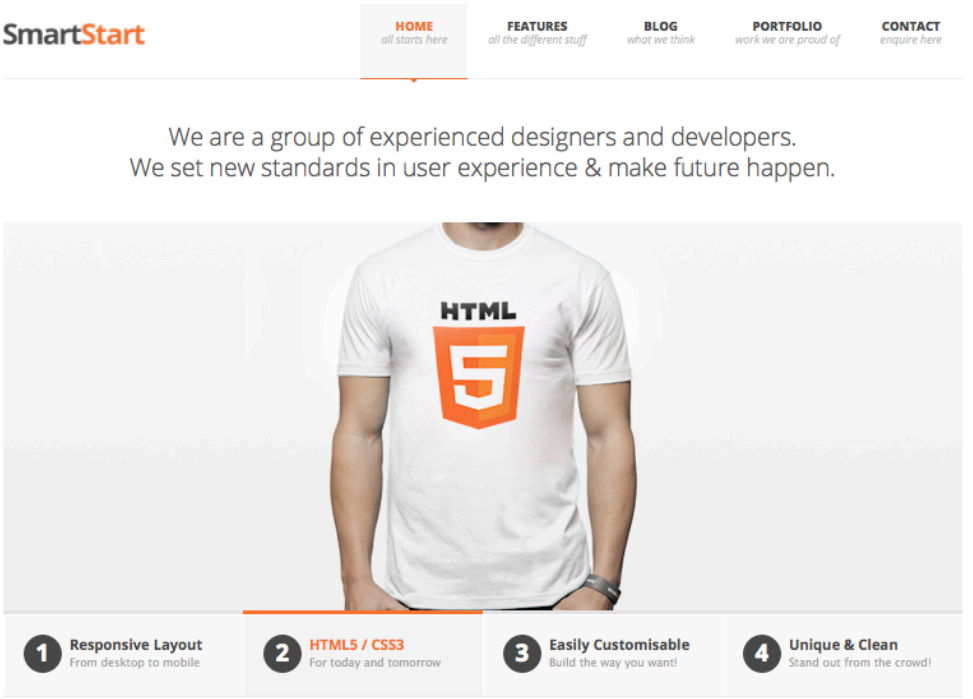
CSS Themes & Templates

A great way to learn about web design is to modify a website so it can fit your needs. Remember, art does not exist in a vacuum; everything is derivative. In fact, many professional web designers base their work on pre-made templates that they ultimately customize to meet their needs.



There are times when you need to create something from scratch. But, most of the time your needs can be meet by using a pre-made template. There are lots of templates that are available for free, but they are usually of questionable quality. If you are willing to pay for

design, a template can cost anywhere from five bucks up to hundreds (and even thousands) of dollars.



A good site to get started with is ThemeForest, they offer templates and themes for basic websites and content management systems (WordPress, Tumblr, etc.).

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Web Hosting

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Web Hosting

Overview

If you want people to see your website, you need a web server that is connected to the Internet. Your could use your home computer as a web server, but most Internet service providers specifically forbid residential customers from using their Internet for web hosting. What's more, your computer would need for be running 24 hours a day, seven days a week, non-stop.

Fortunately, for a couple bucks a month can pay for web hosting from a web hosting provider. There are literally thousands of web hosting providers to choose from with lots of features. But if you are just starting out all you need is something really simple and reliable that can grow to meet your needs.

My site learnhtmlcode.com uses A2 Hosting (http://learnhtmcode.com/a2 -- save 17% using coupon "htmlcode") because they are cheap and reliable while offering lots of features such as SSH access (even if you don't need it or even have any idea what that means, one day you might need it and most web hosting providers do not offer this feature).

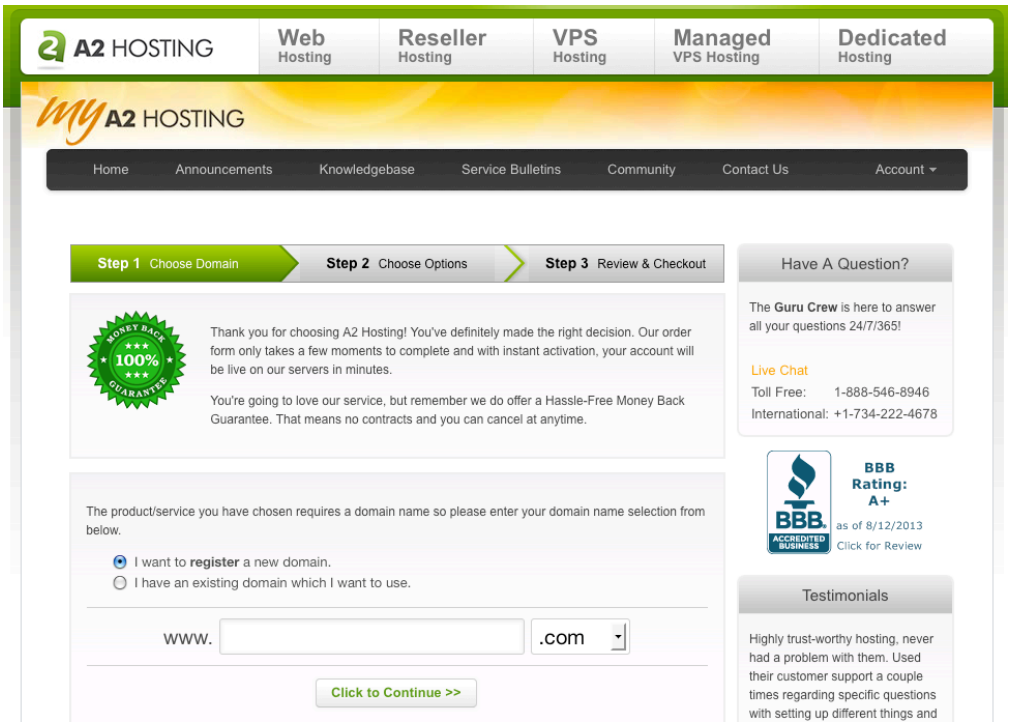
Getting Started

This is a quick overview of how to create a web hosting account. The signup process will vary for various providers, but this overview should give you an idea of what to expect.

Note: Don't be afraid to ask questions of your web hosting provider, it's your money so make sure they earn it.

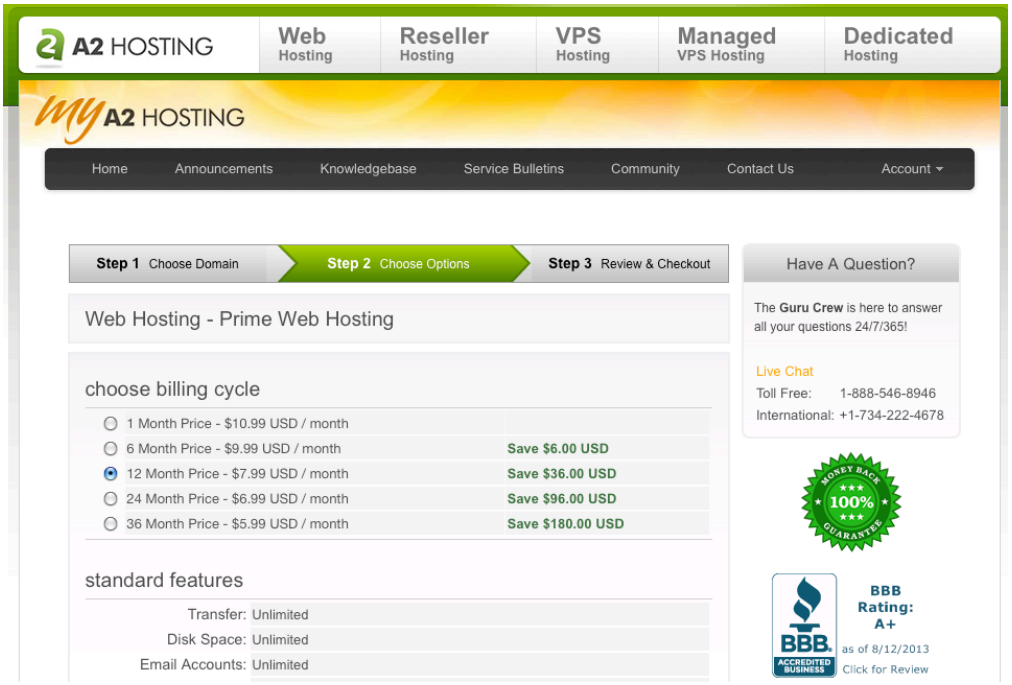
Step 1 – Visit A2 Hosting (http://learnhtmlcode.com/a2)

Step 2 – Choose Your Domain Name

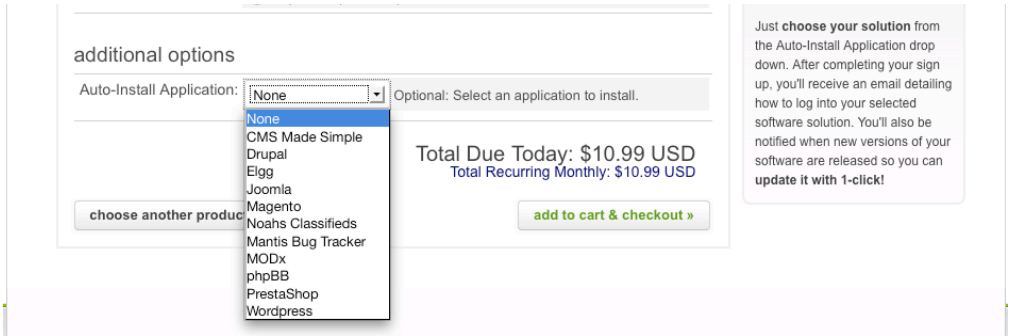


You can use a domain name (eg. yourwebsite.com) that you already own or you can create a new one. Regardless, you can always add/register additional domain names later.

Step 3 – Choose Your Options



…at the bottom of the page, you will see a section asking you to choose the software you would like to auto-install…it can be WordPress or any of the other options in the list.



Done

Once you complete the check out, you'll receive a welcome package via e-mail with additional details concerning your account and login details.

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How To Upload A Web Site Using FTP

In order to upload your webpage to the Internet you need a web hosting provider such as A2 Hosting -- http://learnhtmlcode.com/a2. (A web hosting provider is a company that rents out the use of their Internet-connected servers.)

You'll also need an FTP client (Cyberduck (http://cyberduck.ch), Fetch, etc.) An FTP client is software that connects to an FTP server. FTP stands for file transfer protocol, it's only purpose is to facilitate the transfer of computer files from one computer to another, whereas a web browser is an http client (web browser) that can only display files in the form of a web page.

Remember, servers are just computers (much like your Mac or PC). And every single web page on the Internet is just a collection of files stored in a folder on some computer. Servers simple facilitate the delivery of these files from one computer to another…in the proper context.

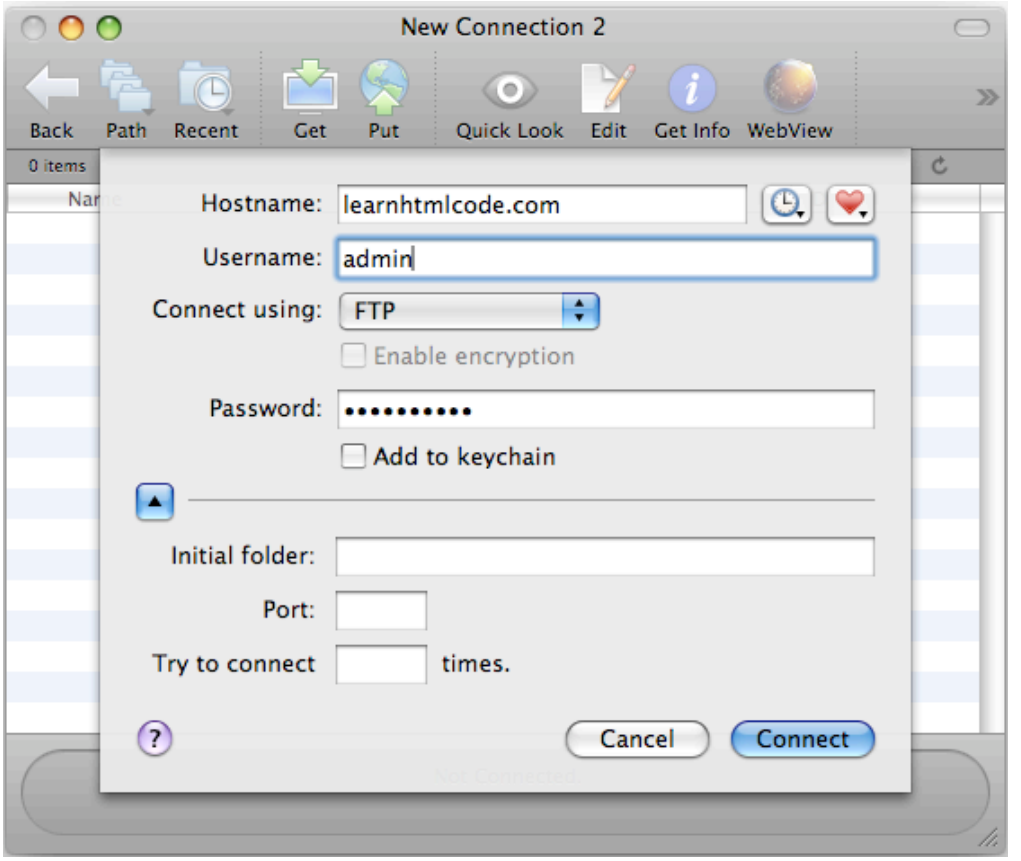
When you use a web browser and connect to a server, you are viewing a particular file in the limited context of a web browser. Similarly, when you connect to a server using an FTP client, you are viewing those same files in another context…a context that allows files and folders to be created, deleted or modified.

If you are still unclear, continue with the rest of this tutorial and hopefully things will become clear once you start doing things.

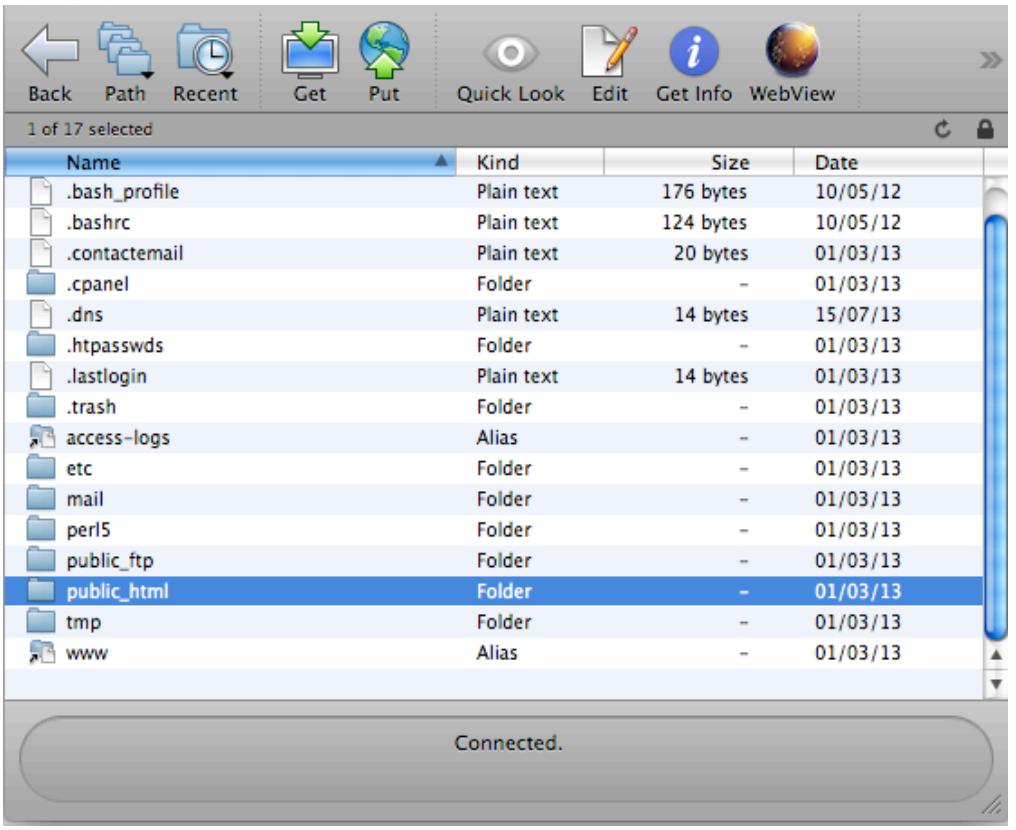
Tutorial

Open your FTP client.

Enter the server/host address and credentials (user and password) in the appropriate fields.



If you are successful you should see a folder directory that looks something like this…



In order to make your web pages viewable on the web, you need to upload your HTML files on to your web server, but we need to make sure they are sent to the right directory.

Usually, your files will reside in a folder called "public_html" or "www", but your web host might have their server configured differently. (Check the "new customer details" e-mail from your hosting provider to find out where you're supposed to store your files.)

Note: If you see both a "public_html" folder and a "www" folder, the both go the same place. (The "www" is usually an alias pointing to your public_html directory…much like a file shortcut on your Mac or PC. I have no idea why hosting providers do this, but there you go.)

Once you have uploaded your files they should be viewable via your web site address.

Example #1

Let's say you registered a domain called "awesome.com"

If you upload a file called page.html it will be accessible on the web at http://awesome.com/page.html

Example #2

Let's say you created a folder in your "public_html" directory called "stuff"

If you upload your "page.html" to the "stuff" folder that web page would be accessible on the web at http://awesome.com/stuff/page.html