



all in orbit

Learn HTML / CSS

by Anthony Alagna



all in orbit

HTML

Who cares?

Markup Languages



XML: Extensible Markup Language

What is a markup language?

- *“A markup language is a modern system for annotating a document in a way that is syntactically distinguishable from the text”*
--Wikipedia.org
- WTF does that mean?
- Let's see some examples...

Markup Languages



XML: Extensible Markup Language

We can use XML to organize a library of books in a database

```
1 <?xml version="1.0" encoding="UTF-8" ?>
2 <library>
3   <book isbn="1451648537">
4     <title>Steve Jobs</title>
5     <author>Walter Isaacson</author>
6     <language>English</language>
7     <genre>Biography</genre>
8   </book>
9   <book isbn="1619493845">
10    <title>Walden</title>
11    <author>Henry David Thoreau</author>
12    <language>English</language>
13    <genre>Autobiography</genre>
14  </book>
15 </library>
```

library.xml

“A system for annotating a document that is syntactically distinguishable from the text”
--Wikipedia.org simplified

- System = XML
- Document = library.xml
 - Describes a library of books
- Distinguishable Syntax

`<tag>text</tag>`

Markup Languages



XML: Extensible Markup Language

Markup Language Terminology

```
1 <?xml version="1.0" encoding="UTF-8" ?>
2 <library>
3   <book isbn="1451648537">
4     <title>Steve Jobs</title>
5     <author>Walter Isaacson</author>
6     <language>English</language>
7     <genre>Biography</genre>
8   </book>
9   <book isbn="1619493845">
10    <title>Walden</title>
11    <author>Henry David Thoreau</author>
12    <language>English</language>
13    <genre>Autobiography</genre>
14  </book>
15 </library>
```

library.xml

Tag - e.g. - <title>, </author>

- Surrounded by angle brackets <>
- Start tag - <tag>
- End tag - </tag>

Element

- comprised of the Start Tag, End Tag, and everything in between.

Attribute - e.g. - name="value"

- Appears as a name/value pair
- Always contained within the start tag
- Provides additional information about an element

Text - e.g. - Walden

- Text is contained between tags

Markup Languages



XML: Extensible Markup Language

```
1 <?xml version="1.0" encoding="UTF-8" ?>
2 <library>
3   <book isbn="1451648537">
4     <title>Steve Jobs</title>
5     <author>Walter Isaacson</author>
6     <language>English</language>
7     <genre>Biography</genre>
8   </book>
9   <book isbn="1619493845">
10    <title>Walden</title>
11    <author>Henry David Thoreau</author>
12    <language>English</language>
13    <genre>Autobiography</genre>
14  </book>
15 </library>
```

library.xml

NOTE *

Tags are well formed

- Each element contains a start tag and an end tag

Hierarchical Structure

- Utilize proper nesting of tags
i.e. <book><title>Walden</title></book>
- Example of incorrect nesting
i.e. <book><title>Walden</book></title>

Whitespace is ignored

HTML is case-insensitive

HTML

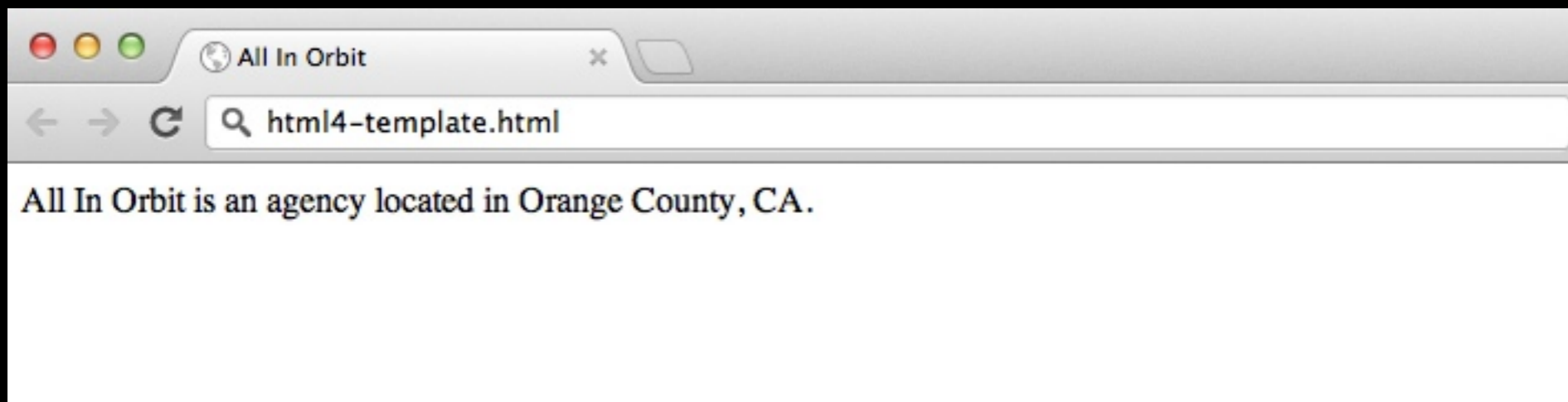
HTML is used to mark up the content of a webpage

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN"
2   "http://www.w3.org/TR/html4/loose.dtd">
3
4 <html lang="en">
5 <head>
6   <title>All In Orbit</title>
7 </head>
8 <body>
9
10   All In Orbit is an agency located in Orange County, CA.
11
12 </body>
13 </html>
```

HTML Elements

- DOCTYPE
- html
- head
- title
- body

html4-template.html



HTML Tags



Document Structure

Description	Tag	Example
Heading	<code><h1></code> <code><h2></code> ... <code><h6></code>	<code><h1>Title Heading</h1></code> <code><h2>Sub Title</h2></code> <code><h5>Super Sub Title</h5></code>
Page Section	<code><div></code>	<code><div>Content for display</div></code>
Inline Section	<code></code>	Click to <code>donate</code> today.
Paragraph	<code><p></code>	<code><p>Very short paragraph.</p></code>
Line Break *	<code>
</code>	Address <code>
</code> City, State
Horizontal Rule *	<code><hr></code>	Above <code><hr /></code> Below

* **Empty Element** - an element that does not require a start and end tag.
A single tag representing the start and end of an element is written `<tag />`

HTML Tags



all in orbit

Links & Text Markup

Description	Tag	Example
HTML Link	<code><a></code>	<code>View Destination</code> <code>Go in a Folder</code> <code>Visit Google</code>
Define Named Anchor	<code><a></code>	<code>Joey is here</code>
Link to Named Anchor	<code><a></code>	<code>Visit Joey</code> <code>Joey's on this page</code>
Strong Emphasis	<code></code>	Learning <code>HTML</code> is easy,
Emphasis	<code></code>	of course with some <code>practice</code> .
Block Quotation	<code><blockquote></code>	<code><blockquote></code> "The technology at the leading edge changes so rapidly that you have to keep current after you get out of school. I think probably the most important thing is having good fundamentals." <code></blockquote></code>

HTML Tags

Lists

Description	Tag	Example
Ordered List	<code></code>	<code></code>
Unordered List	<code></code>	<code>Eggs</code> <code>Butter</code>
List Item	<code></code>	<code></code> <code></code> <code>Milk</code> <code>Sugar</code> <code></code>
Definition List	<code><dl></code>	<code><dl></code>
Term	<code><dt></code>	<code><dt>Go</dt></code> <code><dd>An attempt or trial at</code>
Definition	<code><dd></code>	<code>something.</dd></code> <code></dl></code>

HTML Tags



Tables

Description	Tag	Example
Table	<code><table></code>	<pre><table> <thead> <tr><th>Item</th><th>Price</th></tr> </thead> <tbody> <tr><td>Gold</td><td>\$5.00</td></tr> <tr><td>Silver</td><td>\$4.00</td></tr> </tbody> </table></pre>
Table Row	<code><tr></code>	
Table Data	<code><td></code>	
Table Header *	<code><thead></code>	
Table Footer *	<code><tfoot></code>	
Table Body *	<code><tbody></code>	
Header Cell *	<code><th></code>	

* These tags are not required for every table.

HTML Tags



all in orbit

Forms

Description	Tag	Example
Form	<code><form></code>	<code><form action="dest.html" method="GET"></code>
Input Label	<code><label></code>	<code><label for="fn">First Name</label></code> <code><input type="text" name="first" id="fn" /></code>
Form Input	<code><input></code>	<code><label for="pw">Password</label></code> <code><input type="password" name="pass" id="pw" /></code>
Select Box	<code><select></code>	<code><select></code>
Select Box Option	<code><option></code>	<code><option>Yes</option></code> <code><option>No</option></code> <code></select></code>
Large Text Input	<code><textarea></code>	<code><input type="button" name="reset" value="Clear" /></code> <code><input type="submit" name="submit" value="Go" /></code> <code></form></code>

HTML



Final Notes: HTML Styling

- Every HTML element is a rectangular box.
 - `body`, `div`, `span`, `strong`, `a`, `img`, `form`
- HTML Elements are rendered in 3 different ways
 - Block Elements
 - Appear on their own line.
 - Can contain `margin`, `width`, and `height` properties
 - e.g. - `h1`, `h2`, `div`, `p`, `hr`, `blockquote`, `ul`, `ol`, `dl`, `form`, `table`
 - Inline Elements
 - Appear within a line (or wrapping on multiple lines)
 - Cannot contain `margin`, `width`, and `height` properties.
 - e.g. - `a`, `br`, `em`, `img`, `span`, `strong`, `textarea`, `input`, `label`, `code`
 - Not Displayed Elements
 - Not visible in the browser window
 - e.g. - `meta`, `style`



all in orbit

HTML && CSS

What is the point?

twitter.com - with CSS



Welcome to Twitter.
Find out what's happening, right now, with the people and organizations you care about.

Username or email

Password

Remember me - [Forgot password?](#)

New to Twitter? Sign up

Full name

Email

Password

twitter.com - without CSS

-

- [Have an account? Sign in](#) [New to Twitter? Join Today »](#)

-

- Username or email Password

- Remember me

[Forgot password?](#)

[Already using Twitter via text message?](#)

- [Language: English](#)

-

- [Bahasa Indonesia](#)

- [Bahasa Melayu](#)

- [Dansk](#)

- [Deutsch](#)

- [Español](#)

- [Filipino](#)

- [Italiano](#)

- [Magyar](#)

- [Nederlands](#)

- [Norsk](#)

- [Polski](#)

- [Português](#)

- [Suomi](#)

- [Svenska](#)

- [Türkçe](#)

- [français](#)

- [Русский](#)

- [עברית](#)

- [اردو](#)

- [العربية](#)

- [فارسی](#)

- [हिन्दी](#)

CSS



Cascading Style Sheets

- Use CSS to add style to web documents
- Styles define how HTML elements are displayed
 - fonts
 - colors
 - spacing
- Each HTML element has a (somewhat) standard style.
- CSS Syntax
 - CSS Rules are defined in property/value pairs.
 - e.g. - `font-size: 12px;`
 - Separate multiple style definitions with a semi-colon. ;
 - e.g. - `width: 5px; padding: 10px;`
`color: white; background: black;`
 - Whitespace is ignored

CSS



Syntax: Modifying HTML Styles

- There are 2 different types of style declarations for an HTML tag
 - Inline declaration
 - Styles are defined using the `STYLE` attribute within an element's start tag
 - e.g. - `text to display`
 - External declaration
 - Styles are defined using selectors within the head of the document
 - There are 3 major types of selectors
 - Tag Selector
 - ID Selector
 - Class Selector

CSS



Syntax: CSS Selectors

There are 3 major types of selectors

- **Tag Selector** - selector matches the tag name

- e.g. -

```
p { font-size:12px; margin:5px; }
div { padding:10px; width:200px; height:100px; }
span { border:1px dashed red }
```

- **ID Selector** - selector matches the ID attribute of the HTML element

- e.g. -

```
#yourid { font-size:12px; color: blue; }
#content { width:500px; margin:0 auto; }
#header{ width:250px; background:black; color:white; }
```

```
/* These CSS rules match the following HTML tags respectively */
```

```
<a href="index.html" id="yourid">text</a>
<div id="content">page content</div>
<span id="header">menu</span>
```

- IDs are defined by the coder.
- IDs are used to uniquely identify an HTML element on a page.
- Each ID should be unique for HTML elements on the same page

CSS

Syntax: CSS Selectors

There are 3 major types of selectors

- **Class Selector**

- Matches on the `CLASS` attribute of the HTML element

- e.g. -

```
.yourclass { font-size:12px; margin:5px; }  
.bordered { border: 1px solid black }  
.red { color: #C00; }
```

```
/* These CSS rules match the following HTML tags respectively */  
<a href="index.html" class="yourclass">text</a>  
<div class="bordered">page content</div>  
<span class="red">menu</span>
```

- Each `CLASS` is defined by the coder.

- Assign multiple classes to the same element

```
<span class="red bordered">menu</span>
```

- Assign the same class to different elements

```
<a href="#1" class="red">item 1</a>  
<a href="#2" class="red bordered">item 2</a>  
<a href="#3" class="red">item 3</a>
```

CSS

The CSS Box Model

- Every HTML element is a rectangular box.

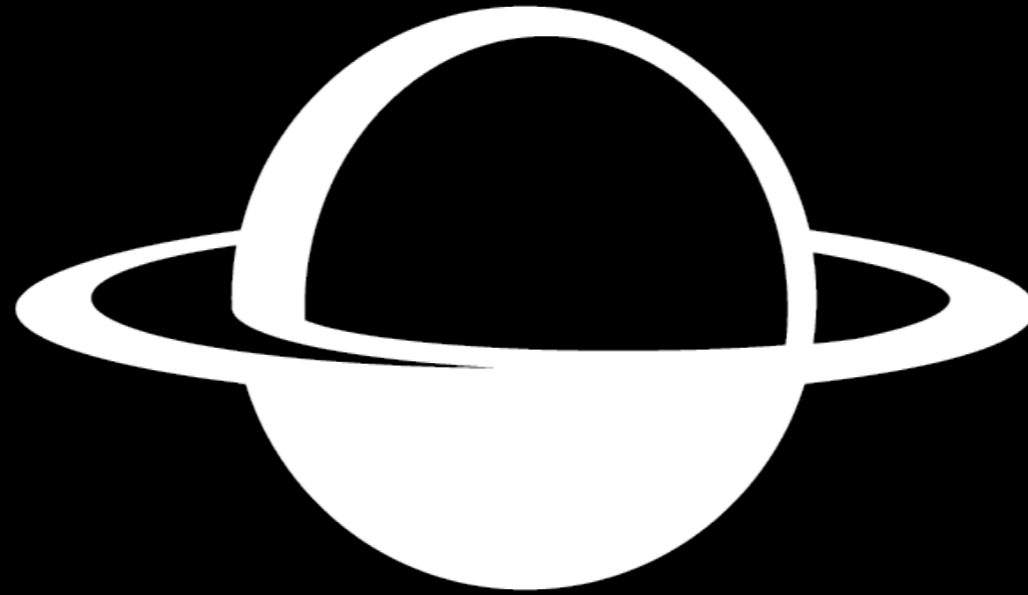
Margin

Border

Padding

Content

Width
X
Height



all in orbit

fb.com/allinorbit
@allinorbit