HTML

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:

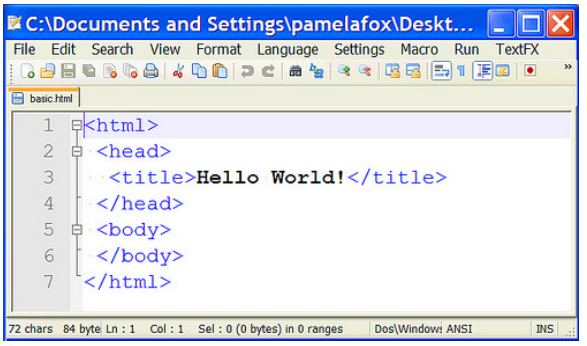
HTML: What is it?

- HTML stands for Hyper Text Markup Language
- An HTML file is a text file containing small markup tags
- The markup tags tell the Web browser how to display the page
- An HTML file can be created using a simple text editor or a WYSIWIG editor

HTML: Editors

Since HTML files are just text files, many programs can be used to create them. Some programs provide special assistance for handling HTML, like syntax-highlighting or autocompletion.

	Windows	Mac
Free	Notepad++, Aptana	TextEdit, Smultron
$$	E-Text Editor	TextMate, Coda, Espresso



History of HTML

- Tim Berners-Lee created first HTML version in the late 1980s (as a subset of SGML).
- Needed a simple way to share research among colleagues; piggy backed off newly evolving Internet (previously just text)
- HTML spread as multiple proprietary versions; in 1993 the IETF published a working draft of the first “official” HTML
- Simplicity made things easy for people new to computers and publishing
- Also left the “code” a mess, leaving every browser to handle different mistakes in its own way
- Soon, the World Wide Web Consortium (W3C) was created to draft a set of standards for all web browsers to adhere to
- The W3C and WhatWG are now working on HTML5, the next generation of HTML tags, which is being adopted gradually by browsers.

Anatomy of an HTML tag

Each tag has a "start tag", "end tag", some content in between, and optional attributes.

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

<a href="http://www.google.com" >
  Google
</a>
```

Think of a tag as a "command" to the browser and of the attributes as modifiers of that command.

HTML Basics

The doctype isn't an actual tag, but it needs to be at start at every HTML page to tell browser which version of HTML you're using (HTML5, in example below).

The `html` tag is always the first tag in the page.

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

Head & Body

The head contains "meta" information about the page, information that the browser needs before rendering it.

The body contains the actual content of the page.

```
<!DOCTYPE html>
<html>
 <head>
  <meta charset="utf-8">
  <title>Title of your page goes here</title>
 </head>
 <body>
  Bulk of your content here.
 </body>
</html>
```

What goes in the body?

Headlines

```
<h1>Header 1</h1>
<h2>Header 2</h2>
...
<h6>Header 6</h6>
```

Header 1

Header 2

…

Header 6

Paragraphs

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

Paragraph 1

Paragraph 2

Paragraph 3

Line Breaks

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

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

Notice: This tag does not need to be closed, since it doesn't encapsulate anything.

Lists

```
<ul>
  <li>Item 1</li>
  <li>Item 2</li>
  ...
</ul>
```

- Item 1
- Item 2
  ...

Ordered Lists

```
<ol>
  <li>Item 1</li>
  <li>Item 2</li>
  ...
</ol>
```

1. Item 1
2. Item 2
   ...

Formatted Text

```
<em>Emphasized Info</em>
```

Emphasized Info

```
<strong>Important Info!</strong>
```

Important Info!

Images

```
<img src="http://www.google.com/images/srpr/logo1w.png"
  alt="Google">
```

Links

```
<a href="http://www.google.com">Google</a>
```

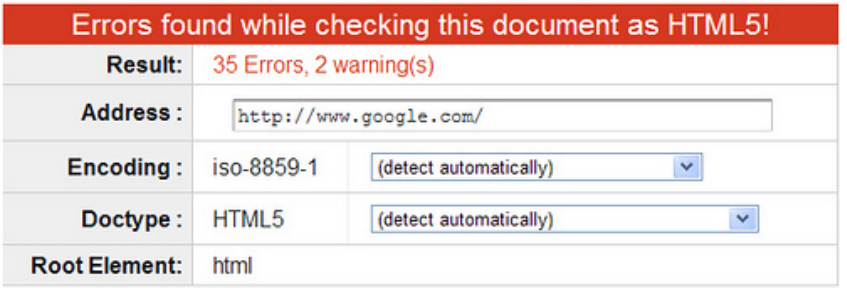
Google

```
<a href="http://www.google.com">
<img src="http://www.google.com/images/srpr/logo1w.png"
  alt="Google">
</a>
```

HTML Validators

Browsers will often render HTML that has mistakes in it, using different error correction strategies.

To check that your HTML is actually valid according to the standard, run it through the W3C validator.



You can also install the validator add-on for Firefox.

HTML Resources

When you're on your own and trying to code HTML, do a search for the tag you're using ("img tag" or "li tag") and you will usually find good references at the top.

W3Schools is a simple to read reference with interactive examples & will often be the top result. The HTML spec is the official reference, but can be harder to read.

For more tutorial type sites, check out Mozilla Developer Network and the Opera Web Standards curriculum.