

CSET-110

Web Development I

HTML Basics

Today's Goal

To create our first HTML document and learn how to use some common tags.

Albert Einstein
Old Grove Rd.
Nassau Point
Peconic, Long Island

August 2nd, 1939

F.D. Roosevelt,
President of the United States,
White House
Washington, D.C.

Sir:

Some recent work by E.Fermi and L. Szilard, which has been communicated to me in manuscript, leads me to expect that the element uranium may be turned into a new and important source of energy in the immediate future. Certain aspects of the situation which has arisen seem to call for watchfulness and, if necessary, quick action on the part of the Administration. I believe therefore that it is my duty to bring to your attention the following facts and recommendations:

In the course of the last four months it has been made probable - through the work of Joliot in France as well as Fermi and Szilard in America - that it may become possible to set up a nuclear chain reaction

爸、妈：

您两位好！

谢谢您的来信！收到您的信，我真高兴，也非常多谢您对我的关心。

我来英国读书不知不觉已经六个月了。时间过得真快。这六个月来，我的英文已进步了不少。基本上听课和应对进退已经没什么大问题了。教授们也觉得我有进步。在英国的生活我也比较习惯了。同时，我也认识了几个新朋友。我们除了一起做功课、练习英文和锻炼以外，还有时去听音乐和看电影。我的生活也比较规律。希望您两位放心。

最近这里的天气很好，很舒服。希望您那里的天气也好。我得做些研究，然后写文章。

下次再谈。

请代问爷爷、奶奶好！

敬祝

安康！

儿

小明

敬上

四月八日

What are the parts of a letter?

What are the parts of a letter?

- Heading
- Greeting
- Body
- Salutation

The envelope has other parts: to address, from address, stamp, etc.

Does the paper know what these parts are?

Does the paper know what these parts are?

Of course not!

Now let's imagine that letter as a web page.

Does the computer know what these parts are?

Only if you tell it.



Paper stores and displays
data in written language.

But a web page stores
data in binary.

Syntax

vs

Semantics



The greatest
teacher, failure
is.

- YODA



Colorless green
ideas sleep furiously.

Noam Chomsky

Two Ways To Be Correct

- Syntactically: we've followed the rules of the language
- Semantically: we've properly communicated our meaning

	Incorrect Syntax	Correct Syntax
Incorrect Semantics	X	X
Correct Semantics	X	✓

Forget About Rules For A Second

```
$ cd ~/Desktop  
$ echo "Hello World" > hello.html
```

How To Handle HTML Files?

1. Right click the HTML file
2. Click "Get Info"
3. In the "Open With" section, select "Google Chrome"
4. Then click "Change All..." button

Your First Web Page! :D

Now you can double-click your file and open it in Chrome!

p.s. - you can also use `open hello.html` in your terminal

But It's Wrong :(

Syntactically?

or

Semantically?

HTML is a Specification

- Read it if you want, it's boring.
- A specification is an agreed upon way for:
 - You to write it
 - Browsers to display it

The translation of code to its display is called rendering.

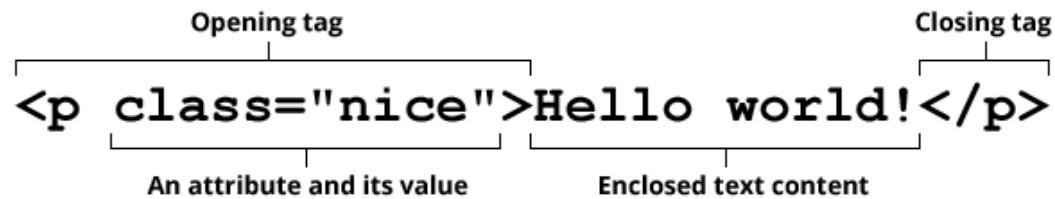
HTML 5

- Newest version of the spec
- Plenty of older versions
- Every web page needs to declare it's version

```
<!DOCTYPE html>
```

Everything else is
Tags!!!

Anatomy of an HTML element



Attributes

- Modify the tag's default behavior
- Provide more information about it.

Attributes always come in
name/value pairs

`name="value"`

Examples

`id="unique-identifier"`

`href="some-link.com"`

`checked`

Examples

`id="unique-identifier"`

`href="some-link.com"`

`checked="checked"`

A tag without attributes
still has attributes.

Default Attributes

Attributes

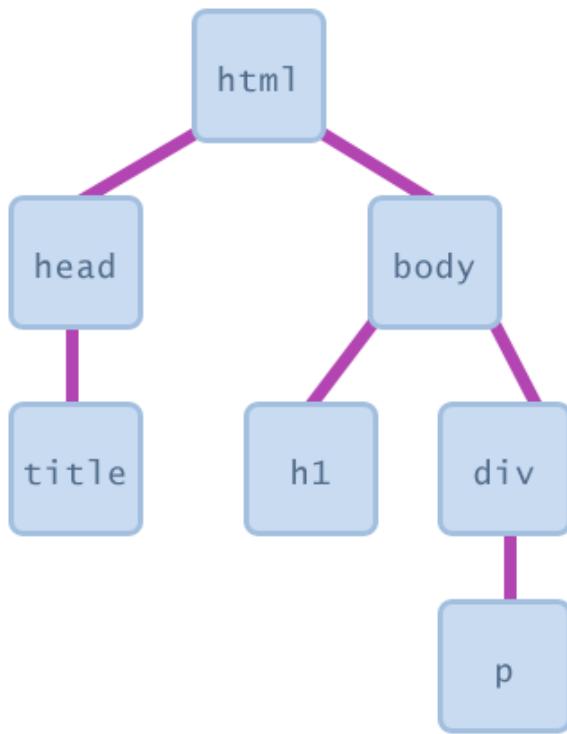
- Can be in any order.
- Only in the opening tag.

Tags vs. Elements

- The Tag creates the Element
- Tags -> Source Code
- Elements -> Display

DOM

- Document Object Model
- An outline of your elements rendered on screen
- Eventually, we'll learn to manipulate the DOM



Nesting Elements

- Wrapping content with a tag creates meaning
- Wrapping tags with tags creates organization



do this

```
<parent>
  <child>...</child>
</parent>
```

not this

```
<parent>
  <child>...</parent>
</child>
```



It's important for you to know the spec, but more important to know how different browsers interpret that spec.

Break Time

Let's look at some tags !

Places to look:

- HTML5 Spec
- Google
- StackOverflow

Places to look:

- HTML5 Spec
- Google
- StackOverflow
- Mozilla Developer Network

MDN's HTML Reference

Tags you need to know for tomorrow:

- html
- h1 - h6
- div
- head / body
- p
- ol / ul
- meta
- a
- li
- title
- img
- comments