

Lecture 6: Introduction to Industry Standard HTML

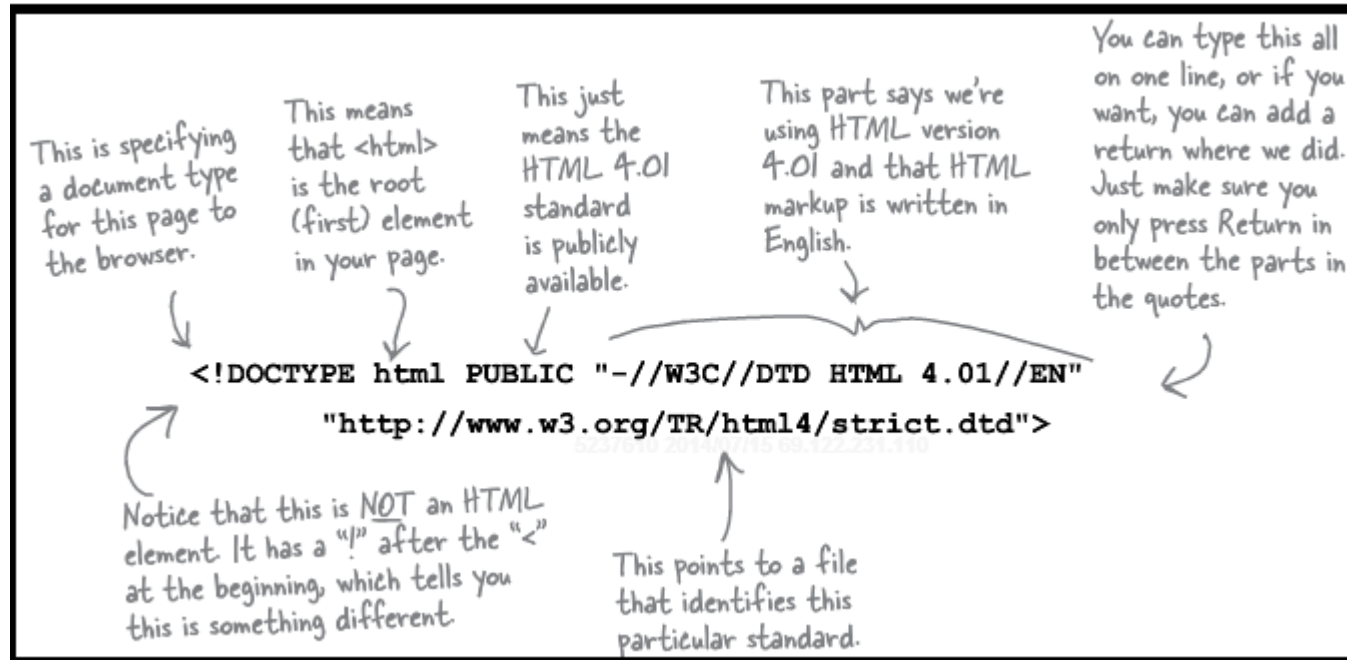
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Industry standard HTML

- To make sure your web pages display correctly on all of the major browsers, you need to adhere to the industry standard. If you don't, browsers may need to “guess” what you intended and different browsers may guess differently, making it look bad on one even if it looks good on the one you're using.
 - ❑ Back in the days of the browser wars in the mid 90's, we couldn't rely on this – Internet Explorer and Netscape duked it out for supremacy; these were the days of the “Best viewed using...” and a `marquee` element that would show a scroll on IE, but would not even work on Netscape.
- Starting with HTML 4, the World Wide Web Consortium (W3C) created a standard for all browsers to adhere to via a specification that would give the valid list of html tags and attributes, say how they should work/display, etc.
- HTML 5 is the newest version of HTML; after HTML 5, there will be no version numbers. Later additions and changes to HTML will not affect earlier code adhering to the HTML 5 standard. It will still work because of backward compatibility.

Key # 1 to adhering to the standard

- Use a doctype command AT the top (above the `<html>` tag).



- Because of the “living standard” HTML, the document type definitions for HTML that’s HTML5 compliant has been greatly simplified to the following:

`<!doctype html>`

More keys to successful validation

- Make sure that every nonvoid element has a closing tag and that all of your tags are properly nested; the last tag you open is the first tag you should close. Also make sure you don't include a tag that shouldn't be nested in another one.
 - ❑ Proper indentation also helps; if you indent at least four spaces for every nonvoid element with an opening tag, you should be able to easily tell which one needs to be closed first. You can also insert a new tabbed tag you may have forgotten (at say 2 spaces).
- All of your tags should have the required attributes, and all tags should only use attributes that are allowed for them.
- Every page should have a `doctype` at the top, the `<html>` tag directly below it, a `head`, which includes the `title` and a `meta` tag specifying the character set (described soon), and a `body`.
- Avoid using obsolete HTML tags and attributes such as ones used for styling (e.g., `` tag, `bgcolor` attribute for `<body>`).

Use the W3C Validator

- To check your HTML for correctness, you can (and should) use the W3C validator.
 - ❑ Exercise: Open your lounge.html page and add the doctype command at the top. Then validate it by either copying/pasting into the Direct Input or uploading the file using the File Upload option.
- Warnings you can ignore:
 - ❑ **Using experimental feature: HTML5 Conformance checker:** Standard warning that the standards for HTML5 have not yet been finalized so HTML5 validation is a work in progress.
 - ❑ **Using Direct Input mode: UTF-8 character encoding assumed:** When you use direct input mode by pasting your HTML in the form box and submitting, your text will be converted to UTF-8 format. This warning is telling you that the validator is ignoring any character encoding you might have specified in the HTML for this reason, which is fine if your file text is in this format.

Mandatory attributes

- Some tags come with mandatory attributes.
 - ❑ Example: The HTML5 standard specifies that the `alt` attribute is mandatory for images. Recall that the `alt` attribute helps the visually impaired (can use a screen reader for the text describing your image) and people who see a broken image (due to e.g., slow connections, server going down, incorrect path to image, etc.) get an idea of what image is showing or would show.
 - ❑ Example: Some tags would be useless without specific attributes (e.g., `<a>` tag) and are therefore required to have them.

Character encodings and using <meta> tags

- The <meta> tags can be used to specify information about your document such as what type of character encoding you are using or keywords for search engines. See http://www.w3schools.com/tags/tag_meta.asp for more.
 - ❑ Since <meta> tags are used to describe your document, you should put them between <head> and </head>.
 - ❑ To specify a UTF-8 encoding, enter:
`<meta charset = "utf-8">`
- All characters (letters, numbers, whitespace (space, tabs, etc.), symbols, etc.) are represented internally by numbers on the computer. Specifying the type of character encoding tells the browser what numbers should represent what characters. UTF-8 is a standard for web (in the Unicode family) and is “compatible with ASCII, which was a common encoding for English-only documents.”

Mistakes and Obsolete (Legacy) tags

```
<html>
```

```
<head>
```

```
  <title>Webville Forecast</title>
```

```
</head>
```

```
<body bgcolor="tan" text="black">
```

Here are some attributes that controlled presentation. bgcolor sets the background color of the page, and text sets the color of the body text.

```
<p>
```

The weather report says lots of rain and wind in store for
Webville today, so be sure to
stay inside if you can.

```
</p>
```

Font changes were made with the
 element and its face attribute.

```
<ul>
```

```
  <li>Tuesday: Rain and 60 degrees.
```

```
  <li>Wednesday: Rain and 62 degrees.
```

```
</ul>
```

You could get away without some closing tags, like and </p>. You sometimes still can, but it is not recommended!!

```
<p align=right>
```

```
  Bring your umbrella!
```

Missing quotes around attribute values. Quotes are always recommended now, and required for attributes with multiple values.

```
<center><font size="small">This page brought to you buy Lou's  
  Diner, a Webville institution for over 50 years.
```

```
</font></center>
```

Text size was controlled with the element, using the size attribute.

```
</body>
```

```
</html>
```

Here were two ways to align text. Right-align a paragraph, or center a piece of text.

Be the validator exercise: Locate all the errors

```
<html>
<head>
  <meta charset="utf-9">
</head>
<body>
  
  <h1>Tips for Enjoying Your Visit in Webville
  <p>
    Here are a few tips to help you better enjoy your stay in Webville.
  </p>
  <ul>
    <li>Always dress in layers and keep an html around your
      head and body.</li>
    <li>Get plenty of rest while you're here, sleep helps all
      those rules sink in.</li>
    <li>Don't miss the work of our local artists right downtown
      in the CSS gallery.
  </ul>
  </p>
  <p>
    Having problems? You can always find answers at
    <a href="http://wickedlysmart.com"><em>WickedlySmart</em></a>.
    Still got problems? Relax, Webville's a friendly place, just ask someone
    for help. And, as a local used to say:
  </p>
  <em><p>
    Don't worry. As long as you hit that wire with the connecting hook
    at precisely 88mph the instant the lightning strikes the tower...
    everything will be fine.
  </em></p>
</body>
</html>
```

Notes

- ❑ This is primarily a summary of Chapter 6 of *Head First HTML and CSS*, 2nd Edition by Elisabeth Robson and Eric Freeman, 2012. It contains images, exercises, and code from the book.