

(X)HTML

- (eXtensible) Hypertext Markup Language
 - The base language for web pages
 - A *declarative* (not procedural) language to specify *content structure*
 - Can also specify presentation, but that's bad
 - Hasn't been considered reasonable since the 1990s
 - Left in for legacy support
 - Developers will point and laugh at you

Declaring Content Structure

- Tag-based, XML compliant
 - Tags have a type, attributes and content

```
<type attr1="val1" attr2="val2">
  content
</type>
```
 - Attribute values in double quotes, always close tags
- Strictly hierarchical nesting

```
<html>
  <head>...</head>
  <body>...</body>
</html>
```

Separating text

- Text flows from top to bottom of the page
 - Whitespace has no meaning outside of tags
 - Allows it to resize with the browser
 - Hard to work with for precise layouts
- Tags
 - Paragraph: `<p></p>`
 - This is a *block* element, meaning it gets its own line
 - Line break: `
`, Dividing line: `<hr/>`
 - Note no closing tags because they don't contain content

Text formatting

- Headings
 - `<h1>`, `<h2>`, `<h3>`, etc.
 - Headings of decreasing importance
- Quotes
 - `<blockquote>`
 - Set apart a quotation
 - `<pre>`
 - Show pre-formatted text like code
- In-line formatting
 - ``, ``
 - Non-block elements, go within the text
 - Emphasize this text, make this text “strong”
- Note these specify structure, not presentation!

Lists

- Ordered list, unordered list, definition list...

```
<ul>
```

```
<li>List Item 1</li>
```

```
<li>List Item 2</li>
```

```
<li>List Item 3</li>
```

```
</ul>
```

- Commitment to a certain type of list
- But not to a particular presentation

Anchor (a) tags

- One of the more important tags
- Used to insert hyperlinks into an HTML document
 - `Click here`
 - Clicking generates a request for that URL and reloads the browser with the response

Tables

```
<table>
  <tr>
    <td>Col1</td>
    <td>Col2</td>
  </tr>

  <tr>
    <td>Val1</td>
    <td>Val2</td>
  </tr>
</table>
```

Forms

- Data input from users
 - See: http://www.w3schools.com/html/html_forms.asp
 - `<form></form>` around the whole thing
 - Textbox
 - `<input type="text" size="24" />`
 - Checkbox
 - `<input type="checkbox" />`
 - Button to submit the form
 - `<input type="submit" value="Sign up!">`

Div and span

- `<div>`
 - A block element (gets its own line)
 - Has no other presentation or semantic details
- ``
 - An inline element (goes into the text flow)
 - Has no other presentation or semantic details
- Why use them?
 - To identify sections of content
 - Without committing to a particular display of it
 - (Separation of content and presentation)