

HACK YALE

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Week 1

INTRODUCTION TO HTML

INTRODUCTION TO HTML



HTML is the language used to specify the layout of a web page to a browser.

HTML has a set of very simple grammar rules. But as with most languages, there are also exceptions.

HTML Grammar

An HTML document consists of *markup tags*.
Most tags come in pairs of *start tags* and *end tags*
(also called *opening tags* and *closing tags*).

Here is the most basic HTML document:

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

HTML Grammar

```
<!DOCTYPE html>
```

```
<html>
```

```
</html>
```

We start by telling our browsers that the type of this document is HTML.

HTML Grammar

```
<!DOCTYPE html>
```

```
<html>
```

```
</html>
```

The HTML document begins here. This is the opening tag for the HTML document.

HTML Grammar

```
<!DOCTYPE html>
```

```
<html>
```

```
</html>
```

The HTML document ends here. This is the closing tag for the HTML document.

All closing tags look just like their opening tags but begin with a /.

Capitalization

HTML is case-insensitive, but typically people write all tags in lowercase.

You should conform to this convention.

Whitespace

HTML ignores whitespace, so you can have as much or as little space between tags as you want.

Pro Tip: Make your code beautiful. It should be easy to read and follow a consistent style.



Whitespace



Typical indentation pattern:

```
<my-tag1>  
  <my-tag2>  
    <my-tag3>  
      some text here  
    </my-tag3>  
    <my-tag4>some text here</my-tag4>  
  </my-tag2>  
</my-tag1>
```



Comments



Comments in HTML are ignored by browsers. To start a comment, use the `<!--` opening. The comment will continue until it is closed by `-->`

```
<my-tag1> <!-- this is my comment -->
  <my-tag2>
    <my-tag3>
      some text here
    </my-tag3>
    <my-tag4>some text here</my-tag4>
  <my-tag2>
</my-tag1>
```



A little more HTML



```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
  </head>
```

```
  <body>
```

```
  </body>
```

```
</html>
```

The header contains metadata about this HTML document.



A little more HTML



```
<!DOCTYPE html>
```

```
<html>
```

```
  <head>
```

```
  </head>
```

```
  <body>
```

```
  </body>
```

```
</html>
```

The body contains the HTML for the visible part of the page.

Common HTML Tags

`<title></title>`

The `<title>` tag defines the text that appears on the browser's tab for this web page. This tag goes in the header.

Common HTML Tags

```
<title></title>
```

```
<strong></strong>
```

The `` tag marks text as **bold**.

< Common HTML Tags >

`<title></title>`

``

``

The `` tag marks text as *italicized*.

Common HTML Tags

```
<title></title>
```

```
<strong></strong>
```

```
<em></em>
```

```
<h1></h1>
```

The `<h1>` tag defines a heading. Lower numbers are larger headings. Numbers range from 1-6.

Common HTML Tags

`<title></title>`

``

``

`<h1></h1>`

Common HTML Tags

`
`

The `
` tag inserts a line break.

This tag doesn't support tags inside it, so it doesn't use an opening and closing tag.

The `/` is instead placed before the end of the tag.

Common HTML Tags

`
`

`<p></p>`

The `<p>` tag defines a paragraph of text.

Common HTML Tags

`
`

`<p></p>`

`<div></div>`

The `<div>` tag defines an HTML container, or a “section” of the document.

Common HTML Tags

``

The `` tag defines an ordered (numbered) list.

Common HTML Tags

```
<ol></ol>
```

```
<ul></ul>
```

The `` tag defines an unordered (bulleted) list.

Common HTML Tags

```
<ol></ol>
```

```
<ul></ul>
```

```
<li></li>
```

The `` tag defines an item on a list.

HTML as a Tree

You should think of an HTML document as a tree of elements.

The properties of all parent nodes apply to all its children, unless the child specifically overrides the property.

HTML Attributes

Some tags take parameters, or *attributes*, to indicate how the tag should behave. The tags will have a custom behavior based on the *attribute*.

Example scenarios:

“Bold this text” -> No attribute required.

“Make a hyperlink” -> Link to where?

HTML Hyperlinks

```
<a href="http://www.link.com">  
  This is a link  
</a>
```

The `<a>` tag defines a hyperlink to another webpage.

The `href` attribute indicates the web page to which we should link.

HTML Hyperlinks

```
<a href="http://www.link.com"  
target="_blank">  
    This link will open in a new  
    window.  
</a>
```

Global Attributes

Some attributes can be used on any tag.
Two of the most common are `id` and `class`.

`id` -> Specifies a unique id for the element.

```
<h1 id="bio">Header for my bio</h1>
```

`class` -> Specify one or more class names.

```
<p class="green important">
```

 This paragraph is both green and
important.

```
</p>
```

HTML Hyperlinks

You can use a # sign to indicate the id of the element to which you would like to link specifically.

```
<h1 id="bio">  
    Header for my bio  
</h1>  
<!-- ...other stuff... -->  
<a href="#bio">  
    This is a link to my bio  
</a>
```



HTML Images



```

```

The `` tag defines an image to display.

Attributes:

src -> The source image's URL

alt -> Alternate text (if can't display image)

`` does not have a closing tag.

Homework

Homework has been posted on the course website: <https://github.com/hackyale/Web-Development-101>

The first assignment can be found under `assignments/week_1.md`

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