Frontend

HTML

What's HTML?

Hyper Text Markup Language

HTML basics

Tags

Attributes

Tags

```
<p>I'm a paragraph</p>

<div>I'm a meaningless container</div>

<a href="http://google.com">I'm a link</a>
```

Tags

doctype, html, head, title, base, link, meta, style,
script, noscript, body, article, nav, aside, section,
header, footer, h1-h6, main, address, p, hr, pre,
blockquote, ol, ul, li, dl, dt, dd, figure, figcaption,
div, table, caption, thead, tbody, tfoot, tr, th, td,
col, colgroup, form, fieldset, legend, label, input,
button, select, datalist, optgroup, option, textarea,
keygen, output, progress, meter, details, summary,
command, menu, del, ins, img, iframe, embed, object,
param, video, audio, source, canvas, track, map, area,
a, em, strong, i, b, u, s, small, abbr, q, cite, dfn,
sub, sup, time, code, kbd, samp, var, mark, bdi, bdo,
ruby, rt, rp, span, br, wbr ...

Attributes

```html
<img src="images/logo.png" alt="Company">

<h1 id="header">Hello, world!</h1>

<div class="container">
  <p>I can be styled using CSS!</p>
</div>
```

Tags + Attributes

- Load assets like images, css, javascript...

- Wrap and structure content

- Add meaning to the wrapped content

- Allow CSS styling

- Communicates browsers explicit features of your page.

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Comments

```html
<!-- I'm an HTML comment -->

<!-- Use me with caution -->
```

Basic HTML file

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <title>Page title</title>
  </head>
  <body>
    <img src="doge.jpg" alt="Doge">
    <h1 class="hello-world">Hello, world!</h1>
  </body>
</html>
```

Basic HTML file breakdown

```
<!DOCTYPE html>
```

Enforce standards mode and more consistent rendering in every browser possible.

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Basic HTML file breakdown

```html
<html lang="en">
  <head>
    <!-- Non graphically represented stuff -->
  </head>
  <body>
    <!-- Your awesome content -->
  </body>
</html>
```

The <html> tag declares the start of the document, the <head> is mostly used to call external css files, and declare properties of the current page. The <body> contains everything represented in the viewport.

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Basic HTML file breakdown

```html
<html lang="en">
```

A lang attribute on the root html element defines the document language. Mostly for accessibility (a11y) reasons.

Full list of HTML languages.

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Basic HTML file breakdown

```
<meta charset="UTF-8">
```

Ensure proper rendering of your content by declaring an explicit character encoding.

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Basic HTML file breakdown

```html
<meta name="viewport" content="width=device-width,
initial-scale=1">
```

Put this inside your <head>, it'll be useful in a while.

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Basic HTML file breakdown

```html
<img src="doge.jpg" alt="Doge">
<h1 class="hello-world">Hello, world!</h1>
```

The <img> tag represents an image and the <h1> is a header of level 1 (there's six levels of headers).

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CodePen

Frontend playground

Check it out

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Basic HTML file

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <title>Page title</title>
  </head>
  <body>
    <img src="doge.jpg" alt="Doge">
    <h1 class="hello-world">Hello, world!</h1>
  </body>
</html>
```

Emmet

Front-end code helper for Sublime Text, Atom, etc.

Get it

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Exercise

Create a basic skeleton HTML file:

1. Name it so it's accessible from the root domain.

2. Place the text 'Hello world!' inside some element of your choice.

3. Congrats you're a front-end developer.

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HTML forms

Basic HTML form

```html
<form>
  <div>
    <label for="hi">Say hi</label>
    <input type="text" name="hi" id="hi">
  </div>
  <button type="submit">Send</button>
</form>
```

Exercise

Create a login form, it should include:

1. An email or username field.

2. A password field.

3. A checkbox to remember my credentials.

4. A button to log in.

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HTML best practices

CSS includes

```html
<!-- External CSS -->
<link rel="stylesheet" href="style.css">

<!-- In-document CSS -->
<style>
   /* ... */
</style>
```

The CSS is included inside the <head> tag.

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JavaScript includes

```html
<!-- External JavaScript -->
<script src="app.js"></script>
```

The JS files should be appended just before the closing of the </body> tag.

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Use double quotes on attributes

```html
<!-- Don't, just don't -->
<input type='file' name='file'>


<!-- Much better -->
<input type="file" name="file">
```

It might mess with your text editor's capability to highlight attribute values.

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Avoid the trailing slash in self-closing elements

```html
<!-- Do -->
<img src="image.jpg">


<!-- Don't -->
<img src="image.jpg" />
```

The HTML5 specification says they're optional.

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Boolean attributes

```html
<input type="text" disabled>

<input type="checkbox" value="1" checked>

<select>
  <option value="1" selected>1</option>
</select>
```

The absence of the boolean attribute already represents the value as false, it's presence represents the true value.

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Reduce markup

```html
<!-- Not so great -->
<span class="avatar">
  <img src="...">
</span>

<!-- Better -->
<img class="avatar" src="...">
```

Avoid superfluous parent elements when writing HTML. Usually this requires iteration and refactoring, but produces less HTML, which is good for maintenance.

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Learn to Code - HTML & CSS

Exercise

Create the markup for an article with a comment form, it should include:

1. Different containers for the article content and the comment form

2. **Content:** A title, a subtitle, a date, an author (linked to it's personal Twitter account), a list, some placeholder text paragraphs, a picture of Nicolas Cage on a muffin, in space.

3. **Comment form:** A name field, an email field, a textarea, a 'remember my data' option and a submit button.