
sheCodesNow

Intro to HTML/CSS

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Preview

What we're learning today:

- Resources to follow along today
- What it takes to get into tech
- What HTML is
- What CSS is
- Sneak peak at an web page
- How to use CSS to style an HTML page
- How to build an HTML page
- Building a web page!!

Resources to have open during today's lesson

Have a chrome browser open

(download here: https://www.google.com/chrome/)

Go to Code Pen

(https://codepen.io/)

- select "Create" from the upper right menu

- choose "New Pen"

- on the far right, click the down arrow and choose to minimize JS (this is for JavaScript, which you'll learn about another time)

- follow along and play as you like during the slide show

Download Visual Studio Code Editor (it's free)

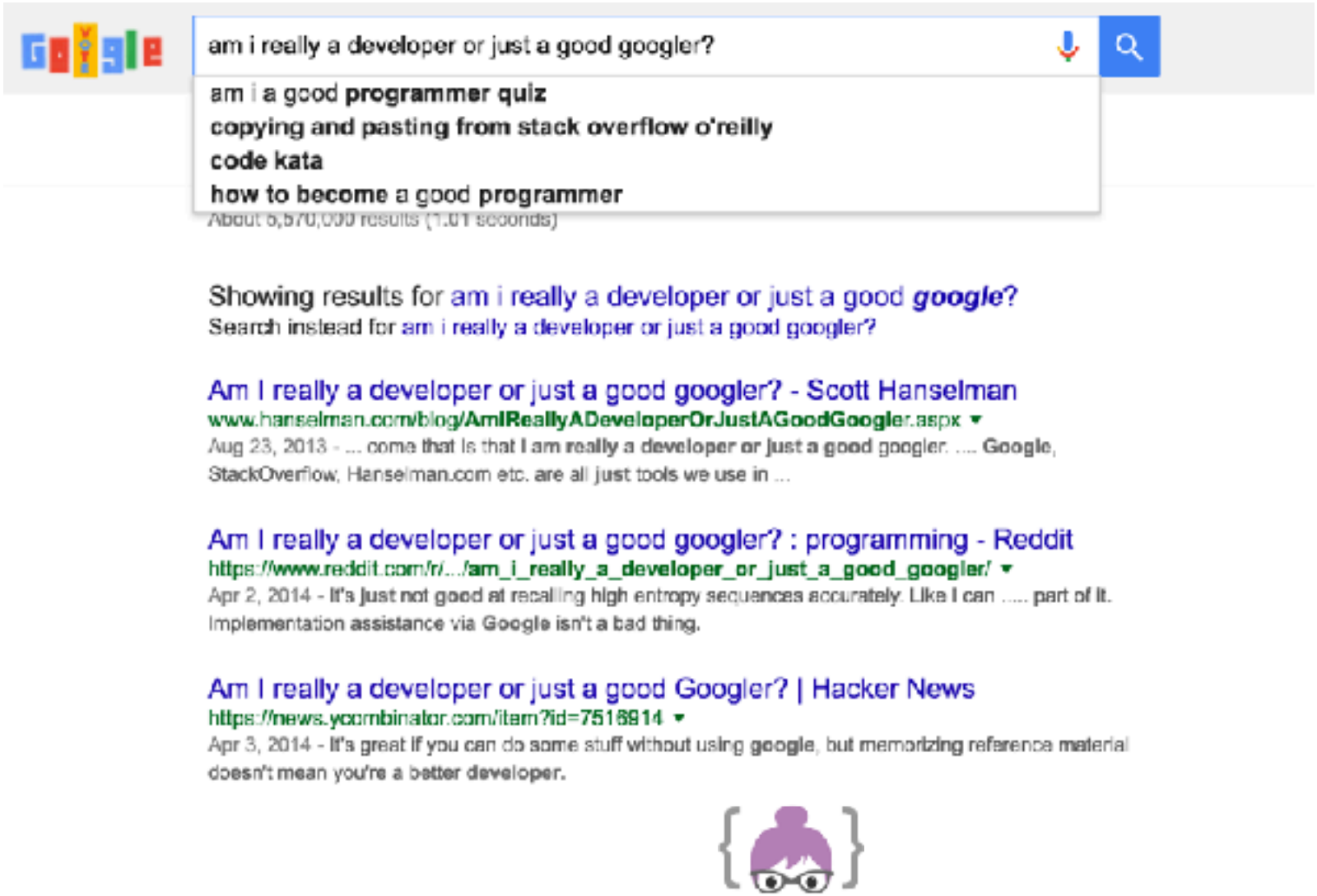
(download here: https://code.visualstudio.com/download)

3 questions to determine if you can be in Tech...

1) Do you like learning new things?

2) Do you like solving problems?

3) Do you know how to Google?



What is HTML?

- HTML provides the content on a webpage.

- **H**-T-M-L stands for **H**yper**T**ext **M**arkup **L**anguage:
  - *HyperText* refers to how you move around on the web — by clicking on special text called **hyperlinks**, you can move to the next page.
    - The fact that it is *hyper* just means it is not linear — you can go to any place on the Internet by clicking on links — there is no specific order you must follow.
  - *Markup* is what **HTML tags** do to the text inside them. (*italicized* or **bolded** text, for example)
  - *Language*. HTML has code-words and syntax just like any other language.

What is HTML? How does it work?

- HTML uses tags to tell browsers how to show text
- HTML tags are what separate normal text from HTML code. The text is **saved as a html file**, and can be **viewed through a browser** like *Chrome*, *Firefox*, *etc*…
- Different tags perform different functions:

   italicizes text

   bolds text

  <h1>Signifies that this is a header 1 (title) of a post on the page</h1>

   This tag is used to signify the start of a paragraph.
- The basic format of a tag is a **< >starting tag** and a **closing one</>**.
- HTML tags can also link to other URLs (web addresses) or images using the “src”, or source, attribute. We’ll touch on this when we build our web page.

- What are some good analogies of the role HTML in building a web page compared to other parts of our lives like fixing cars, cooking, getting ready for a trip?

What is CSS?

- CSS provides the look and layout of the webpage.
- C-S-S stands for **C**ascading **S**tyle **S**heets.
- **CSS is a style language that defines the layout and look of HTML documents.** It changes things such as the font, colors, spacing, height, background images, etc…
- It works in combination with HTML tags to make web pages "pretty", readable, and so much more!
- What are some good analogies of the role CSS in building a web page compared to other parts of our lives like fixing cars, cooking, getting ready for a trip?

CSS

```
h1 {
      font-size: 24px;
      text-align: center;
      margin-top: 25px;
      color: purple;
}
```

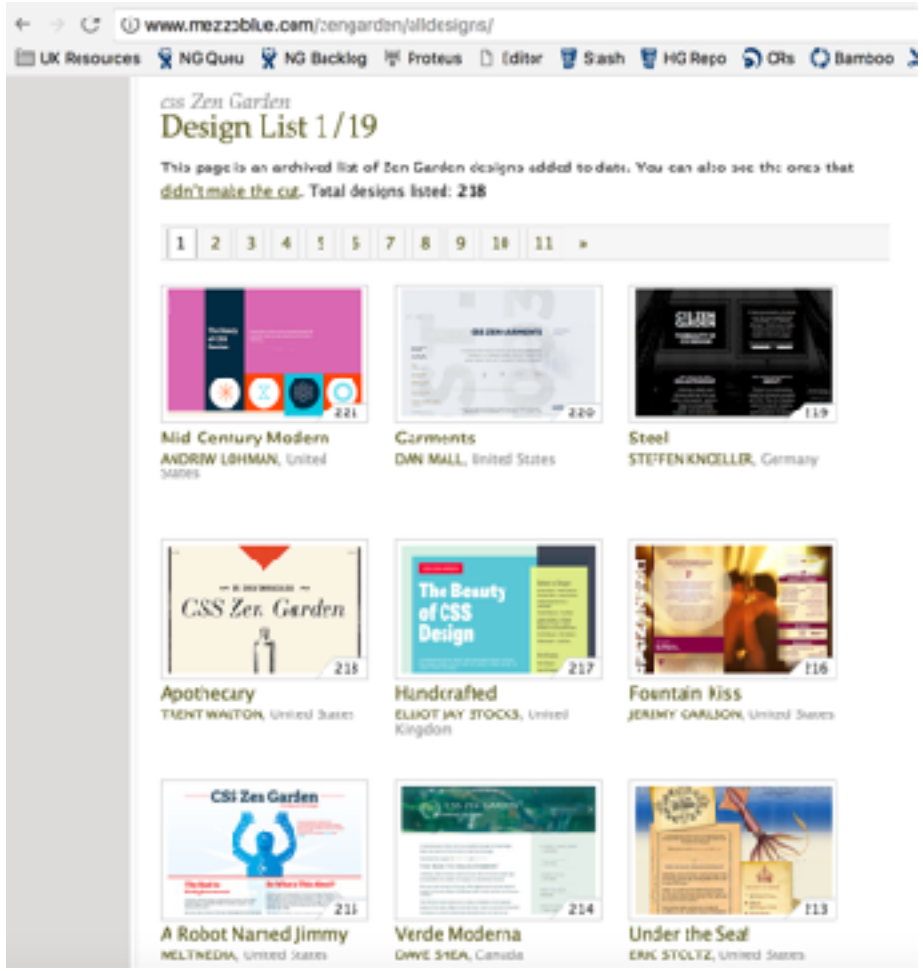
HTML

```
<h1> What is CSS?</
h1>
```

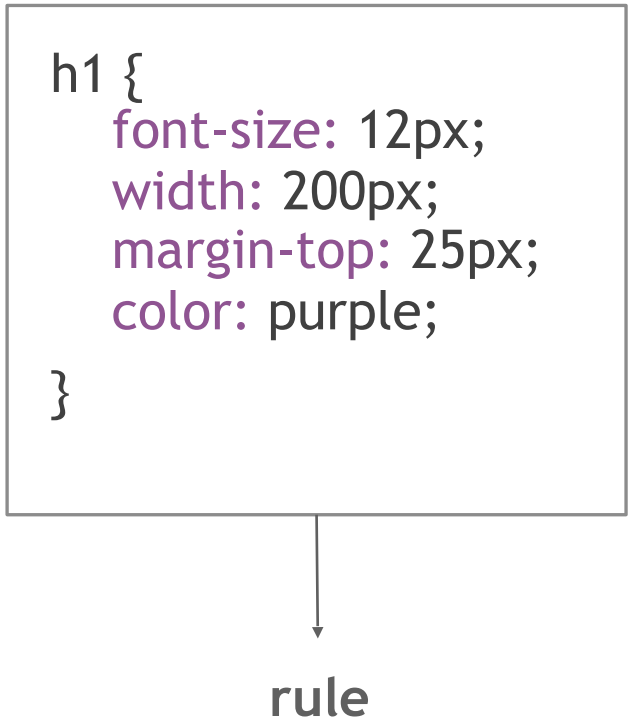
RESULT IN BROWSER

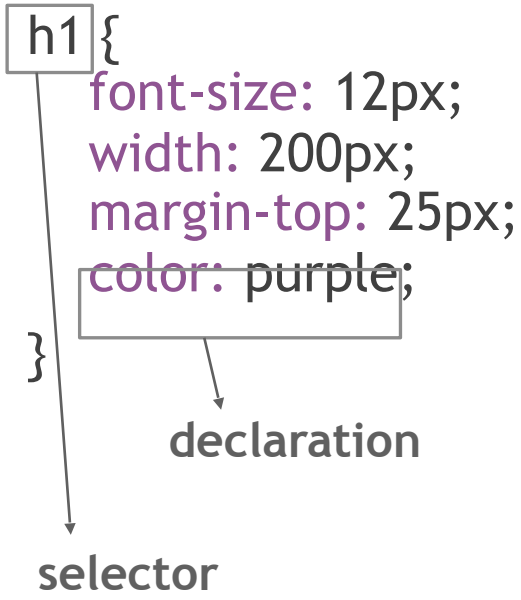
What is CSS?

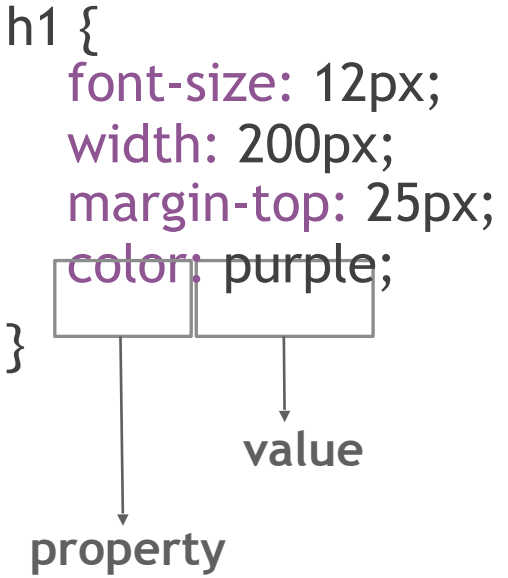
See this website has the same HTML, but 9 different CSS files applied!



CSS ***syntax*** (another word for grammar or rules of how words work in the language) is comprised of a few fundamental pieces; **rules**, **selectors**, **declarations**, **properties** and **values**.

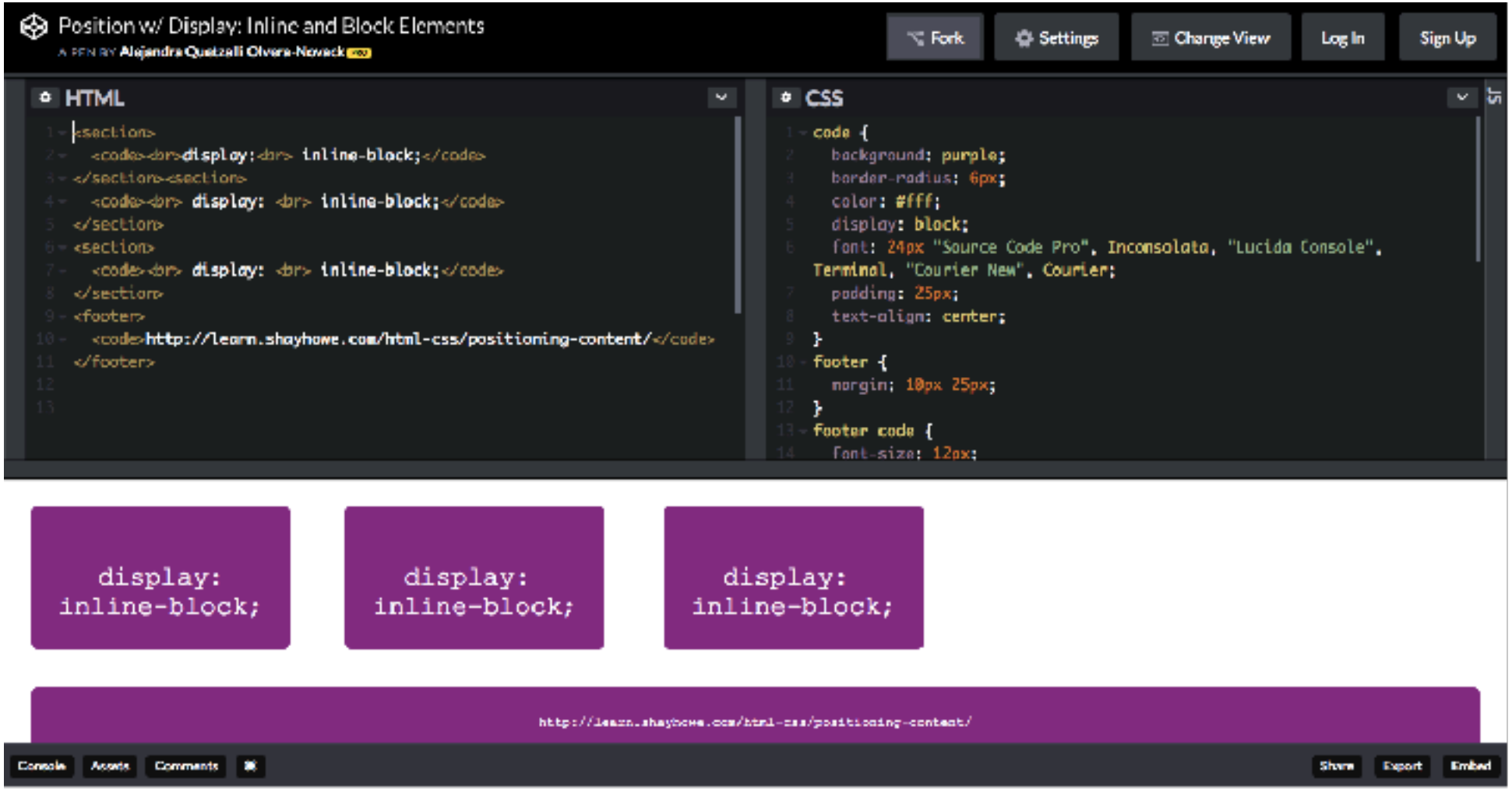






Questions so far?

Preview: What does it look like when it works?



CSS Box Model

In HTML, each element is like a rectangular box.

In CSS, each of these rectangular boxes is represented using the *box model*. This model describes the content of the space taken by an element.

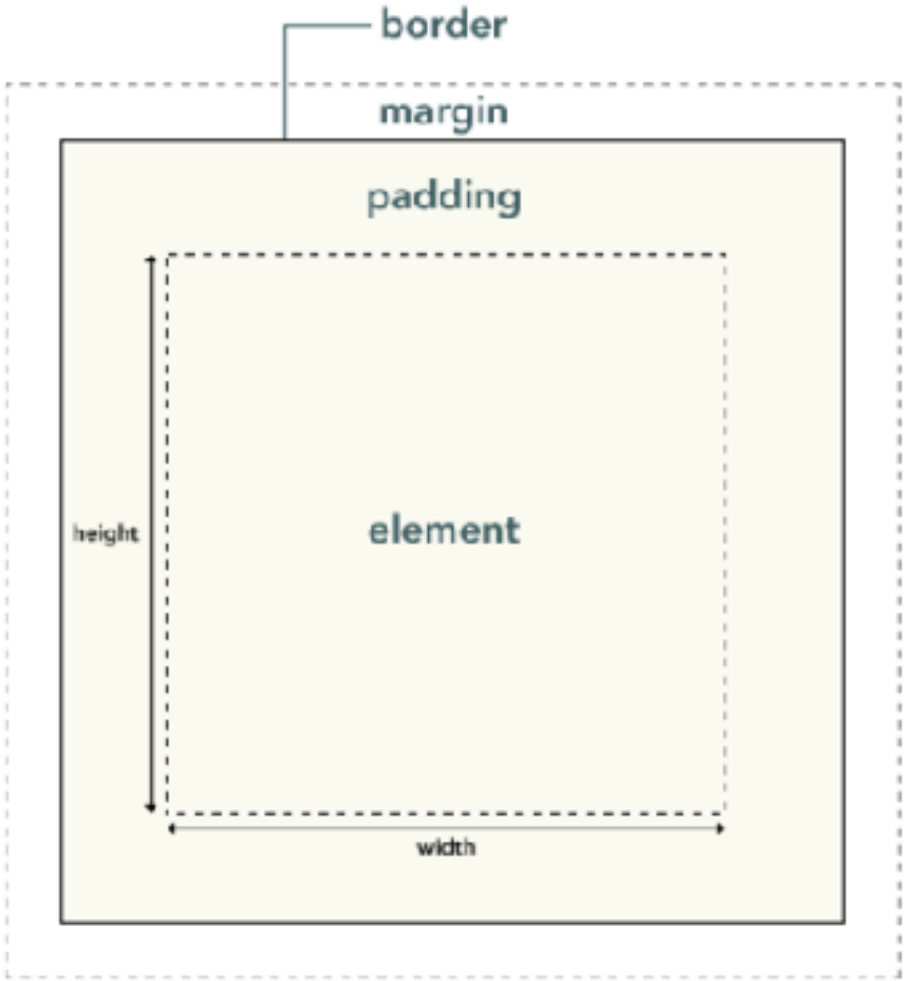
Each box has four parts:

- ❑ **border**
- ❑ **margin**
- ❑ **padding**
- ❑ **content** (element itself)

And the first three all have four parts*:

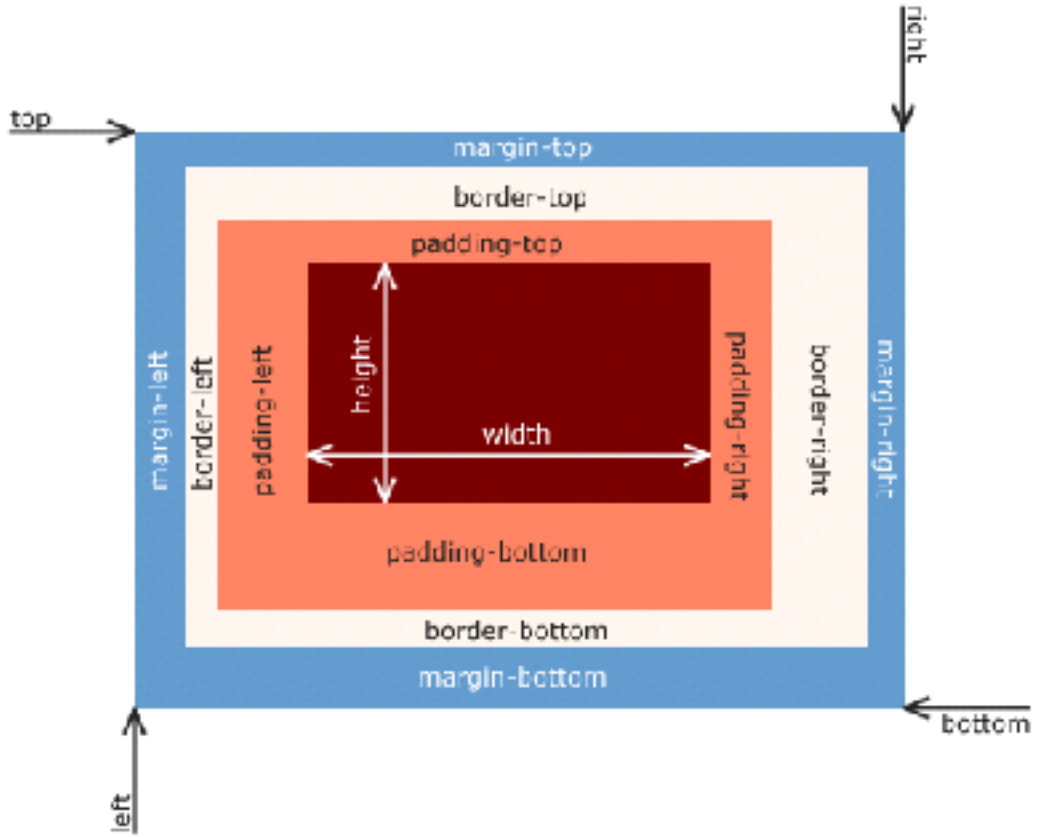
- ❑ **Top**
- ❑ **Right**
- ❑ **Bottom**
- ❑ **Left**

*always in this order



➢ The size of each box is calculated like this…

Width = width + padding-left + padding-right + border-left + border-right
Height = height + padding-top + padding-bottom + border-top + border-bottom



➢ **Margin** is unique in that it **doesn't affect the size of the box itself** per se, but it affects *other* content interacting with the box.

➢ With CSS, you can **adjust the size** of those boxes and **position them**.

Block and Inline HTML Elements

In HTML, elements are by default "*block*" elements or "*inline*" elements.

➢A “*block*” element takes up an entire line, and thus each one **lies on top of each other** like this:

➢An "*inline*" element can **lie next to each other** in the same line like this:

Let’s look at a code example of how “inline” and “block” elements behave differently here…

Lets look at this again

Position w/ Display: Inline and Block Elements

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Fork | Settings | Change View | Log In | Sign Up

HTML

```
<section>
  <code><br>display:<br> inline-block;</code>
</section><section>
  <code><br> display: <br> inline-block;</code>
</section>
<section>
  <code><br> display: <br> inline-block;</code>
</section>
<footer>
  <code>http://learn.shayhowe.com/html-css/positioning-content/</code>
</footer>
```

CSS

```
code {
  background: purple;
  border-radius: 6px;
  color: #fff;
  display: block;
  font: 24px "Source Code Pro", Inconsolata, "Lucida Console",
Terminal, "Courier New", Courier;
  padding: 25px;
  text-align: center;
}
footer {
  margin: 10px 25px;
}
footer code {
  font-size: 12px;
```

display: inline-block;

display: inline-block;

display: inline-block;

http://learn.shayhowe.com/html-css/positioning-content/

Console | Assets | Comments | Share | Export | Embed

Position Content with CSS

One of the best things about CSS is that it gives us the ability to position content and elements on a page.

Here are a few ways you can position elements:

- **Floats:** This allows you to position an element to the *left* or *right* of its container (parent) element. Example here…
- **Absolute positioning:** This is a very powerful type of positioning that allows you to literally place any element exactly where you want it. You use the positioning coordinates of **top**, **left, bottom,** and **right** to set the location.
  Example here…
- **Flexbox:** (This is more advanced, but you can read more about that here...)

Floats

Position w/ Floats

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HTML

```
<header>
  <code>Positioning with Floats:</code>
</header>

<section>
  <code>float: left;</code>
</section>
<section>
  <code>float: left;</code>
</section>

<footer>
  <code>http://learn.shayhowe.com/html-css/positioning-content/</code>
</footer>
```

CSS

```
code {
  background: skyblue;
  border-radius: 6px;
  color: #fff;
  display: block;
  font: 24px "Source Code Pro", Inconsolata, "Lucida Console",
Terminal, "Courier New", Courier;
  padding: 25px 15px;
  text-align: center;
}
header,
section,
aside,
footer {
  margin: 1.5%;
```

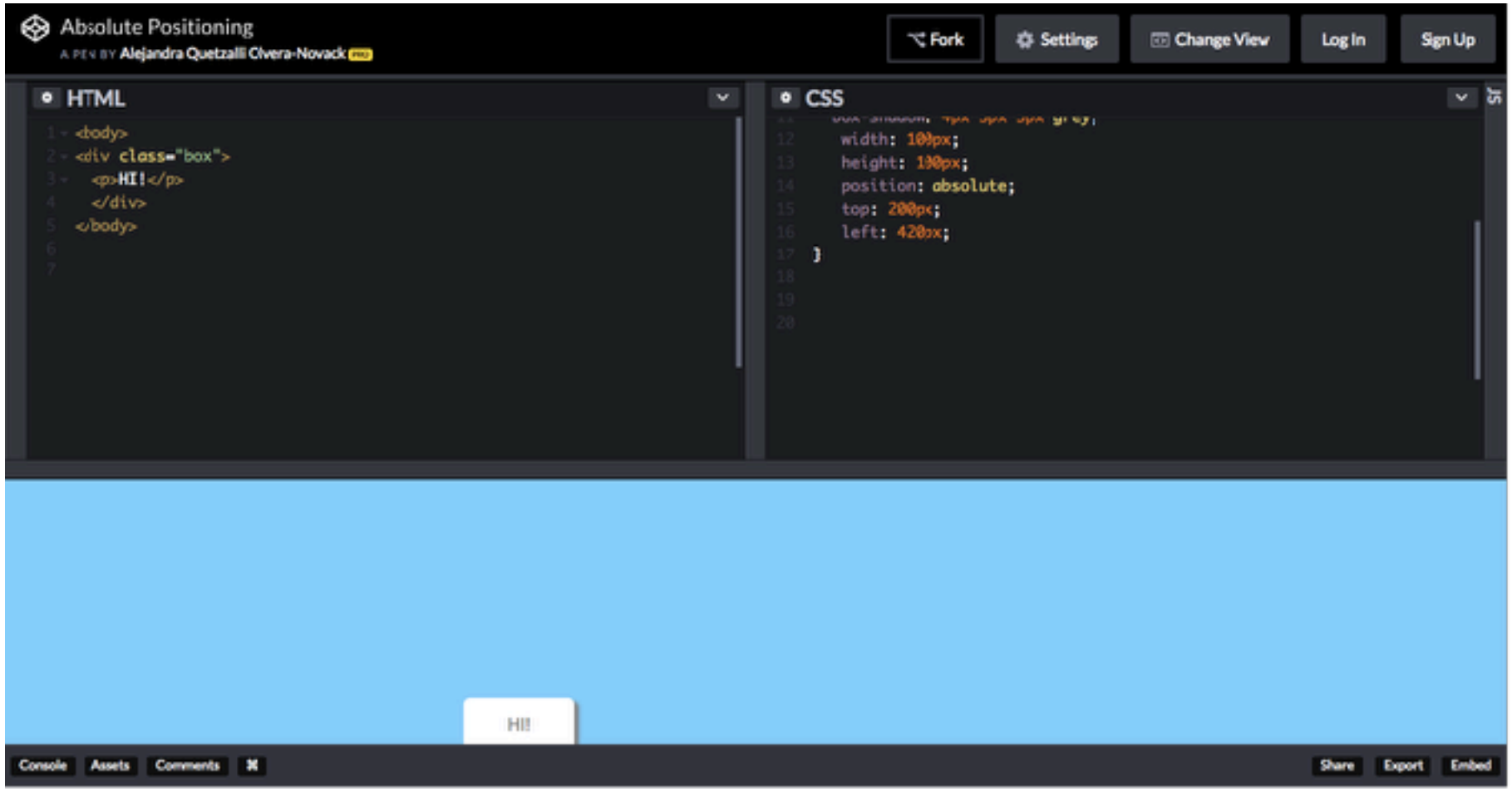
float: left;

float: left;

http://learn.shayhowe.com/html-css/positioning-content/

Console | Assets | Comments | Share | Export | Embed

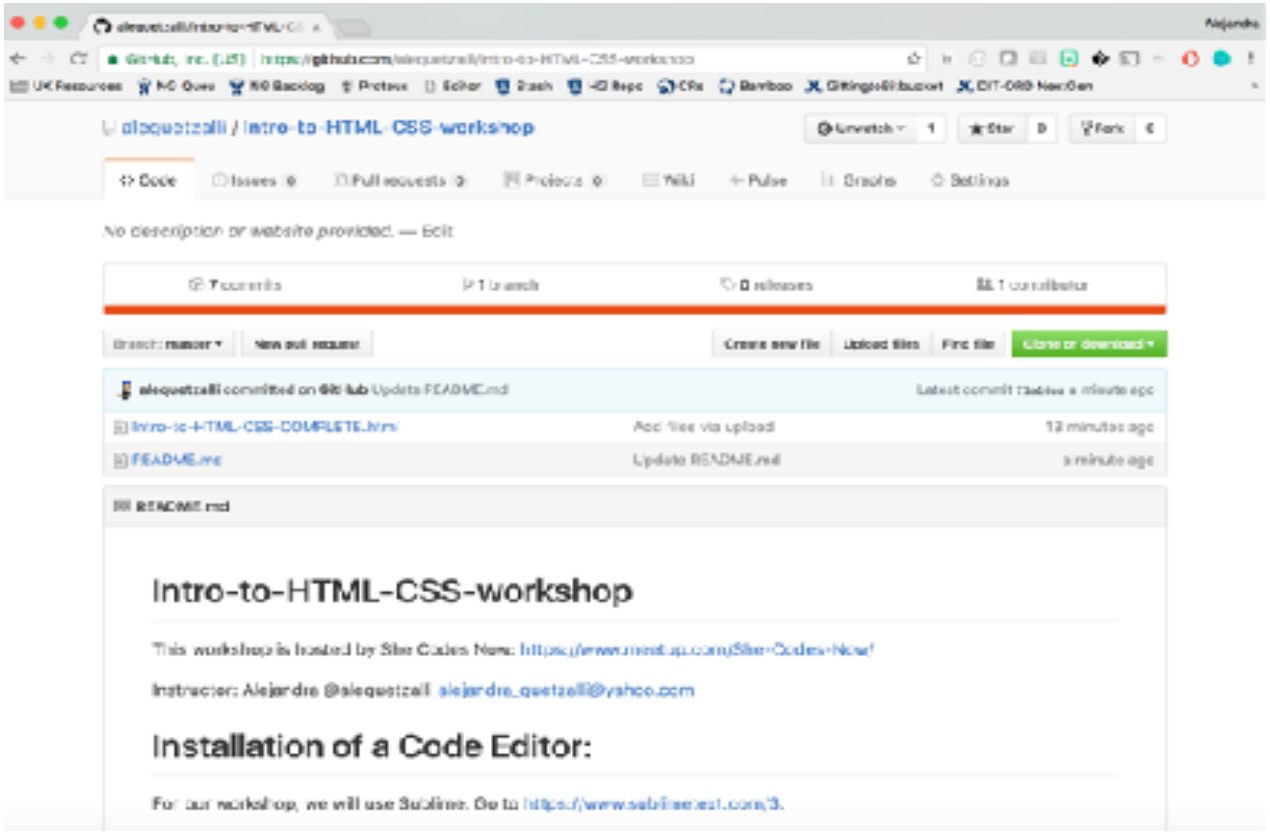
Absolute positioning



Questions so far?

Now let's build a webpage!

Go to our GitHub repo to get started: https://github.com/alequetzalli/Intro-to-HTML-CSS-workshop



GitHub is a code hosting platform for version control and collaboration.

Learn more here…

More HTML/CSS learning resources:

http://learn.shayhowe.com/html-css/

https://css-tricks.com/the-css-box-model/

https://www.sitepoint.com/web-foundations/css/

https://www.khanacademy.org/computing/computer-programming

http://www.howtogeek.com/180167/htg-explains-what-is-github-and-what-do-geeks-use-it-for/

https://www.codecademy.com/

https://teamtreehouse.com/

HTML and CSS: Design and Build Websites book by Jon Duckett