Welcome to the second session of SheCode!

If you haven't done so already,
sign up for a CodeHS account at:

www.codehs.com/go/A9A5D

Raise your hand for help!

SheCode Session 2

HTML/CSS

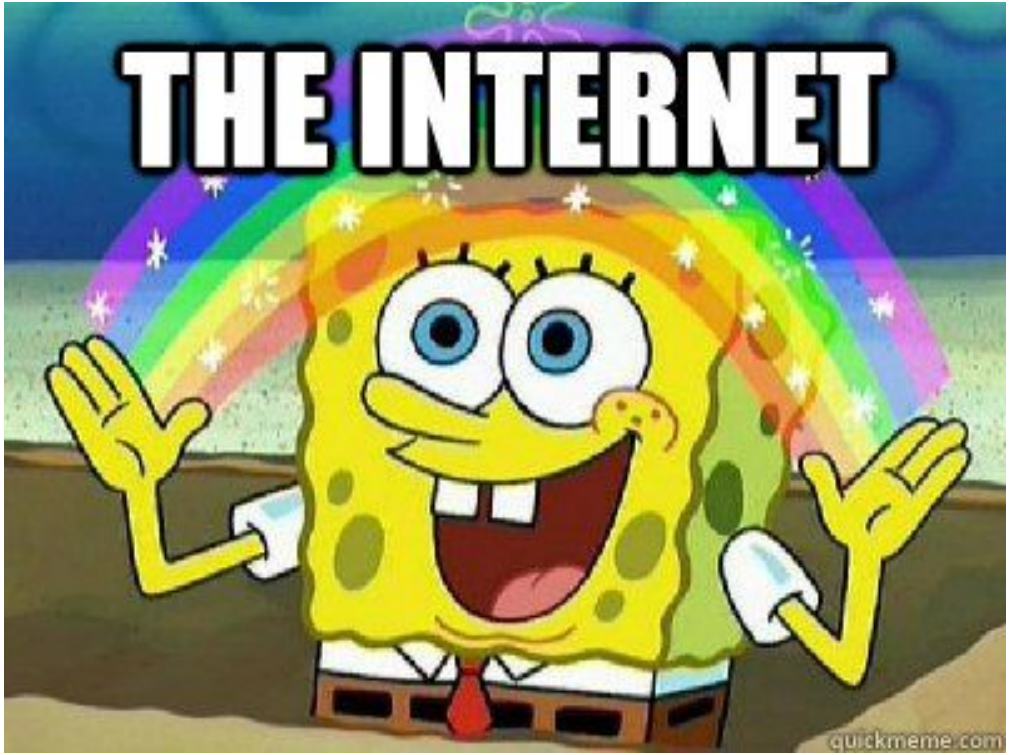
Last Week Recap

- Who are we?
  - Name
  - Year
  - Major
  - Why we started computer science/A problem we'd like to solve using programming

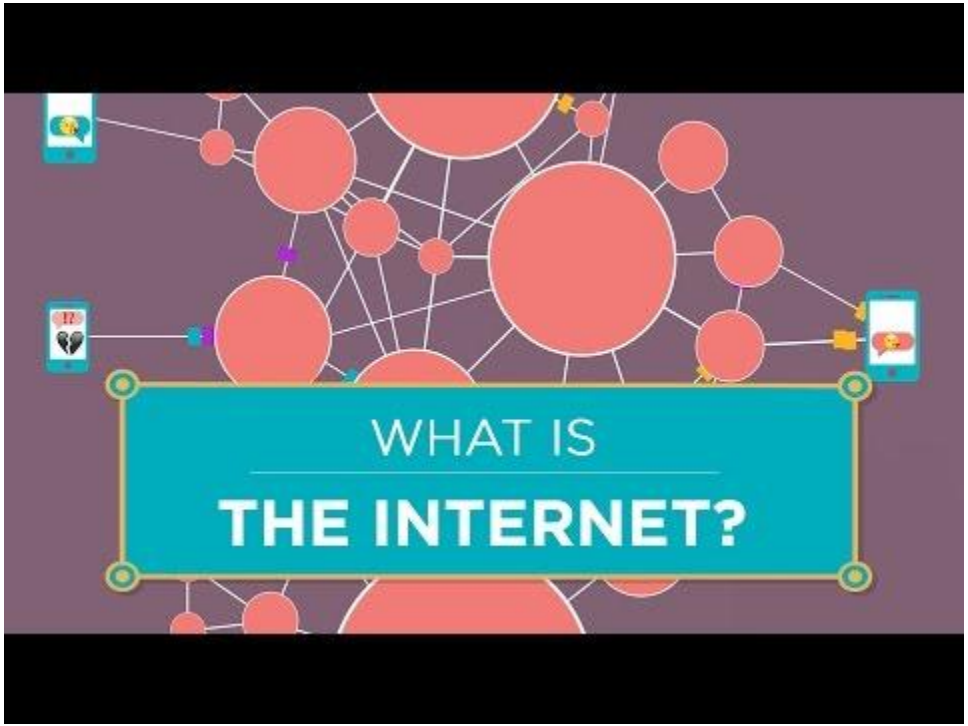
Last Week Recap

- What is Scratch?
  - Visual programming language

What is the Internet?



What is the Internet?



Ice Breaker -5m

Introduce yourself to your table (name, grade, hobbies)

Come up with one big way that the Internet has changed the world. Be ready to share! (there will be candy)

Front-end Development

- Means writing the code that determines how the content of a website is displayed
  - Includes basically anything the user can interact with (images, text, buttons, etc)
  - Uses 3 main languages: **HTML. CSS, Javascript**
- Back-end development (which we won't be doing) has to do with the behind-the-scenes work such as databases and servers

What is HTML? CSS? JS?

HTML (hypertext markup language)

- marks the content up into different structural types, like paragraphs, blocks, lists, images, tables, forms, comments etc.
- the actual content of web page (“bones”)

What is HTML? CSS? JS?

CSS (cascading style sheets)

- tells the browser how each type of element should be displayed, which may vary for different media (like screen, print or handheld device)
- style of web page (“skin”)

What is HTML? CSS? JS?

JavaScript (we're not programming in this)

- tells the browser how to change the web page in response to events that happen (like clicking on something, or changing the value in a form input)
- any animations, moving things ("muscles")

What is HTML?

CodeHS HTML Course

CodeHS HTML Lesson 1

- HTML is essentially just normal text + “markup tags”
  - These tags tell the browser how to display the text
- HTML tags:
  - Enclosed in angle brackets **<h1>**
  - The tags themselves are not displayed on the web page
  - Tell the browser how text should be displayed

CodeHS HTML Lesson 1 cont.
Hello, world!

Tag structure: Opening tag Text/Content Closing Tag

<h1>Hello, world!</h1>

CodeHS HTML Lesson 2: Basic HTML Page

```
<!DOCTYPE html>
<html>
    <head>
        <title>My First Document</title>
    </head>
    <body>
        <h1>My First Heading</h1>
        <p>My first paragraph.</p>
    </body>
</html>
```

CodeHS HTML Lesson 2: Basic HTML Page

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        <p>My first paragraph.</p>
    </body>
</html>
```

Important points

- Content goes between opening and closing tags
- Tags can be nested (go inside other tags)
- Indenting the code shows the structure of the tags

CodeHS Lesson 2. Examples + Exerci

```
<!DOCTYPE html>
<html>
    <head>
        <title>My First
  Document</title>
    </head>
    <body>
        <h1>My First Heading</h1>
        <p>My first paragraph.</p>
    </body>
</html>
```

CodeHS Lesson 3: Formatting Text

- So far, we've built standard web pages, but now it's time for some style
  - Using HTML formatting
  - Tags that let us format text on our web pages

The Tag

- Tag - Paragraph of text
  - Gives an automatic newline after a
  - Compare:

```
<p>Potato</p>

<p>Tomato</p>
```

Potato

Tomato

The Heading Tag

```
<h1>This is an h1</h1>
<h2>This is an h2</h2>
<h3>This is an h3</h3>
<h4>This is an h4</h4>
<h5>This is an h5</h5>
<h6>This is an h6</h6>
```

The Tag and Tag

- Tag - Italicized text
- Tag -Bolded text

Potato

Tomato

The <hr> Tag and
 Tag

- Tag <hr> - Horizontal Rule (line across screen)
  - No closing tag
- Tag
 -Line Break (new line)
  - No closing tag

<hr>

Prediction

P. Sherman

42 Wallaby Way

Sydney, Australia

Prediction

P. Sherman

42 Wallaby Way

Sydney, Australia

Prediction

```
<p>
    This is <i><b>very important!</b></i>
</p>
```

Review of Formatting Tags

`<p>`	paragraph
`<i>`	*Italic*
`<b>`	**Bold**
`<hr>`	horizontal rule
` `	Line Break
`<h1>,<h2>...<h6>`	headings (h1 = largest, h6 = smallest)

Explore Lesson 3 Example + Exercise

- Raise your hand for help from a TA!

A few more HTML tags

Links: the <a> tag

- Take us to other web pages
- Normally appear blue with an underline
- Links need to specify the text to display and the address where the link should take you
    - Do this by adding an attribute to the <a> tag:

<a href="https://google.com">DISPLAYED TEXT</a>

Images: The <img> Tag

- No closing tag

<img
src="https://https://1funny.com/wp-content/uploads/2012/01/kitten-shoes.jpg">

<img
src="https://https://1funny.com/wp-content/uploads/2012/01/kitten-shoes.jpg" width="100px" height="100px">

Commenting

- Good practice because you WILL forget what the code you wrote represents sometimes (also allows others to read your code more easily)
- Put anywhere in html file:

<!-- Hi, I'm a comment that won't show up in the browser at all because I'm awesome. -->

So that was a lot of things. Let's rev

- In HTML, there are different tags that let us format our text in different ways
  - Most of the time, we need an opening tag, text, and a closing tag: Paragraph
- The tags can have attributes themselves in the case of images and links:
  - <a href="https://www.google.com">Google</a>

Break :) Grab some food!

Starting repl.it project

https://repl.it/

Website project

It's time to get to work making your own websites! Be creative, you can make a website about almost anything! Some ideas:

- An autobiography
- A biography/tribute page
- A news/sports site
- The possibilities are endless!

If you get stuck or confused, check out the HTML lessons on the web design course on www.codehs.com, https://www.tutorialspoint.com/html/html_tags_reference.htm, or https://www.w3schools.com/html/html_basic.asp.

What is CSS?

Next SheCode 10/29

See you then!