
WELCOME BACK!

DOWNLOAD LESSON SLIDES

**POST YOUR FAVORITE GIF IN THE
SLACK CHANNEL**

YO Q'S

**I CAN'T FIGURE OUT HOW TO REMOVE THE WHITE
SPACE ON TOP OF MY PAGE (ABOVE THE HEADER).**

YO Q'S

I CAN'T FIGURE OUT HOW TO REMOVE THE WHITE SPACE ON TOP OF MY PAGE (ABOVE THE HEADER).



*(using the tool to hover over the tweet box,
I see that it has some padding!)*

There are many possible reasons.
Example: There is top padding or
margin on an element.

Advice: Crack open dev tools and use
the tool to hover over elements and
see the space they're taking up.

YO Q'S

WHAT IS THE BEST WAY TO CENTER FLOATS?

YO Q'S

WHAT IS THE BEST WAY TO CENTER FLOATS?

On the elements you are floating
use display: inline-block instead.

Then, on the parent div, use
text-align: center

Have a look at this example:
<http://codepen.io/jamazing/pen/PNMWzd>

YO Q'S

**CAN YOU SHOW US HOW TO IMPORT CSS
OR PLAY WITH CONTENT GENERATED THROUGH
SKETCH?**

YO Q'S

**CAN YOU SHOW US HOW TO IMPORT CSS
OR PLAY WITH CONTENT GENERATED THROUGH
SKETCH?**

No.

YO Q'S

CAN YOU SHOW US HOW TO IMPORT CSS OR PLAY WITH CONTENT GENERATED THROUGH SKETCH?

Sketch will not be covered, since it is more of a design tool.

Typically front-end developers will receive a design and the assets (images, svgs, etc) from a designer.

YO Q'S

STILL UNSURE OF WHEN A DIV TAG WOULD BE USEFUL IN HTML.

Great Question! With the transition from using Div's everywhere to now using fancy HTML5 tags, when to use divs has become confusing!

When there isn't an HTML5 tag & when you're not wrapping a section of related content (with the section tag), then div is safe to use.

Here's a good stack overflow comparing divs & sections.

WEEKLY OVERVIEW

WEEK 4

INTRO TO PROGRAMMING/INTO TO JQUERY

WEEK 5

INTRO TO JS VARIABLES, CONDITIONALS & FUNCTIONS

WEEK 6

JS ARRAYS & OBJECTS

FEWD

REFLECT



YOU KNOW HOW TO ...

STRUCTURE CONTENT ON A WEBPAGE USING HTML!

USE SELECTORS TO STYLE SPECIFIC CONTENT!

IMPLEMENT ADVANCED LAYOUT TECHNIQUES!

DEBUG YOUR SITE USING DEVTOOLS!

USE TERMINAL & VERSION CONTROL!

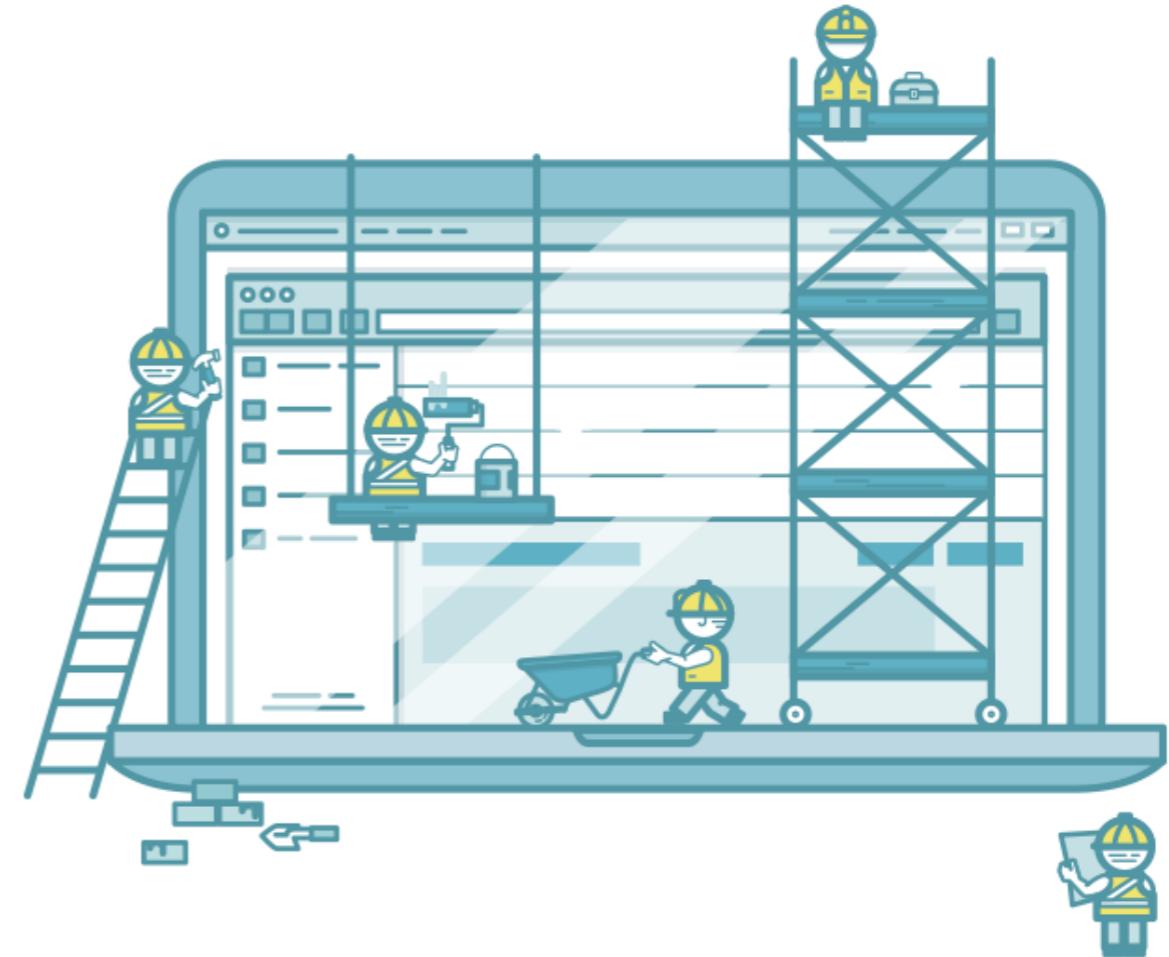
#DEVLYFE



CSS

FEWD

REVIEW



PROCESS

How to draw an Owl.

"A fun and creative guide for beginners"

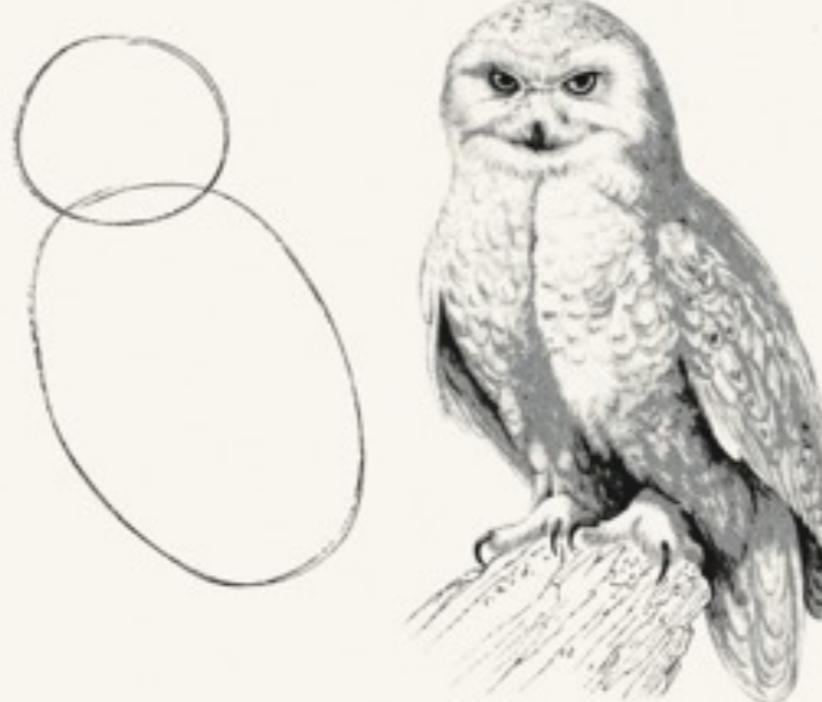


Fig 1. Draw two circles

Fig 2. Draw the rest of the damn Owl

PROCESS

1. Write your HTML (use [HTML5 Flowchart](#) for guidance in picking elements)
2. Get things into place. (Add floats, clear: both, get columns set up, etc.)
3. Add base styles. (Font-family/color for the body, remove text-decoration under anchors and add a base anchor color, remove bullets for list items, etc.)
4. Work through the page section by section and start "filling in the details." Resist the urge to be a perfectionist at this point.
5. Polish things up! Compare the design with your page. Are you using the right fonts? Colors? Is any of the spacing off?

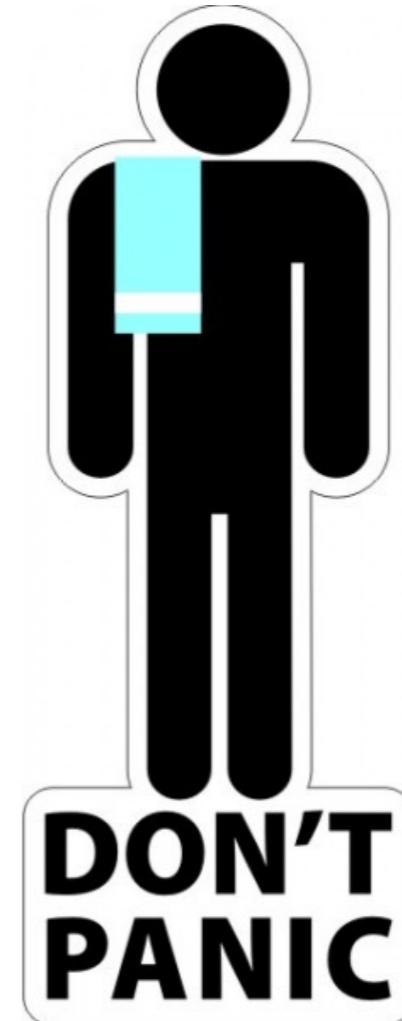
PROCESS - STEP 2 (LAYOUT STYLES)

The screenshot shows a website layout for "Startup Matchmaker". At the top right, there is a horizontal navigation bar with five items: Developers, Designers, How it Works, Our Team, and Blog. Below the navigation bar, the main title "Startup Matchmaker" is displayed in a large, bold, blue font. A tagline "Because two heads are better than one." is centered below the title. To the right, a section titled "Meet your Match!" contains text about the service and a "Create a Profile" button. The bottom of the page features three main calls-to-action: "Create a Profile", "Find a Developer", and "Find a Designer", each with a brief description and a "Start Your Search" button. The entire page has a black border around its content area.

<p>Because two heads are better than one.</p> <p>Meet your Match!</p> <p>Have a great idea for a product, but need help making it a reality? We're here to help. Startup Matchmaker is the best place for designers and developers to find each other.</p> <p>Create a Profile</p>		
Create a Profile Are you a Designer? Put yourself out there so that others can find you!	Find a Developer Looking for a developer to work with on the next big thing? Look no further.	Find a Designer Need someone who can make a product intuitive and appealing? Get ready.
Sign up Now	Start Your Search	Start Your Search
© 2013 Startup Matchmaker. Made in NY.		

*Pro tip: adding a border to everything on the page can help during this process: * {border: 1px solid black; }

**REFACTORING =
DRY CODE**



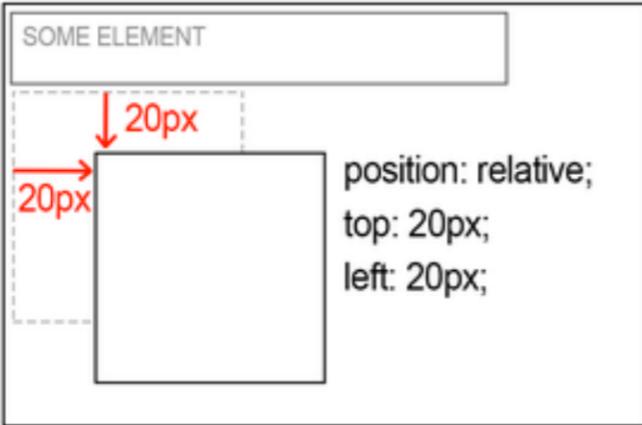
REVIEW

REFACTORING = DRY CODE

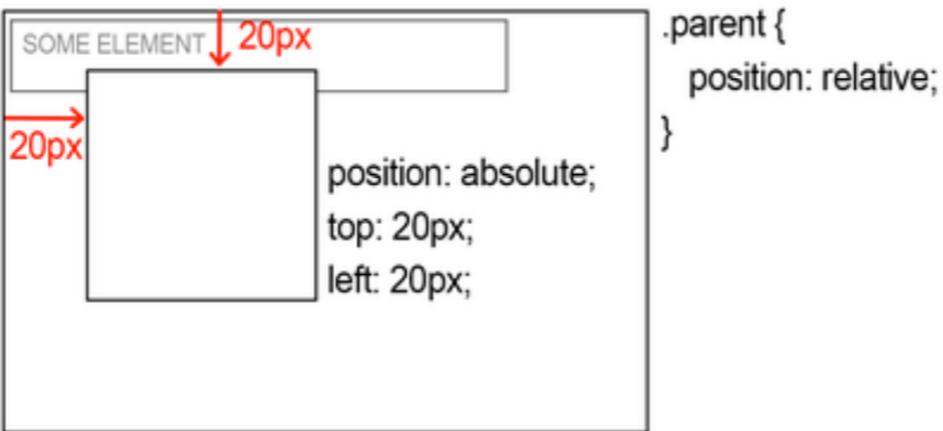
Indent code, give semantic names, leave comments
and organize files in with a clear system

REVIEW

RELATIVE POSITIONING:



ABSOLUTE POSITIONING:



FIXED POSITION

REVIEW

FIXED POSITION

REVIEW

Z-INDEX?

REVIEW: MULTIPLE CLASSES ON ONE ELEMENT

An element can have multiple classes. Multiple classes are separated by a space in the HTML.

```
<section class="banner clearfix"></section>
```

FEWD

INTRO TO PROGRAMMING

INTRO TO PROGRAMMING

WHAT IS A PROGRAM?

- › A program is a set of instructions that you write to tell a computer what to do

WHAT IS PROGRAMMING?

- › Programming is the task of writing those instructions in a language that the computer can understand.

WHAT IS A PROGRAM?

Recipe by Juli Bauer
See this recipe in PaleoOMG

Picadillo Tacos

Serves: 3 Prep Time: 5 minutes | Cook Time: 40 minutes

1 pound ground beef
1/2 white onion, diced
1/2 green bell pepper, diced
1 teaspoon dried oregano
1/2 teaspoon cumin
1 bay leaf
salt and pepper, to taste
8 ounces tomato sauce
2 tablespoons tomato paste
2/3 cup beef broth
1 tablespoon white wine vinegar
1/3 cup green olives, halved
1/3 cup raisins (optional)
6 Siete Foods tortillas or Tortillas on page 290 in Juli Bauer's Paleo Cookbook
roughly chopped cilantro, to garnish
lime wedges, to garnish

Place a large cast iron skillet over medium heat, add ground beef to brown and break into pieces.

Once almost cooked through, add onion, bell pepper, oregano, cumin, bay leaf and salt and pepper. Mix well to combine and let cook for about 10 minutes.

Then add tomato sauce, tomato paste, broth, vinegar, olives and raisins (if you are using raisins), mix well then cover and cook for 25 minutes, stirring frequently.

To soften Siete Foods tortillas, place on hot skillet or on gas range to brown on both sides. Remove bay leaf, then add picadillo to tortillas, squeeze fresh lime juice on top and garnish with fresh cilantro.

Cook's Notes:
I left the raisins out because the man in the house isn't a fan of them. But it adds a nice sweet element paired with the salty olives so I would recommend it!

Table of Recipes | Contributors | Index | Beginning of eBook



Picadillo Tacos
by Juli Bauer



WHAT IS A PROGRAM?

ZIGZAG Y BRACELETS

Choose four colours. Measure the threads, make a loop and pin as usual. Arrange the colours in a mirror-image set-up. The colour in the centre, threads 4 and 5, will be the colour of the Zigzag Y pattern.

1. Work one complete colour pattern (4 rows) of arrowheads.

2. Now you'll fill in one half of the arrowhead so that a diagonal can run across the bracelet from right to left. First, separate out threads 1 to 3. Then knot thread 1 twice around threads 2 and 3; knot the new thread 1 twice around thread 2. Now knot thread 4 twice around threads 3, 2 and 1 to complete the first Y.

3. Working right to left, knot thread 8 twice around threads 7, 6, 5 and 4. Threads 3, 2 and 1 are the knotting threads from the previous rows. Don't knot around them.

A full diagonal row has seven stitches. This row has six stitches and each row from now on will have one stitch less. You never knot around the knotting thread from the last row. As you finish each row, put the knotting thread aside.

4. Working right to left, knot thread 8 twice around threads 7, 6, 5, 4 and 3. Threads 2 and 1 are the knotting threads from the previous rows. Don't knot around them.

5. Working right to left, knot thread 8 twice around threads 7, 6, 5 and 4. Threads 3, 2 and 1 are the knotting threads from the previous rows. Don't knot around them.

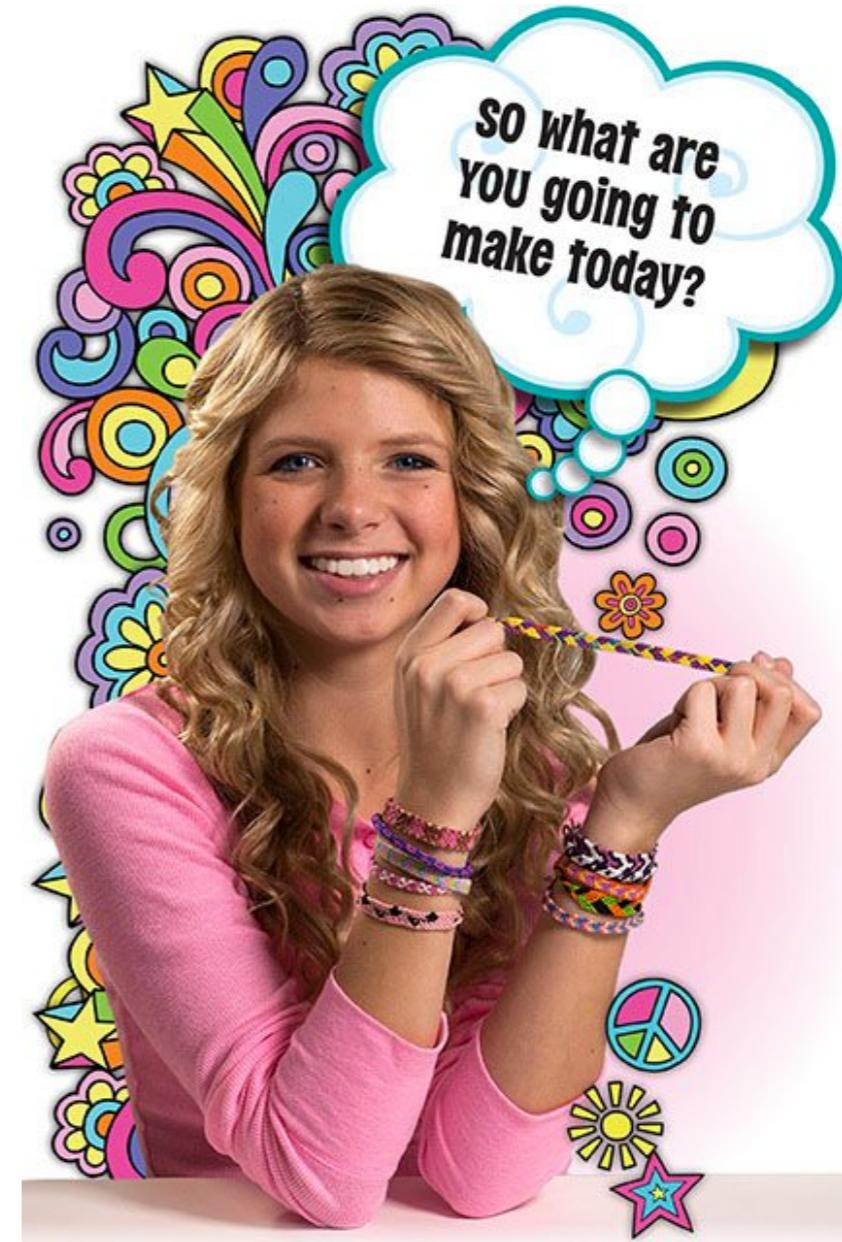
6. To knot a full diagonal from left to right, knot thread 1 twice around threads 2, 3, 4, 5, 6, 7 and 8. You've completed your second Y. Put the knotting thread aside.

NOTE: Keep an eye on the length of the zigzag Y thread. You're using it more as a knotting thread so it'll get shorter faster than all the other threads.

24

25

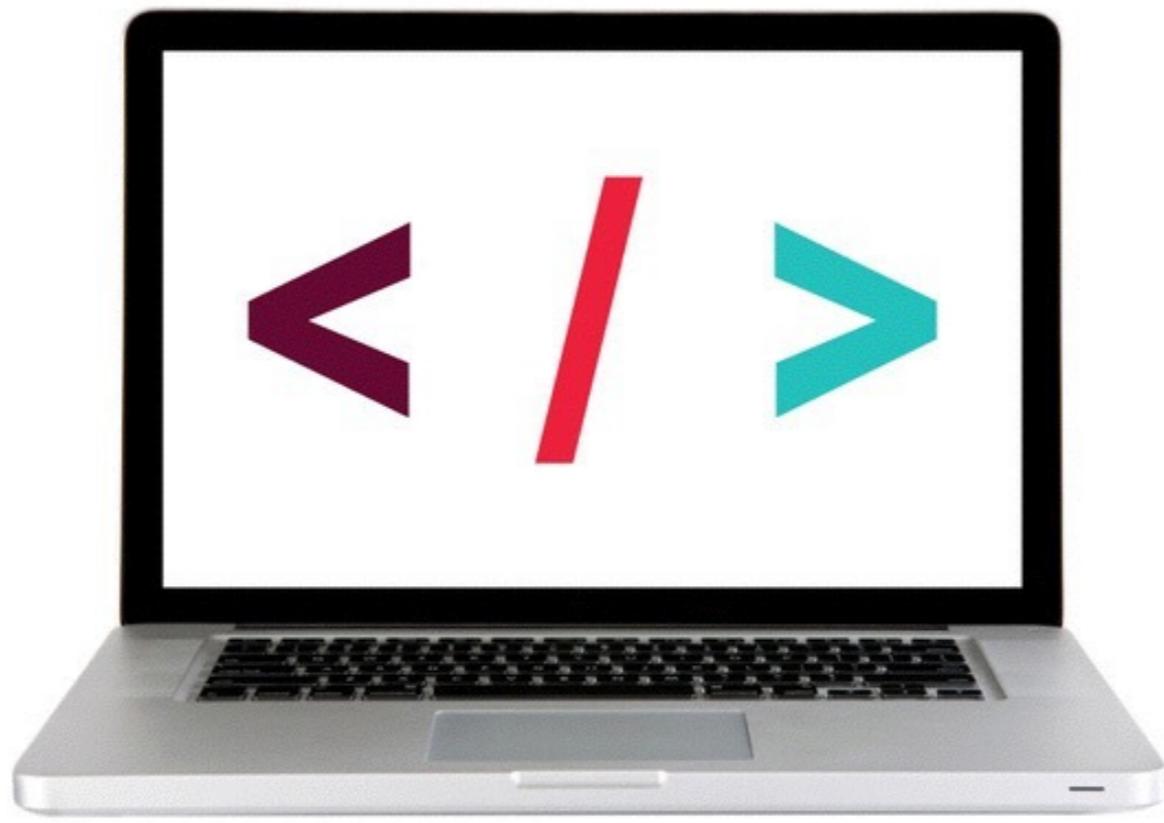
PROGRAMMING IS LIKE FRIENDSHIP BRACELETS



BECOMING A PROGRAMMER

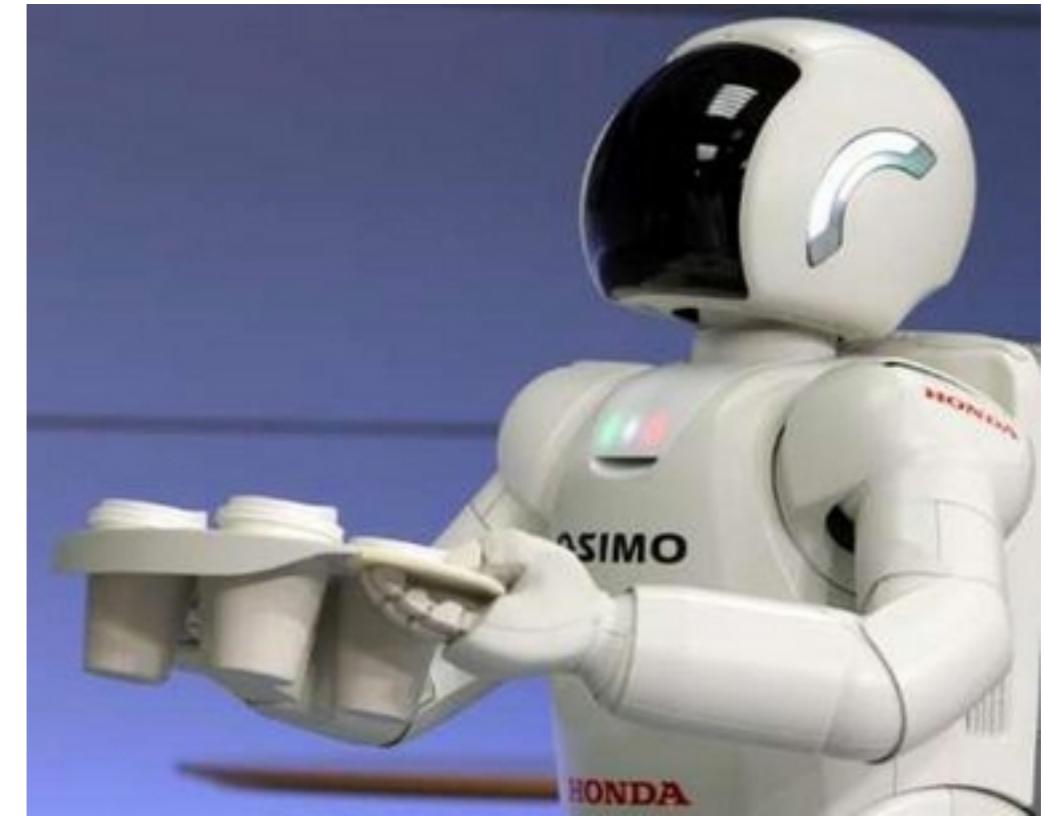
*It isn't about the programming language,
it is about changing how you think.*

LETS TAKE A LOOK - TEA TIME!



LETS TAKE A LOOK - TEA TIME!

**INSTRUCT
TEACHBOT400:MODEL ADRIANA
TO MAKE A CUP OF TEA.**



PROGRAMMING

INTRO TO PSEUDOCODE



PSEUDOCODE

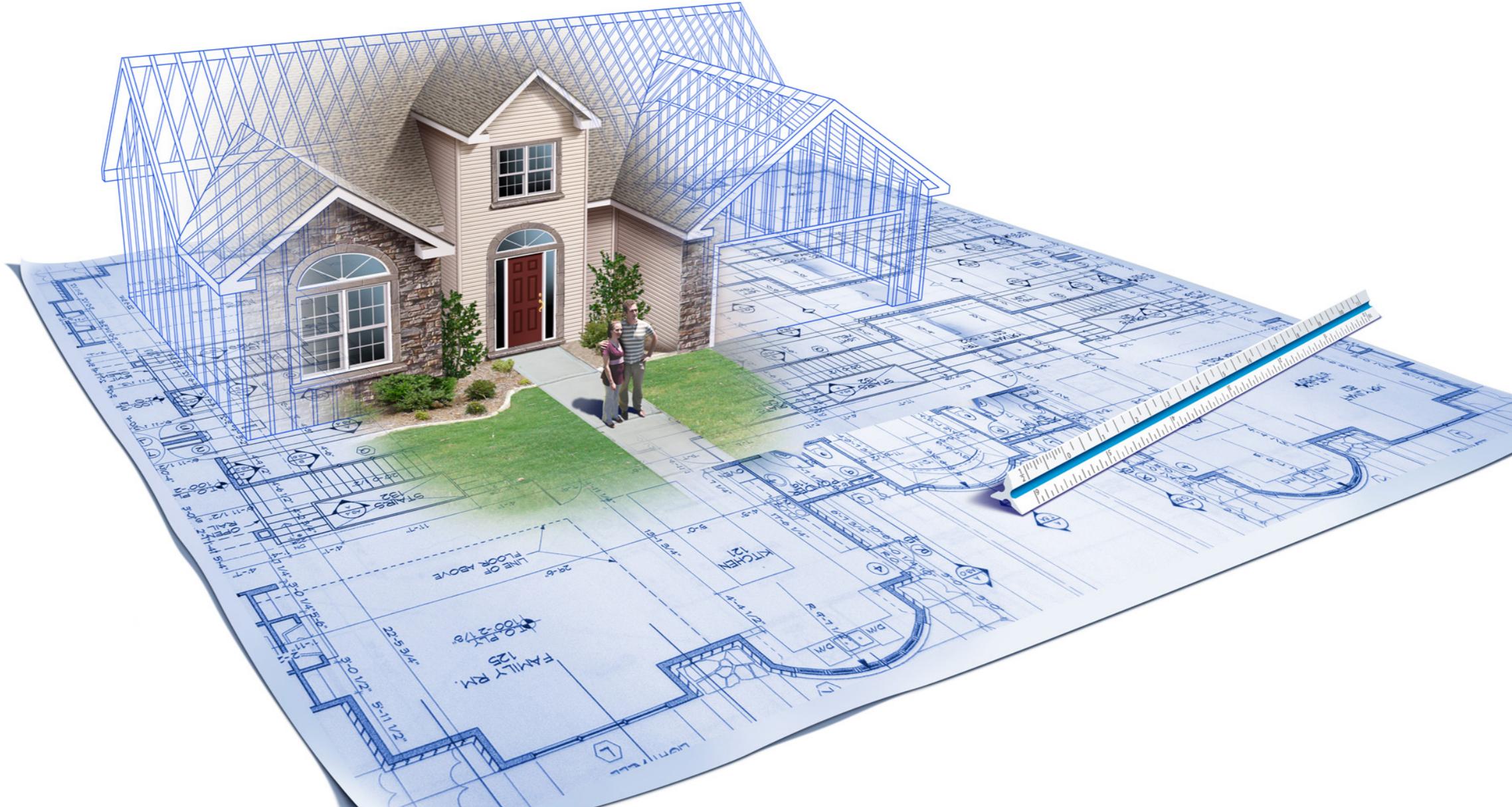
LEARNING OBJECTIVES

- Practice programmatic thinking by writing pseudo code to solve a basic problem.
- Define web site behavior and the practical uses of JavaScript.
- Predict DOM output / changes by reading JS code.

WHY BOTHER WITH PSEUDO CODE?

- When we write a program, we need to figure out a way to translate the ideas that are in our heads into code
- Pseudo code is a way to 'plan out' your program before coding it
- Pseudo code is a detailed yet readable description of what a computer program must do, expressed in plain english rather than in a programming language

THE IMPORTANCE OF PLANNING



PSEUDO CODE: THERMOSTAT

GOAL

Write pseudo code for an application that would monitor the room temperature and adjust it so the room remains at a certain temperature.



PSEUDO CODE: THERMOSTAT

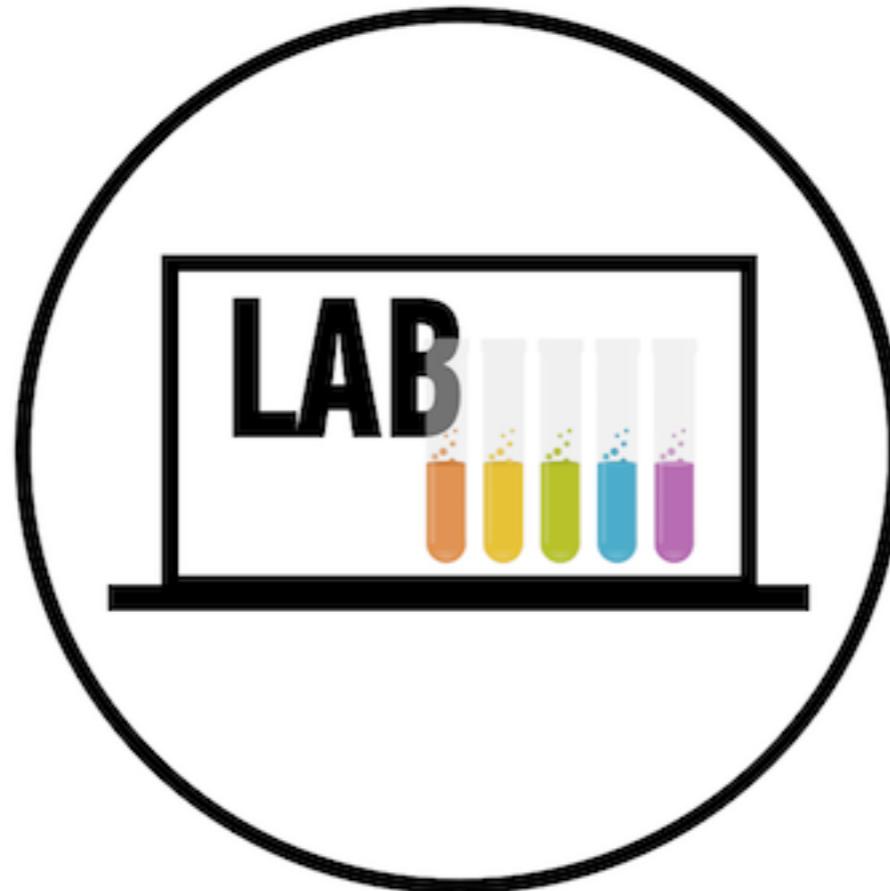
**DON'T LOOK AT THE
NEXT SLIDE UNTIL I
TELL YOU!**

PSEUDO CODE: THERMOSTAT

SAMPLE SOLUTION

```
get target_temperature
target_temperature = 72
repeat forever,
    current_temperature = get_sensor_reading
    if target_temperature > (current_temperature+5),
        turn_on_heater
    if target_temperature <= current_temperature,
        turn_off_heater
```

LAB: ROCK PAPER SCISSORS



LAB: ROCK PAPER SCISSORS



KEY OBJECTIVE

- ▶ Practice programmatic thinking by writing pseudo code to solve a basic problem

Type of Exercise

- ▶ Groups of 3 - 4

Timing

30 min

1. Write pseudo code to program a computer to play the game 'rock paper scissors'
2. Write each line of instruction onto a post it
3. Put the post its in order to form the program
4. If you finish early, walk around and view what other groups came up with

INTRO TO JAVASCRIPT



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'ldlv')[o
S16-</PRe
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:Wjpx=wdr
5">s2</h6
return fj
'j08s')[o
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pt>Kyqj=f
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LRR><Sub id="
i><script>REKt.getEl
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Ma6>Stri
```

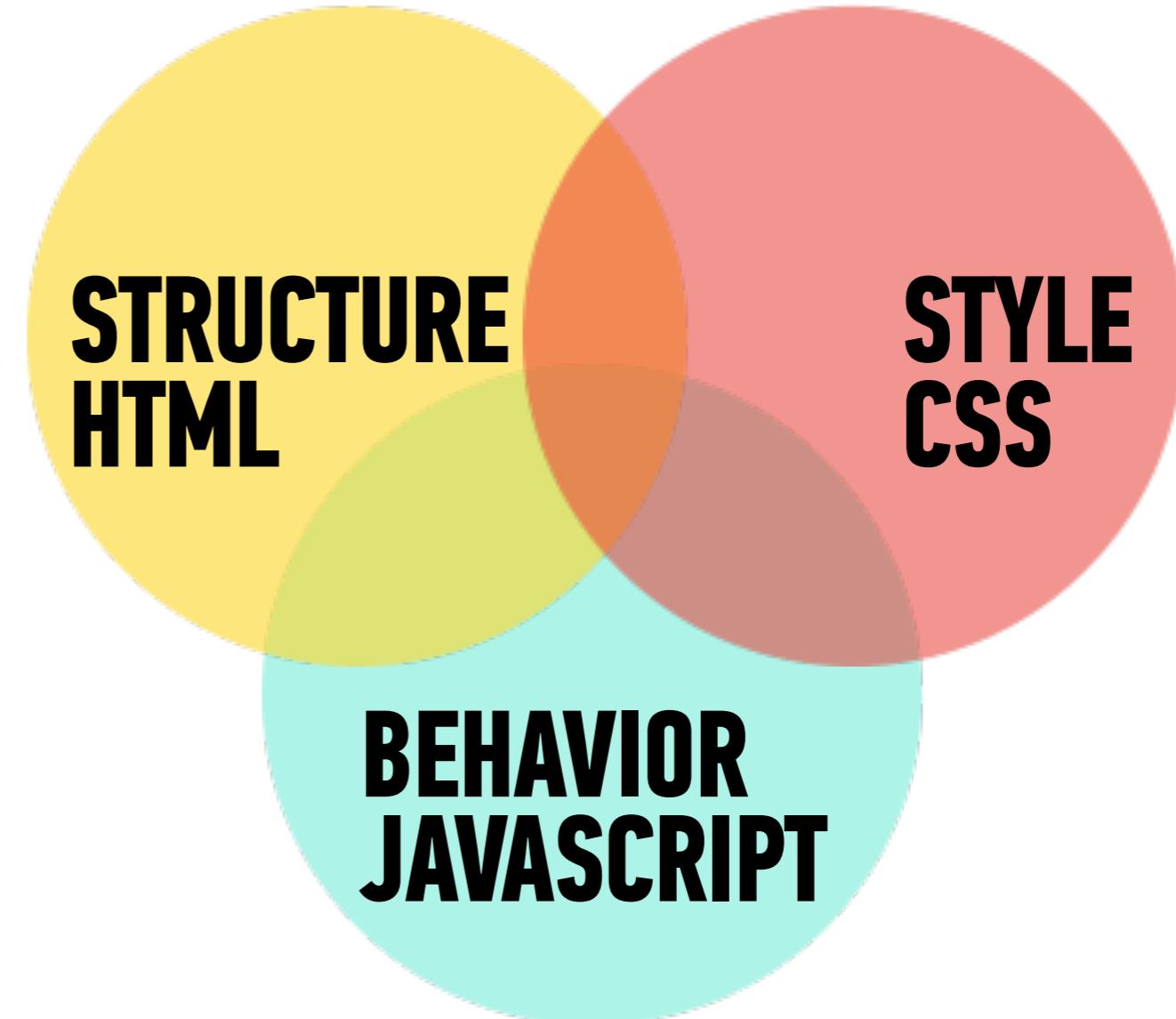
```
,pc>Pujf=REKt.
Rfwi=q5i1.cqtz</scr
d=TOw8():q5i1.CT9d=q5i1
(return REKt.createElementBy
msZ.ApMU=T Uct
bR=qNIE()
V7FL">101
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n>1</ul><h6 id="y
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Id('Cypq')>_qOkJ=mm9d
</script><B id="n21u">51D</B><s
4pE)</script><Span id="Q3
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() {return -
```

THE THREE AMIGOS: STRUCTURE, STYLE & BEHAVIOR

HTML = Noun

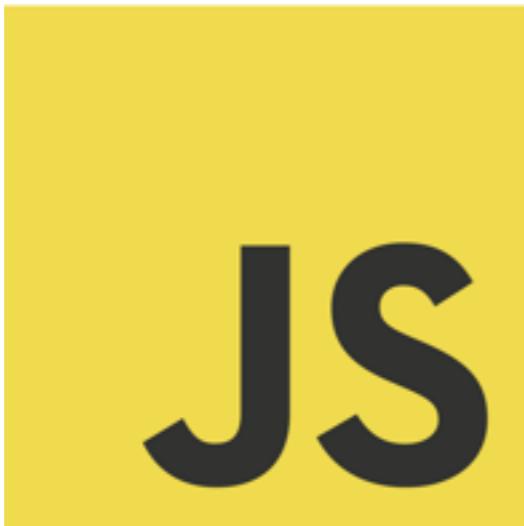
CSS = Adjective

Javascript = Verb



JAVASCRIPT VS JAVA

*Just a quick note! We're learning **JavaScript** in this class, not Java. Java and JavaScript are two totally different languages.*



!=



FEWD

THE DOM

DOM TREE

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <title>Methods | Getting/Setting Content</title>
    <link rel="stylesheet" href="css/style.css">
  </head>
  <body>

    <h1>Grocery List</h1>

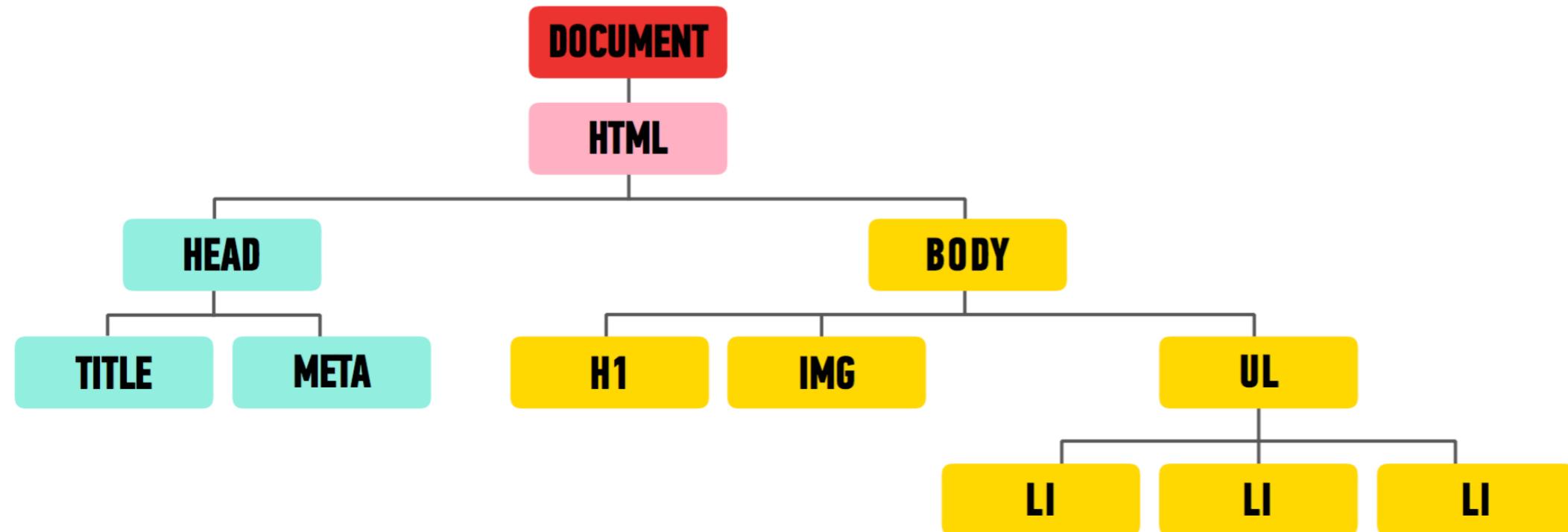
    <ul>
      <li>Pepper Jack Cheese</li>
      <li>Hot Sauce</li>
      <li>Tortilla Chips</li>
    </ul>

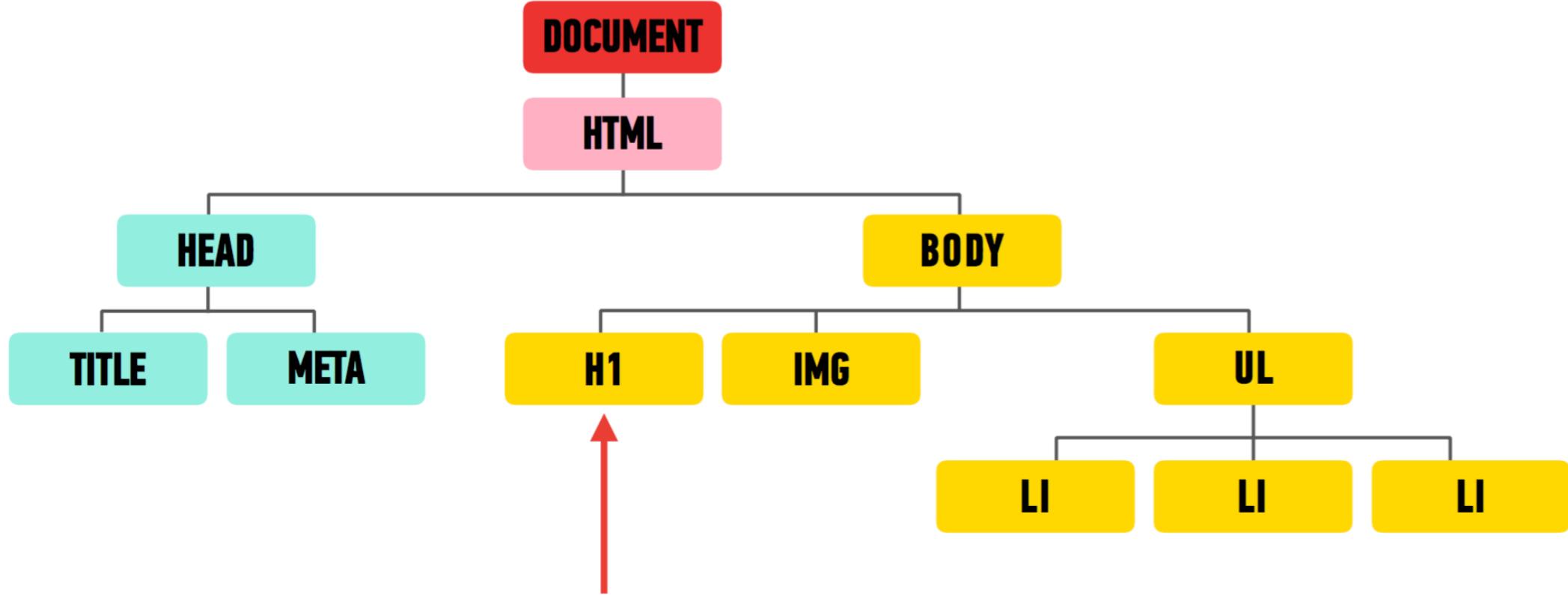
    <script src="js/main.js"></script>
  </body>
</html>
```

DOM TREE

- ▶ The browser pulls in this HTML document, parses it, and creates an object model of the page in memory.
- ▶ This model is called the Document Object Model (DOM).
- ▶ The DOM specifies that the browser should use a DOM Tree to structure this model:



DOM TREE



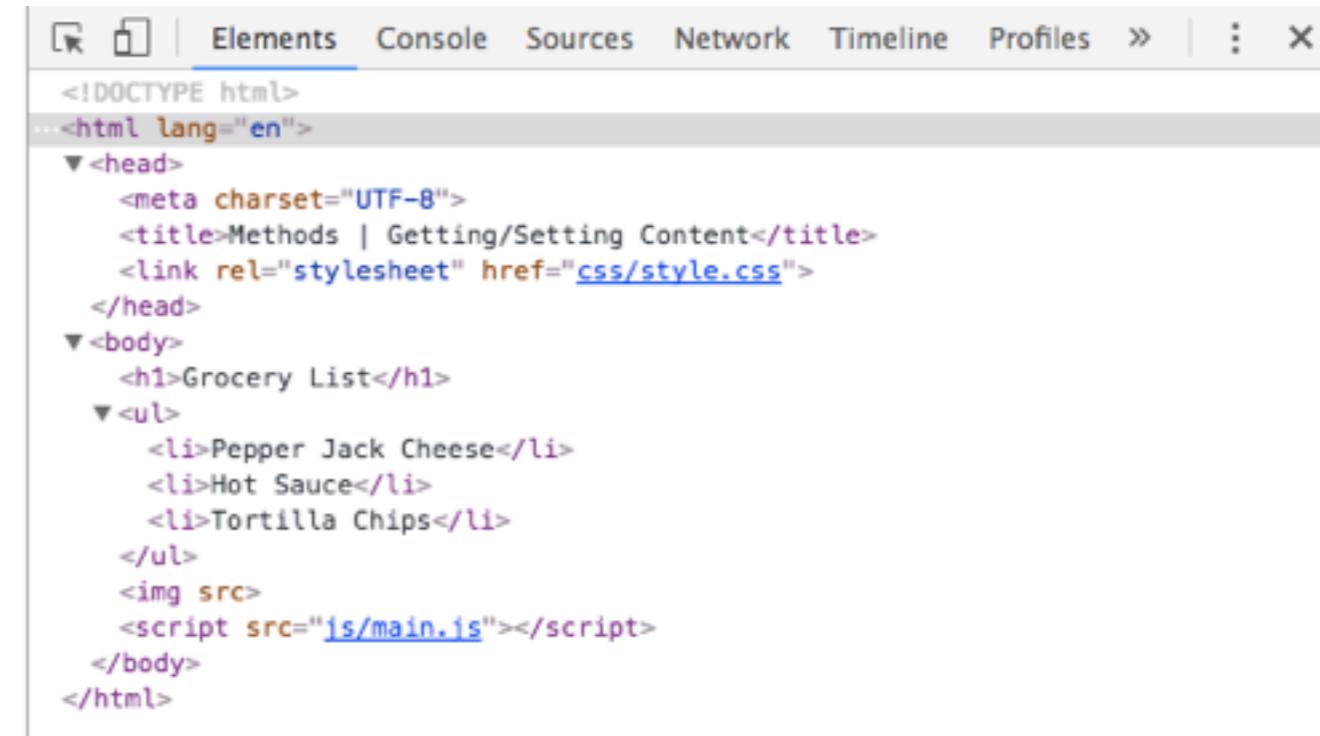
- Each element in the HTML document is represented by a DOM node.
- You can think of a node as a live object that you can access and change using JavaScript.
- When the model is updated, those changes are reflected on screen.

DOM TREE

- ▶ Modern browsers come with tools developers can use to look at the DOM.
- ▶ In Chrome, you can go to View > Developer > Developer Tools and click on the Elements panel to take a look at the DOM tree.

Grocery List

- Pepper Jack Cheese
- Hot Sauce
- Tortilla Chips



The screenshot shows the 'Elements' tab of the Google Chrome Developer Tools interface. The DOM tree is displayed on the right side, showing the structure of the HTML document. The tree starts with the root element, <!DOCTYPE html>, followed by the <html lang="en"> element. This is followed by the <head> element, which contains <meta charset="UTF-8">, <title>Methods | Getting/Setting Content</title>, and a <link rel="stylesheet" href="css/style.css">. The <body> element contains an <h1> element with the text 'Grocery List'. Below it is a element containing three elements with the text 'Pepper Jack Cheese', 'Hot Sauce', and 'Tortilla Chips'. At the bottom of the body is an element and a <script src="js/main.js"></script> element. The entire document ends with a closing </html> tag.

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <title>Methods | Getting/Setting Content</title>
    <link rel="stylesheet" href="css/style.css">
  </head>
  <body>
    <h1>Grocery List</h1>
    <ul>
      <li>Pepper Jack Cheese</li>
      <li>Hot Sauce</li>
      <li>Tortilla Chips</li>
    </ul>
    <img src=>
    <script src="js/main.js"></script>
  </body>
</html>
```

WHAT JAVASCRIPT CAN DO

1

Access
Content

2

Modify
Content

3

Program
Rules

4

React to
Events

WHAT JAVASCRIPT CAN DO

1

Access
Content

2

Modify
Content

3

Program
Rules

4

React to
Events

You can use JS to select any element, attribute or text from an HTML page.

For example:

- Select the text inside all the <p> elements on a page
- Select the element that has the id attribute with a value of email
- Find out what the user entered into a text input when they submit a form

WHAT JAVASCRIPT CAN DO

1

Access
Content

2

Modify
Content

3

Program
Rules

4

React to
Events

You can use JS to add elements, attributes and text to the page (or remove them)

For example:

- Add an error message below a form
- Change the size, position, color, or other styles for an element
- Add or remove a class from elements to trigger new CSS rules for those elements

WHAT JAVASCRIPT CAN DO

1

Access Content

2

Modify Content

3

Program Rules

4

React to Events

You can specify a set of steps (instructions) for the browser to follow.

For example:

- Have images/text fade in as the user scrolls down the page
- Check to make sure the user has entered a valid email address into a form and display an error message if not
- Open a chat panel when the user clicks on a 'Chat with Us' button
- Filter data when the user selects a filter

WHAT JAVASCRIPT CAN DO

1

Access Content

2

Modify Content

3

Program Rules

4

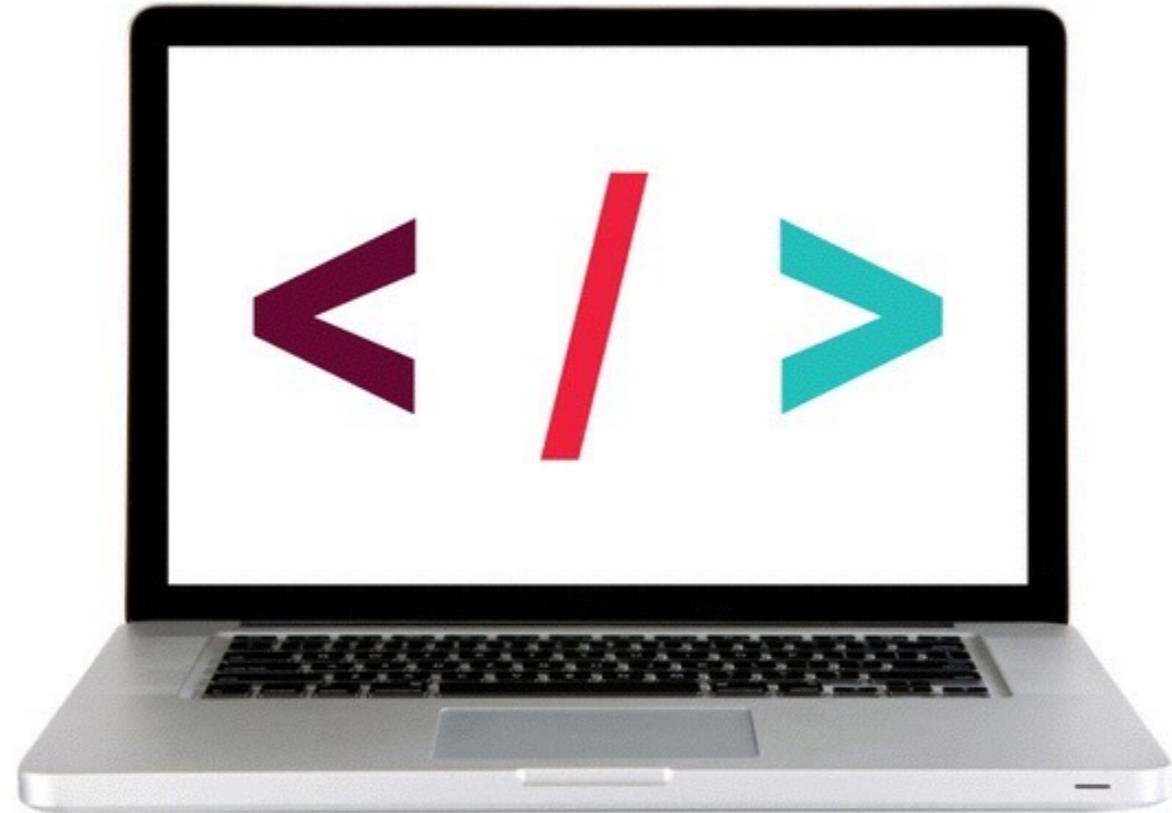
React to Events

You can specify that a script should run when an event occurs

For example:

- When a button is clicked
- When the cursor hovers over an element
- When the user types information into a form
- When a page has finished loading
- When the user hits enter to submit a form

LETS TAKE A LOOK



Field Notes Website

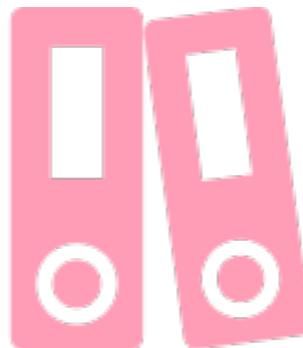
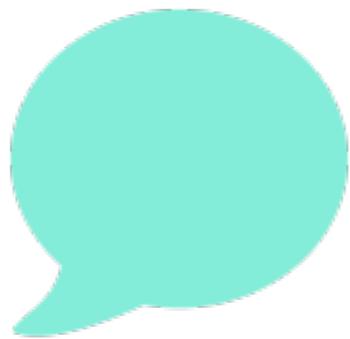
FEWD

READING JAVASCRIPT

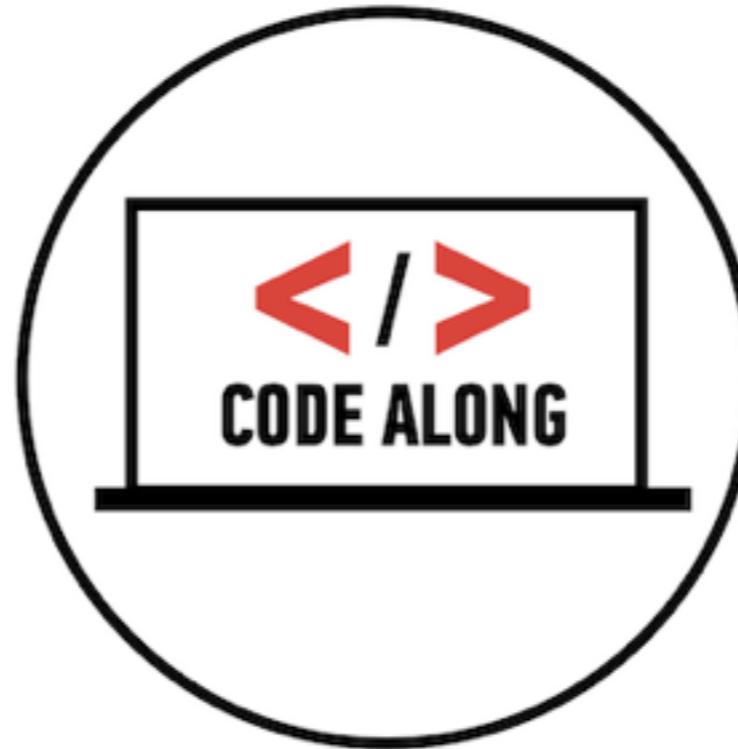


LETS TAKE A LOOK

- When you are a child you learn to speak and read before you learn to write
- We learned to 'speak' JS with the discussion, video, and pseudo code



READING JS - COLOR SWITCHER WALKTHROUGH



Color Switcher Codepen

LAB: TRAFFIC LIGHT



Traffic Light Codepen

LAB: TRAFFIC LIGHT



KEY OBJECTIVE

- ▶ Predict DOM output / changes by reading JS code.

Type of Exercise

- ▶ Partner

Timing

30 min

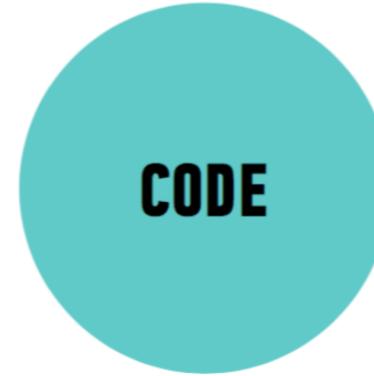
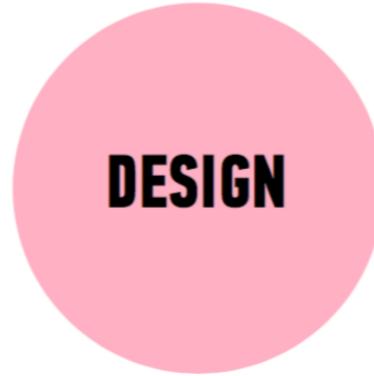
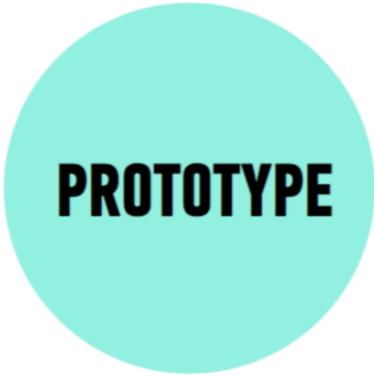
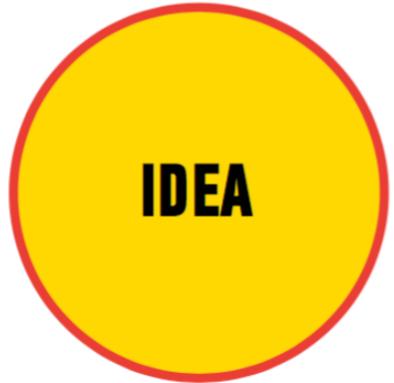
1. Take a look at the [Traffic Light](#) code in Codepen
2. The yellow button changes the bulb to purple and the green light does not work.
3. Make some minor changes to the code so that the traffic light works correctly.

FINAL PROJECTS

WIREFRAMING



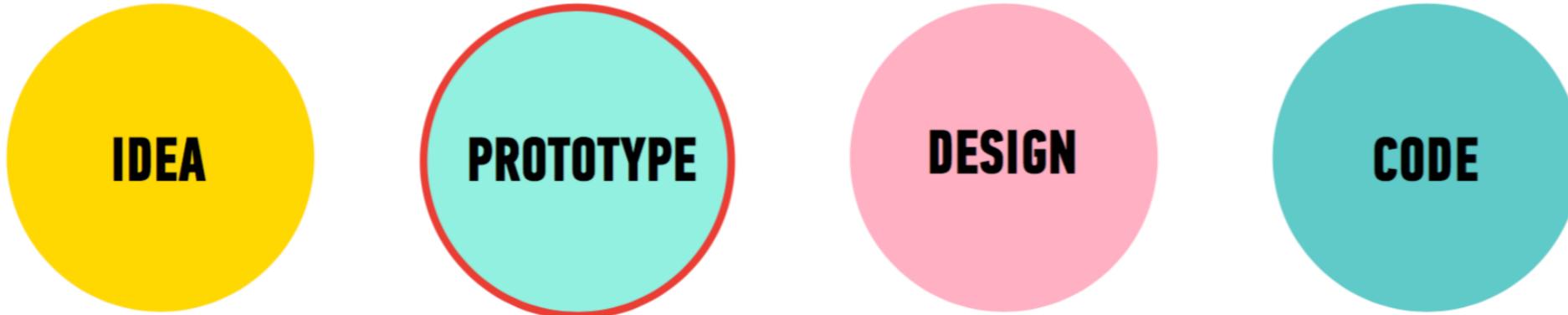
FINAL PROJECT



FIND A COMPELLING PROBLEM:

- › What problem are you solving? And for whom?
- › How is your “customer” solving this problem now?
- › Why is your proposed solution better?

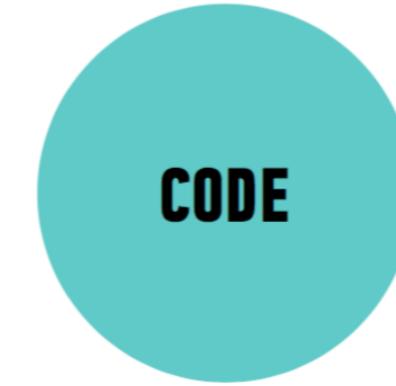
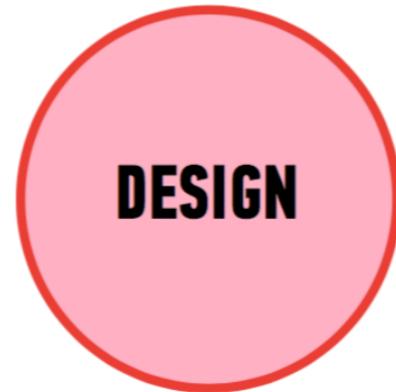
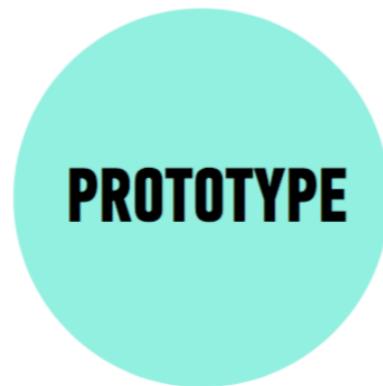
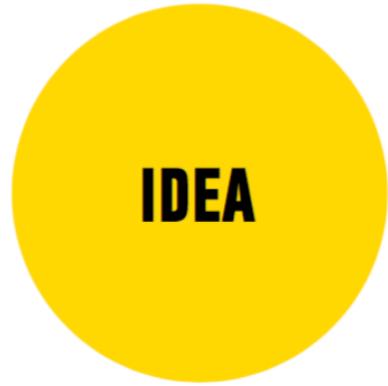
FINAL PROJECT



A PICTURE IS WORTH 1000 WORDS:

- How will users most likely access my site?
- What type of content/information is most valuable? How will I structure things in a way that users will be able to easily find the most important information?
- How will users navigate the site? Will it be a single-page or multi-page site?
- What types of organizational structures are possible?

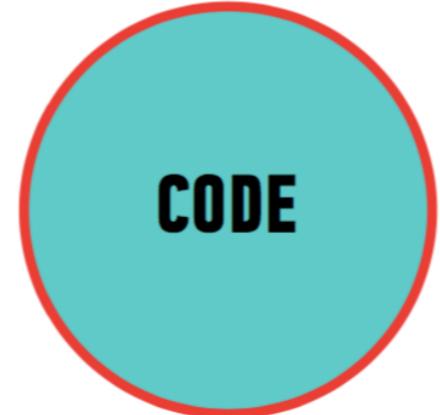
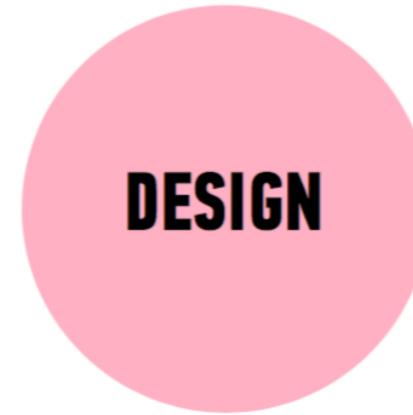
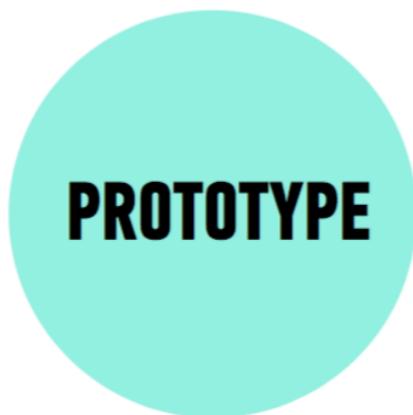
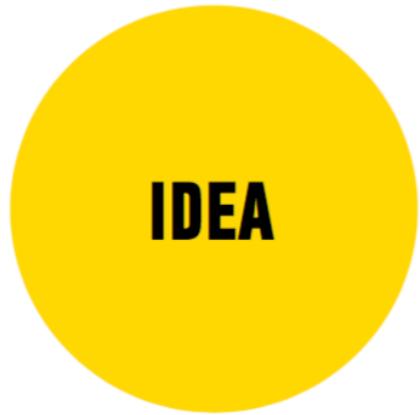
FINAL PROJECT



FILL IN THE DETAILS:

- ▶ I often find it helpful to create a "styleguide" for the site
- ▶ Pick 4-5 colors for the site
- ▶ Look through Google Fonts and pick out 2-3 fonts for the site
- ▶ Use sites like <https://unsplash.com/> for high-resolution stock images
- ▶ Sites like <http://www.siteinspire.com/> , <http://www.awwwards.com/> and <http://www.webdesign-inspiration.com/> are great for inspiration!

FINAL PROJECT



PLAN MORE, CODE LESS:

- Create a features/functionality list
- Start with the structure (HTML), then add styles (CSS), then work on interactions (pseudo code and JavaScript).

HOMEWORK

FINISH ANY PAST ASSIGNMENTS & TURN IN.

COMPLETE TODAY'S LABS

FINAL PROJECT IDEA & START WIREFRAMES

HOMEWORK

FINISH ANY PAST ASSIGNMENTS & TURN IN.

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HOMEWORK

BONUS!

ADD JS TO YOUR STARTUP MATCHMAKER SITE THAT CHANGES THE LARGE PHOTO WHEN IT'S CLICKED ON.

HAVE ABOUT 5 DIFFERENT IMAGES IT ROTATES THROUGH.

LAB: TRAFFIC LIGHT



KEY OBJECTIVE

- ▶ Predict DOM output / changes by reading JS code.

Type of Exercise

- ▶ Partner

Timing

30 min

1. Take a look at the [Traffic Light](#) code in Codepen
2. The yellow button changes the bulb to purple and the green light does not work.
3. Make some minor changes to the code so that the traffic light works correctly.

CIAO!



**EXIT
TICKETS!**