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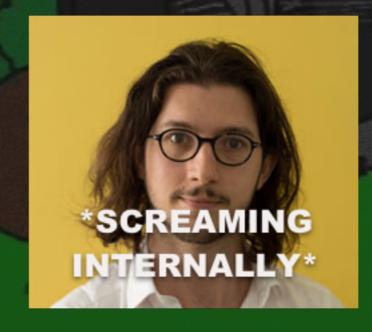
# WHAT IS SASS

- Sass is a pre-processor for your CSS Style sheets
- Created by Hampton Catlin
- Gay Rights Advocating Programmer extraordinaire
- He also created HAML
- He and his partner and collaborator, founded RareBit



## WHAT IS SASS

- Stylesheets are getting larger and larger, with repeating elements
- With the advent of the media queries, elements are getting called in more places all over your stylesheet
- These cannot scale and are not readable whatsoever



# WHAT IS SASS

- Sass helps make stylesheets readable through the cunning use of:

- Variables

- Nesting

- Import

- Mixins

- Extend/Inheritance

- Operators

# VARIABLES

- Like JS, variables store information that can be reused throughout the stylesheet

#### **SCSS INPUT**

```
$font-stack: Helvetica, sans-serif;
$primary-color: #333;

body {
   font: 100% $font-stack;
   color: $primary-color;
}
```

#### **CSS OUTPUT**

```
body {
  font: 100% Helvetica, sans-serif;
  color: #333;
}
```

### VARIABLES

- Common uses for variables are color, number and fonts
- Uncommon but powerful uses are, naming conventions, conditional activators
- If you are using a value more than 3 times in your styling, consider a variable
- As a rule of thumb if you are using a value more than 3 times in your styling, consider a variable

### **VARIABLES**

- Variables can also call on other variables, creating a variabl-ception

#### Am I Red or Blue?

#### Father, you are purple!

Josh! you are getting into operators, you've gone too far

```
CSS compiled

1 v h1 {
2    color: magenta;
3    font-family: "Helvetica", sans-serif;
4  }
5
6 v h2 {
7    color: blue;
8  }
9
10 v h3 {
11    color: red;
12  }
13
```

```
* HTML
   <h1>
     Am I Red or Blue?
   </h1>
   <h2> Father, you are purple!</h2>
   <h3> Josh! you are getting into operators, you've gone too far</h3>
CSS (scss)
   $color1:blue;
   $color2:red;
   $color3: $color1 + $color2;
   $font-type:"Helvetica";
   $font-style:sans-serif;
   $font-stack:$font-type, $font-style;
   h1 {
     color:$color3;
     font-family: $font-stack;
   h2 {
     color:$color1;
   h3 {
     color:$color2;
```

### MIXINS

- Mixins are the next logical step in variables
- Writing vendor prefixes for instance are tedious to write out again and again -o-and again -moz-and again -ms-and again
- Mixins become your shorthand for repetition

#### Input SCSS

```
@mixin border-radius($radius) {
    -webkit-border-radius: $radius;
    -moz-border-radius: $radius;
    -ms-border-radius: $radius;
    border-radius: $radius;
}

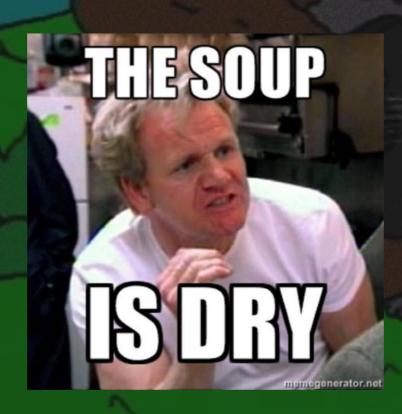
.box { @include border-radius(10px); }
```

#### **Output CSS**

```
.box {
   -webkit-border-radius: 10px;
   -moz-border-radius: 10px;
   -ms-border-radius: 10px;
   border-radius: 10px;
}
```



- Use mixins for elements you are going to reuse, like border, shadows, flexbox, background gradients style
- Using Mixins and Variables together will allow you to write DRY (Don't Repeat Yourself) first time, every time



### **NESTING**

- In HTML, nesting is clear and concise, showing you the hierarchy of elements
- Sass allows you to nest your styling

#### Input SCSS

```
nav {
  ul {
    margin: 0;
    padding: 0;
    list-style: none;
}

li { display: inline-block; }

a {
    display: block;
    padding: 6px 12px;
    text-decoration: none;
}
```

#### Output CSS

```
nav ul {
  margin: 0;
  padding: 0;
  list-style: none;
}

nav li {
  display: inline-block;
}

nav a {
  display: block;
  padding: 6px 12px;
  text-decoration: none;
}
```

### **NESTING**

- Nesting allows you to keep your elements together in a readable manner
- Nesting really comes in handy when declaring media queries and using pseudo selectors like :active or :hover
- Rule of threes applies to nesting as well, if you are three levels deep in your nesting you lose the benefits of readability



### **IMPORTS**

- Allows you to segment your stylesheets into a modular folder structure
- Your buttons can be in one file, while your inputs are in another
- Utilising import will let you compile a robust stylesheet whilst having readable, scalable and modular Sass Files.

```
@charset 'UTF-8';

// 1. Configuration and helpers
@import
    'abstracts/variables',
    'abstracts/functions',
    'abstracts/mixins';

// 2. Vendors
@import
    'vendor/normalize';

// 3. Base stuff
@import
    'base/base',
    'base/fonts',
    'base/typography',
    'base/helpers';

// 4. Layout-related sections
@import
    'layout/header',
    'layout/footer';
```



#### **EXTENDING / INHERITANCE**

- Pop Quiz: You have a message class name that has several modifiers, how are you going to have the same styling for all of them but also the flexibility to change change certain style values. How to do?
- You could nest them, you could create a mixin to repeat the properties or...

#### Input SCSS

```
.message {
  border: 1px solid #ccc;
  padding: 10px;
  color: #333;
}

.success {
    @extend .message;
    border-color: green;
}

.error {
    @extend .message;
    border-color: red;
}

.warning {
    @extend .message;
    border-color: yellow;
}
```

#### **Output CSS**

```
.message, .success, .error, .warning {
  border: 1px solid #cccccc;
  padding: 10px;
  color: #333;
}

.success {
  border-color: green;
}

.error {
  border-color: red;
}

.warning {
  border-color: yellow;
}
```

## **EXTENDING / INHERITANCE**

- Use extends when you don't want to call multiple classnames in your HTML

- Sass is keeping you DRY all over this humpy bumpy



## **OPERATORS**

- Operators is math
- Sometimes it's math for numbers, sometimes it's for colors
- CSS (scss)

  \$color1:red;
  \$color2:blue;

  \$color3: \$color1 + \$color2;

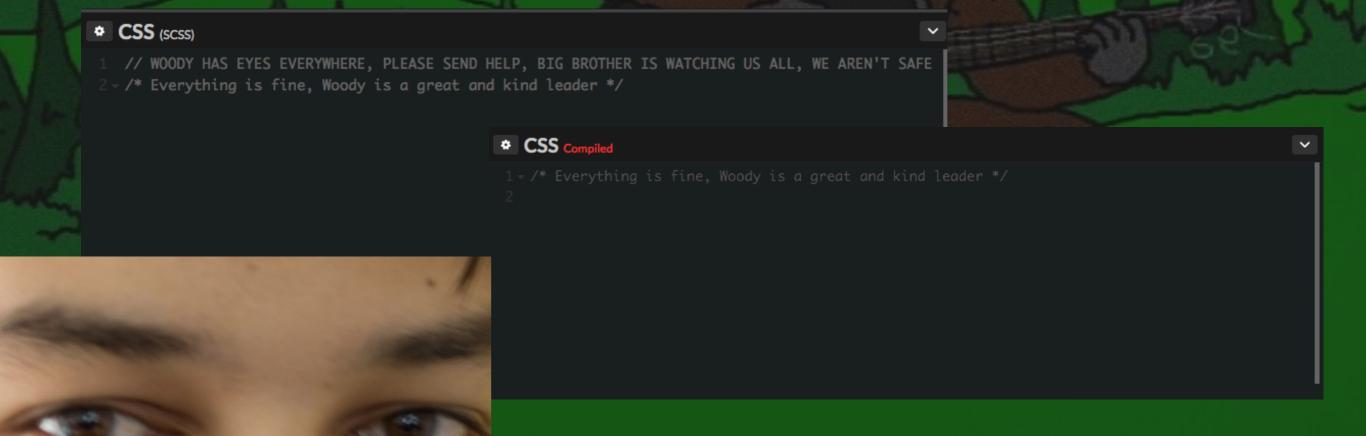
  // REMEMBER ME, I WAS AN OPERATOR WITHIN A VARIABLE ALL ALONG, I'M MIXING RED AND BLUE !!

  WHATCHIWISTL

- Follows the same logic as algebra, with hierarchy and the like

### COMMENTING

- In Sass you can also make comments that only those working in the Sass files can see
- They aren't compiled so you can write a novella and you'll be swell
- Use Sass commenting to help others understand your elements or mixing or variables.



## SASS AND WORKINGMOUSE

- The Design Team of Livin La Vida Loca is currently structuring out a Sass file structure, that is modular, scalable and suited for WorkingMouse now and into the future.



- It's going to be the Designer's very own generator, A SassBot, if you will

