SASS

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What is SASS?

- SASS is an extension of CSS.
- It provides useful functionality to CSS such as nesting, variables, and functions.
- Allows you to reuse your CSS and keeps your CSS modular.
- It’s very easy to learn and use.
Installation

- You first have to install Ruby.
- Specific instructions on the SASS website.
  - http://sass-lang.com/
Using SASS

- `sass --watch style.sass:style.css`
Two Syntaxes

- SASS – uses indentation to specify blocks
- SCSS – uses braces and semicolons

- SASS is more terse and less like normal CSS.
Questions?
Essential SASS Features

- Nesting
- Variables
- Built-in Functions
- Mixins
- Selector Inheritance
- Importing Partials
Nesting

CSS:

```
table tr.foo {
    padding: 0;
}

table .h1 {
    margin: 2em 0;
}

li {
    font-family: serif;
    font-weight: bold;
    font-size: 15px;
}
```

SASS:

```
table
    tr.foo
    padding: 0

h1
    margin: 2em 0

li
    font
    family: serif
    weight: bold
    size: 15px
```
The & symbol

CSS:
```css
a {
    color: #ce4dd6;
}
a:hover {
    color: #ffb3ff;
}
a:visited {
    color: #c458cb;
}
```

SASS:
```scss
a
  color: #ce4dd6
&:hover
  color: #ffb3ff
&:visited
  color: #c458cb
```
Variables

CSS:
.wrapper {
  border-color: #3bbfce;
  padding: 8px
}
.nav {
  color: #3bbfce;
  margin-bottom: 16px;
}

SASS:
$accent: #3bbfce
$spacing: 16px
.wrapper
  border-color: $accent
  padding: $spacing/2
.nav
  color: $accent
  margin-bottom: $spacing
Built-in Functions

- standard math operations (+, -, *, /, and %)
- color functions like “lighten” and “darken”

SASS:

$navbar-color: #ce4dd6
background-color: lighten($navbar-color, 10%)

CSS:

background-color: #d976e0;
Mixins

- Are reusable style blocks
- They can take variables!
- `@mixin` and `@include`
Mixins

CSS:

.nav {
  box-shadow: 1px 1px 4px 2px #ccc
  -webkit-box-shadow: 1px 1px 4px 2px #ccc
  -moz-shadow: 1px 1px 4px 2px #ccc
  -o-shadow: 1px 1px 4px 2px #ccc
}

.wrapper {
  box-shadow: -1px -1px 2px 0 #ccc
  -webkit-box-shadow: -1px -1px 2px 0 #ccc
  -moz-box-shadow: -1px -1px 2px 0 #ccc
  -o-box-shadow: -1px -1px 2px 0 #ccc
}
Mixins

SASS:
@mixin box-shadow($blur, $spread, $h, $v, $color)
  -moz-box-shadow: $h $v $blur $spread $color
  -webkit-box-shadow: $h $v $blur $spread $color
  -o-box-shadow: $h $v $blur $spread $color
box-shadow: $h $v $blur $spread $color

.nav
  @include box-shadow(1px, 1px, 4px, 2px, #ccc)

.wrapper
  @include box-shadow(-1px, -1px, 2px, 0, #ccc)
Mixins

- Can even take variable numbers of arguments or default arguments.
Selector Inheritance

- Uses "@extend"
- Allows one selector to inherit all styles of another selector (included styles within nested selectors).
Selector Inheritance

**SASS**

```
.error
  border: 1px #f00
  background: #fdd

.intrusion
  font-size: 1.3em
  font-weight: bold

.badError
  @extend .error
  border-width: 3px
```

**CSS**

```
.error, .badError
  { border: 1px #f00;
    background: #fdd; }

.error.intrusion, .badError.intrusion
  { font-size: 1.3em; font-weight: bold; }

.badError
  { border-width: 3px; }
```
Partials and Importing

- You can separate your SASS into files.
- Files that are “incomplete” and meant to loaded into other SASS files are called partials.
- Naming convention: _colors.scss

- @import "colors" would include all the styles in _colors.scss during compilation
Essential SASS Features

- Nesting
- Variables
- Built-in Functions
- Mixins
- Selector Inheritance
- Importing Partial
Summary

- SASS is an extension of CSS.
- It provides features that allow you to easily reuse and tweak your styling.
- It reduces repetition in your styling.