SASS

Syntactically Awesome Style Sheets

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Have a Question?

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sli.do

#front-end

SASS

Syntactically Awesome Style Sheets

What is SASS?

- Most mature, stable, and powerful professional grade **CSS extension language**
  - CSS Compatible
  - Feature Rich
  - Mature
  - Industry Approved
  - Large Community

SASS Features

Variables, nested rules, mixins, functions, and more

SASS Features

- Sass is a stylesheet language that's **compiled to CSS**
- It allows you to use:
  - Variables
  - Nested rules
  - Mixins
  - Functions

Nesting

- One style rules **inside** another
  - Sass will automatically combine the outer rule's selector with the inner rule's

```
nav ul {
   margin: 0;
   padding: 0;
   list-style: none;
}
nav li {
   display: inline-block;
}
```

CSS Styles

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

Nesting

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

    li {
        display: inline-block;
    }

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

SCSS

SASS - Referencing Parent Selector - '&'

- A special selector invented by **SASS** that's used in nested selectors to refer to the **outer selector**

```
a {
    color: orange;

    &:hover {
        text-decoration: underline;
    }

    &:active {
        color: red;
    }
}
```

SASS - Placeholder Selectors - '%FOO'

- Special kind of selector known as a "**placeholder**"
- It starts with a **%** and it's **not included** in the CSS output
- Any complex selector that even contains a placeholder selector **isn't included in the CSS**

```
%pseudo {
    display: block;
    content: '';
}

.media:before {
    @extend %pseudo;
}
```

SASS - Placeholder Selectors - '%FOO'

```scss
%toolbelt {
    box-sizing: border-box;
    border-top: 1px rgba(#000, 0.12) solid;
    padding: 16px 0;
    width: 100%;

    &:hover {
        border: 2px rgba(#000, 0.5) solid;
    }
}
.action-buttons {
    @extend %toolbelt;
    color: #4285f4;
}
.reset-buttons {
    @extend %toolbelt;
    color: #cddc39;
}
```

```css
.action-buttons, .reset-buttons {
    box-sizing: border-box;
    border-top: 1px rgba(0, 0, 0, 0.12) solid;
    padding: 16px 0;
    width: 100%;
}
.action-buttons:hover,
.reset-buttons:hover {
    border: 2px rgba(0, 0, 0, 0.5) solid;
}
.action-buttons {
    color: #4285f4;
}
.reset-buttons {
    color: #cddc39;
}
```

SASS Variables

- Assign a value to a name that begins with **$**
- Refer to that **name** instead of the value itself

```
$colorBodyBackground: #EEE;

body {
    background-color: $colorBodyBackground;
}
```

- Only available within the **level** of nested selectors where they're defined

SASS Maps

- Maps in Sass hold pairs of **keys** and **values**
- Easy to look up a value by its corresponding key
- They're written (`<expression>: <expression>`, `<expression>: <expression>`)
  - The keys must be **unique**
  - The values may be **duplicated**
  - Must be written with **parentheses** around them
  - A map with no pairs is written **()**

SASS Maps

```scss
$icons: ("eye": "\f112", "start": "\f12e", "stop": "\f12f");

@each $name, $glyph in $icons {
  .icon-#{$name}:before {
    display: inline-block;
    font-family: "Icon Font";
    content: $glyph;
  }
}
```

SASS Comments

- SASS supports two types of comments
  - **Multiline comments** - preserved in CSS output /* */
  - **Single line comments** - not preserved in CSS output //

```
/* This will be compiled in the CSS file */

// This will not be compiled
```

SASS For Loop

- Counts **up** or **down** from one number to and evaluates a block for each number in between

```
@for $i from 1 through 3 {
    .item-#{$i} {
      width: 2em * $i;
    }
}
```

SASS For Loop

SCSS

```scss
$base-color: #036;

@for $i from 1 through 3 {
  ul:nth-child(3n + #{$i}) {
    background-color: lighten($base-color, $i * 5%);
  }
}
```

CSS

```css
ul:nth-child(3n + 1) {
  background-color: #004080;
}

ul:nth-child(3n + 2) {
  background-color: #004d99;
}

ul:nth-child(3n + 3) {
  background-color: #0059b3;
}
```

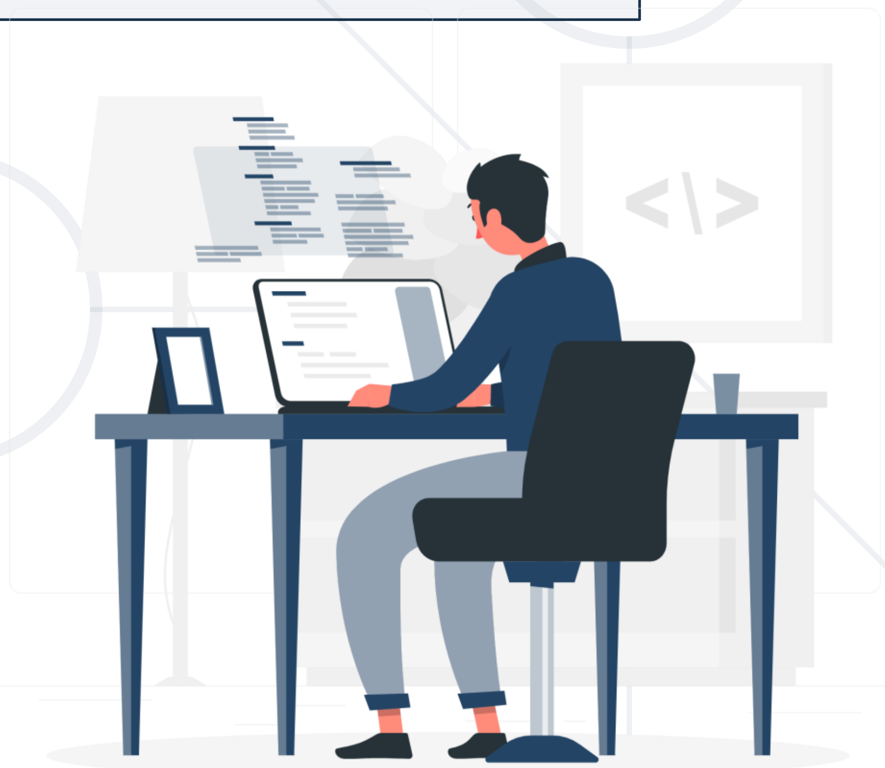
SASS Each Loop

- Emit styles or evaluate code for **each element** of a list or each pair in a map
  - Great for **repetitive styles** that only have a few variations between them

```
@each $animal in puma, sea-slug, egret, salamander {
    .#{$animal}-icon {
        background-image: url('/images/#{$animal}.png');
    }
}
```

SASS Each Loop

```
@each $header, $size in (h1: 2em, h2: 1.5em, h3: 1.2em) {
    #{$header} {
        font-size: $size;
    }
}
```



SASS Mixins

- Allow you to define styles that can be **re-used** throughout your stylesheet
  - It's easy to avoid using non-semantic classes and to **distribute collections of styles** in libraries

```
@mixin fa {
    font-family: 'FontAwesome';
    display: inline-block;
}

a.button:before {
    @include fa;
}
```

SASS - Interpolation - '#{ }'

- Just wrap an expression in #{}:

SCSS

```scss
@mixin corner-icon($name, $top-or-bottom, $left-or-right) {
    .icon-#{$name} {
      background-image: url("/icons/#{$name}.svg");
      position: absolute;
      #{$top-or-bottom}: 0;
      #{$left-or-right}: 0;
    }
}

@include corner-icon("mail", top, left);
```

CSS

```css
.icon-mail {
    background-image: url('/icons/mail.svg');
    position: absolute;
    top: 0;
    left: 0;
}
```

SASS Content Blocks

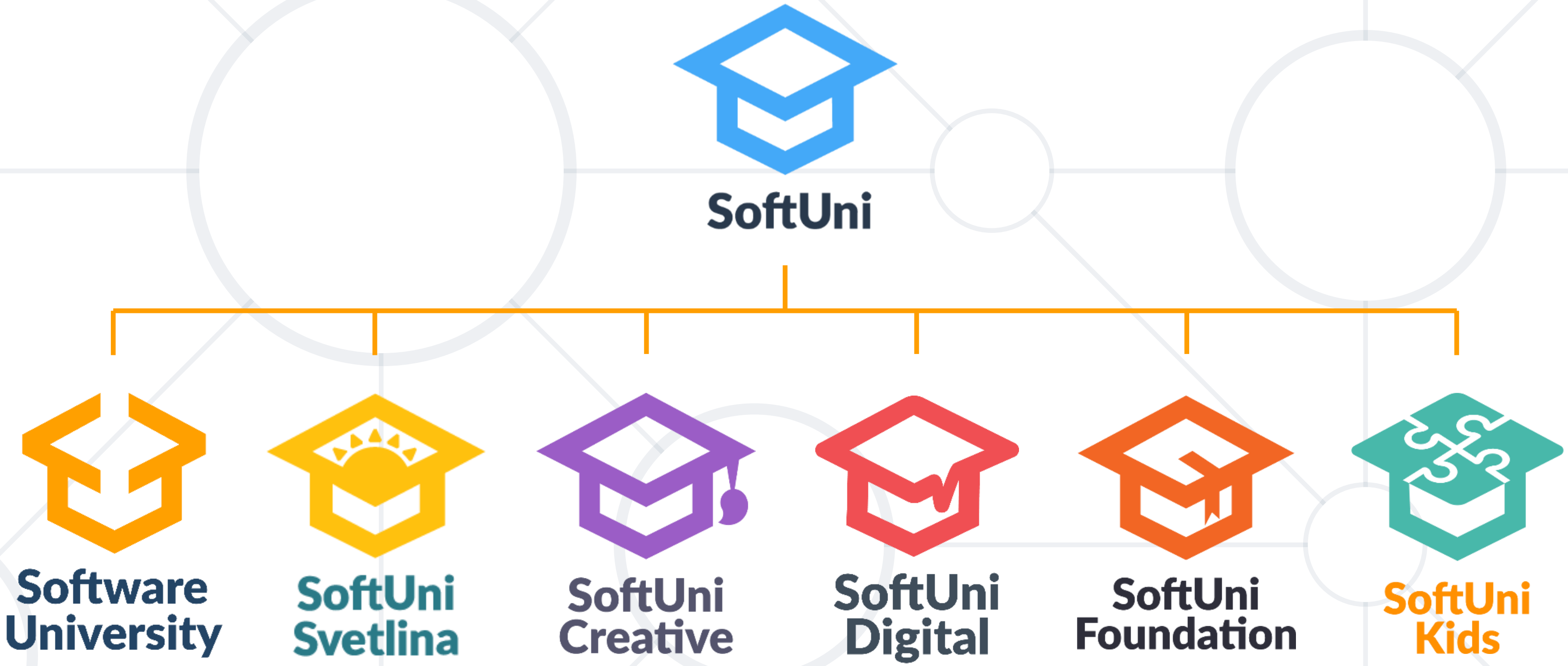
- It is possible to **pass** a block of styles to the mixin for placement within the styles **included** by the mixin
  - The styles will appear at the location of any **@content** directives found within the mixin

```
@mixin mq() {
    @media only screen and (min-width: 1044px) {
        @content;
    }
}
.site-header {
    @include mq {
        .site-title { paddin-top: 10rem; }
    }
}
```

Summary

- Nesting & Referencing Parent Selector
- Interpolation
- Placeholder Selectors
- Variables
- Maps
- Comments
- Loops
- Mixins and Content Blocks

Questions?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