



IS BETTER

BUT I DON'T USE IT

{ethode}
UNIVERSITY

LUNCH N'
LEARN

WHAT IS SASS & LESS?



```
.rounded-corners (@radius: 5px) {  
  -webkit-border-radius: @radius;  
  -moz-border-radius: @radius;  
  border-radius: @radius;  
}  
  
@base-size: 16px;  
  
#header {  
  .rounded-corners(2px);  
  h1 {  
    font-size: @base-size*1.5;  
    font-weight: bold;  
  }  
  p {  
    font-size: @base-size;  
    a {  
      text-decoration: none;  
      &:hover {  
        border-width: 1px;  
      }  
    }  
  }  
}
```



```
#header {  
  -webkit-border-radius: 2px;  
  -moz-border-radius: 2px;  
  border-radius: 2px;  
}  
  
#header h1 {  
  font-size: 24px;  
  font-weight: bold;  
}  
  
#header p {  
  font-size: 16px;  
}  
  
#header p a {  
  text-decoration: none;  
}  
  
#header p a:hover {  
  border-width: 1px;  
}
```

WHY LESS & SASS?



ABSTRACTION

...at an abstract level



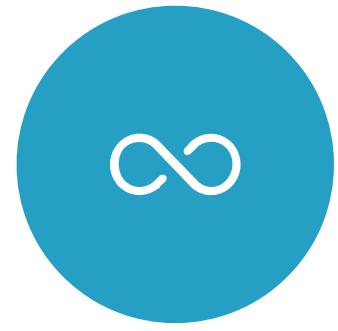
PRACTICALLY

The Reasons Are Endless



VARIABLES

```
@brand-color: #f26522  
.title{  
    color: @brand-color;  
}
```



FUNCTIONS

```
.rounded-corners (@radius: 5px) {  
    border-radius: @radius;  
}  
  
img{  
    .rounded-corners(2px);  
}
```



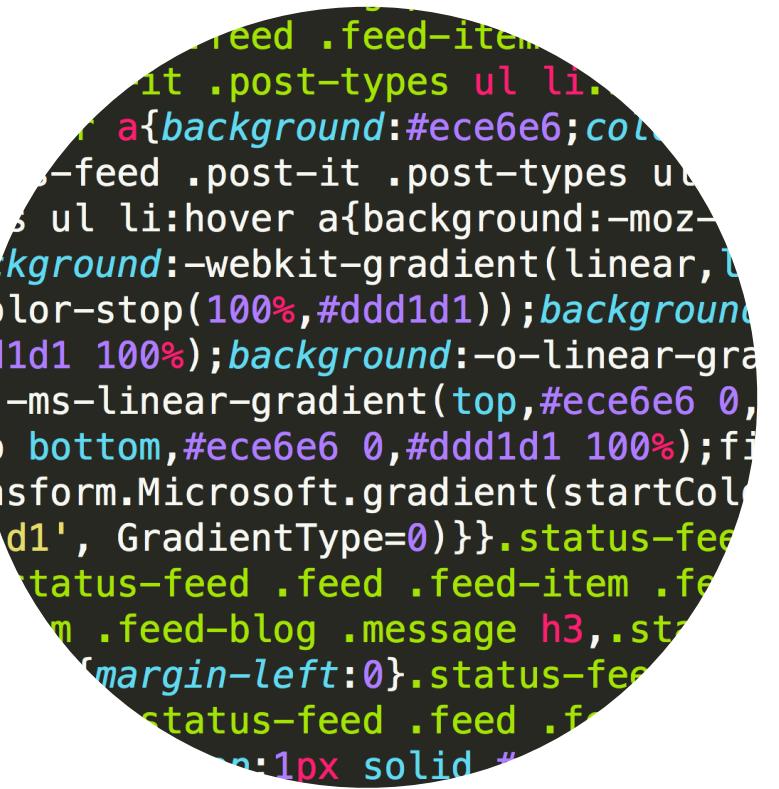
INCLUDES

```
@include 'theme/variables';  
@include 'styles/header';  
@include (reference) 'lib/bootstrap';
```



MIXINS

```
.body-text {  
    color: darken(@brand-color, 10%);  
}
```



COMPILATION

MINIFIED, OPTIMIZED CSS, EVERY TIME

Using a CSS Preprocessor will ensure that your code is minified and compiled into the smallest possible format every time, while still ensuring your ability to debug and update your code.

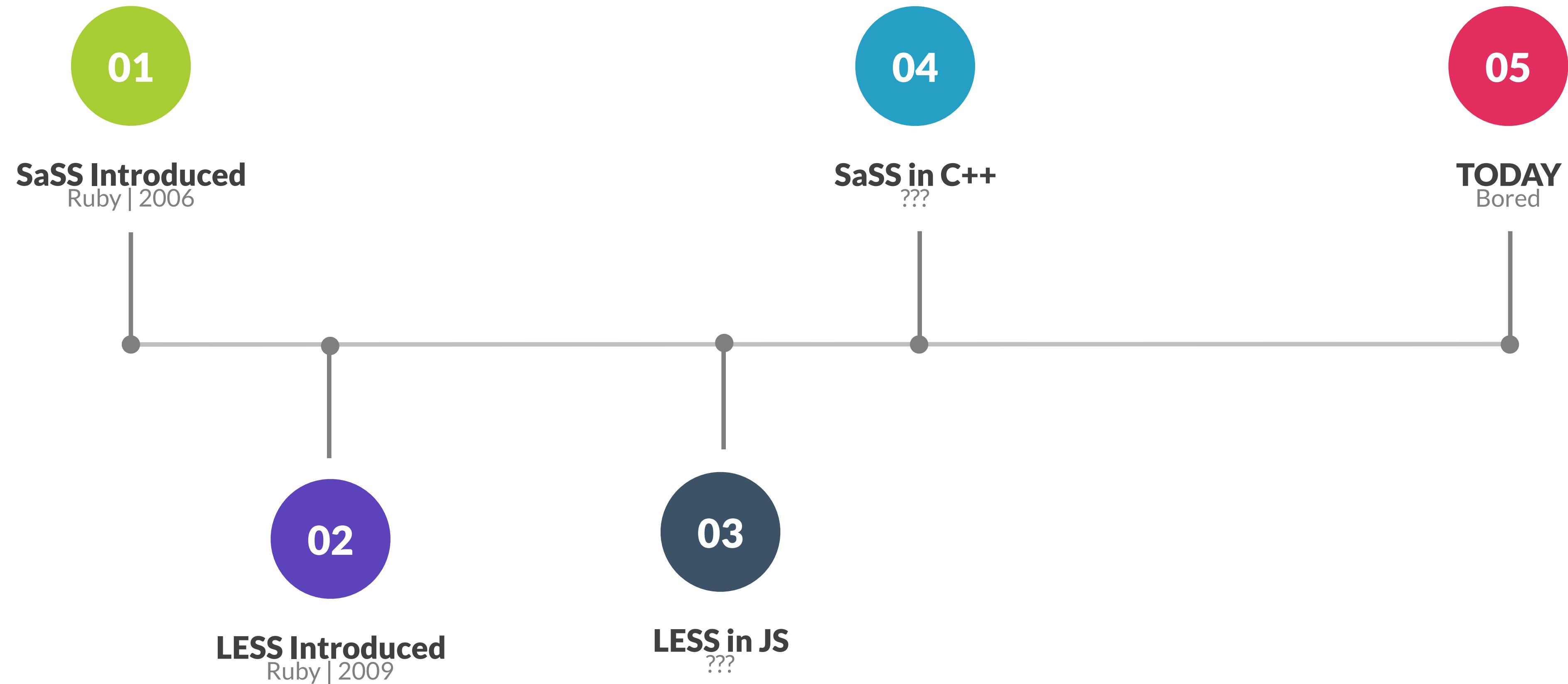


HISTORY



HISTORY

This is literally all I could find



MOVING ON...

THE DIFFERENCE?



NESTING

SaSS Attributes

```
.img{  
    width:75px;  
    border{  
        style: solid;  
        width:1px;  
        color:#777;  
    }  
}
```

EXTENDING

SaSS Classes

```
.circle {  
    border: 1px solid #ccc;  
    border-radius: 50px;  
    overflow: hidden;  
}  
.avatar {  
    @extend .circle;  
}
```

GLOBBING

SaSS Files

```
@include 'theme/*';  
@include 'sections/*';
```

GETTING REAL



YOUR FRAMEWORK

Learn it, know it, become it.



Frameworks are typically designed with low level integration with certain libraries like LESS, or SaSS. Both are very similar, and both are fairly easy to learn.



{less}



DEMO

IN THE WILD



The screenshot shows a software development environment with a dark-themed interface. On the left, there's a project navigation sidebar with sections like 'Project', 'Persistence', 'Favorites', and 'Web'. Below these are lists of files: 'forums.css', 'forums.css.map', 'forums.less', 'global.css', 'global.css.map', 'global.less', 'groups.css', 'header.css.map', 'header.less', 'home.css', 'home.css.map', 'home.less', 'Jcrop.gif', 'jquery.jcrop.css', 'legacy-style.css', 'login.css.map', 'login.less', 'media.css', 'mobile.css.map', 'mobile.less', 'modals.css' (which is selected and highlighted in blue), 'moderation.css', 'moderation.css.map', 'moderation.less', 'music.css', 'organization.css', 'photos.css', 'profile.css', 'register.css', 'report.css', 'search.css', 'search.css.map', 'search.less', and 'status-feed.css.map'. The main workspace on the right displays the contents of the 'modals.css' file, which contains CSS rules for native modal containers. The code includes styling for the header (title and actions), content (simple-modal-content), and chosen containers.

```
.native-modal .native-modal-container .native-modal-container-header .title{  
}  
.native-modal .native-modal-container .native-modal-container-header .actions{  
    text-align: center;  
  
    color: #fff;  
}  
.native-modal .native-modal-container .native-modal-container-header .actions a{  
    color:#fff;  
    font-size:16px;  
    font-family:"Roboto";  
    text-decoration:none;  
    font-weight:100;  
    line-height:35px;  
}  
.native-modal .native-modal-container .native-modal-container-header .actions a i{  
    line-height:30px;  
    font-size:15px;  
    padding-top:10px;  
}  
.native-modal .native-modal-container .native-modal-content{  
}  
.native-modal .native-modal-container .native-modal-content .simple-modal-content{  
    padding:25px 25px 40px;;  
    color:#333;  
}  
.native-modal .native-modal-container .native-modal-content .simple-modal-content h1{  
    font-weight:bold;  
    text-align:center;  
    font-size:28px;  
    color:#555;  
}  
.native-modal .native-modal-container .native-modal-content .simple-modal-content .chosen-container{  
    width:100% !important;  
}
```

BE ORGANIZED

use your framework!





DEVELOPING

IN THE WILD



The screenshot shows an IDE (IntelliJ IDEA) interface with a LESS file open for editing. The file is located at `mypraize.com/src/main/webapp/static/css/home/variables.less`. The code in the file defines variables, colors, and global styles for a web application.

```
// Yeti 3.3.4
// Variables
// -----
@import (reference) "../../../../static/bower/bootstrap/less/bootstrap";
@svg-url: "/static/images/home/svg/css/sprite.css-d6977428.svg";

.svg-common() {
    background: url(@svg-url) no-repeat;
}

//== Colors
//
//## Gray and brand colors for use across Bootstrap.

@gray-base: #000;
@gray-darker: lighten(@gray-base, 13.5%); // #222
@gray-dark: lighten(@gray-base, 20%); // #333
@gray: #6f6f6f; // #555
@gray-light: lighten(@gray-base, 60%); // #999
@gray-lighter: lighten(@gray-base, 93.5%); // #eee

@brand-primary: #008cba;
@brand-success: #43ac6a;
@brand-info: #5bc0de;
@brand-warning: #E99002;
@brand-danger: #ac3b39;
@brand-fb: #3b5998;

//== Scaffolding
//
//## Settings for some of the most global styles.

/** Background color for `<body>` .
@body-bg: #fff;
/** Global text color on `<body>` .
@text-color: @gray-darker;

/** Global textual link color.
```

The IDE's left sidebar displays the project structure, showing the file is located under the `home` directory. The bottom navigation bar includes links for Debug, TODO, Java Enterprise, Spring, Version Control, Application Servers, Terminal, Event Log, and a message indicating compilation was successful.

LEARN ONE



{ethode}
UNIVERSITY

LUNCH N'
LEARN