



Let's Get Sassy

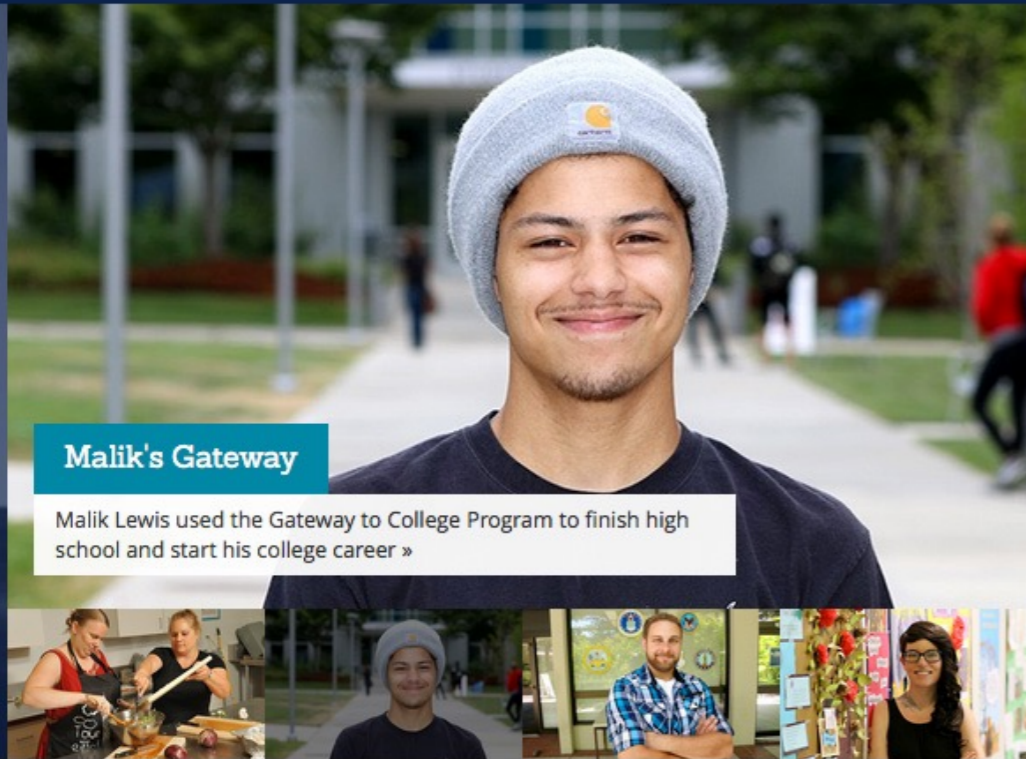
RESPONSIVE DESIGN WITH FOUNDATION AND SASS



Ali Gray

WEB DESIGNER, PORTLAND COMMUNITY COLLEGE

@IAMALIGRAY



Malik's Gateway

Malik Lewis used the Gateway to College Program to finish high school and start his college career »

Earn Your Degree or Certificate

to kick-start your career or four-year degree - [apply now!](#)

Get Job Ready

in a year or less.

Enrich Your Life

through non-credit Community Education classes.

Develop Your Business or Career

at the CLIMB Center for Advancement.

Prepare for College

with high school completion, GED, and English skill courses.

Make Opportunity Happen

by supporting the PCC Foundation.



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Make Opportunity Happen

by supporting the PCC Foundation.

College News 

- > First Middle College graduates
Jul 31
- > Cultural luau attracts hundreds
Jul 30
- > Safety first at Cascade Campus
Jul 29

[more news...](#)

PCC in the News

- > Art sales help PCC programs
Aug 10
- > PCC's share of funds increases
Jul 27


[more "in the news"...](#)

Announcements

- > Bond Program
Building our future

Spotlights

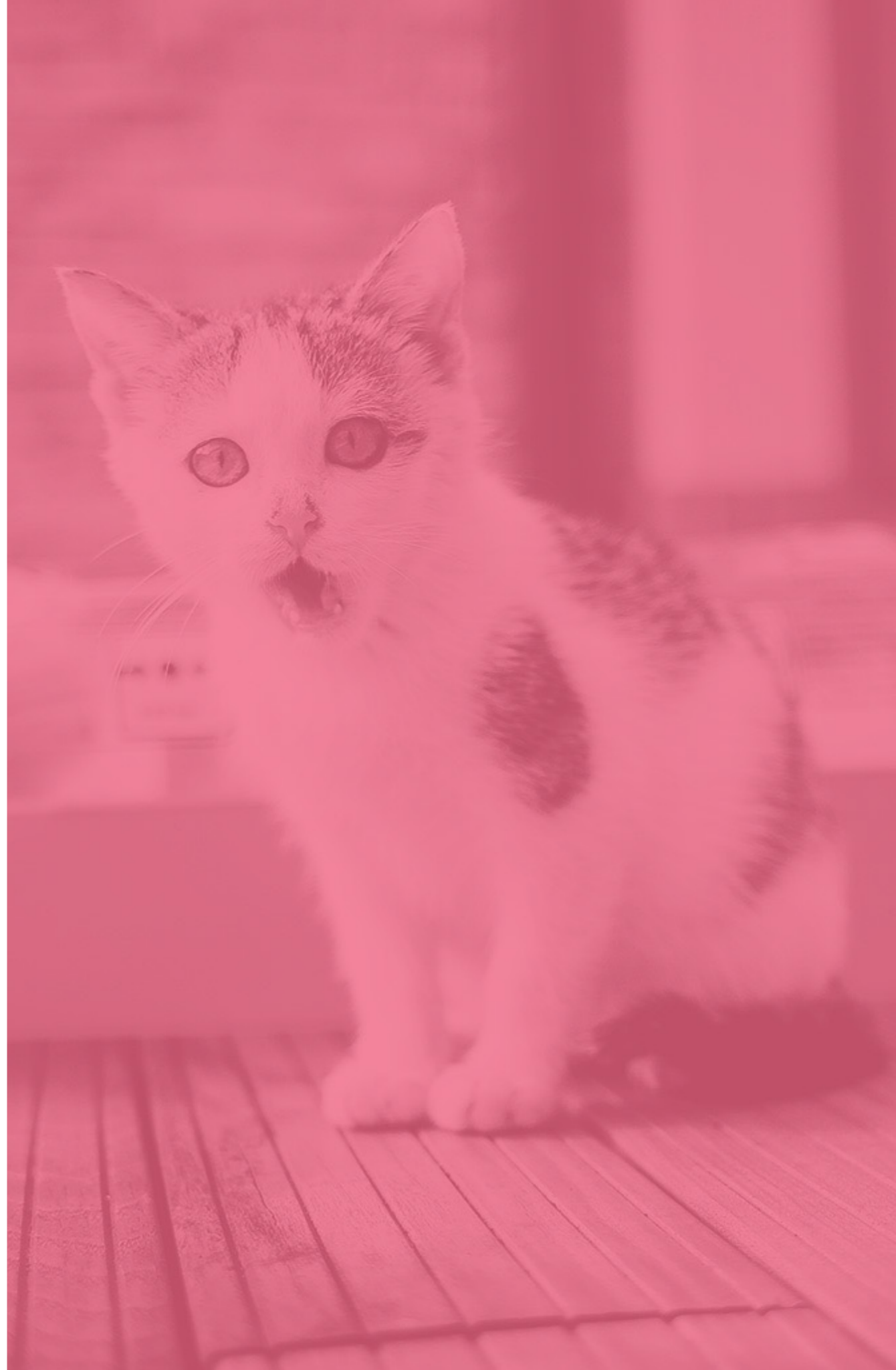


College News 

- > VP of Finance finalists declared
Aug 20
- > In a league of her own
Aug 18
- > Sonnleitner joins PCC Board
Aug 14

BUT

HOW?





RESPONSIVE WEBSITES

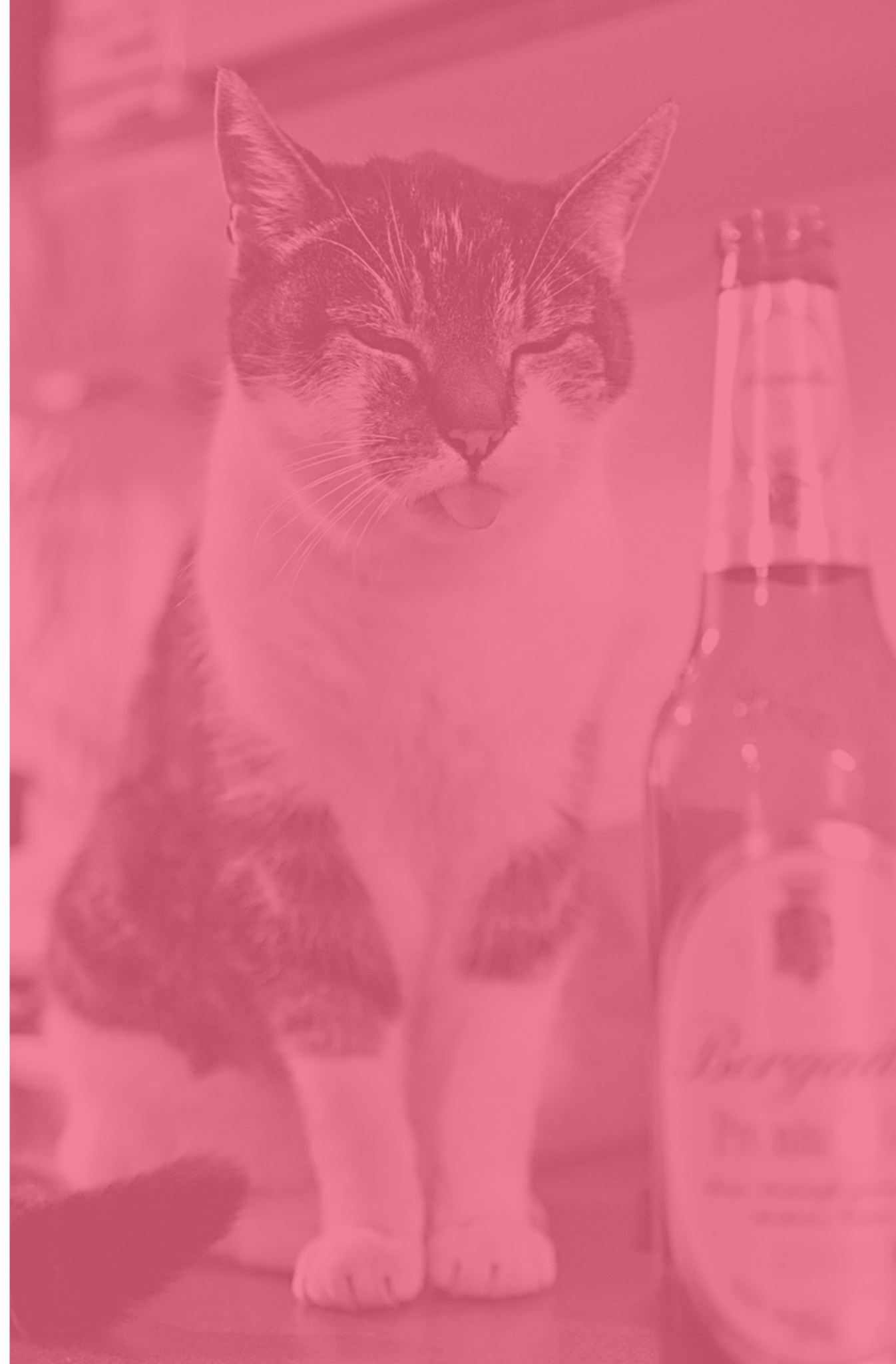
THE

FUN

WAY

BUILDING A
RESPONSIVE FRAMEWORK
FROM SCRATCH
IS

YUCK





PLAIN CSS

IS A

PAIN IN THE ASS

SO LET'S USE

Sass

A black and white cat is peering out from a cardboard box. The image has a pink overlay and white text. The text reads:

Foundation:
Responsive out of the box

FOUNDATION.ZURB.COM

ZURB Foundation

Learn

Develop

Support

Business

Docs

Getting Started

Foundation

The most advanced responsive front-end framework in the world.

[Download Foundation 5](#)

★ 20.5k stargazers [@ZURBfoundation](#)



WHY USE *Foundation?*



- ❃ Same frame, any website with CSS/Sass
- ❃ Effortless responsiveness
- ❃ Plugins to copy/paste
- ❃ Modular
- ❃ Accessible
- ❃ Doesn't require much testing if done correctly

FOUNDATION FOR KITTENS



- ❧ Responsive front-end framework (HTML, CSS, JS)
- ❧ Developed by ZURB, released in 2011
- ❧ Open-source, built on Sass
- ❧ Mobile-first philosophy
- ❧ Great for prototyping
- ❧ (Similar: Bootstrap, Skeleton...)

FOUNDATION FOR KITTENS

Download Foundation 5

[GETTING STARTED](#)[DOWNLOAD](#)[HTML TEMPLATES](#)[BUILDING BLOCKS](#)[RESOURCES](#)[CONTRIBUTE](#)

Complete

Grab this version of Foundation if you want everything in the framework in simple, vanilla CSS and JS.

[Download Everything](#)

Essential

A simple, lighter version that includes typography, the grid, buttons, Reveal and Interchange.*

*59kb (okay, plus dependencies).

[Download Essentials](#)

Custom

Include or remove certain elements and define the size of columns, colors, font size and more.

[Custom Download](#)

Sass

Foundation is built using SCSS, and you can work with it in the same way. Check out the instructions on the Install documentation page.

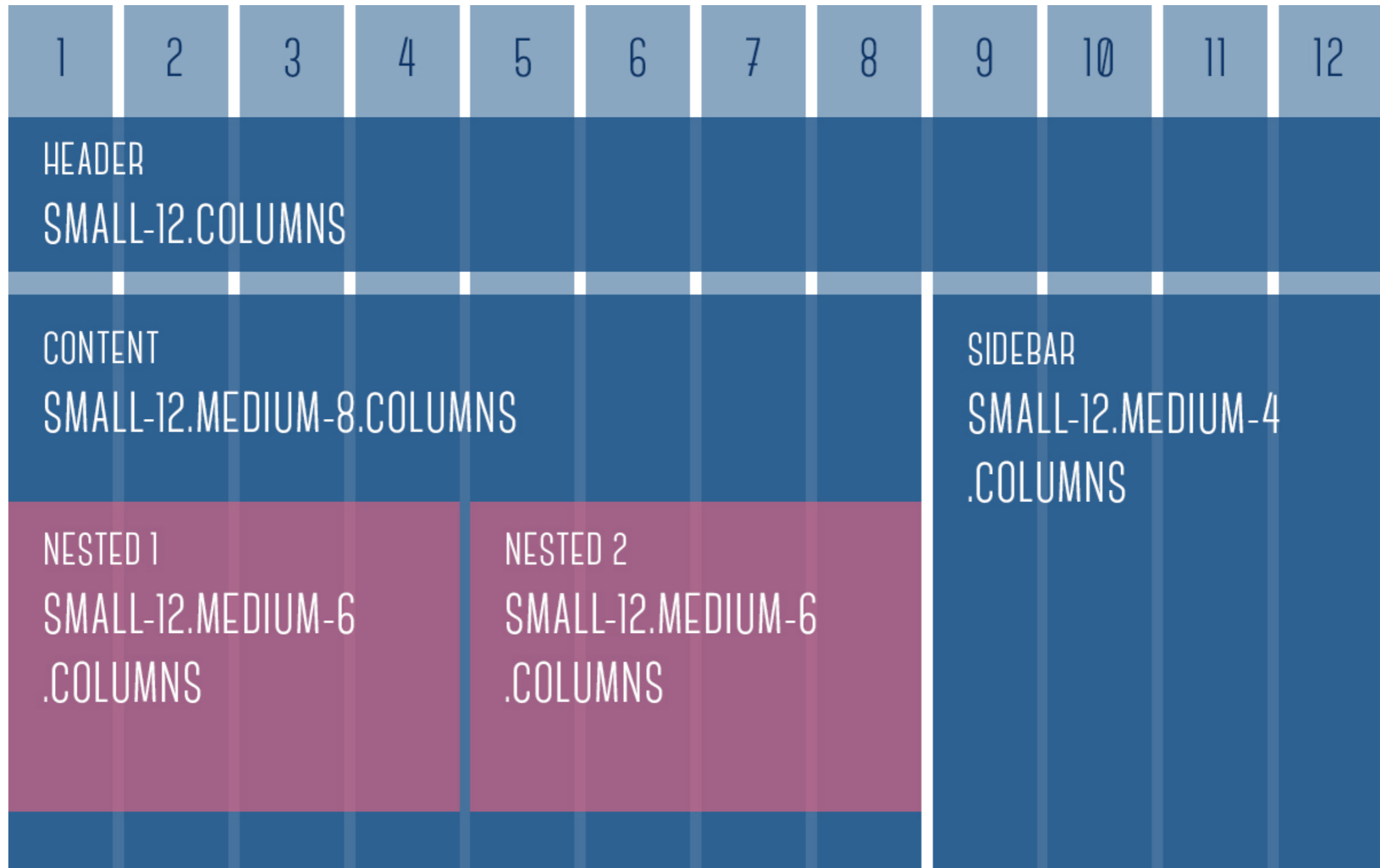
[Install via SCSS](#)

FOUNDATION FOR CATS — *The Grid*

```
1 <div class="row">
2   <div class="small-9 medium-2 large-3 columns">...</div>
3   <div class="small-8 medium-6 large-6 columns">...</div>
4   <div class="small-4 medium-4 large-3 columns">...</div>
5 </div>
```



FOUNDATION FOR CATS — *The Grid*



FOUNDATION FOR CATS — The Grid

```
1  <!-- HEADER -->
2  <div class="row">
3    <div class="small-12 columns">Header</div>
4  </div> <!-- header .row -->
5
6  <!-- CONTENT & SIDEBAR -->
7  <div class="row">
8
9    <!-- CONTENT -->
10   <div class="small-12 medium-8 columns">
11     Content
12
13     <!-- 2 NESTED CALLOUTS -->
14     <div class="row">
15       <div class="small-12 medium-6 columns">Nested 1</div>
16       <div class="small-12 medium-6 columns">Nested 2</div>
17     </div> <!-- nested .row -->
18
19   </div> <!-- content .columns -->
20
21   <!-- SIDEBAR -->
22   <div class="small-12 medium-4 columns">Sidebar</div>
23
24 </div> <!-- sidebar content .row -->
```

FOUNDATION FOR TOMCATS — *The Grid*

🐾 Offsets (move incomplete rows to the right)



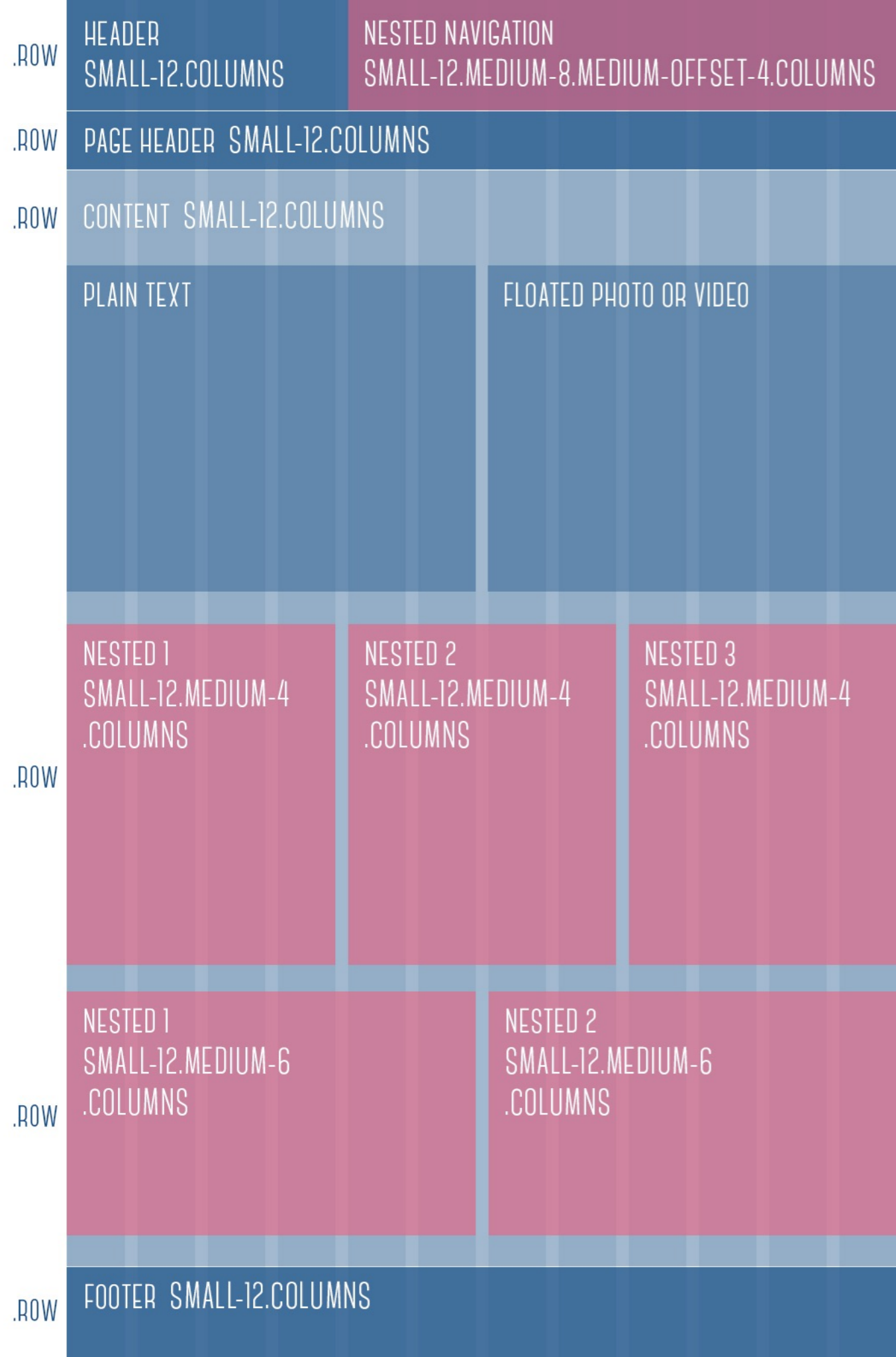
🐾 Centered (center incomplete rows)



🐾 Source Ordering (rendered in different order than in code)



🐾 class="row collapse" removes the padding between columns



PCC / Admissions /

Think PCC First

[apply now](#) →

Going to college is the investment of a lifetime...and choosing PCC could be the smartest choice you'll ever make.

If you're serious about finding your future, Portland Community College is ready to help you succeed. One of the top 20 community colleges in the country, PCC is a community unmatched in its [breadth of opportunities](#). Here, you can follow your passion in endless ways, alongside a top-notch faculty totally focused on your success, and within one of the most diverse settings you'll find in the entire state. And, you can do it all [without going into debt for the rest of your life](#). Whether you are beginning the first two years of your bachelor's or starting your career, PCC is the place to start. If you think you are ready to blaze a path to your future... think PCC first.



PCC is ready to help you...



Begin your university degree

Each year, 5,000 students transfer PCC credits to four-year colleges.

- [Learn about university transfer](#)



Start your career

With classes in more than 80 subjects, earn the degree or certificate you need.

- [Short-term certificates](#)
- [Learn about academic programs](#)



Explore your options

Not sure exactly what path you want to take? PCC can help.

- [Career Resource Center](#)
- [Get on our mailing list](#)

Ready to get started?

- [Apply now](#)
Complete the admissions form to get started.

- [New student checklist](#)
All the steps to complete before your first day of class.

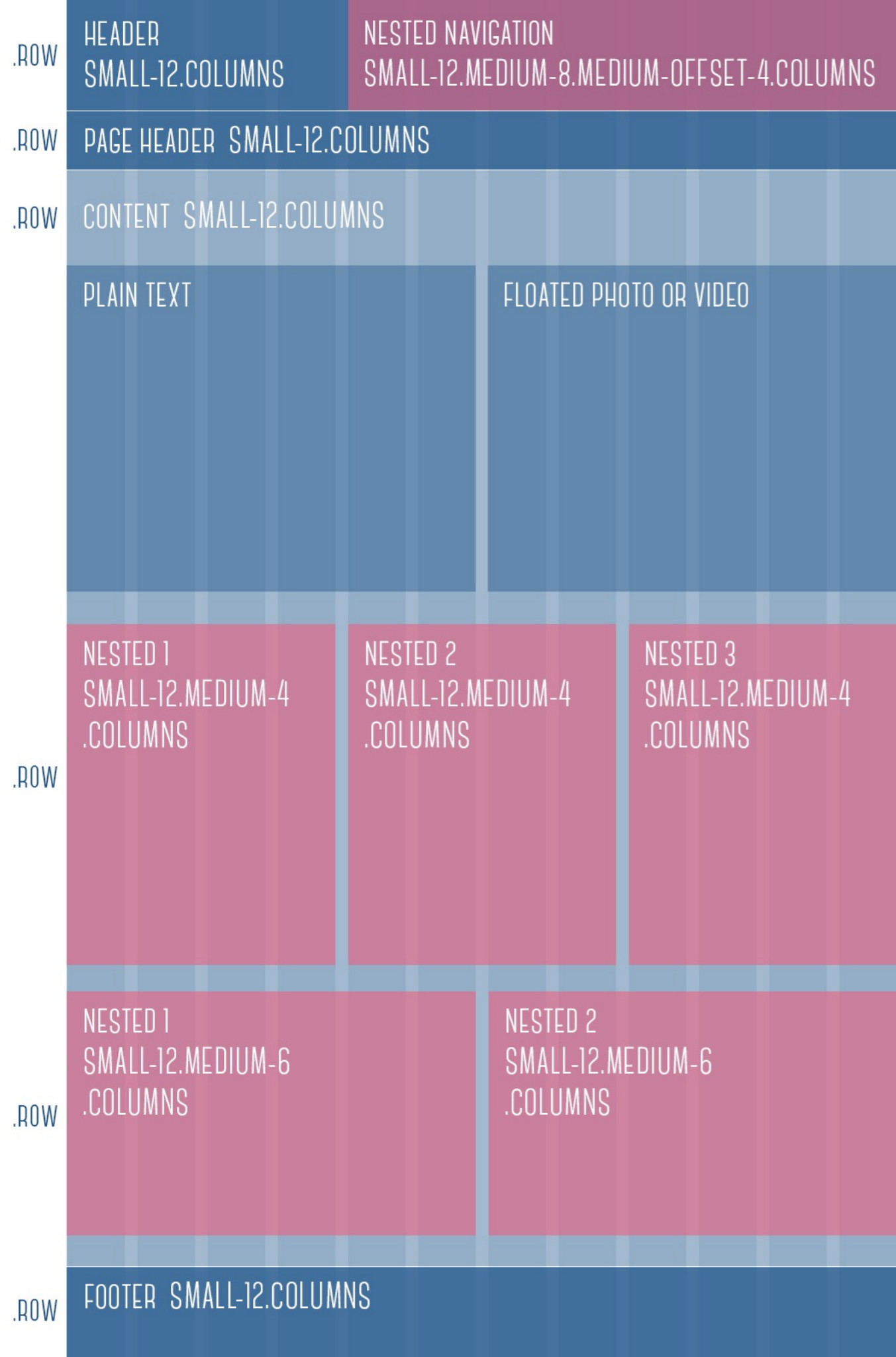
Come see us

Visit a [PCC campus](#) for a [Preview Day for High School Students](#) or a [New Student Welcome Day](#).

Need more help getting started? Contact us! We can guide you through the process of becoming a PCC student.

Cascade: [Roberto](#)
Sylvania: [Teresa](#)

Rock Creek: [Heidi](#)
Southeast: [Luis](#)



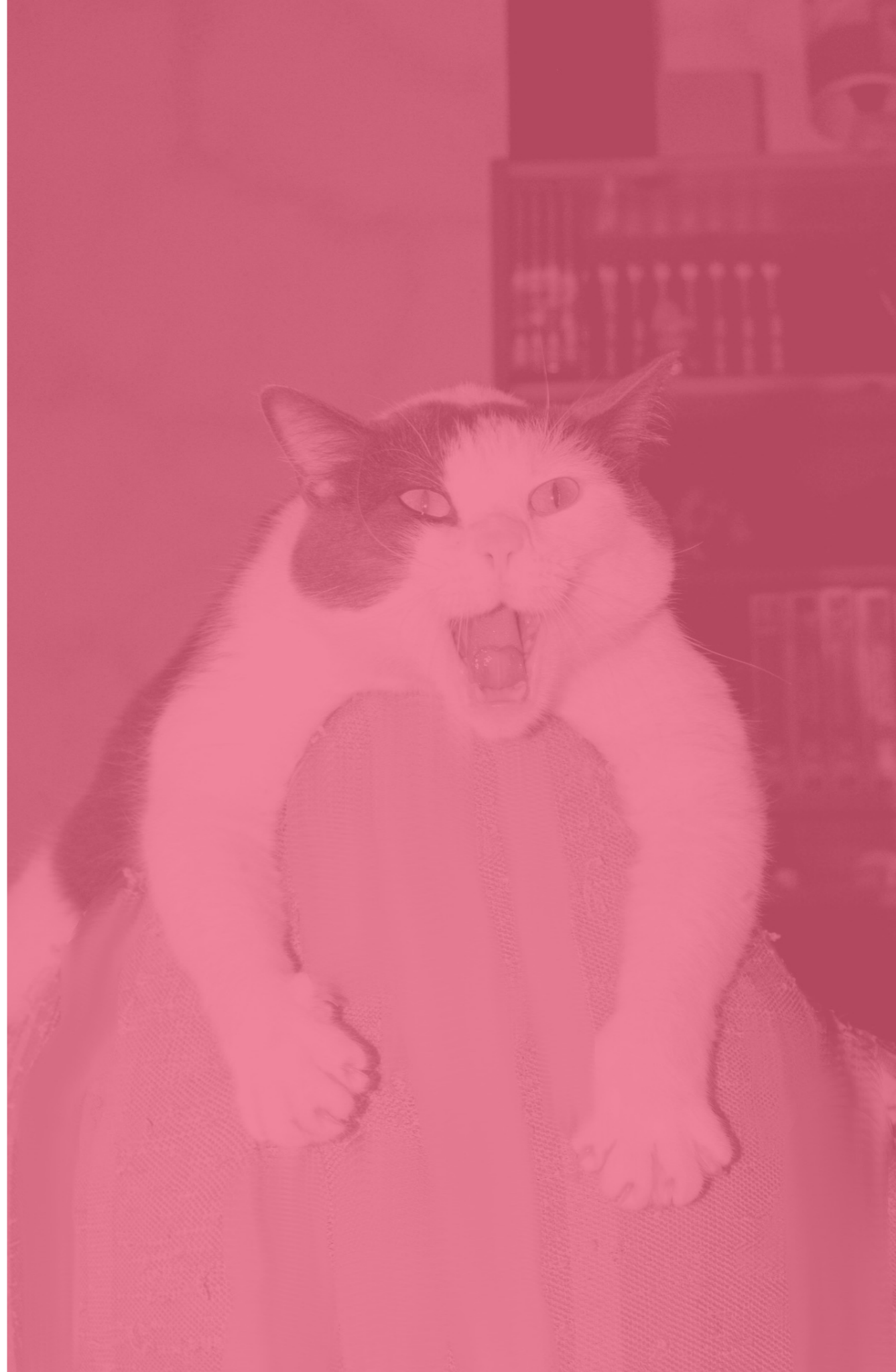
```

1  <!-- HEADER -->
2  <div class="row">
3    <div id="sitewide-header" class="small-12 columns">
4      <h1>Logo</h1>
5      <div class="small-12 medium-8 medium-offset-4 columns">(nav)</div>
6    </div> <!-- #sitewide-header -->
7  </div> <!-- .row -->
8
9  <!-- PAGE HEADER -->
10 <div class="row">
11   <div id="page-header" class="small-12 columns">
12     <h2>Page Header</h2>
13   </div> <!-- #page-header -->
14 </div> <!-- .row -->
15
16 <!-- CONTENT -->
17 <div class="row">
18   <div id="content" class="small-12 columns">
19
20     
21     <p>Lorem ipsum dolor sit amet.</p>
22
23     <!-- 3 NESTED CALLOUTS -->
24     <div class="row">
25       <div class="small-12 medium-4 columns"><h3>Nested 1</h3></div>
26       <div class="small-12 medium-4 columns"><h3>Nested 2</h3></div>
27       <div class="small-12 medium-4 columns"><h3>Nested 3</h3></div>
28     </div> <!-- .row -->
29
30     <!-- 2 NESTED CALLOUTS -->
31     <div class="row">
32       <div class="small-12 medium-6 columns"><h3>Nested 1</h3></div>
33       <div class="small-12 medium-6 columns"><h3>Nested 2</h3></div>
34     </div> <!-- .row -->
35
36   </div> <!-- #content -->
37 </div> <!-- .row -->
38
39 <!-- FOOTER -->
40 <div class="row">
41   <div class="small-12 columns">(footer)</div>
42 </div> <!-- .row -->

```

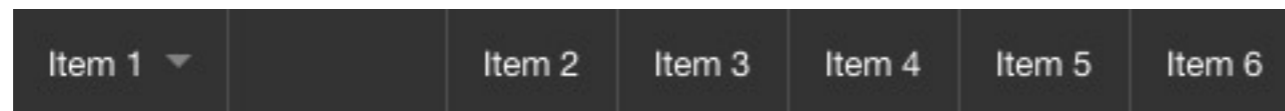
CONFUSED? TEMPLATES!

[FOUNDATION.ZURB.COM/TEMPLATES.HTML](https://www.foundation.zurb.com/templates.html)



FOUNDATION FOR CATS — *Navigation*

🐾 Top-bar



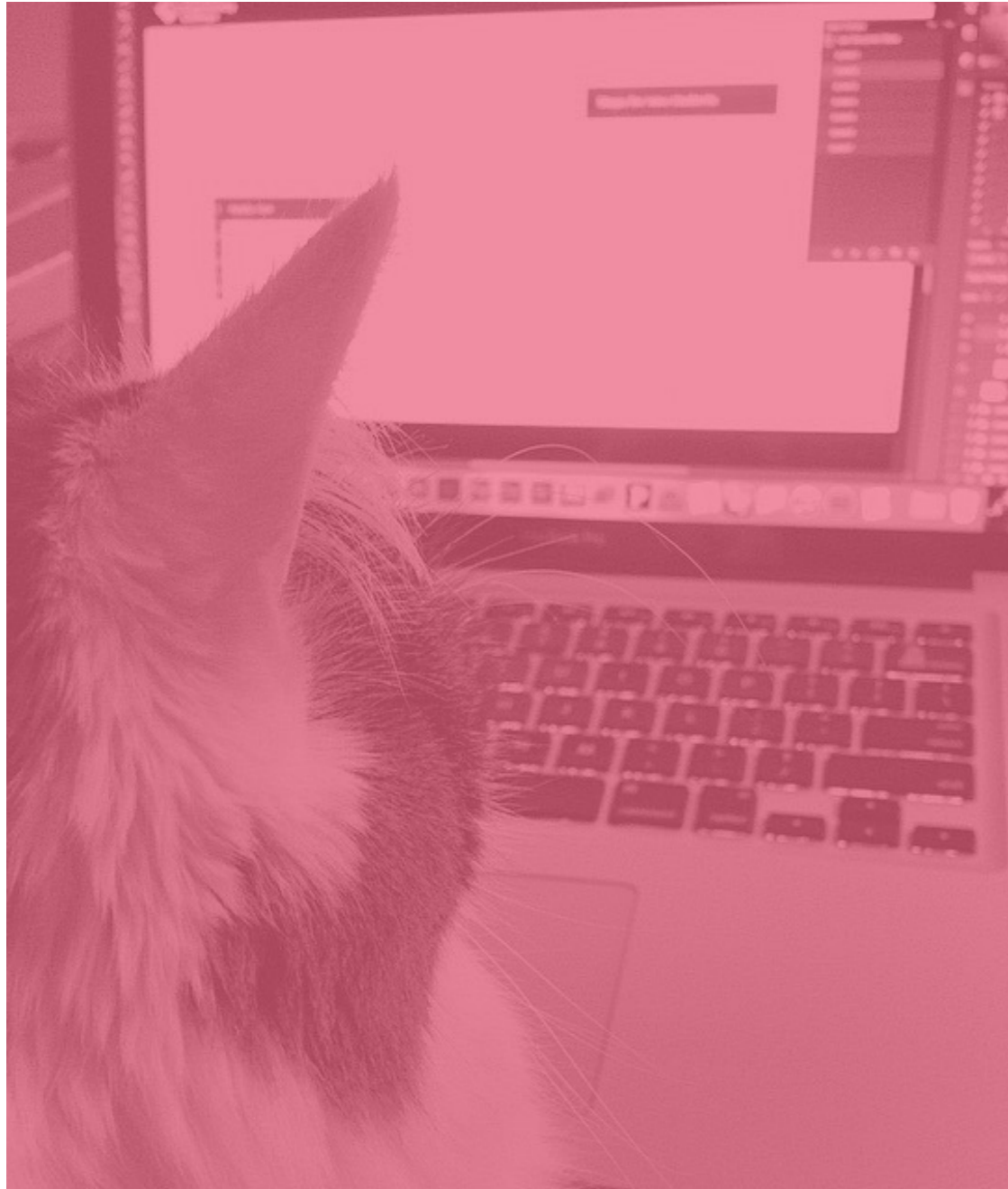
- 🐾 Tons of features like buttons, dropdowns, search bars, stick-to-top
- 🐾 ...and Foundation offers 7 other types of responsive navigation menus

FOUNDATION FOR CATS — *Visibility*



- Show/hide by screen size
- Orientation detection
- Touch detection
- Show/hide for screen readers
- Skip links, `.show-for-focus`
- Show/hide for print

FOUNDATION FOR CATS — *Media*



- 🐾 Block grid
- 🐾 Slider
- 🐾 Lightbox, modal
- 🐾 Flex video

A photograph of a fluffy, light-colored cat sitting on a laptop. The cat's mouth is wide open, showing its teeth and tongue. The laptop screen displays a website with the logo 'CHIP' and the text 'CHIP - Mein digitales Ich'. The entire image is overlaid with a semi-transparent red filter. The text 'Sass = Syntactically Awesome Style Sheets' is written in a white, cursive font across the center of the image.

Sass = Syntactically
Awesome Style Sheets

SASS-LANG.COM

[INSTALL](#)[LEARN SASS](#)[BLOG](#)[DOCUMENTATION](#)[GET INVOLVED](#)[LIBSASS](#)

CSS with superpowers



Sass is the most mature, stable, and powerful professional grade CSS extension language in the world.

[Current Release: Selective Steve \(3.4.15\)](#)[Release Notes](#)[Fork on Github](#)

CSS COMPATIBLE

Sass is completely compatible with all versions of CSS. We take this compatibility seriously, so that you can seamlessly use any available CSS libraries.

FEATURE RICH

Sass boasts more features and abilities than any other CSS extension language out there. The Sass Core Team has worked endlessly to not only keep up, but stay ahead.

MATURE

Sass has been actively supported for over 8 years by its loving Core Team.

INDUSTRY APPROVED

Over and over again, the industry is choosing Sass as the premier CSS extension language.

LARGE COMMUNITY

Sass is actively supported and developed by a consortium of several tech companies and hundreds of developers.

FRAMEWORKS

There are endless number of frameworks built with Sass. [Compass](#), [Bourbon](#), and [Susy](#) just to name a few.



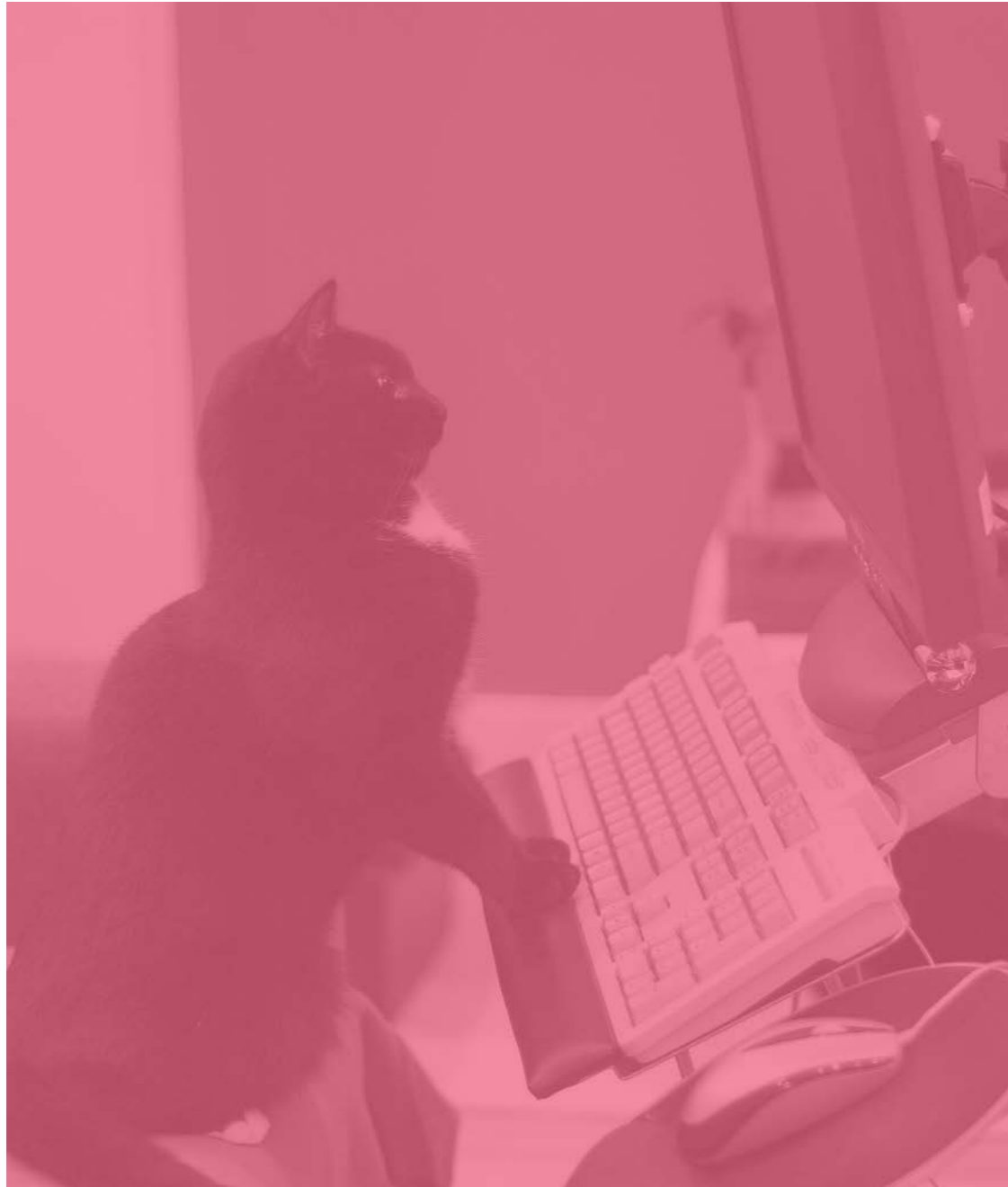
WHY USE
Sass?

SASS FOR KITTENS



- ❃ Designed by Hampton Catlin in 2006
- ❃ Coded in Ruby, open-source
- ❃ Extends CSS to provide features available in traditional programming languages
- ❃ .sass vs .scss
- ❃ Scout app (no command line)
- ❃ SassMeister
- ❃ (Similar: CoffeeScript, LESS)

SASS FOR KITTENS



🐾 How Sass works

.SCSS / .SASS



SASS COMPILER



.CSS

SASS FOR CATS — *Partials*

Folder structure

- css
 - base
 - `_colors.scss`
 - `_global.scss`
 - `_mixins.scss`
 - `_typography.scss`
 - components
 - `_callouts.scss`
 - `class-schedule.scss`
 - `_forms.scss`
 - `_tabs.scss`
 - layout
 - `_footer.scss`
 - `_header.scss`
 - `_media-queries.scss`
 - `_sidebar.scss`

style.scss

```
@import "base/colors", "base/global",  
"base/mixins", "base/typography";
```

```
@import "components/callouts",  
"components/forms", "components/tabs";
```

```
@import "layout/footer", "layout/header",  
"layout/media-queries", "layout/sidebar";
```

SASS FOR CATS — Nesting

Sass

```
1  .header {
2    background:#e1e1e1;
3    width:100%;
4    p {
5      font-size:12px;
6      a {
7        color:#0088a4;
8        text-decoration:none;
9        &:hover {
10         color:#333;
11         text-decoration:underline;
12       }
13     }
14   }
15   ul li {
16     padding:0 10px;
17     &.emphasis {
18       color:#9e0c0f;
19     }
20   }
21 }
```

Compiled CSS

```
1  .header {
2    background:#e1e1e1;
3    width:100%;
4  }
5  .header p {
6    font-size:12px;
7  }
8  .header p a {
9    color:#0088a4;
10   text-decoration:none;
11 }
12 .header p a:hover {
13   color:#333;
14   text-decoration:underline;
15 }
16 .header ul li {
17   padding:0 10px;
18 }
19 .header ul li.emphasis {
20   color:#9e0c0f;
21 }
```

SASS FOR CATS — Variables

Sass

```
1 $background:#e1e1e1;
2 $link:#0088a4;
3 $link-hover:#333;
4
5 .header {
6   background:$background;
7   width:100%;
8   p {
9     font-size:12px;
10    a {
11      color:$link;
12      text-decoration:none;
13      &:hover {
14        color:$link-hover;
15        text-decoration:underline;
16      }
17    }
18  }
```

Compiled CSS

```
1 .header {
2   background:#e1e1e1;
3   width:100%;
4 }
5 .header p {
6   font-size:12px;
7 }
8 .header p a {
9   color:#0088a4;
10  text-decoration:none;
11 }
12 .header p a:hover {
13   color:#333;
14   text-decoration:underline;
15 }
```

SASS FOR CATS — *Mixins*

Sass

```
1 @mixin border-radius($radius) {
2     -webkit-border-radius: $radius;
3     -moz-border-radius: $radius;
4     -ms-border-radius: $radius;
5     border-radius: $radius;
6 }
7
8 .button {
9     @include border-radius(10px);
10 }
11
12 .callout {
13     @include border-radius(5px);
14 }
```

Compiled CSS

```
1 .button {
2     -webkit-border-radius: 10px;
3     -moz-border-radius: 10px;
4     -ms-border-radius: 10px;
5     border-radius: 10px;
6 }
7
8 .callout {
9     -webkit-border-radius: 5px;
10    -moz-border-radius: 5px;
11    -ms-border-radius: 5px;
12    border-radius: 5px;
13 }
```

SASS FOR CATS — Mixins

Sass

```
1 @mixin button($background, $text, $width) {
2   background:$background;
3   // Sass can lighten and darken colors
4   border-bottom:2px solid darken($background, 10%);
5   color:$text;
6   padding:10px;
7   width:$width;
8 }
9
10 .submit-btn {
11   @include button($blue, $gray, 50%);
12 }
13
14 .callout-btn {
15   padding:0; // won't override mixin
16   @include button(#123456, #light-gray, 100%);
17   padding:0; // will override mixin
18 }
```

Compiled CSS

```
1 .submit-btn {
2   background:#0088a1;
3   border-bottom:2px solid #0288a1;
4   color:#333;
5   padding:10px;
6   width:50%;
7 }
8
9 .callout-btn {
10  background:#123456;
11  border-bottom:2px solid #234567;
12  color:#d1d1d1;
13  padding:0;
14  width:100%;
15 }
```


SASS FOR CATS — Mixins

Sass

```
1 @mixin transition($args...) {
2   -webkit-transition: $args;
3   -moz-transition: $args;
4   -ms-transition: $args;
5   -o-transition: $args;
6   transition: $args;
7 }
8
9 .box {
10  width:10%;
11  @include transition(width 0.3s ease);
12
13  &:hover {
14    width:12%;
15    @include transition(width 2s linear 1s);
16  }
17 }
18
19 .color-changer {
20  background-color: #000;
21  @include transition(background-color 0.5s ease);
22
23  &:hover {
24    background-color: #333;
25  }
26 }
```

Compiled CSS

```
1 .box {
2   width:10%;
3   -webkit-transition: width 0.3s ease;
4   -moz-transition: width 0.3s ease;
5   -ms-transition: width 0.3s ease;
6   -o-transition: width 0.3s ease;
7   transition: width 0.3s ease;
8 }
9
10 .box:hover {
11  width:12%;
12  -webkit-transition: width 2s linear 1s;
13  -moz-transition: width 2s linear 1s;
14  -ms-transition: width 2s linear 1s;
15  -o-transition: width 2s linear 1s;
16  transition: width 2s linear 1s;
17 }
18
19 .color-changer {
20  background-color: #000;
21  -webkit-transition: background-color 0.5s ease;
22  -moz-transition: background-color 0.5s ease;
23  -ms-transition: background-color 0.5s ease;
24  -o-transition: background-color 0.5s ease;
25  transition: background-color 0.5s ease;
26 }
27
28 .color-changer:hover {
29  background-color: #333;
30 }
```

SASS FOR TOMCATS — *Advanced*

Sass

```
1 article {
2   float: left;
3   width: 600px / 960px * 100%;
4 }
5
6 aside {
7   float: right;
8   width: 300px / 960px * 100%;
9 }
```

Compiled CSS

```
1 article {
2   float: left;
3   width: 62.5%;
4 }
5
6 aside {
7   float: right;
8   width: 31.25%;
9 }
```

Other Math Operations

```
1 p {
2   font: 10px/8px;           // Plain CSS, no division
3   $width: 1000px;
4   width: $width/2;         // Uses a variable, does division
5   width: round(1.5)/2;     // Uses a function, does division
6   height: (500px/2);       // Uses parentheses, does division
7   margin-left: 5px + 8px/2px; // Uses +, does division
8 }
```

SASS FOR TOMCATS — *Advanced*

Expressions

```
1 $type: monster;
2 p {
3   @if $type == ocean {
4     color: blue;
5   } @else if $type == matador {
6     color: red;
7   } @else if $type == monster {
8     color: green;
9   } @else {
10    color: black;
11  }
12 }
```

Custom Functions

```
1 $grid-width: 40px;
2 $gutter-width: 10px;
3
4 @function grid-width($n) {
5   @return $n * $grid-width + ($n - 1) * $gutter-width;
6 }
7
8 #sidebar { width: grid-width(5); }
9
10 // compiles to #sidebar { width: 240px; }
11
12
13
14 //font size - converts px to em
15 @function em($pixels, $context: $base-size) {
16   @return #{$pixels/$context}em
17 }
```

🐾 ...and much more – check out sass-lang.com



Questions?

@IAMALIGRAY