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Dissecting Tailwind: A Design Tokens Tale

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tailwindcss

Rapidly build modern websites ***without leaving your HTML***.

A utility-first CSS framework packed with classes like

flex, **pt-4**, **pb-8**, **text-center** and **rotate-90**

It's a...

“CLIENT REQUIREMENT”

The Project Manager

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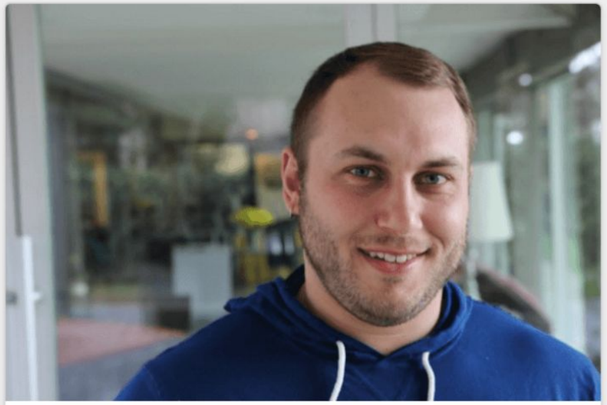
CSS Utility Classes and "Separation of Concerns"

Over the last several years, the way I write CSS has transitioned from a very "semantic" approach to something much more like what is often called "functional CSS."

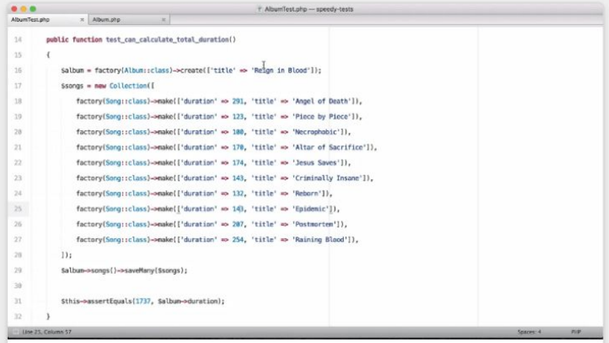
Author Bio



Adam Wathan

Adam is a rad dude who likes TDD, Active Record, and garlic bread with cheese. He also hosts a decent podcast and has never had a really great haircut.

Article Preview



Stubbing Eloquent Relations for Faster Tests

In this quick blog post and screencast, I share a trick I use to speed up tests that use Eloquent relationships but don't really depend on database functionality.

BEM says duplicate to duplicate the CSS to achieve “semantic” class names

BEM *syntax* is nice.

BEM class naming *guidelines* are garbage.

> **HTML elements are *content* semantics.**
>
> **CSS class names are *design* semantics.**

JOHN ALBIN WILKINS, 2014

Same advice in 2014

ON THE MEANING OF SEMANTICS

- Content semantics is handled by HTML5 elements
- Let's make our class names use Design semantics
- Make the class names meaningful to the developers and designers

Tailwind has taken “CSS class names are design semantics”

and taken it to its logical extreme: utility classes

What are utility classes?

The OG utility class

.clearfix

Utility classes

Do one very, very small thing very well.

```
.pt-4 {
  padding-top: 1rem;
}
```

What is utility-first?

utility-first == no components to start, just utility classes

```
<button
class="bg-bright-blue-600">
a simple button</button>
```

utility-first == no components to start, just utility classes

```
<button class="inline-block tracking-wide w-full
tablet:w-auto transition ease-in-out duration-150
font-bold min-w-16 py-4 px-6 rounded-full text-white
bg-bright-blue-600 hover:bg-dark-blue-400
focus:bg-dark-blue-400 active:bg-dark-blue-400
active:text-dark-blue-200">a simple button</button>
```

SPACING

- Padding
- Margin
- Space Between

SIZING

- Width
- Min-Width
- Max-Width
- Height
- Min-Height
- Max-Height

TYPOGRAPHY

Padding

Utilities for controlling an element's padding.

Class	Properties
p-36	padding: 9rem;
p-40	padding: 10rem;
p-44	padding: 11rem;
p-48	padding: 12rem;
p-52	padding: 13rem;
p-56	padding: 14rem;
p-60	padding: 15rem;
p-64	padding: 16rem;
p-72	padding: 18rem;
p-80	padding: 20rem;

Which utility classes are available?

Go to

tailwindcss.com/docs

Size matters

By default, tailwind.css has
175,383 lines of CSS
(39,004 blank lines)

It's a...

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How are utility classes made?

`tailwind.config.js`

Inside tailwind.config.js

Specify a *limited* set of
colors, **breakpoints**, **spacing**,
fonts, **font sizes**

Run PurgeCSS tool on your tailwind.css

This tool scans your entire codebase and removes unused CSS classes.

Tailwind claims your CSS grows slower

As you write newer CSS, fewer new property values enter the codebase.

Bundling CSS vs. Global CSS

Tailwind's global CSS is on every page.

Bundled CSS is only pages where it is used.

Source order gotchas

Because there is one CSS file, source order is VERY important!

```
.text-sm {
  font-size: 0.875rem;
  line-height: 1.25rem;
}

.text-base {
  font-size: 1rem;
  line-height: 1.5rem;
}
```

Dynamic class name gotchas

```
// PurgeCSS cannot see this class name.

const className = 'text-' + props.size;

// Instead do this:
const className = props.size == 'sm' ?
'text-sm' : 'text-base';
```

Drupal gotchas

PurgeCSS has to scan your Twig (and PHP/yaml?).

You can’t enter whatever Tailwind class inside Drupal content editing forms.

Every Drupal WYSIWYG class has to be in code (not CSS) somewhere.

What are design tokens?

Design tokens are...

A *limited* set of **colors**, **breakpoints**, **spacing**, **fonts**, **font sizes, etc.**

```
--size-font-075: 0.75rem; /* 12px */
--size-font-087: 0.875rem; /* 14px */
--size-font-100: 1rem; /* 16px */
--size-font-112: 1.125rem; /* 18px */
--size-font-125: 1.25rem; /* 20px */
--size-font-150: 1.5rem; /* 24px */
--size-font-175: 1.75rem; /* 28px */
--size-font-200: 2rem; /* 32px */
--size-font-225: 2.25rem; /* 36px */
--size-font-250: 2.5rem; /* 40px */
--size-font-300: 3rem; /* 48px */
--size-font-350: 3.5rem; /* 56px */
```

Creating a design system with design tokens *in* CSS variables

```
--size-font-075: 0.75rem; /* 12px */
--size-font-087: 0.875rem; /* 14px */
--size-font-100: 1rem; /* 16px */
--size-font-112: 1.125rem; /* 18px */
--size-font-125: 1.25rem; /* 20px */
--size-font-150: 1.5rem; /* 24px */
--size-font-175: 1.75rem; /* 28px */
--size-font-200: 2rem; /* 32px */
--size-font-225: 2.25rem; /* 36px */
--size-font-250: 2.5rem; /* 40px */
--size-font-300: 3rem; /* 48px */
--size-font-350: 3.5rem; /* 56px */
--size-font-heading-1-desktop: var(--size-font-300);
--size-font-heading-1-mobile: var(--size-font-250);
--size-font-heading-2-desktop: var(--size-font-250);
--size-font-heading-2-mobile: var(--size-font-225);
```

```
--size-spacing-050: 0.5rem;
--size-spacing-075: 0.75rem;
--size-spacing-100: 1rem;
--size-spacing-125: 1.25rem;
--size-spacing-150: 1.5rem;
--size-spacing-200: 2rem;
--size-spacing-250: 2.5rem;
--size-spacing-300: 3rem;
--size-spacing-350: 3.5rem;
--size-spacing-400: 4rem;
--size-spacing-450: 4.5rem;
--size-spacing-500: 5rem;
```

On naming things… (again)

How to name your design tokens

Tailwind uses abbreviations for everything

ex: pt-4

My recommendation: don’t abbreviate anything

ex: --size-spacing-200

(Let your code editor do autocompletion for you.)

How to name your design tokens

how it started

text-xs
text-sm
text-md
text-lg
text-xl
text-2xl

becomes

how it ends

text-xs
text-sm
text-md-sm
text-md
text-lg
text-2lg
text-xl
text-2xl

How to name your design tokens

```
--size-font-075: 0.75rem; /* 12px */
--size-font-087: 0.875rem; /* 14px */
--size-font-100: 1rem; /* 16px */
--size-font-112: 1.125rem; /* 18px */
--size-font-125: 1.25rem; /* 20px */
--size-font-150: 1.5rem; /* 24px */
--size-font-175: 1.75rem; /* 28px */
--size-font-200: 2rem; /* 32px */
--size-font-225: 2.25rem; /* 36px */
--size-font-250: 2.5rem; /* 40px */
--size-font-300: 3rem; /* 48px */
--size-font-350: 3.5rem; /* 56px */
```

new values
added later
fit right in

How to name your design tokens

use the “L”
in HSL

```
--color-gray-22: #565656;
--color-gray-27: #707070;
--color-gray-56: #919191;
--color-gray-75: #c0bfc0;
--color-gray-90: #e6e6e6;
--color-gray-96: #f5f5f5;
--color-gray-97: #f7f7f7;
```

What do I think of Tailwindcss?

Tailwind concerns

- No bundling, only global CSS
- Abbreviations
- Messy HTML
- Source-order gotchas
- Dynamic class name gotchas

Why might you use Tailwind?

It's a...

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tailwindcss

Bootstrap

Why use Tailwind?

Not every developer writing the HTML may know CSS

Just one good frontend developer can control everyone else's CSS

Thank you!

@JohnAlbin