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# Modern CSS with Tailwind

Flexible Styling Without the Fuss

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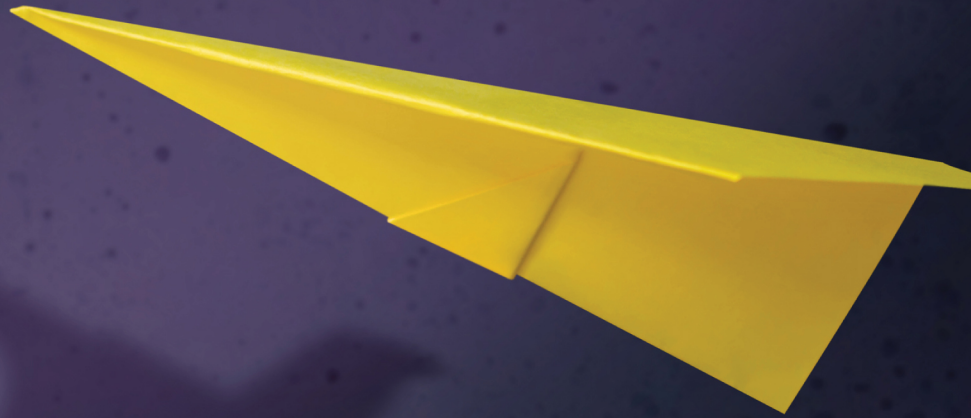
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# Introduction

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Many web developers underrate CSS.

Cascading Style Sheets (CSS) enable you to control the display of your information and enhance your page with visual effects. CSS is powerful, as a quick glance at a site like <http://www.csszengarden.com> shows. With CSS, you can do amazing things to the basic text and images on your site, and with a little bit of client-side code to add and remove CSS classes, you can do exponentially more.

CSS can also be hard to debug, complicated to write, and difficult to control.

But it doesn't have to be.

Enter Tailwind. Tailwind CSS—a “utility-first CSS framework for rapidly building custom designs”<sup>1</sup>—can make the CSS for your site easier to control and debug. In this book, we'll dive into the Tailwind CSS framework, taking a look at its typography, page layout, responsive design, and more.

## Why Tailwind?

Bootstrap or similar CSS frameworks provide CSS classes whose names describe how they are to be used, like “button” or “card” or “nav.” These classes tend to define a number of CSS styles together.

Tailwind is different.

Nearly all of the basic Tailwind classes are thin wrappers around a single CSS style setting, like using “m-4” to provide a “margin: 1rem” or “text-lg” to change the text size to “font-size: 1.125rem.”

For example, a button in the Bulma framework would be styled like this:

```
<button class="button is-primary">Click Me</button>
```

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1. <https://tailwindcss.com>

But in Tailwind, you'd use something more like this:

```
<button class="bg-green-500 text-white font-bold
  py-3 px-4 rounded-lg text-center">
  Click Me
</button>
```

In the Tailwind version, each individual style of the button—the green background, the white text, the bold font, the padding, the rounded corners, and the text centering—gets its own class in the class list.

Now, if you're like me, your first reaction to seeing that list of classes may be something along the lines of, and I quote, “ugh.” It certainly takes some time to get used to having all those small class names in the HTML markup. If that's your reaction, I get it. All I ask is that you give it a chance and see how you feel after you've tried it out.

The Tailwind code is extremely explicit and makes it possible to understand the display simply by looking at the HTML markup. It works well with the Stimulus framework's aesthetic of putting a bunch of JavaScript relationships in the markup. If you want to package this collection of classes for reuse, Tailwind provides an `@apply` directive that you can use to build new CSS classes out of Tailwind's utilities, or you can use the features of the web programming language and framework to manage the duplication.

One advantage of the Tailwind setup is that it's extremely easy to prototype, iterate, and customize the display. If you want to change the horizontal padding on a button, you can do so by changing `px-4` to, say, `px-6`. You don't need to guess about the scope of the change or what other parts of your page might be affected. You can keep making small changes until you get the display just right. And you don't need to continually come up with names for CSS property combinations that might not be reused.

Another advantage is that Tailwind offers a set of prefixes that allow you to specify behavior in particular cases. For example, you could add a class such as `hover: bg-blue-500`, where the `hover` prefix would apply the class and change the background color when the user hovers over the button. Tailwind also provides a set of prefixes that allow you to specify different behaviors at different screen sizes. These prefixes are one reason why using a Tailwind class like `bg-blue-500` is better than using the document object model (DOM) style attribute directly, as in `style="background-color: #cdcdcd"`.

And last but not least, a Tailwind app requires less CSS to be written, with most of the design coming from the composition of Tailwind utilities. This means you spend less time naming CSS and managing global CSS, allowing

you to spend more effort on the actual display of your site. Tailwind makes it easy to make incremental changes, see the results, and understand the scope of your changes, which makes it especially useful when prototyping a new site.

## About This Book

In this book, we're going to look at how to design web pages using Tailwind CSS. We'll start with the typography of individual elements, and then we'll get to "the box"—the rectangle of space each element takes up—and how to manipulate it. Once we have our elements in boxes, we'll take a look at page layout with flexbox or grids.

After that, we'll look at turning individual pages into full sites. We'll also look at common site-wide page layouts, managing a design on different screen sizes, and handling a site-wide amount of styles and CSS.

This book uses Tailwind 2.0. Tailwind has been evolving pretty quickly, so there's a good chance new features have been added since I wrote this. The Tailwind documentation includes pages for release notes and upgrade guides. (Sorry, the release notes' URLs change with each release, but they're linked from the main Tailwind documentation at <https://tailwindcss.com/docs>.) Check those out for the latest changes.

## Who This Book Is For

To keep this book short and right to the point, I've made some assumptions:

- I'm assuming you already know the basics of CSS syntax and concepts. This book focuses on Tailwind, not raw CSS. If you want to get better grounded in CSS and its quirks, you might want to try the zine, *Hell Yes! CSS!* by Julia Evans.<sup>2</sup>
- I'm assuming you're able to access the Tailwind reference documentation.<sup>3</sup> The Tailwind documentation is very complete and easy to navigate. This book isn't going to be a complete reference on all of Tailwind's features; instead, it'll focus on the most common ones and how to use them successfully.

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2. <https://wizardzines.com/zines/css>

3. <https://tailwindcss.com/docs>



## Running the Sample App

The sample code we'll use in the book for our application is primarily HTML. I've given you two ways to load the HTML: a Rails app and a simple app built with React Create App.

To run the sample code, you need to download it from the book's page on the Pragmatic Bookshelf website.<sup>4</sup>

For the Rails version, which is in the main directory, you need to have Ruby 3.0 and SQLite installed on your system. Running `bin/setup` in the sample code directory will load the Rails-specific parts, and then `rails server` will load the application itself—you should be able to access the site at `http://localhost:3000`. The samples are at `http://localhost:3000/intro`, `http://localhost:3000/box`, and `http://localhost:3000/page`.

For the React version, which is in the `react_create_app` directory, you need to have `npm` and `yarn` installed. With those in place, `yarn install` will install all the needed modules, and `yarn start` will start the development server. All the samples can be accessed from `http://localhost:3000`, and you can see the basic HTML inside the component at `src/App.js`.

Please note that there's no real application here. You should be able to start from scratch and install Tailwind in a blank project of the build tool of your choice and follow along with the HTML examples.

Now, let's install Tailwind and get started.

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4. <https://www.pragprog.com/titles/tailwind>