Tailwind CSS Crash Course

Companion document for the Scrimba Interactive Course

presented by

scrimba

Tailwind CSS Crash Course

Presented by Scrimba & Coder's Tape

> *A note from the instructor*
>
> Welcome to the Scrimba Tailwind CSS Crash Course! Firstly, I want to thank you for joining in and learning Tailwind in Scrimba's awesome platform. The purpose of this document is to help you learn all of the utility classes and serve as a guide during the course and beyond. We will start with the basics and build our knowledge one step at a time. Let's get started!
>
> — Victor Gonzalez, *course instructor*
> [Coder's Tape](#)

During this course we will be exploring the features of Tailwind CSS. As a quick recap, Tailwind is a utility-first framework designed to speed up the design process by completely removing the need for CSS. In the past, every HTML element would get a single class and that class would contain a lot of custom CSS in a separate CSS file. Though this is still the general practice, this practice leads to huge CSS files, reduces the ease of maintaining CSS and yields overall poorer developer experience.

Another advantage of a utility framework is its superior performance with caching due to not busting the cache for small CSS changes. Tailwind has been designed with incredible sensible defaults to make your designs look and feel "polished" and "designed" through the careful use of color palettes, color shades, sizing consistency and modern web best-practices. It's also worth noting, that Tailwind is mobile-first and has an easy naming convention with responsive designs built-in.

Need some customizations? Tailwind's robust customization system will allow you to customize/tweak/modify everything in the framework through the use of the `tailwind.config.js` file. The customizations of Tailwind are beyond the scope of this course but rest assured that the default Tailwind classes are almost always exactly what you will need.

Advantages of Tailwind CSS

- No need for huge CSS files with custom CSS
- Easy to make design changes right from the view files
- Better developer experience
- Mobile-first designs from the start
- Designed with defaults for a polished and designed look and feel
- Easily customizable with the config file

Table of Content

E01

Welcome

No notes here.

E02

Background classes & shades

This set of classes change the background color of an element using a scale of 100-900 for shades and a palette of over 90 shades.

```
.bg-*-{100-900} {}

black, white, gray, red, orange,
yellow, green, teal, indigo, blue,
purple, pink
```

E03

Element sizing is achieved using the `w-` and `h-` classes.

> All of the numbers in Tailwind are based around the `rem` unit of measurement. `1 rem` is equal to the size of the base font of the document. As an example, if the base font size is `16px` then `1 rem` is equal to `16px` and we can deduce that `1.25 rem` is equal to `20px`. To help with these fractional numbers, Tailwind's numbered classes are multiplied by 4 to avoid having numbers with decimal places.

Tailwind's Numbering System

Assuming the base font size of the document is 16px

Pixels	rem	Tailwind
0px	0 rem	0
4px	0.25 rem	1
8px	0.5 rem	2
12px	0.75 rem	3
16px	1 rem	4
20px	1.25 rem	5
24px	1.5 rem	6
32px	2 rem	8
40px	2.5 rem	10

Continues to all of the available default sizes 12, 16, 20, 24, 32, 40, 48, 56, 64,

Sizing with `w-*` and `h-*` classes

```
.w-* {}
.h-* {}

Available sizes in REM
0, 1, 2, 3, 4, 5, 6, 8, 10, 12,
16, 20, 24, 32, 40, 48, 56, 64,

Sizing in percentages
1/2... 1/{3, 4, 5, 6, 12)

Sizing utilities
screen, full
```

E04

Challenge 1 - Shades of Blue

Solution

```
<body class="bg-gray-200">

    <div class="w-5 h-6 bg-blue-100">Text</div>
    <div class="w-5 h-6 bg-blue-200">Text</div>
    <div class="w-5 h-6 bg-blue-300">Text</div>
    <div class="w-5 h-6 bg-blue-400">Text</div>
    <div class="w-5 h-6 bg-blue-500">Text</div>
    <div class="w-5 h-6 bg-blue-600">Text</div>
    <div class="w-5 h-6 bg-blue-700">Text</div>
    <div class="w-5 h-6 bg-blue-800">Text</div>
    <div class="w-5 h-6 bg-blue-900">Text</div>

</body>
```

E05

Padding and margins with `p-*`, `m-*`, `py-*` and `my-*`

These classes add padding and margin to an element using the Tailwind numbering system.

```
.p-* {}
.m-* {}

.p{x, y}-* {}
.m{x, y}-* {}
```

E06

Styling Text with utility classes Part 1

Font styling is a huge part of any design and Tailwind has plenty of classes that we can use to style the text on our apps. It even includes utility classes for transformations like uppercase.

```
// Fonts
.font-sans {}         // Helvetica or similar
.font-serif {}        // Times New Roman or similar
.font-mono {}         // Monospace or similar
```

```
// Sizing
.text-xs {}           // .75rem;
.text-sm {}           // .875rem;
.text-base {}         // 1rem;
.text-lg {}           // 1.125rem;
.text-xl {}           // 1.25rem;
.text-2xl {}          // 1.5rem;
.text-3xl {}          // 1.875rem;
.text-4xl {}          // 2.25rem;
.text-5xl {}          // 3rem;
.text-6xl {}          // 4rem;
```

```
// Text Align
.text-left {}
.text-center {}
.text-right {}
.text-justify {}
```

```
// Text Color
.text-{color}-{shade (100-900)} {}
```

E07

Styling Text with utility classes Part 2

In part 2, we continue to explore the available classes in Tailwind CSS.

```
// Styling
.italic {}
.not-italic {}
```

```
// Font Weight (Bold)
.font-hairline {}    // 100
.font-thin {}        // 200
.font-light {}       // 300
.font-normal {}      // 400
.font-medium {}      // 500
.font-semibold {}    // 600
.font-bold {}        // 700
.font-extrabold {}   // 800
.font-black {}        // 900
```

```
// Letter Spacing
.tracking-tighter {}    // -0.05em
.tracking-tight {}      // -0.025em
.tracking-normal {}     // 0
.tracking-wide {}       // 0.025em
.tracking-wider {}      // 0.05em
.tracking-widest {}     // 0.1em
```

```
// Line Height/Spacing
.leading-none {}        // 1
.leading-tight {}       // 1.25
.leading-snug {}        // 1.375
.leading-normal {}      // 1.5
.leading-relaxed {}     // 1.625
.leading-loose {}       // 2
```

```
// Text Decorations
.underline {}
.line-through {}
.no-underline {}
```

```
// Text Transform
.uppercase {}
.lowercase {}
.capitalize {}
.normal-case {}
```

E08

Challenge 2 - Text Styling

Solution

```html
<body>
    <!-- Title case heading 1 text in dark gray -->
    <h1 class="capitalize text-xl text-gray-900">
        Lorem ipsum dolor sit amet consectetur.
    </h1>

    <!-- Paragraph styling with 1.5 line heights & letter spacing -->
    <p class="mt-3 leading-loose tracking-wide">
        Lorem ipsum dolor sit amet... [trucated]
    </p>

    <!-- Treated like a quote with a background and plenty of padding. Italic title -->
    <div class="m-2 p-6 bg-blue-900 text-blue-200">
        <p>
            Lorem ipsum dolor sit amet... [truncated]
        </p>
        <p class="mt-3 text-gray-400">- Victor Gonzalez,
            <span class="italic">instructor</span>
        </p>
    </div>

    <!-- Call to action button, blue with good padding and uppercase -->
    <button class="uppercase bg-blue-500 text-blue-100 px-4 py-3">Enroll Now</button>
</body>
```

E09

Borders

These classes will color, stylize and add radius to any border or corners.

```
.border {}       // 1px
.border-0 {}     // 0
.border-2 {}     // 2px
.border-4 {}     // 4px
.border-8 {}     // 8px

// Modifiers
.border-{t, b, l, f}-*
```

```
// Colors
.border-{color}-{shade (100-900)}
```

```
// Border Style
.border-solid {}
.border-dashed {}
.border-dotted {}
.border-double {}
.border-none {}
```

```
// Border Radius
.rounded-none {}    // 0
.rounded-sm {}      // .125rem
.rounded {}         // .25rem
.rounded-lg {}      // .5rem
.rounded-full {}    // 9999px
```

E10

Challenge 3 - Button Challenge

Solution

```
<body>
    <!-- blue background, rounded, thick left border -->
    <div><button class="m-4 bg-blue-800 py-2 px-4 text-gray-400
            text-sm rounded-lg border-l-8 border-blue-700">Submit</button></div>

    <!-- Red text, outlined -->
    <div><button class="m-4 border-2 border-red-500 text-red-500
            rounded px-3 py-1">Cancel</button></div>

    <!-- light Indigo background, bottom border, indigo text -->
    <div><button class="m-4 bg-indigo-200 border-b-4 border-t-4
        border-indigo-800 px-4 py-1">Save</button></div>

    <!-- Thick rounded, lots of padding, large button -->
    <div><button class="m-4 rounded-full border-4 px-16 py-3
        uppercase font-bold text-sm bg-orange-600
        border-orange-800">Buy Now</button></div>

    <!-- Outlined, serif font, uppercase, rounded -->
    <div><button class="m-4 border font-serif text-xs uppercase
        rounded-lg p-2">Send Postcard</button></div>
</body>
```

E11

Display Modes

Most items are display `block` by default but that can easily be changed with the available display classes.

```
.block {}              // block
.inline-block {}       // inline-block
.inline {}             // inline
.flex {}               // flex
.inline-flex {}        // inline-flex
.table {}              // table
.table-row {}          // table-row
.table-cell {}         // table-cell
.hidden {}             // none
```

E12

Flexbox

Tailwind uses Flexbox for the layout of items on the document. Flexbox is a css display property that defines a flex container. Once a container has been assigned as a flex container, we can use all of the alignment utility classes to achieve the desired look.

```
.flex {}

// Default direction - horizontal alignment
.justify-start {}
.justify-center {}
.justify-end {}
.justify-between {}
.justify-around {}

// Default direction - vertical alignment
.items-stretch {}
.items-start {}
.items-center {}
.items-end {}
.items-baseline {}
```

```
// Flex Direction
.flex-row {}
.flex-row-reverse {}
.flex-col {}
.flex-col-reverse {}
```

```
// Wrapping
.flex-no-wrap {}
.flex-wrap {}
.flex-wrap-reverse {}
```

E13

Challenge 4 - Block Gallery

Solution

```html
<body>
    <!-- Must take up all of the available space -->
    <!-- Evenly distributed 3x3 grid -->
    <!-- Letters must be centered on the square -->
    <!-- Must have some spacing between the blocks -->
    <div class="h-screen flex flex-wrap">
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-100 m-2 w-full flex justify-center items-center">A</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-200 m-2 w-full flex justify-center items-center">B</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-300 m-2 w-full flex justify-center items-center">C</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-400 m-2 w-full flex justify-center items-center">D</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-500 m-2 w-full flex justify-center items-center">E</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-600 m-2 w-full flex justify-center items-center">F</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-700 m-2 w-full flex justify-center items-center">G</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-800 m-2 w-full flex justify-center items-center">H</div>
        </div>
        <div class="flex w-1/3 h-1/3">
            <div class="bg-teal-900 m-2 w-full flex justify-center items-center">I</div>
        </div>
    </div>
</body>
```

E14

Responsive Design

All modern applications should be able to responsively fit into the screen size. Tailwind is a mobile-first framework, meaning that all of the classes that we have talked about thus far, are for mobile and trickle up to desktop. But we can change this with a couple of modifiers.

```
// Default breakpoints
[all]       // 0px
.sm:        // 640px
.md:        // 768px
.lg:        // 1024px
.xl:        // 1280px
```

```
// Default responsive classes
.sm:bg-* {}              // background color
.sm:w-* {}               // width
.sm:h-* {}               // height
.sm:p-* {}               // padding
.sm:m-* {}               // margin
.sm:font-sans {}         // font family - sans, serif, mono
.sm:text-lg {}           // font size - xs, sm, base, lg, xl, {2-6}xl
.sm:text-left {}         // left, center, right, justify
.sm:text-{color}-{shade (100-900)} {}   // text color
.sm:font-bold {}         // font weight
.sm:tracking-tighter {} // letter spacing
.sm:leading-tight {}    // line spacing/height
.sm:uppercase {}         // text transform
.sm:border-{color}-{shade (100-900)}    // border color
.sm:border-{style} {}   // border style
.sm:border-{width} {}   // border width
.sm:rounded-{size} {}   // border radius
.sm:{display} {}         // block, inline, flex, table, hidden...
.sm:flex {}              // display flex
.sm:flex-{col|row} {}   // flex direction
```

E15

Hover Modifier

We can tap into the built-in hover state in CSS using the `hover:` modifier along with any of the default classes to achieve interactive designs.

```
// Default responsive classes
.hover:bg-* {}            // background color
.hover:text-{color}-{shade (100-900)} {} // text color
.hover:font-bold {}       // font weight
.hover:border-{color}-{shade (100-900)} // border color
```

E16

Focus Modifier

Adding a focus state is simple using the `focus:` modifier along with any of the default classes provided by Tailwind CSS.

```
// Default responsive classes
.focus:bg-* {}              // background color
.focus:text-{color}-{shade (100-900)} {} // text color
.focus:font-bold {}         // font weight
.focus:border-{color}-{shade (100-900)} // border color
```

E17

Combination Modifiers

Sometimes, the design may require 2 modifiers at the same time. For example, you may need to change the `hover` state for a background color but only in `md:` size. Let's explore how to achieve this.

```
.md:hover:bg-{color}-{shade (100-900)} {} // hover background color
.md:focus:bg-{color}-{shade (100-900)} {} // focus background color
.md:hover:text-{color}-{shade (100-900)} {} // hover text color
.md:focus:text-{color}-{shade (100-900)} {} // focus text color
```

E18

Other Utilities

There are some other useful utilities that you should know about.

```
// Box Shadows - responsive, hover, focus states
.shadow-{size} {}         // md, lg, xl, 2xl, inner, outline, none

// Opacity - responsive, hover, focus states
.opacity-{percent}        // 100, 75, 50, 25, 0

// Cursors - responsive
.cursor-{style}           // default, pointer, wait, text, move, not-allowed

// Outline - focus
.focus:outline-none       // remove default browser outline styling
# use focus:shadow-outline instead for a nicer alternative

// User Select - responsive
.select-{style}           // none, text, all, auto

// Screen Readers - responsive, hover, focus, active
.sr-only {}               // visually hidden, present for screen readers
.no-sr-only {}            // undo .sr-only
```

E19

Challenge 5 - Input Component

Input fields are easily customizable with some utility classes.

```html
<body class="h-screen flex flex-col justify-center items-center">
    <label class="text-gray-700 text-sm font-bold select-none" for="full_name">
        Full Name
    </label>
    <input
        id="full_name"
        placeholder="Enter your full name"
        class="mt-2 shadow border rounded-lg w-4/6 px-3 py-2 text-gray-700
            focus:shadow-outline focus:bg-blue-100 placeholder-indigo-300">
    <button class="mt-2 px-3 py-2 bg-blue-900 text-blue-100 rounded-lg">
        Save
    </button>
</body>
```

E20

Challenge 6 - Employee Card

Here's a full example of an employee card nicely styled using all default Tailwind classes.

```
<body class="bg-gray-600 flex justify-center items-center h-screen">
    <div class="w-2/3 flex flex-col break-words bg-white shadow-lg rounded-lg
        overflow-hidden">
        <div class="text-gray-700 bg-gray-200 text-lg px-6 py-4 mb-0">
            The title of the card here</div>
        <div class="w-full px-6 py-4 flex justify-between items-center border-t
            border-gray-200">
            <div class="bg-orange-600 text-xs uppercase px-2 py-1 rounded-full
                border border-gray-200 text-gray-200 font-bold">
                Under Review</div>
            <div class="text-sm">May 14, 1988</div>
        </div>
        <div class="w-full px-6 py-4 justify-between border-t border-gray-200">
            <div class="flex-1">
                <p class="border rounded-lg p-4 bg-gray-200">
                    Here is a short comment about this employee.</p>
            </div>
        </div>
        <div class="rounded-b px-6 py-4 bg-gray-200">
            <div class="uppercase text-xs text-gray-600 font-bold">
                Employee</div>
            <div class="flex items-center pt-3">
                <div class="bg-blue-700 w-12 h-12 rounded-full uppercase
                    font-bold flex items-center justify-center text-sm
                    text-white">
                    VG</div>
                <div class="ml-4"><p class="font-bold">Victor Gonzalez</p>
                    <p class="text-sm text-gray-700 mt-1">Instructor</p>
                </div>
            </div>
        </div>
    </div>
</body>
```

E21

Final Course Project - Landing Page

Solution

```html
<html>
    <head>
        <link href="https://unpkg.com/tailwindcss@^1.0/dist/tailwind.min.css" rel="stylesheet">
    </head>
    <body class="bg-gray-200 font-sans flex flex-col items-center">

        <header class="bg-indigo-700 w-full flex justify-center
            border-b-4 border-pink-500 px-4 py-3">
            <div class="max-w-4xl w-full">
                <div class="flex items-center justify-between
                    text-pink-400">
                    <svg class="h-8 fill-current" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 108 32"><path d="M16.

                    <button type="button"
                        class="block text-gray-500 hover:text-gray-400
                         focus:text-white focus:outline-none sm:hidden">
                        <svg class="h-6 w-6 fill-current" viewBox="0 0 24 24">
                            <path fill-rule="evenodd" d="M4 5h16a1 1 0 0 1 0 2H4a1 1 0 1 1 0-2zm0 6h16a1 1 0 0 1 0 2H4a
                        </svg>
                    </button>
                </div>

                <div class="my-4">
                    <h1 class="text-2xl text-indigo-100">Want to learn Tailwind CSS?</h1>
                    <p class="text-sm text-indigo-200">Tailwind is the fastest growing utility-first
                    CSS framework. Let's learn it step by step.</p>
                    <div class="relative mt-4 flex justify-between">
                        <div class="">
                            <a href="#" class="bg-pink-500
                                text-indigo-100 font-bold mt-2 px-4
                                    py-2 rounded-full text-xs uppercase">
                                    Enroll Now</a>
                        </div>
                        <div class="absolute right-0 bg-white
                            rounded-full flex justify-center
                                items-center p-5 border-4
                                border-pink-500">
                            <img class="w-16 h-16" src="/images/tailwind-logo.png" />
                        </div>
                    </div>
                </div>
            </div>
        </header>

        <main class="mt-16 w-full flex flex-col items-center">
            <div class="max-w-4xl mx-4 ">
                <h2 class="pb-1 font-bold text-xl text-indigo-700
                    border-b border-indigo-200">How It Works</h2>
                <p class="text-sm mt-4 text-gray-600">Tailwind is designed for rapid development of
                modern applications. At its core, it is a robust mobile-first design system built
                with developer experience in mind. After using Tailwind CSS, you will find it
                difficult to go back to use anything else. Learn all about it in this all-inclusive
                course.</p>

                <h2 class="mt-8 pb-1 font-bold text-xl text-indigo-700
                    border-b border-indigo-200">Advantages</h2>
```

```html
        <div class="flex flex-col sm:flex-row sm:-mx-2">
            <div class="mt-4 sm:w-1/3">
                <div class="bg-white p-8 h-full border-b-4
                    border-pink-500 rounded-lg flex flex-col
                    items-center sm:mx-2 sm:p-3 md:p-8">
                    <div class="bg-gray-200 text-indigo-700
                        w-16 p-2 rounded-full">
                        <svg class="h-12 w-12 fill-current" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 24
                    </div>
                    <div class="mt-4 font-bold">No Custom CSS</div>
                    <div class="mt-2 text-sm text-gray-600
                        text-center">Tailwind's advanced class extraction will leave your
                        project free of custom CSS.</div>
                </div>
            </div>

            <div class="mt-4 sm:w-1/3">
                <div class="bg-white p-8 h-full border-b-4
                    border-pink-500 rounded-lg flex flex-col
                    items-center sm:mx-2 sm:p-3 md:p-8">
                    <div class="bg-gray-200 text-indigo-700 w-16
                        p-2 rounded-full">
                        <svg class="h-12 w-12 fill-current" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 24
                    </div>
                    <div class="mt-4 font-bold">Developer Experience</div>
                    <div class="mt-2 text-sm text-gray-600
                        text-center">Tailwind is designed with your happiness in mind.
                        The ease of performing changes is refreshing.</div>
                </div>
            </div>

            <div class="mt-4 sm:w-1/3">
                <div class="bg-white p-8 border-b-4
                    border-pink-500 rounded-lg flex flex-col
                    items-center sm:mx-2 sm:p-3 md:p-8">
                    <div class="bg-gray-200 text-indigo-700 w-16
                        p-2 rounded-full">
                        <svg class="h-12 w-12 fill-current" xmlns="http://www.w3.org/2000/svg" viewBox="0 0 24
                    </div>
                    <div class="mt-4 font-bold">Mobile Friendly</div>
                    <div class="mt-2 text-sm text-gray-600
                        text-center">Modern applications demand mobile-friendly &
                        Tailwind's responsive modifiers make it easy.</div>
                </div>
            </div>
        </div>
    </div>

    <div class="bg-gray-800 py-12 mt-12 w-full flex flex-col
        items-center border-t-2 border-black">
        <h2 class="pb-1 font-bold text-xl text-gray-400">
            Sign up to download the free PDF</h2>

        <form class="max-w-xl w-full text-gray-200 mt-4 px-8 md:px-0" action="#" method="post" autocomplete="of
            <div class="flex flex-col md:flex-row md:-mx-2">
                <label for="first_name" class="sr-only">First name</label>
                <input class="bg-gray-700 mt-4 md:mx-2 border
                    border-gray-600 rounded-lg py-2 px-4 block
                    w-full md:w-1/2" type="text" placeholder="First name"
                    id="first_name">

                <label for="last_name" class="sr-only">Last name</label>
                <input class="bg-gray-700 mt-4 md:mx-2 border
                border-gray-600 rounded-lg py-2 px-4 block
                w-full md:w-1/2" type="text" placeholder="Last name"
                id="last_name">
            </div>
```

```html
                    <div class="flex flex-col md:flex-row md:-mx-2">
                        <label for="email" class="sr-only">Your email</label>
                        <input class="bg-gray-700 mt-4 md:mx-2 border
                        border-gray-600 rounded-lg py-2 px-4 block
                         w-full md:w-1/2" type="email" placeholder="john@email.com"
                         id="email">

                        <label for="title" class="sr-only">Title</label>
                        <input class="bg-gray-700 mt-4 md:mx-2
                        border border-gray-600 rounded-lg py-2 px-4
                        block w-full md:w-1/2" type="text" placeholder="Your title"
                         id="title">
                    </div>

                    <div class="flex flex-col md:flex-row md:-mx-2">
                        <button class="bg-blue-600 text-sm mt-4 md:mx-2
                            rounded-lg py-2 px-4 block w-full">Create account</button>
                    </div>
                </form>
            </div>
        </main>

        <footer class="w-full bg-gray-800 pb-8 text-center text-xs
            font-light text-gray-600">
            <p>Copyright &copy; 2019 Scrimba</p>
        </footer>

    </body>
</html>
```