

Tailwind CSS

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What is Tailwind CSS?

- ▶ Tailwind CSS is a utility-first CSS framework used for building UI components. Tailwind provides low-level utility classes to combine to build custom designs directly in your HTML.
- ▶ Tailwind CSS streamlines the design process by offering a comprehensive set of pre-defined layouts, spacing, typography, and more classes.

Why Tailwind?

Vs Bootstrap

► Utility-First: Use small, single-purpose classes (like p-4, text-center) to style elements directly in HTML

Component-Based: Pre-built components (like buttons, navbars) with a consistent design system.

Customization: Highly customizable with minimal default styling, giving you full control over design.

Customization: Less flexible but easier to use out of the box.

Learning Curve: Slightly steeper as you learn to compose UI using utility classes.

Learning Curve: Easy to learn and fast to implement with ready-made components.

Tailwind: Flexible and customizable.

Bootstrap: Quick and ready-made components.

Using Tailwind

Download from the official Bootstrap website and include in your project files.

Go to <https://tailwindcss.com/docs/installation>, and follow the instructions there.

Using Tailwind

The simplest method to use Tailwind CSS in a project via CDN link with installing the module. Just include the following CDN link in the <head> section of your HTML file.

```
<link  
href="https://unpkg.com/tailwindcss@^1.0/dist/tailwind.min.css"rel="stylesheet  
>
```

Container

- Tailwind CSS provides a container class to constrain the width of content.

It centers the content horizontally and sets maximum widths at different breakpoints, ensuring responsive design.

Breakpoint	min-width
sm	640px
md	768px
lg	1024px
xl	1280px
2xl	1536px

Container

► Customizing the Container at Breakpoints:

You can apply specific styles for different screen sizes by using Tailwind's breakpoint modifiers:

```
<div class="container sm:bg-red-500 md:bg-green-500 lg:bg-blue-500">
```

Content will have different background colors based on the screen size

```
</div>
```

Bootstrap equivalent of this:

```
<div class="container bg-danger bg-md-success bg-lg-primary">
```

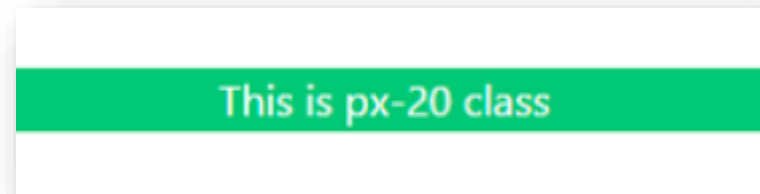
Content will have different background colors based on the screen size

```
</div>
```

mx-auto Class

- To center the container, we use mx-auto utility class. It adjust the margin of the container automatically so that the container appears to be in center.

```
<div class="bg-green-500 text-white mx-auto">  
  This is mx-auto class  
</div>
```

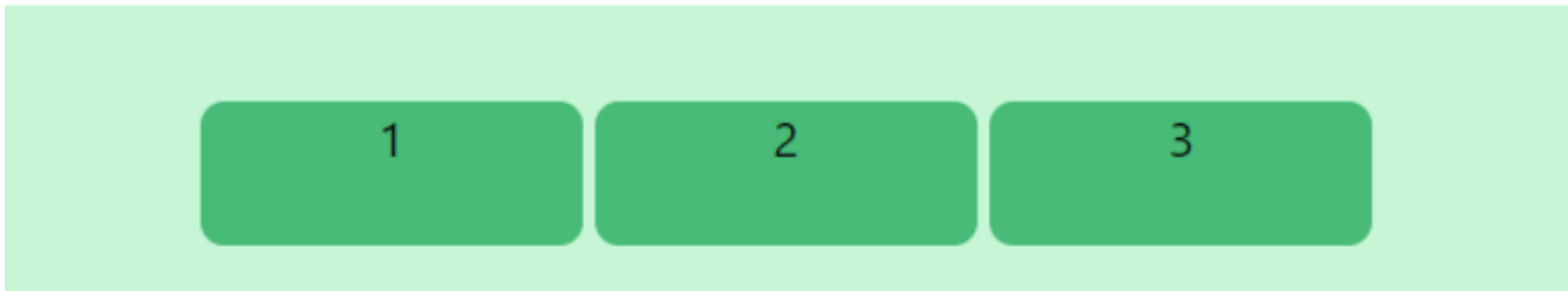


CSS Display

Class Name	Description
block	Display an element as a block element.
inline-block	Display an element as an inline-level block container.
inline	Display an element as an inline element.
flex	Display an element as a block-level flex container.

Inline-Block element

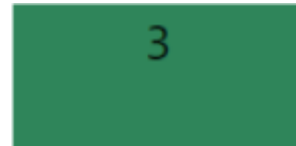
```
▶ <div class="bg-green-200 p-4 mx-16 space-y-4">  
  <span class="inline-block w-32 h-12 bg-green-500 rounded-lg">1</span>  
  <span class="inline-block w-32 h-12 bg-green-500 rounded-lg">2</span>  
  <span class="inline-block w-32 h-12 bg-green-500 rounded-lg">3</span>  
</div>
```



Flex Direction

- ▶
`<element class="flex flex-row"> Contents... </element>`
`<element class="flex flex-col"> Contents... </element>`

```
<div id="main" class="flex flex-row">  
  <div class="bg-green-900 w-24 h-12">1</div>  
  <div class="bg-green-800 w-24 h-12">2</div>  
  <div class="bg-green-700 w-24 h-12">3</div>  
</div>
```



Float element

- ▶
`<element class="float-left">...</element>`
`<element class="float-right">...</element>`

Position element

- ▶
`<element class="fixed">...</element>`
`<element class="relative">...</element>`
`<element class="absolute">...</element>`
`<element class="sticky">...</element>`

Can set the top, bottom, left, and right positions of all using:

```
<div class="relative h-36 w-36 bg-green-400 m-4">  
  <div class="absolute right-0 bottom-0  
    w-16 h-16 bg-green-800">  
  
  </div>  
</div>
```



Grid Template Rows, Columns

- ▶ `<element class="grid grid-rows-1"> Contents... </element>`
`<element class="grid grid-cols-5"> Contents... </element>`

```
<div id="main" class="grid grid-rows-2 grid-flow-col">  
  <div class="bg-green-500 rounded-lg m-4 h-12">1</div>  
  <div class="bg-green-500 rounded-lg m-4 h-12">2</div>  
  <div class="bg-green-500 rounded-lg m-4 h-12">3</div>  
  <div class="bg-green-500 rounded-lg m-4 h-12">4</div>  
</div>
```



Grid Span Rows, Columns

- ▶
 - <element class="col-span-number"> Contents... </element>
 - <element class="col-start-number"> Contents... </element>
 - <element class="col-end-number"> Contents... </element>

- <element class="row-span-number"> Contents... </element>
 - <element class="row-start-number"> Contents... </element>
 - <element class="row-end-number"> Contents... </element>

Padding

Class	Description
<code>p-0</code>	This class is used to define the padding on all sides.
<code>py-0</code>	This class defines padding on the y-axis (padding-top and padding-bottom).
<code>px-0</code>	This class defines padding on the x-axis (padding-left and padding-right).
<code>pt-0</code>	This class is specifically used to add padding on top.
<code>pr-0</code>	This class is specifically used to add padding on the right.
<code>pb-0</code>	This class is specifically used to add padding on the bottom.
<code>pl-0</code>	This class is specifically used to add padding on the left.

Width

Width Classes

- **w-0:** This class means the width is set to zero.
- **w-auto:** This class means the width is set according to the content
- **w-1/2:** This class means the width is set to half of the window.
- **w-1/3:** This class means the width is set to one-third of the window.
- **w-1/4:** This class means the width is set to one-fourth of the window.
- **w-1/5:** This class means the width is set to one-fifth of the window.
- **w-1/6:** This class means the width is set to one-sixth of the window.
- **w-1/12:** This class means the width is set to one-twelfth of the window.
- **w-full:** This class means the width is set to full.
- **w-screen:** This class means the width is set to the screen size.

Height

Height classes:

- **h-0:** This class sets the *height* to zero.
- **h-auto:** This class sets the *height* according to the content.
- **h-px:** This class is used to set the *height* in 1px fix.
- **h-1/2:** This class sets the *height* to half of the window.
- **h-1/3:** This class sets the *height* to one-third of the window.
- **h-1/4:** This class sets the *height* to one-fourth of the window.
- **h-1/5:** This class sets the *height* to one-fifth of the window.
- **h-1/6:** This class sets the height to one-sixth of the window.
- **h-full:** This class sets an element's height to 100% of its parent, as long as the parent has a defined height.
- **h-screen:** This class used to make an element span the entire height of the viewport.

Typography - Font size

```
<element class="font-xs">...</element>  
<element class="font-sm">...</element>  
<element class="font-lg">...</element>
```

Typography - Font style

`<element class="italic">...</element>`

`<element class="non-italic">...</element>`

Typography - Font family

```
<element class="font-sans">...</element>  
<element class="font-serif">...</element>  
<element class="font-mono">...</element>
```

Typography - Text Alignment

```
<element class="left">...</element>  
<element class="center">...</element>  
<element class="right">...</element>  
<element class="justify">...</element>
```


Table

Frameworks	About
Tailwind CSS	Tailwind CSS is a highly customizable, low-level CSS framework that gives you all of the building blocks

```
<!DOCTYPE html>
<html lang="en">

<head>
  <meta charset="UTF-8">
  <!-- Tailwind CSS CDN link -->
  <link href=https://unpkg.com/tailwindcss@^2/dist/tailwind.min.css
rel="stylesheet">
</head>

<body>

<!-- Paste your code below -->

  <div class="bg-green-500 text-white mx-auto">
    This is mx-auto class
  </div>

<!-- Paste your code above -->
</body>

</html>
```

Resources

- ▶ Go over <https://www.geeksforgeeks.org/tailwind-css/?ref=shm#getting-started-with-tailwind-css>