**TAILWIND CSS**

**Tailwind CSS** is a utility-first CSS framework. That providing a set of predefined utility classes and also we can customized the predefined utility classes according to your requirement. But unlike other CSS frameworks like [Bootstrap](https://en.wikipedia.org/wiki/Bootstrap_(front-end_framework)" \o "Bootstrap (front-end framework)), it does not provide a series of predefined classes for [elements](https://en.wikipedia.org/wiki/HTML_element" \o "HTML element) such as buttons or tables.

**Note**

Benefit of using tailwind CSS that we easily style or customize our HTML element without leaving html file with the help of the classes. Not like Bootstrap (Bootstrap add a lot of extra code and file to your website which can effect it’s performance and loading speed suppose we create a div container and use Bootstrap classes it automatically add display-flex property that is not required for container but tailwind CSS Dose not add extra things)

**Applying Conditionally**

CSS frameworks allow you can use utility classes to quickly apply to your elements conditionally. like

* Hover
* Focus
* Breakpoints.

**Breakpoints**

Every utility class in Tailwind can be applied conditionally at different breakpoints, which makes it a piece of cake to build complex responsive interfaces without ever leaving your HTML.

/\*\* @type {import('tailwindcss').Config} \*/

module.exports = {

  content: ["./src/\*\*/\*.{html,js}"],

  theme: {

      // Breakpoints for every screen size

        screens: {

         // These are the default breakpoints and The default breakpoints are inspired by

common device resolutions………………………………………………………………………………………………………………………………………

          'sm': '640px',

          'md': '768px',

          'lg': '1024px',

          'xl': '1280px',

          '2xl': '1536px',

         // To completely replace or override the default breakpoints…………………………………………………

              exs:'450px',

              sm: '680px',

              md: '960px',

              lg: '1024px',

              xl: '1240px',

          },

         // To override a single breakpoints (like lg) or we can add extra breakpoints

        extend: {

         // override a single breakpoints………………………………………………………………………………………………………

            lg:"1110px",

         // Add extra breakpoints……………………………………………………………………………………………………………………………

            maxScreen:'1730px'

    },

  },

  plugins: [],

}

**Way to define breakpoints for different screen size**

* Alternate way

If you define md:text-red breakpoints in that case after the md text follow md properties till the full

width of view port

<div class=" exs:text-green-600 sm:text-red-500 md:text-yellow-300 lg:text-blue-700 xl:text-pink-600">

* Between

If you define esx:max-md:text-red breakpoints in that case after the esx and befour the md

breakpoint text follow esx properties till the full width of view port

<div class="exs:max-sm:bg-pink-500 sm:max-md:bg-red-500 md:max-xl:bg-black md:max-xl:text-white" >

**Customizing your theme**

If you want to change things like your color palette, spacing scale or breakpoints, add your customizations to the them section of your tailwind.config.js file

/\*\* @type {import('tailwindcss').Config} \*/

module.exports = {

  theme: {

screens: {

// we add our classes (over ride the previous utilities classes )

      sm: '480px',

      md: '768px',

      lg: '976px',

      xl: '1440px',

    },

    colors: {

      'blue': '#1fb6ff',

      'pink': '#ff49db',

      'orange': '#ff7849',

      'green': '#13ce66',

      'gray-dark': '#273444',

      'gray': '#8492a6',

      'gray-light': '#d3dce6',

    },

    fontFamily: {

      sans: ['Graphik', 'sans-serif'],

      serif: ['Merriweather', 'serif'],

    },

extend: {

// we jus add some classes in previous utilities classes

      spacing: {

        '128': '32rem',

        '144': '36rem',

      },

      borderRadius: {

        '4xl': '2rem',

      }

    }

  }

}

**Font Family.**

* font-sans
* font-serif
* font-mono

**Applying conditionally**

CSS frameworks allow you can use utility classes to quickly apply specific font families to your elements conditionally. like Hover,focus, and Breakpoints.

 <p class="font-sans hover:font-serif"> Use Hover effect  </p>

 <p class="font-sans md:font-serif"> Use Breakpoints for changing the font families according to screen size</p>

**We can customizing your font families**

**Font Size with Line-height**

* text-base: set the text size to base
* text-xs : set the text size to extra-small
* text-sm : set the text size to small
* text-lg : set the text size to large
* text-xl : set the text size to extra-large,
* text-2xl : set the text size to 2 times extra-large
* text-3xl : set the text size to 3 times extra-large
* Applying conditionally
* Set an element’s line-height at the same time you set the font size by adding a line-height modifier to any font size utility

<p class="text-base/6 max-w-[600px] border">// here 6 define line height

<p class="text-sm/[17px] max-w-[600px] border">// we set custom line height in px.

**Font Smoothing**

* **Antialiased**
* **subpixel-antialiased**

<p class="subpixel-antialiased max-w-[700px] border m-8">

* Applying conditionally

**Letter Spacing**

* Tracking-tighter
* Tracking-tight
* Tracking-normal
* Tracking-wide
* Tracking-wider
* Tracking-widest
* Applying conditionally

**Line Clamp**

=> Suppose you write a paragraph inside a div and this paragraph contain 6 line and you want to show only 2 line when size of div is 400px . we can use line-clamp-2 . when you expend div container expend your para automatically.

* Applying conditionally

**Line Height**

**Relative line-height**

leading-none

* leading-normal
* leading-tight
* leading-relaxed
* leading-loose

**[Fixed line-heights](https://tailwindcss.com/docs/line-height" \l "fixed-line-heights)**

<p class="leading-6 ...">So I started to walk into the water...</p>

<p class="leading-7 ...">So I started to walk into the water...</p>

<p class="leading-8 ...">So I started to walk into the water...</p>

* Applying conditionally

**List Style Image**

   <ul class="list-image-[url(checkmark.png)] ...">

        <li>5 cups chopped Porcini mushrooms</li>

        <!-- ... -->

    </u>

**Text Align**

Use the text-left, text-center, text-right, and text-justify utilities to control the text alignment of an element.

Text-justify\*

Text Transform

* Uppercase
* Lowercase
* Capitalize : it convert the first latter of each word in capital.
* normal-case

**Text overflow**

* Truncate
* text-ellipsis
* text-clip

**Text Wrap**

* text-wrap
* text-nowrap
* text-balance
* text-pretty

**Text indent**

Use the indent-n utilities to set the amount of empty space (indentation) that’s shown before text in a block.

* indent-1
* indent-2
* indent-46

##### **Spacing**

Padding

Use the pt-\*, pr-\*, pb-\*, and pl-\* utilities to control the padding on one side of an element.

Margin

Use the mt-\*, mr-\*, mb-\*, and ml-\*utilities to control the margin on one side of an element.

Space Between

Use the space-x-\* utilities to control the horizontal space between elements.

Use the space-y-\* utilities to control the vertical space between elements.

**TAILWIND CSS**

1. **GRID IN TAILWIND**

Grid Template Columns:

* Utilities for specifying the columns in a grid layout. Means we can create the columns according to screen size .
* Use the grid-cols-n utilities to create grids with n equally sized columns.

Like

* Grid-cols-1 : This class is used to create a single column in row.
* Grid-cols-2 : This class is used to create a two column In row.
* This grid-cols-n class is also used with some condition CSS properties or screen size.

Like

* md:grid-cols-6 : This is define the 6 columns when your screen size is medium
* Hover:grid-cols-6
* How to merge columns using grid class properties

Like

* **Col-span-full : it merge all the boxes and makes a single box depend upon how many box are available in a column .**
* **Col-span-3**

* **Col-start-\* and col-end-\* utilities define where you want to start and where you want to end columns. We can also use col-span-\*.**

Grid Template Rows:

Utilities for specifying the rows in a grid layout.

* grid-rows-4: Define 4 rows in one columns.
* grid-flow-col: define the flow of rows.
* This grid-cols-n class is also used with some condition CSS properties or screen size.

Like

* md:grid-row-4 : This is define the 6 rows when your screen size is medium
* Hover:grid-row-6
* How to merge row using grid class properties

Like

* **row-span-full : it merge all the boxes and makes a single box depend upon how many box are available in a column .**
* **row-span-3**

* **row-start-\* and row-end-\* utilities define where you want to start and where you want to end columns. We can also use col-span-\*.**

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