



BOOTSTRAP

What is Bootstrap?

- Bootstrap is the most popular HTML, CSS and JavaScript framework for developing a responsive and mobile friendly website.
- It is absolutely free to download and use.
- It is a front-end framework used for easier and faster web development.
- It includes HTML and CSS based design templates for forms, buttons, tables, navigation, image carousels and many others.
- It facilitates you to create responsive designs.

History of Bootstrap:-

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter. It was released as an open source product in August 2011 on GitHub.

In June 2014 Bootstrap was the No.1 project on GitHub.

Version 3 → stable version

Version 4 → updated version of 3

Version 5 → current version

Main difference between Bootstrap 5 and Bootstrap 3 & 4, is that Bootstrap 5 has switched to JavaScript instead of jQuery.

Why use Bootstrap:-

- It is very easy to use. Anybody having basic knowledge of HTML and CSS can use Bootstrap.
- It facilitates users to develop a responsive website.
- It is compatible on most of browsers like Chrome, Firefox, Internet Explorer, Safari and Opera etc.

What is a responsive website:-

A website is called responsive website which can automatically adjust itself to look good on all devices, from smart phones to desktops etc.



HERE WE HAVE TWO WAYS TO USE BOOTSRAP:-

1 By using installation process

2.By using CDN(**Content Delivery Network** or **Content Distribution Network**) links

- CDN is a **free content delivery network** that helps us to quickly load Bootstrap CSS, Javascript, and jQuery libraries on our projects to make projects responsive, mobile friendly, and attractive.

Bootstrap CDN Link and scripts:-

CSS URL:-<https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/css/bootstrap.min.css>

JS URL:-<https://cdn.jsdelivr.net/npm/bootstrap@5.3.2/dist/js/bootstrap.bundle.min.js>

Utilities / Helper Classes:-

Bootstrap 5 has a lot of utility/helper classes to quickly style elements without using any CSS code.

1.Background

10.Flex

19.Height

2.Colors

11.Display

20.width

3.text-bg-color

12.Opacity

4.Borders

13.Position

5.Border Radius

14.Shadow

6.Margin

15.Visibility

7.Padding

16.z-index

8.Float

17.Overflow

9.object-fit

18.Text

1. Background Color:-

The classes for background colors are: `.bg-primary`, `.bg-success`, `.bg-info`, `.bg-warning`, `.bg-danger`, `.bg-secondary`, `.bg-dark` and `.bg-light`.

Note that background colors do not set the text color, so in some cases you'll want to use them together with a `.text-*` class.

Syntax:- `.bg-color`

2. Colors:-

The classes for text colors are: `.text-muted`, `.text-primary`, `.text-success`, `.text-info`, `.text-warning`, `.text-danger`, `.text-secondary`, `.text-white`, `.text-dark`, `.text-body` (default body color/often black) and `.text-light`

➤ Text classes can also be used on links, which will add a darker hover color:

Ex:- `Hover`

Syntax:- `.text-color`

3.Text-bg-color:-

- if we want to give both text color and background color we can use this property. Based on background color text color will be display.
- Syntax:-.text-bg-color

4.Borders:-

The border classes to add or remove borders from an element.

Syntax:-.border-value

- border
- border border-0
- border border-top-0
- border border-left-0
- border border-bottom-0
- border border-right-0
- We can able to give the colors border.

5.Border-Radius:-

Add rounded corners to an element with the rounded classes:

Syntax:-.rounded-value

- rounded-0
- rounded
- rounded-sm
- rounded-lg
- Rounded-top
- Rounded-right
- Rounded-left
- Rounded-bottom
- Rounded-circle

6.float:- Float an element to right or left.

Syntax:-.float-value

- Left , right , none

7.Width:-


Set the width of an element with the w-* classes (.w-25, .w-50, .w-75, .w-100, .mw-100):

8.Height:-

Set the width of an element with the h-* classes (.h-25, .h-50, .h-75, .h-100, .mh-100):

9.Margin and padding:-

- m - sets margin
- p - sets padding
- t - sets margin-top or padding-top
- b - sets margin-bottom or padding-bottom
- l - sets margin-left or padding-left
- r - sets margin-right or padding-right
- x - sets both padding-left and padding-right or margin-left and margin-right
- y - sets both padding-top and padding-bottom or margin-top and margin-bottom

- 
- 0 - sets margin or padding to 0
 - 1 - sets margin or padding to .25rem (4px if font-size is 16px)
 - 2 - sets margin or padding to .5rem (8px if font-size is 16px)
 - 3 - sets margin or padding to 1rem (16px if font-size is 16px)
 - 4 - sets margin or padding to 1.5rem (24px if font-size is 16px)
 - 5 - sets margin or padding to 3rem (48px if font-size is 16px)

Note: margins can also be negative, by adding an "n" in front of *size*:

- n1 - sets margin to -.25rem (-4px if font-size is 16px)
- n2 - sets margin to -.5rem (-8px if font-size is 16px)
- n3 - sets margin to -1rem (-16px if font-size is 16px)
- n4 - sets margin to -1.5rem (-24px if font-size is 16px)
- n5 - sets margin to -3rem (-48px if font-size is 16px)

10.Display:-

i) **d-inline**:- converting block-level element to inline-line element.

Ex:- <p></p>,<h1></h1>,<div></div>.....etc

ii) **d-block**:- converting inline element to block-level. Element.

Ex:-

iii) **d-inline-block**:-Element act likes a inline but it will accept block-level properties.

Ex:-

iv) **d-flex**:-By using this property we are arranging all the elements into one dimension.

- Justify-content:- around, start, end, between.
- Align-items:- center, start, end, stretch, baseline.
- Flex:- wrap, no-wrap.
- Flex-direction:- column, row, row-reverse, column-reverse.
- Flex-fill:- flex items to force them into equal widths

11.Position:-

How an HTML element can be placed in UI.

- Static
 - Fixed
 - Sticky
 - Relative
 - Absolute
-
- When ever we are using position properties along with those we can able to use top, bottom, start, end.

12.Shadow:-We can add shadow to text and to elements.

Syntax:-.shadow-values

- None
- sm
- lg
- Regular(shadow)

13.opacity:-The opacity property sets the opacity level for an element. zero means complete transparent.

Syntax:- .opacity-value

- 100
- 75
- 50
- 25

14.Text:-Aligning the text.

Syntax:- .text-value

- Start
- Center
- end

15.Visibility:-

This visibility have two values.

i)visible:-the element should be visible on UI

II)invisible:-The element should be invisible on UI

16.Z-index:-

Use z-index utilities to stack elements on top of one another. Requires a position value other than static.

Syntax:- .z-values

- Z-3
- Z-2
- Z-1
- Z-0
- Z-n1

17.Overflow:-

The overflow property on the fly with four default values and classes.

Syntax:- .overflow-values

- Auto
- Hidden
- Visible
- scroll