# **BOOTSTRAP**

Bootstrap is the most popular front end framework for faster and easier responsive web development. Bootstrap is a free and open-source framework for creating websites and web applications. Bootstrap is used to make a website responsive which means that web site will automatically adjust itself according to the size of the device.

## ADVANTAGES OF BOOTSTRAP

### **Save lots of time** — You can save lots of time and efforts using the Bootstrap.

### **Responsive features** — Using Bootstrap you can easily create responsive websites. Bootstrap responsive features make your web pages to appear more appropriately on different devices.

### **Easy to use** — Bootstrap is very easy to use. Anybody with the basic working knowledge of HTML and CSS can start development with Bootstrap.

## INSTALLATION

Bootstrap uses its default CSS and JavaScript files. So,to get started with bootstrap you need follow the instructions given below:

Copy the stylesheet link into your <head> before all other stylesheets to load bootstrap CSS.

<link rel="stylesheet" href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0-beta.2/css/bootstrap.min.css" integrity="sha384-PsH8R72JQ3SOdhVi3uxftmaW6Vc51MKb0q5P2rRUpPvrszuE4W1povHYgTpBfshb" crossorigin="anonymous">

Then place the following javascript files at the bottom of your document just before the end of <body> tag.

<!-- Latest compiled and minified CSS -->  
<link rel="stylesheet"href="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/css/bootstrap.min.css">

<!-- jQuery library -->  
<script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>

<!-- Popper JS -->  
<script src="https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.12.9/umd/popper.min.js"></script>

<!-- Latest compiled JavaScript -->  
<script src="https://maxcdn.bootstrapcdn.com/bootstrap/4.0.0/js/bootstrap.min.js"></script>

## BOOTSTRAP GRID SYSTEM

Here's how the Bootstrap grid system works:

* To use grid system in bootstrap first of all make a container
* To use 100% width of the page use container-fluid instead of container.
* Bootstrap grid system includes twelve columns.
* To access columns first we need to make a row.
* Rows should be placed within **.container** class
* Columns automatically creates space(padding) between two columns.

Basic code for creating a grid is:

<div class="container">

<div class="row">

<div class="col-4">

First column

</div>

<div class="col-4">

Second column

</div>

<div class="col-4">

Third column

</div>

</div>

</div>

To make the grid responsive bootstrap has introduced five grid breakpoints according to the size of the screen on which the website is being displayed. These breakpoints are:

* Simple col is used to represent devices of all sizes
* Col-sm is used to represent devices of size less than 768px
* Col-md is used to represent devices of size less than 992px
* Col-lg is used to represent devices of size less than 1200px
* Col-xl is used to represent devices of size greater than 1200px

Syntax:

<div class="col-md"> </div>

## TYPOGRAPHY

Bootstrap has introduced some new classes in typography.

1. **Headings**

It is similar what was introdeced in HTML. Headings are defined with the <h1> to <h6> tags. <h1> defines the most important heading with largest font size and as you go to h6 the font size decreases. <h6> defines the least important heading. **Sub-headings**

**.small** class helps you to get smaller text in a lighter color.

Example:

<h1>Heading 1 <small>Sub-heading</small></h1>

<h2>Heading 2 <small>Sub-heading</small></h2>

<h3>Heading 3 <small>Sub-heading</small></h3>

**3. Display headings**

These heading stands out more than the normal headings. Display class goes from display-1 to display-4 and as we go from display-1 to display-4 the size of the text will decreases.

Example:

<h1 class="display-1">Display 1</h1>

<h1 class="display-2">Display 2</h1>

## Media queries

Since Bootstrap is developed to be mobile first, we use a handful of media queries to create sensible breakpoints for our layouts and interfaces. These breakpoints are mostly based on minimum viewport widths allow us to scale up elements as the viewport changes.

// Extra small devices (portrait phones, less than 576px)

// No media query since this is the default in Bootstrap

// Small devices (landscape phones, 576px and up)

@media (min-width: 576px) { ... }

// Medium devices (tablets, 768px and up)

@media (min-width: 768px) { ... }

// Large devices (desktops, 992px and up)

@media (min-width: 992px) { ... }

// Extra large devices (large desktops, 1200px and up)

@media (min-width: 1200px) { ... }

Example :

@media (min-width: 768px) {

body {

color: red;

}

}

This code will tell the brower that if the device width is greater than or equal to 768px, change the text color to red.

## Responsive images

A good website always include responsive images which means images wll adjust according to screen size. If images are not responsive then add <img class=”img-fluid” src=.....> or instead of img-fluid you can use img-responsive . Though img-fluid has been added in bootstrap4 and img-responsive was in bootstrap3.

## Buttons

You can create a button with **.btn** class and by default the button will look grey button with rounded corners. Below are the different classes thatb we can use and their description

* **btn:** Default/Standard button.
* **btn-primary:** Provides extra visual weight and identifies the primary action in a set of buttons
* **btn-success:** Indicates a successful or positive action.
* **btn-info:** Contextual button for informational alert messages.
* **btn-warning:** Indicates caution should be taken with this action.
* **btn-danger:** Indicates a dangerous or potentially negative action.
* **btn-link:** Deemphasize a button by making it look like a link while maintaining button behavior.

Example:

<button type="button" class="btn btn-primary">Primary</button>

## DropDown

## You can also add a dropdown button. When we click on the dropdown button, the button gets expanded i.e content will be dropped drown.

## Example:

<div class="dropdown">

<button class="btn btn-secondary dropdown-toggle" type="button" id="dropdownMenuButton" data-toggle="dropdown" aria-haspopup="true" aria- expanded="false">

Dropdown button

</button>

<div class="dropdown-menu" aria-labelledby="dropdownMenuButton">

<a class="dropdown-item" href="#">Action</a>

<a class="dropdown-item" href="#">Another action</a>

<a class="dropdown-item" href="#">Something else here</a>

</div>

</div>

## JUMBOTRON

A lightweight, flexible component that can optionally extend the entire viewport to showcase key marketing messages on your site. It uses utility classes for typography and spacing to space content out within the larger container. It does not occupy the entire width of the screen and has rounded corners.So to make the jumbotron full width, and without rounded corners, add the .jumbotron-fluid modifier class and add a .container or .container-fluid within.

<div class="jumbotron"> is used to make a normal jumbotron.

<div class="jumbotron jumbotron-fluid"> is used to make a fluid jumbotron.

## Cards

A card is basically a container in which images, button, footer, etc. can be placed. As the name suggests it looks like a playing card. To create a card, firstly apply the **.card** and then **.card-body** classes. To give a heading to the card add a **.card-title** and **.card-text** to add text in the card.

Example:

<div class="card card-body">

<h4 class="card-title">Boot Polish</h4>

<p class="card-text">Boot polish is used to

give shine to your shoes</p>

<a href="#" class="btn btn-primary">

More

</a>

</div>

## Carousel

Carousel component is very helpful when you want add scrolling images or text that slide in and when you hover over image scrolling stops temporarily.

Example:

<div id="myCarousel" class="carousel slide w-50

ml-auto mr-auto" data-ride="carousel">

<div class="carousel-inner" role="listbox">

<div class="carousel-item active">

<img class="d-block w-100"

src="/pix/samples/27m.jpg"

alt="First slide">

</div>

<div class="carousel-item">

<img class="d-block w-100"

src="/pix/samples/28m.jpg" alt="Second

slide">

</div>

</div>

To know more about all the components refer to: <https://getbootstrap.com/docs/4.0/components/>