

# Bootstrap 5 Framework Tutorials

## Bootstrap Framework -

### 1) What is Bootstrap Framework?

- It is a free front-end framework for faster and easier web development.
- It includes HTML and CSS based design templates for typography, forms, buttons, tables, navigation, modals, image carousels and many other, as well as optional JavaScript plugins.
- It also gives you the ability to easily create responsive designs.

### 2) Bootstrap History?

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

### 3) Why Use Bootstrap?

- a) Easy to use: Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- b) Responsive features: Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- c) Mobile-first approach: In Bootstrap 3, mobile-first styles are part of the core framework
- d) Browser compatibility: Bootstrap is compatible with all modern browsers (Chrome, Firefox, Internet Explorer, Edge, Safari, and Opera)

### 4) Bootstrap Versions?

- Bootstrap 3, which was released in 2013.
- Bootstrap 4, which was released in 2018.
- Bootstrap 5, which was released in 2021

### 5) Where to Get Bootstrap?

- There are two ways to use Bootstrap
  - a) Download Bootstrap from [getbootstrap.com](https://getbootstrap.com)
  - b) Include Bootstrap from a CDN (Content Delivery Network)

### 6) Getting Started with Bootstrap 5 Version -

- Containers - There are two container classes
  - a) The `.container` - class provides a responsive fixed width container.
  - b) The `.container-fluid` - class provides a full width container.

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## 7) Introduction with Bootstrap Grid Layout -

- Bootstrap's grid system allows up to 12 columns across the page for a single row.
- Bootstrap's grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

### - Grid Classes for Bootstrap 3

- The Bootstrap 3 grid system has four classes:

- a) xs (for phones - screens less than 768px wide)
- b) sm (for tablets - screens equal to or greater than 768px wide)
- c) md (for small laptops - screens equal to or greater than 992px wide)
- d) lg (for laptops and desktops - screens equal to or greater than

1200px wide)

### - Grid Classes for Bootstrap 4

- The Bootstrap 4 grid system has five classes:

- a) .col- (extra small devices - screen width less than 576px)
- b) .col-sm- (small devices - screen width equal to or greater than
- c) .col-md- (medium devices - screen width equal to or greater than
- d) .col-lg- (large devices - screen width equal to or greater than 992px)
- e) .col-xl- (xlarge devices - screen width equal to or greater than

576px)

768px)

1200px)

- The Bootstrap 5 grid system has six classes:

- a) .col- (extra small devices - screen width less than 576px)
- b) .col-sm- (small devices - screen width equal to or greater than
- c) .col-md- (medium devices - screen width equal to or greater than
- d) .col-lg- (large devices - screen width equal to or greater than 992px)
- e) .col-xl- (xlarge devices - screen width equal to or greater than
- f) .col-xxl- (xxlarge devices - screen width equal to or greater than

576px)

768px)

1200px)

1400px)

## 8) Text/Typography -

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1) <h1> to <h6> -

Elements & Classes (.h1 to .h6)

2) Display Headings-

.display-1 to .display-6 classes - Bigger Headings

3) <small> or .small class

4) <mark> or .mark class

5) <pre> element only no bootstrap class

6) Other Text/Typography classes -

.text-start - left aligned text

.text-center - center aligned text

.text-end - right aligned text

.text-decoration-none - Removes the underline from a link

.text-lowercase - Indicates lowercased

.text-uppercase - Indicates uppercased text

.text-capitalize - Indicates capitalized text

.list-unstyled - Removes the default list-style and left margin on list items (works on both <ul> and <ol>).

9) Bootstrap 5 Colors Classes-

1) Text Color Classes -

.text-muted

.text-primary

.text-success

.text-info

.text-warning

.text-danger

.text-secondary

.text-white

.text-dark

.text-body

.text-light

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## 2) Background Colors Classes-

.bg-primary  
.bg-success  
.bg-info  
.bg-warning  
.bg-danger  
.bg-secondary  
.bg-dark  
.bg-light

## 10) Bootstrap Table -

- 1) Basic Table - .table class
- 2) Striped Rows - .table-striped class
- 3) Bordered Table - .table-bordered class
- 4) Hover Rows - .table-hover class
- 5) Black/Dark Table - .table-dark class
- 6) Dark Striped Table - .table-dark .table-striped class
- 7) Hoverable Dark Table - .table-dark .table-hover class
- 8) Borderless Table - .table-borderless class
- 9) Contextual Classes (Tables color classes)

.table-primary  
.table-success  
.table-danger  
.table-info  
.table-warning  
.table-active  
.table-secondary  
.table-light  
.table-dark

- 10) Responsive Tables - .table-responsive class

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## 11) Images -

### 1) Shapes -

- a) Rounded Corners - `.rounded` class
- b) Circle - `.rounded-circle` class
- c) Thumbnail - `.img-thumbnail` class

### 2) Aligning Images -

- a) `.float-start` - left aligned
- b) `.float-end` - right aligned

### 3) Centered Image -

- a) `.mx-auto` (`margin:auto`)
- b) `.d-block` (`display:block`)

### 4) Responsive Images

- a) `.img-fluid` class ( `max-width: 100%;height: auto;`)

## 12) Alerts -

### 1) `.alert` class - Main Class / Parent Class

### 2) Contextual classes -

- `.alert-success`
- `.alert-info`
- `.alert-warning`
- `.alert-danger`
- `.alert-primary`
- `.alert-secondary`
- `.alert-light`
- `.alert-dark`

### 3) Alert Links -

- `.alert-link`

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## 4) Closing Alerts -

- .alert-dismissible - for positioned close button to right side
- data-bs-dismiss="alert" - JavaScript Attribute for Closing alert

## 5) Animated Alerts -

- .fade and .show class

## 13) Bootstrap 5 Buttons-

### 1) Button Styles-

- a).btn class - Main / Parent Class

### b) Contextual Color Class-

- .btn-primary
- .btn-secondary
- .btn-success
- .btn-info
- .btn-warning
- .btn-danger
- .btn-dark
- .btn-light
- .btn-link

The button classes can be used on <a>, <button>, or <input> elements:

### 2) Button Outline-

- a).btn class - Main / Parent Class

### b) Contextual Color Class-

- .btn-outline-primary
- .btn-outline-secondary
- .btn-outline-success
- .btn-outline-info
- .btn-outline-warning
- .btn-outline-danger
- .btn-outline-dark
- .btn-outline-light

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## 3) Button Sizes-

- a) `.btn-lg` - large size button
- b) `.btn-sm` - small size button

## 4) Block Level Buttons-

- To create a block level button that spans the entire width of the parent element,  
use the `.d-grid "helper"` class on the parent element:
- If you have many block-level buttons, you can control the space between them with the `.gap-*` class

## 5) Active/Disabled Buttons -

- a) `.active` class - The class `.active` makes a button appear pressed
- b) disabled attribute - attribute makes a button unclickable

## 6) Bootstrap 5 Button Groups-

- a) `.btn-group` class - group a series of buttons together (on a single line) in a button group

### b) Button group Sizes-

- `.btn-group-lg` for a large button group
- `.btn-group-sm` for a small button group

### c) Vertical Button Groups -

- Use the class  
`.btn-group-vertical` to create a vertical button group

### d) Button Groups Side by Side-

- Button groups are "inline" by default, which makes them appear side by side when you have multiple groups

## 14) Badges -

- Badges are used to add additional information to any content

- a) `.badge` class used with contextual classes like `bg-secondary` etc.

### b) Contextual Badges class -

- `.bg-primary`
- `.bg-success`

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.bg-info

.bg-warning

.bg-danger

.bg-secondary

.bg-dark

.bg-light

c) Pill Badges -

- .rounded-pill - class to make the badges more round

d) Badge inside an Element -

15) Basic Progress Bar -

- A progress bar can be used to show how far a user is in a process.

a) .progress class - used to a container element / parent element

b) .progress-bar class - used to its child element

- Progress Bar Height -

- The height of the progress bar is 1rem (usually 16px) by default. Use the CSS height property to change it

- Progress Bar Labels

- Colored Progress Bars -

- By default, the progress bar is blue (primary). Use any of the contextual background classes to change its color:

.bg-primary

.bg-success

.bg-info

.bg-warning

.bg-danger

.bg-secondary

.bg-dark

.bg-light

- Striped Progress Bars -

.progress-bar-striped class to add stripes to the progress bars



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- Animated Progress Bar -

.progress-bar-animated class to animate the progress bar

- Multiple Progress Bars -

### 16) Bootstrap 5 Spinners -

a) .spinner-border class

b) Colored Spinners -

.text-muted

.text-primary

.text-success

.text-info

.text-warning

.text-danger

.text-secondary

.text-white

.text-dark

.text-body

.text-light

c) Spinner Size -

.spinner-border-sm class

d) Growing Spinners -

.spinner-grow class

e) Spinner Size -

.spinner-grow-sm class

f) Spinner Buttons -

### 17) Bootstrap 5 Pagination-

a) Basic Pagination-

.pagination class to an <ul> element

.page-item to each <li> element

.page-link class to each link inside <li>

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## b) Active State-

.active class is used to "highlight" the current page

## c) Disabled State -

.disabled class is used for un-clickable links

## d) Pagination Sizing-

.pagination-lg for larger blocks

.pagination-sm for smaller blocks

## e) Pagination Alignment -

.justify-content-start

.justify-content-center

.justify-content-end

## 18) Bootstrap 5 List Groups -

### a) Basic List Groups -

.list-group class with <ul> element

.list-group-item class with <li> element

### b) Active State-

.active class

### c) List Group With Linked Items -

- use <div> instead of <ul>

- <a> instead of <li> -

.list-group-item-action class if you want a grey background color on

hover

### d) Disabled Item -

.disabled class adds a lighter text color to the disabled item

### e) Flush / Remove Borders -

.list-group-flush class to remove some borders and rounded corners

### f) Numbered List Groups -

.list-group-numbered class to create list items with numbers in front of them

### g) Horizontal List Groups-

.list-group-horizontal

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## h) Contextual Classes -

- .list-group-item-success
- .list-group-item-secondary
- .list-group-item-info
- .list-group-item-warning
- .list-group-item-danger
- .list-group-item-primary
- .list-group-item-dark
- .list-group-item-light

## i) List Group with Badges-

## 19) Bootstrap 5 Cards -

### a) Cards-

- bordered box with some padding around its content.
- It includes options for headers, footers, content, colors, etc.

### b) Basic Card -

- .card class - bordered box
- .card-header - class adds a heading to the card
- .card-body class - some padding
- .card-footer class adds a footer to the card

### c) Contextual Cards -

- .bg-primary
- .bg-success
- .bg-info
- .bg-warning
- .bg-danger
- .bg-secondary
- .bg-dark
- .bg-light

### d) Titles, text, and links

- .card-title to add card titles to any heading element

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.card-text class is used to remove bottom margins for a `<p>` element if it is the last child

.card-link class adds a blue color to any link, and a hover effect

## e) Card Images-

.card-img-top -

.card-img-bottom -

## f) Card Image Overlays -

.card-img-overlay to add text on top of the image:

## 20) Bootstrap 5 Collapse -

### a) Basic Collapsible -

- .collapse class indicates a collapsible element
- data-bs-toggle="collapse"
- data-bs-target="#id"

### b) Accordion -

data-bs-parent attribute to make sure that all collapsible elements under the specified parent will be closed when one of the collapsible item is shown.

## 21) Bootstrap 5 Dropdowns -

### a) Basic Dropdown -

- .dropdown class indicates a dropdown menu
- .dropdown-toggle - Set dropdown icon to button or link
- .dropdown-menu class - `<ul>` or `<div>` element
- .dropdown-item class - `<a>` element
- data-bs-toggle="dropdown" attribute

### b) Dropdown Divider-

.dropdown-divider class is used to separate links inside the dropdown menu with a thin horizontal border

### c) Dropdown Header -

.dropdown-header class is used to add headers inside the dropdown menu

### d) Disable and Active items -

- .active class - `<a>` element
- .disabled class - `<a>` element

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### e) Dropdown Position -

.dropend

.dropstart

### f) Dropdown Menu Right-

.dropdown-menu-end class to the element with .dropdown-menu

### g) Dropup -

.dropup class

### h) Dropdown Text-

.dropdown-item-text class

### i) Grouped Buttons with a Dropdown -

### j) Vertical Button Group with Dropdown-

## 22) Bootstrap 5 Navs -

### a) Nav Menus -

.nav class to a <ul> element

.nav-item for each <li> element

.nav-link class to <a> element

### b) Aligned Nav -

.justify-content-center class to center the nav

.justify-content-end class to right-align the nav.

### c) Vertical Nav -

.flex-column class to create a vertical nav

### d) Tabs -

.nav-tabs class for <ul> element

.active class to the active/current link.

### e) Pills -

.nav-pills class for <ul> element

.active class to the active/current link.

### f) Justified Tabs/pills -

.nav-justified class for (equal width)

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g) Pills with Dropdown -

h) Tabs with Dropdown -

i) Toggleable / Dynamic Tabs -

- .tab-content - for <div> element as a parent

- .tab-pane class - for hiding

- data-bs-toggle="tab" attribute to <a> element

- .fade - animated effect

j) Toggleable / Dynamic Pills -

- .tab-content - for <div> element as a parent

- .tab-pane class - for hiding

- data-bs-toggle="pill" attribute to <a> element

- .fade - animated effect

23) Bootstrap 5 Navbars -

a) Basic Navbar -

- .navbar class

- .navbar-expand-xxl|xl|lg|md|sm - for responsive collapsing class

- .navbar-nav class to <ul> or <div>

- .nav-item class for <li>

- .nav-link class for <a>

b) Centered Navbar -

- .justify-content-center class to center the navigation bar

c) Colored Navbar -

- .bg-primary

- .bg-success

- .bg-info

- .bg-warning

- .bg-danger

- .bg-secondary

- .bg-dark

- .bg-light

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## d) Brand / Logo -

.navbar-brand class is used to highlight the brand/logo/project name of your page

## 24) Bootstrap 5 Carousel -

### a) Slides only carousels -

- .carousel class - main parent class
- .slide class - for sliding images
- .carousel-inner class - child class for carousel
- .carousel-item class - for each images
- .active class - for displaying 1st image
- data-bs-ride="carousel" attribute to run carousel

### b) With controls carousel -

- id - for identity
- .carousel class - main parent class
- .slide class - for sliding images
- .carousel-inner class - child class for carousel
- .carousel-item class - for each images
- .active class - for displaying 1st image
- data-bs-ride="carousel" attribute to run carousel
- .carousel-control-prev class - for <button> element
- .carousel-control-prev-icon class - for previous button icon
- .carousel-control-next class - for <button> element
- .carousel-control-next-icon class - for Next button icon
- data-bs-target="#id" - carousel id for <button> element

### c) With indicators carousel -

- id - for identity
- .carousel class - main parent class
- .slide class - for sliding images
- .carousel-inner class - child class for carousel
- .carousel-item class - for each images
- .active class - for displaying 1st image

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- data-bs-ride="carousel" attribute to run carousel
- .carousel-control-prev class - for <button> element
- .carousel-control-prev-icon class - for previous button icon
- .carousel-control-next class - for <button> element
- .carousel-control-next-icon class - for Next button icon
- data-bs-target="#id" - carousel id for <button> element
- .carousel-indicators class - for indexing <button> element
- data-bs-slide-to="index" attribute - for indicators <button> element

### d) With captions carousel -

- .carousel-caption class
- .d-none & .d-md-block class

### e) Crossfade effect -

- .carousel-fade

### f) Individual .carousel-item interval -

- data-bs-interval="1000" attribute to each .carousel-item to change slide time

## 25) Bootstrap 5 Modal -

### a) Modals -

The Modal component is a dialog box/popup window that is displayed on top of the current page

- .modal class - main parent class
- .modal-dialog class
- .modal-content class
- .modal-header class
- .modal-body class
- .modal-footer class
- data-bs-dismiss="modal" attribute - for closing modal
- data-bs-toggle="modal" attribute
- data-bs-target="#id"

### b) Add animation to modal -

- .fade class - to parent element



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### c) Modal Size -

.modal-sm class - small modal

.modal-lg class - large modal

.modal-fullscreen class - full screen modal

### d) Centered aligned Modal -

.modal-dialog-centered class

### e) Scrolling Modal -

.modal-dialog-scrollable to .modal-dialog class

## 26) Bootstrap 5 Utilities -

### a) Borders -

.border class - all side solid style default border

- To removing each side borders -

.border-0 class - remove all side borders

.border-top-0 class - remove top side border only

.border-end-0 class - remove right side border only

.border-bottom-0 class - remove bottom side border only

.border-start-0 class - remove left side border only

- To adding each side border separately -

.border-top class - Only add top side border

.border-end class - Only add right side border

.border-bottom class - Only add bottom side border

.border-start class - Only add left side border

### b) Border Width -

Use .border-1 to .border-5 to change the width of the border

### c) Border Color -

.border-primary

.border-success

.border-info

.border-warning

.border-danger

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.border-secondary

.border-dark

.border-light

.border-white

## d) Border Radius -

.rounded class

## e) Float and Clearfix

.float-end class - for right alignment

.float-start class - for left alignment

.clearfix class - for removing overflow to parent

## f) Center Align -

.mx-auto class (adds margin-left and margin-right: auto)

## g) Width -

.w-25 class - 25% Width

.w-50 class - 50% Width

.w-75 class - 75% Width

.w-100 class - 100% Width

.w-auto class - Auto Width

.mw-100 class - Max Width 100%

## h) Height -

.h-25 class - 25% Height

.h-50 class - 50% Height

.h-75 class - 75% Height

.h-100 class - 100% Height

.h-auto class - Auto Height

.h-100 class - Max Height 100%

## i) Spacing -

- m - margin

- p - padding

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sides -

t - top

b - bottom

s - left

e - right

x - left & Right

y - Top & Bottom

sizes -

0 - Both 0

1 - .25rem - 4px

2 - .5rem - 8px

3 - 1rem - 16px

4 - 1.5rem - 24px

5 - 3rem - 48px

j) Shadows -

.shadow class

.shadow-sm class - small shadow

.shadow-lg class - large shadow

k) Close icon -

.btn-close class

l) Text Color Classes -

.text-muted

.text-primary

.text-success

.text-info

.text-warning

.text-danger

.text-secondary

.text-white

.text-dark

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.text-body

.text-light

### m) Background Colors Classes-

.bg-primary

.bg-success

.bg-info

.bg-warning

.bg-danger

.bg-secondary

.bg-dark

.bg-light

## 27) Bootstrap 5 Flex

### a) Flexbox -

.d-flex class: - to parent element for Block flexbox Container

.d-inline-flex class - to parent element for inline flexbox container

### b) Horizontal Direction -

.flex-row to display the flex items horizontally

.flex-row-reverse to right-align the horizontal direction

### c) Vertical Direction -

.flex-column to display the flex items vertically

.flex-column-reverse to reverse the vertical direction

### d) Justify Content -

.justify-content-start class - for left side aligned - default

.justify-content-end class - for right side aligned

.justify-content-center class - for center aligned

.justify-content-between class - for space between

.justify-content-around class - for left & right side equal margin

### e) Fill / Equal Widths -

.flex-fill on flex items to force them into equal widths

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## f) Order -

.order classes.

## g) Auto Margins -

.ms-auto (push items to the right)

.me-auto (push items to the left)

## h) Wrap -

.flex-nowrap class - default

.flex-wrap class -

.flex-wrap-reverse class

## i) Align Content - for multiple child in row

.align-content-start class - default - vertical align top

.align-content-end class - vertical align bottom

.align-content-center class - vertical center

.align-content-between class - vertical justify

.align-content-around class - top Bottom equal margin

.align-content-stretch - child stretch as per parent height

## j) Align Items - for single row child

.align-items-start class - vertical top

.align-items-end class - vertical bottom

.align-items-center - vertical center

.align-items-stretch - default

.align-items-baseline - vertical top

## k) Align Self - for single child vertical align

.align-self-start class - vertical top

.align-self-end class - vertical bottom

.align-self-center class - vertical center

.align-self-baseline class - vertical top

.align-self-stretch -default

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### 28) Bootstrap 5 Forms -

#### a) Stacked Form -

.form-control get proper form styling - use to <input>, <textarea> element

.form-label class to each label element to ensure correct padding.

#### b) Form Row/Grid (Inline Forms) -

use grid classes with form classes

#### c) Form Control Size -

.form-control-lg class

.form-control-sm class

#### d) Disabled and Readonly -

- disabled attribute

- readonly attribute

#### e) Plain text Inputs -

.form-control-plaintext class to style an input field without borders, but keep proper margins and padding

#### f) Color Picker -

.form-control-color class

#### g) Select Menu -

.form-select class to the <select> element

#### h) Select Menu Size -

.form-select-lg class

.form-select-sm class

#### i) Disabled Select Menu -

- disabled attribute to disable the select menu.

#### j) Checkboxes & Radio Buttons -

.form-check-input to style checkboxes & Radio button

.form-check-label class to label elements

#### k) Toggle Switches -

.form-switch class together with container

#### l) Custom Range -

.form-range class

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### m) Input Groups -

.input-group class is a container to enhance an input by adding an icon, text or a button in front or behind the input field as a "help text"

.input-group-text class

### n) Input Group Size -

.input-group-sm class for small input

.input-group-lg for large inputs groups

### o) Floating Labels / Animated Labels -

.form-floating class to container

- placeholder attribute is required for each <input> element