# bootsrap

## Navbar

Documentation and examples for Bootstrap's powerful, responsive navigation header, the navbar. Includes support for branding, navigation, and more, including support for our collapse plugin.

## How it works

Here's what you need to know before getting started with the navbar:

- Navbars require a wrapping \_\_navbar with \_\_navbar-expand{-sm|-md|-lg|-x1|-xx1} for responsive collapsing and <u>color scheme</u> classes.
- Navbars and their contents are fluid by default. Change the container to limit their horizontal width in different ways.
- Use our spacing and flex utility classes for controlling spacing and alignment within navbars.
- Navbars are responsive by default, but you can easily modify them to change that. Responsive behavior depends on our Collapse JavaScript plugin.
- Ensure accessibility by using a <nav> element or, if using a more generic element such as a <div>, add a role="navigation" to every navbar to explicitly identify it as a landmark region for users of assistive technologies.
- Indicate the current item by using aria-current="page" for the current page or aria-current="true" for the current item in a set.
- **New in v5.2.0:** Navbars can be themed with CSS variables that are scoped to the <a href="maybar">.navbar-light</a> has been deprecated and <a href="maybar-dark">.navbar-dark</a> has been rewritten to override CSS variables instead of adding additional styles.

The animation effect of this component is dependent on the prefers-reduced-motion media query. See the <u>reduced motion</u> section of our accessibility documentation.

## Supported content

Navbars come with built-in support for a handful of sub-components. Choose from the following as needed:

- .navbar-brand for your company, product, or project name.
- .navbar-nav for a full-height and lightweight navigation (including support for dropdowns).
- .navbar-toggler for use with our collapse plugin and other navigation toggling behaviors.
- · Flex and spacing utilities for any form controls and actions.
- .navbar-text for adding vertically centered strings of text.
- .collapse.navbar-collapse for grouping and hiding navbar contents by a parent breakpoint.
- Add an optional .navbar-scroll to set a max-height and scroll expanded navbar content.

Here's an example of all the sub-components included in a responsive light-themed navbar that automatically collapses at the 1g (large) breakpoint.

# **Bootstrap Containers**

In this tutorial you will learn how to create containers with Bootstrap.

# **Creating Containers with Bootstrap**

Containers are the most basic layout element in Bootstrap and are required when using the grid system. Containers are basically used to wrap content with some padding. They are also used to align the content horizontally center on the page in case of fixed width layout.

Bootstrap provides three different types containers:

- .container , which has a max-width at each responsive breakpoint.
- .container-fluid, which has 100% width at all breakpoints.
- .container-{breakpoint}, which has 100% width until the specified breakpoint.

The table below illustrates how each container's max-width changes across each breakpoint.

For example, when using the \_container class the actual width of the container will be 100% if the viewport width is <576px, 540px if the viewport width is  $\ge576$ px but <768px, 720px if the viewport width is  $\ge768$ px but <992px, 960px if the viewport width is  $\ge992$ px but <1200px, 1140px if the viewport width is  $\ge1200$ px but <1400px, and 1320px if the viewport width is  $\ge1400$ px.

Similarly, when you use the container-lg class the actual width of the container will be 100% until the viewport width is <992px, 960px if the viewport width is  $\ge992$ px but <1200px, 1140px if the viewport width  $\ge1200$ px but <1400px, and 1320px if the viewport width is  $\ge1400$ px.

ClassesBootstrap Grid System	X-Small<576px	Small≥576px	Medium≥768px	Large≥992px	X- Large≥1200px	XX- Large≥1400px
.container	100%	540px	720px	960px	1140px	1320px
.container-sm	100%	540px	720px	960px	1140px	1320px
.container-md	100%	100%	720px	960px	1140px	1320px
.container-lg	100%	100%	100%	960px	1140px	1320px
.container-xl	100%	100%	100%	100%	1140px	1320px
.container-xxl	100%	100%	100%	100%	100%	1320px
.container-fluid	100%	100%	100%	100%	100%	100%

# **Creating Responsive Fixed-width Containers**

You can simply use the .container class to create a responsive, fixed-width container. The width of the container will change at different breakpoints or screen sizes, as shown above.

### ExampleTry this code »

 $<\!\!\text{div class} = \text{"container"} > <\!\!\text{h1} > \text{This is a heading} <\!\!/\text{h1} > <\!\!\text{p} > \text{This is a paragraph of text.} <\!\!/\text{p} > <\!\!/\text{div} > <$ 

# **Creating Fluid Containers**

You can use the container-fluid class to create a full width container. The width of the fluid container will always be 100% irrespective of the devices or screen sizes.

### ExampleTry this code »

<div class="container-fluid"><h1>This is a heading</h1>This is a paragraph of text.</div v>

# **Specify Responsive Breakpoints for Containers**

Since Bootstrap v4.4, you can also create containers that is 100% wide until the specified breakpoint is reached, after which max-width for each of the higher breakpoints will be applied.

For example, .container-x1 will be 100% wide until the xl breakpoint is reached (i.e., viewport width ≥ 1200px), after which max-width for xl breakpoint is applied, which is 1140px.

## Example Try this code »

<div class="container-sm">100% wide until screen size less than 576px</div><div class="container-md">100% wide until screen size less than 768px</div><div class="container-lg">100% wide until screen size less than 768px</div><div class="container-lg">100% wide until screen size less than 992px</div><div class="container-xl">100% wide until screen size less than 1200px</div>

# **Adding Background and Borders to Containers**

By default, container doesn't have any <u>background-color</u> or <u>border</u>. But if you need you can apply your own styles, or simply use the Bootstrap background-color and border <u>utility classes</u> to add background-color or border on them, as shown in the following example.

## ExampleTry this code »

```
<!-- Container with dark background and white text color -->
<div class="container bg-dark text-white"><h1>This is a heading</h1>This is a paragraph of
text.</div><!-- Container with light background -->
<div class="container bg-light"><h1>This is a heading</h1>This is a paragraph of text.
</div><!-- Container with border -->
<div class="container with border -->
<div class="container border"><h1>This is a heading</h1>This is a paragraph of text.
</div></rr>
```

# **Applying Paddings and Margins to Containers**

By default, containers have padding of 12px on the left and right sides, and no padding on the top and bottom sides. To apply extra padding and margins you can use the <u>spacing utility classes</u>.

### ExampleTry this code »

# **Bootstrap Grid System**

The Bootstrap grid system is the fastest and easy way to create responsive website layout.

# What is Bootstrap Grid System?

Bootstrap grid system provides an easy and powerful way to create responsive layouts of all shapes and sizes. It is built with <u>flexbox</u> with mobile-first approach. Also, it is fully responsive and uses twelve column system (12 columns available per row) and six default responsive tiers.

You can use the Bootstrap's predefined grid classes for quickly making the layouts for different types of devices like mobile phones, tablets, laptops, desktops, and so on. For example, you can use the <a href="col-\*">col-\*</a> classes to create grid columns for extra small devices like mobile phones in portrait mode, and the <a href="col-sm-\*">col-sm-\*</a> classes for mobile phones in landscape mode.

Similarly, you can use the .col-md-\* classes to create grid columns for medium screen devices like tablets, the .col-lgclasses for devices like small laptops, the .col-xl-\* classes for laptops and desktops, and the .col-xxl-\* classes for large desktop screens.

The following table summarizes the key features of the Bootstrap's grid system.

FeaturesBootstrap Grid System	X-Small (xs) <576px	Small (sm)≥576px	Medium (md)≥768px	Large (Ig)≥992px	X-Large (xl)≥1200px	XX-Large (xxI)≥1400px
Container max-width	None (auto)	540px	720px	960px	1140px	1320px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-x1-	.col-xxl-
Number of columns	12					
Gutter width	1.5rem (.75rem on left and right)					
Custom gutters	Yes					
Nestable	Yes					
Column ordering	Yes					

Above table demonstrates one important thing, applying any  $col-sm^{-*}$  class to an element will not only have an effect on small devices, but also on medium, large and extra large devices (viewport width  $\geq 768$ px), if a  $col-md^{-*}$ ,  $col-lg^{-*}$ ,  $col-xl^{-*}$ , or  $col-xxl^{-*}$  class is not present.

Similarly, the .col-md-\* class will not only have an effect on medium devices, but also on large and extra large devices if a .col-lg-\*, .col-xl-\*, or .col-xxl-\* class is not present.

Now the question arises how to create rows and columns using this 12 column responsive grid system. The answer is pretty simple, at first create a container that acts as a wrapper for your rows and columns using any <u>container classes</u> such as <u>container</u>, after that create rows inside the container using the <u>row</u> class, and to create columns inside any row you can use the <u>col-\*</u>, <u>col-sm-\*</u>, <u>col-md-\*</u>, <u>col-lg-\*</u>, <u>col-lg-\*</u>, <u>col-xl-\*</u> and <u>col-xxl-\*</u> classes.

The columns are actual content area where we will place our contents. In the following sections we will put all these things into real action and see how it actually works:

# **Creating Two Column Layouts**

The following example will show you how to create two column layouts for medium, large and extra large devices like tables, laptops and desktops etc. However, on mobile phones (screen width less than 768px), the columns will automatically become horizontal (2 rows, 1 column).

## ExampleTry this code »

**Note:** In a grid layout, content must be placed inside the columns ( .col and .col-\*) and only columns may be the immediate children of rows ( .row ). Also, rows should be placed inside a container (either fixed or fluid) for proper padding and alignment.

**Tip:** Grid column widths are set in percentages, so they're always fluid and sized relative to their parent element. In addition, each column has horizontal padding (called a gutter) for controlling the space between individual columns.

Since the Bootstrap grid system is based on 12 columns, therefore to keep the columns in a one line (i.e. side by side), the sum of the grid column numbers within a single row should not be greater than 12. If you go through the above example code carefully you will find the numbers of grid columns (i.e. col-md-\*) add up to twelve (6+6, 4+8 and 3+9) for every row.

# **Creating Three Column Layouts**

Similarly, you can create other layouts based on the above principle. For instance, the following example will typically create three column layouts for laptops and desktops screens. It also works in tablets in landscape mode if screen resolution is more than or equal to 992 pixels (e.g. Apple iPad). However, in portrait mode the grid columns will be horizontal as usual.

#### ExampleTry this code »

**Note:** If more than 12 grid columns are placed within a single row, then each group of extra columns, as a whole, will wrap onto a new line. See <u>column wrapping behavior</u>.

# **Bootstrap Auto-layout Columns**

You can also create *equal width columns* for all devices (x-small, small, medium, large, x-large, and xx-large) through simply using the class ...., without specifying any column number.

Let's try out the following example to understand how it exactly works:

## Example Try this code »

Additionally, you can also set the width of one column and let the sibling columns automatically resize around it equally. You may use the predefined grid classes or inline widths.

If you try the following example you'll find columns in a row with class .... has equal width.

#### ExampleTry this code »

# **Column Wrapping Behavior**

Now we are going to create more flexible layouts that changes the column orientation based on the viewport size. The following example will create a three column layout on large devices like laptops and desktops, as well as on tablets (e.g. Apple iPad) in landscape mode, but on medium devices like tablets in portrait mode (768px  $\leq$  screen width < 992px), it will change into a two column layout where the third column moves at the bottom of the first two columns.

#### ExampleTry this code »

```
$$ < div class = "container" > < div class = "row" > < div class = "col-md-4 col-lg-3" > Column one < / div > < div class = "col-md-8 col-lg-6" > Column two < / div > < div class = "col-md-12 col-lg-3" > Column three < / div > < / div
```

As you can see in the example above the sum of the medium grid column numbers (i.e. col-md-\*) is 3+9+12=24>12, therefore the third <a href="editor">div></a> element with the class .col-md-12 that is adding the extra columns beyond the maximum 12 columns in a .row, gets wrapped onto a new line as one contiguous unit on the medium screen size devices.

Similarly, you can create even more adaptable layouts for your websites using the Bootstrap's grid column wrapping feature. Here're some ready to use <u>Bootstrap grid examples</u>.

# **Creating Multi-Column Layouts with Bootstrap**

With the new Bootstrap mobile first flexbox grid system you can easily control how your website layout will render on different types of devices that have different screen or viewport sizes like mobile phones, tablets, desktops, etc. Let's consider the following illustration.



In the above illustration there are total 12 content boxes in all devices, but its placement varies according to the device screen size, like in mobile device the layout is rendered as one column grid layout which has 1 column and 12 rows placed above one another, whereas in tablet it is rendered as two column grid layout which has 2 columns and 6 rows.

Further, in large screen size devices like laptops and desktops it is rendered as three column grid layout which has 3 columns and 4 rows and finally in extra large screen devices like large desktops it is rendered as four column grid layout which has 4 columns and 3 rows.

Now the question is how we can create such responsive layouts using this Bootstrap flexbox grid system. Let's start with the primary target device. Suppose our primary target device is laptop or normal desktop. Since our laptop layout has 3 columns and 4 rows i.e.  $3\times4$  grid layout, so the HTML code for making such grid structure would look something like this.

## ExampleTry this code »

**Tip:** The <u>container-lg</u> class makes the container 100% wide if the width of the viewport is less than 992px, thus utilizing the full available width on smaller screens.

If you see the output of the above example in a large device such as a laptop or desktop which has screen or viewport width greater than or equal to 1200px but less than 1400px, you will find the layout has 4 rows where each row has 3 equal columns resulting in 3×4 grid layout.

## ExampleTry this code »

```
<div class="container-lg">
<div class="row">
<div class="col-xl-4 col-md-6">Box 1</div>
<div class="col-xl-4 col-md-6">Box 2</div>
<div class="col-xl-4 col-md-6">Box 3</div>
<div class="col-xl-4 col-md-6">Box 3</div>
<div class="col-xl-4 col-md-6">Box 4</div>
<div class="col-xl-4 col-md-6">Box 4</div>
<div class="col-xl-4 col-md-6">Box 5</div>
<div class="col-xl-4 col-md-6">Box 6</div>
<div class="col-xl-4 col-md-6">Box 6</div>
<div class="col-xl-4 col-md-6">Box 7</div>
<div class="col-xl-4 col-md-6">Box 8</div>
<div class="col-xl-4 col-md-6">Box 9</div>
<div class="col-xl-4 col-md-6">Box 9</div>
<div class="col-xl-4 col-md-6">Box 10</div>
<div class="col-xl-4 col-md-6">Box 11</div>
<div class="col-xl-4 col-md-6">Box 12</div>
</div
</div
```

**Tip:** For convenience choose your primary target device and create layout for that device first after that add classes to make it responsive for other devices.

Similarly, you can customize the layout for extra extra large devices such as a large desktop screen by adding the class <a href="color: orange;">.col-xxl-3</a> on each column, as every row in that layout contains 4 columns (i.e. 4×3 grids layout). Here's the final code after combining the whole process.

Tip: According to the above illustration there is no need to customize the layout for mobile p hones; since columns on extra small devices will automatically become horizontal and rendered as 1x12 column grid layout in absence of .col-\* or .col-sm-\* classes.

# **Nesting of Grid Columns**

The Bootstrap grid columns are also nestable, that means you can put rows and columns inside an existing column. However, the formula for placing the columns will be the same, i.e. the sum of column numbers should be equal to 12 or less within a single row.

# **Creating Variable Width Columns**

You can use the <a href="col-{breakpoint}-auto">col-{breakpoint}-auto</a> classes to size columns based on the natural width of their content. Try out the following example to see how it works:

# **Alignment of Grid Columns**

You can use the flexbox alignment utilities to vertically and horizontally align grid columns inside a container. Try out the following examples to understand how it works:

## **Vertical Alignment of Grid Columns**

You can use the classes <a href="mailto:.align-items-sent">.align-items-sent</a>, and <a href="mailto:.align-items-end">.align-items-end</a> to align the grid columns vertically at the top, middle and bottom of a container, respectively.

Individual columns inside a row can also be aligned vertically. Here's an example:

```
<div class="container"><div class="row"><div class="col align-self-start">Column one</div><div
class="col align-self-center">Column two</div><div class="col align-self-end">Column three</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></di>
```

**Note:** You can skip the number in \_\_col-\* grid class and just use the \_\_col class to create equal size columns for all devices (extra small, small, medium, large, and extra large).

## **Horizontal Alignment of Grid Columns**

You can use the classes <code>.justify-content-start</code>, <code>.justify-content-center</code>, and <code>.justify-content-end</code> to align the grid columns horizontally at the left, center and right of a container, respectively. Let's check out the following example to see how it works:

### Example Try this code »

```
<div class="container"><div class="row justify-content-start"><div class="col-4">Column one</d
iv><div class="col-4">Column two</div></div><div class="row justify-content-center"><div class
="col-4">Column one</div><div class="col-4">Column two</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></di>
```

Alternatively, you can use the class <code>.justify-content-around</code> to distribute grid columns evenly with half-size spaces on either end, whereas you can use the class <code>.justify-content-between</code> to distribute the grid columns evenly where the first column placed at the start and the last column placed at the end. Try out the following example to see how it actually works:

#### ExampleTry this code »

```
<div class="container"><div class="row justify-content-around">
<div class="col-4">Column one</div>
<div class="col-4">Column two</div></div>
<div class="row justify-content-between"><div class="col-4">Column one</div>
<div class="col-4">Column two</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></di>
```

Please check out the tutoiral on css3 flexbox to learn more about flex items alignment.

# **Reordering of Grid Columns**

You can even change the visual order of your grid columns without changing their order in actual markup. Use the class <u>order-last</u> to order the column in last, whereas use the class <u>order-first</u> to order the column at first place. Let's checkout an example:

#### ExampleTry this code »

```
<div class="container"><div class="row"><div class="col order-last">First, but ordered at last
</div>
<div class="col">Second, but unordered</div>
<div class="col order-first">Last, but ordered at first</div></div>
</div>
</div>
```

You can also use the <u>.order-\*</u> classes to order the grid columns depending on the order numbers. Grid column with higher order number comes after the grid column with lower order number or grid column with no order classes. It includes support for 1 through 12 across all five grid tiers.

## Example Try this code »

```
<div class="container">
<div class="row"><div class="col order-4">First, but ordered at last</div><div class="col">Sec
ond, but ordered at first</div>
<div class="col order-1">Last, but ordered at second</div></div>
</div>
</div>
```

# **Offsetting the Grid Columns**

You can also move grid columns to the right for alignment purpose using the column offset classes like .offset-sm-\*, .offset-lg-\*, and so on.

These classes offset the columns by simply increasing its left margin by specified number of columns. For example, the class <a href="https://original.org/left-md-4">original position</a>. Try out the following example to see how it works:

## Example Try this code »

```
<div class="container">
<div class="row"><div class="col-sm-4"></div>
<div class="col-sm-8"></div></div><div class="row"><div class="col-sm-8" offset-sm-4"><!--Colum n with 4 columns offset--></div>
</div>
</div>
</div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div></div>
```

You can also offset columns using the margin utility classes. These classes are useful in the situations where the width of the offset is not fixed. Here's an example:

## ExampleTry this code »

```
<div class="container">
<div class="row"><div class="col-md-4"></div>
<div class="col-md-4 ms-auto"><!--Offset this column to right--></div>
</div>
<div class="row"><div class="col-auto me-auto"></div>
<div class="col-auto"><!--Move this column away from previous column--></div>
</div>
</div>
</div>
</div>
```

**Note:** You can use the class .col-auto to create columns that only take up as much space as needed, i.e. the column sizes itself based on the contents.

# **Creating Compact Columns**

You can remove the default gutters between columns to create compact layouts by adding the class <code>.g-o</code> on <code>.row</code>. This class removes the negative margins from row and the horizontal padding from all immediate children columns. Here's an example:

### ExampleTry this code »

```
<div class="row g-0"><div class="col-4">Column one</div>
<div class="col-4">Column two</div><div class="col-4">Column three</div>
```

# **Breaking Columns to a New Line**

You can also create equal-width columns that span multiple rows by inserting a <aiv > with .w-100 class where you want the columns to break to a new line. Additionally, you can make these breaks responsive by combining the .w-100 class with responsive display utility classes.

## ExampleTry this code »