



# KodeGo

**Bootstrap 5 Utilities**



# Bootstrap 4 vs Bootstrap 5

Basis of	Bootstrap 4	Bootstrap 5
Grid System	It has 5 tier (xs, sm, md, lg, xl)	It has 6 tier (xs, sm, md, lg, xl, xxl)
Color	It has limited colors	Extra colors added with the looks,,A cardimproved color palette.
Jquery, a Javascript library	It has jquery and all related plugins.	Jquery is removed and switched to Vanilla JS with some working plugins
Internet Explorer	Bootstrap 4 supports both IE 10 and 11	Bootstrap 5 doesn't support IE 10 and 11
Utilities API	We cannot modify utilities in bootstrap 4	Bootstrap 5 gave freedom to modify and also create our own utility
Gutter	We use .gutter with fontsize in px	We use .g* with fontsize in rem
Bootstrap Icons	Bootstrap 4 doesn't have its own SVG icons we have to font-awesome	Bootstrap 5 have its own SVG icons
Static Site Generator	Bootstrap 4 uses Jekyll software.	Bootstrap 5 uses Hugo software.



# Breakpoints

Breakpoints are customizable widths that determine how your responsive layout behaves across device or viewport sizes.

Breakpoint	Class infix	Dimensions
X-Small	<i>None</i>	<576px
Small	<i>sm</i>	≥576px
Medium	<i>md</i>	≥768px
Large	<i>lg</i>	≥992px
Extra large	<i>xl</i>	≥1200px
Extra extra large	<i>xxl</i>	≥1400px



# Containers and Breakpoints

Bootstrap uses **container** elements as the basis for its **grid system**.

**.container** class provides a responsive **fixed width container**.

**.container-fluid** class provides a **full width container**, spanning the entire width of the viewport.

Class	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	X-Large ≥1200px	XX-Large ≥1400px
<b>.container</b>	100%	540px	720px	960px	1140px	1320px
<b>.container-sm</b>	100%	540px	720px	960px	1140px	1320px
<b>.container-md</b>	100%	100%	720px	960px	1140px	1320px
<b>.container-lg</b>	100%	100%	100%	960px	1140px	1320px
<b>.container-xl</b>	100%	100%	100%	100%	1140px	1320px
<b>.container-xxl</b>	100%	100%	100%	100%	100%	1320px
<b>.container-fluid</b>	100%	100%	100%	100%	100%	100%

# Bootstrap 5 Utility - Spacing

Assign responsive-friendly **margin** or **padding** values to an element or a subset of its sides with **shorthand classes**. Spacing utilities apply to all breakpoints.

**Syntax** : {property}{sides}-{breakpoint}-{size}

Where **property** is one of:

**m** - for classes that set **margin**

**p** - for classes that set **padding**

**Example:**

```
<div class="mb-2"> Margin bottom 2px</div>
```

```
<div class="p-3"> Padding 3px </div>
```

Where **sides** is one of:

**t** - for classes that set margin-top or padding-top

**b** - for classes that set margin-bottom or padding-bottom

**s** - (start) for classes that set margin-left or padding-left

**e** - (end) for classes that set margin-right or padding-right

**x** - for classes that set both \*-left and \*-right

**y** - for classes that set both \*-top and \*-bottom

**blank** - for classes that set a margin or padding on all 4 sides of the element

Where **sizes** starts from 0 - 5 and an auto



# Bootstrap 5 Utility - Spacing

Class	Description
<code>.mt-*</code>	Set a top margin on an element.
<code>.mb-*</code>	Set a bottom margin on an element.
<code>.ml-*</code>	Set a left margin on an element.
<code>.mr-*</code>	Set a right margin on an element.
<code>.mx-*</code>	Set a left and right margin on an element.
<code>.my-*</code>	Set a top and bottom margin on an element.
<code>.pt-*</code>	Set a top padding on an element.
<code>.pb-*</code>	Set a bottom padding on an element.
<code>.pl-*</code>	Set a left padding on an element.
<code>.pr-*</code>	Set a right padding on an element.
<code>.px-*</code>	Set a left and right padding on an element.
<code>.py-*</code>	Set a top and bottom padding on an element.
<code>.gap-*</code>	Set a gap on the parent grid container

## Example of Margin and Padding:

```
<div class="p-3 mb-2 bg-primary text-white">.bg-primary</div>  
<div class="p-3 mb-2 bg-secondary text-white">.bg-secondary</div>
```



# Bootstrap 5 Utility - Text

Bootstrap 5 also added a few new extra utility classes for common text or link control. With these classes, you can easily realign text to components, wrap text, modify the font size or weight, transform case and more

Class	Description
<code>.text-start</code>	Set the text alignment to the left.
<code>.text-center</code>	Set the text alignment to the center.
<code>.text-end</code>	Set the text alignment to the right.
<code>.text-wrap</code>	Wrap the overflowing text.
<code>.text-nowrap</code>	Prevent text from wrapping.
<code>.text-lowercase</code>	Transform the text to lowercase.
<code>.text-uppercase</code>	Transform the text to uppercase.
<code>.text-capitalize</code>	Capitalize the first letter of each word.





# Bootstrap 5 Utility - Text

**Font class** shorthand and description.

**Responsive classes** are also available on some of these text utility classes which you can use with viewport width breakpoints as the grid system.

Class	Description
<code>.fs-*</code>	Quickly change the font-size of text. Value can be ranging from 1-6.
<code>.fw-bold</code>	Set the font-weight of an element to bold.
<code>.fw-bolder</code>	Set the font-weight of an element to bolder (relative to the parent).
<code>.fw-normal</code>	Set the font-weight of an element to normal.
<code>.fw-light</code>	Set the light font-weight for an element.
<code>.fw-lighter</code>	Set the lighter font-weight for an element (relative to the parent).
<code>.fst-italic</code>	Set the font-style of an element to italic.
<code>.fst-normal</code>	Set the font-style of an element to normal.
<code>.lh-*</code>	Set the line height by adding a number or breakpoint syntax after the dash.
<code>.font-monospace</code>	Change a selection to our monospace font stack.

# Bootstrap 5 Utility - Text

Class	Description
<code>.text-reset</code>	Reset a text or link's color.
<code>.text-decoration-underline</code>	Set a line underneath a text.
<code>.text-decoration-line-through</code>	Set a line strike on a text.
<code>.text-decoration-none</code>	Remove text decoration on a link.

## Example of Text alignment:

```
<p class="text-start">Start aligned text on all viewport sizes.</p>
<p class="text-center">Center aligned text on all viewport sizes.</p>
<p class="text-end">End aligned text on all viewport sizes.</p>
```



# Bootstrap 5 Utility - Text

## Text alignment:

`<p class="text-start">Start aligned text on all viewport sizes.</p>`

`<p class="text-center">Center aligned text on all viewport sizes.</p>`

`<p class="text-end">End aligned text on all viewport sizes.</p>`

## Text wrapping and overflow

Wrap text with a **.text-wrap** class.

`<div class="bg-primary text-wrap" style="width: 6rem;">`

    This text should wrap.

`</div>`

## Text Transformation

`p class="text-lowercase">Lowercased text.</p>`

`<p class="text-uppercase">Uppercased text.</p>`

`<p class="text-capitalize">CapiTaliZed text.</p>`



# Bootstrap 5 Utility - Text

## Font size:

```
<p class="fs-1">.fs-1 text</p>  
<p class="fs-2">.fs-2 text</p>  
<p class="fs-3">.fs-3 text</p>  
<p class="fs-4">.fs-4 text</p>
```

## Font weight:

```
<p class="fw-bold">Bold text.</p>  
<p class="fw-normal">Normal weight text.</p>  
<p class="fst-italic">Italic text.</p>
```

## Font monospace

```
<p class="font-monospace">This is in monospace</p>
```



# Bootstrap 5 Utility - Background

## Background

Adds *back-ground* color CSS rule.

Add a linear gradient background-color CSS rule to your elements using **.bg-gradient** class

Class	Description
<b>.bg-primary</b>	Apply background-color: <b>#0D6EFD</b> on an element.
<b>.bg-secondary</b>	Apply background-color: <b>#6C757D</b> on an element.
<b>.bg-success</b>	Apply background-color: <b>#198754</b> on an element.
<b>.bg-danger</b>	Apply background-color: <b>#DC3545</b> on an element.
<b>.bg-warning</b>	Apply background-color: <b>#FFC107</b> on an element.
<b>.bg-info</b>	Apply background-color: <b>#0DCAE0</b> on an element.
<b>.bg-light</b>	Apply background-color: <b>#F8F9FA</b> on an element.
<b>.bg-dark</b>	Apply background-color: <b>#212529</b> on an element.
<b>.bg-body</b>	Apply Bootstrap's default body background color on an element.
<b>.bg-white</b>	Apply background-color: <b>#FFFFFF</b> on an element.
<b>.bg-transparent</b>	Apply background-color: <b>transparent</b> on an element.

```
<div class="bg-primary">.bg-primary</div>
```



# Let's do the Background Utility

`.bg-primary`

`.bg-secondary`

`.bg-success`

`.bg-danger`

`.bg-warning`

`.bg-info`

`.bg-light`

`.bg-dark`

`.bg-body`

`.bg-white`



# Bootstrap Flex

Use flex classes to control the layout of Bootstrap 5 components.

To enable flex behavior, apply **display utilities** to create a flexbox container and transform **direct children elements** into flex items.

- The **d-flex** class is used to create a simple flexbox container  
Syntax:  
`<div class="d-flex p-2">Sample Flex</div>`
- The **d-inline-flex** class is used to create an inline flexbox container  
Syntax:  
`<div class="d-inline-flex p-2">Sample Inline Flex</div>`
- **.d-flex** and **.d-inline-flex** can be used for all breakpoints(sm, md, lg, xl) like **.d-sm-flex**, **.d-sm-inline-flex**, etc.  
Syntax:  
`<div class="d-sm-flex p-2"></div>`  
  
`<div class="d-sm-inline-flex p-2"></div>`



# Bootstrap Flex

The **d-flex** class is used to create a simple flexbox container



## Example d-flex:

```
<div class="container mt-3">
  <h2>Flex</h2>
  <div class="d-flex p-3 bg-success text-white">
    <div class="p-2 bg-primary">Flex 1</div>
    <div class="p-2 bg-info ">Flex 2</div>
    <div class="p-2 bg-warning">Flex 3</div>
  </div>
</div>
```





# Bootstrap Flex

## Flex Direction

Use **.flex-row** to display horizontally (side by side). **.flex-column** to display vertically.

Tip: Use **.flex-row-reverse** to right-align the horizontal direction:



### Example **flex-row** and **flex-row-reverse**:

```
<div class="container mt-3">
  <h2>Horizontal Direction Flex</h2>
  <div class="d-flex flex-row bg-success text-white">
    <div class="p-2 bg-primary">Flex item 1</div>
    <div class="p-2 bg-primary">Flex item 2</div>
    <div class="p-2 bg-primary">Flex item 3</div>
  </div>
  <div class="d-flex flex-row-reverse bg-success text-white">
    <div class="p-2 bg-info">Flex item 1</div>
    <div class="p-2 bg-info">Flex item 2</div>
    <div class="p-2 bg-info">Flex item 3</div>
  </div>
</div>
```



# Bootstrap Flex

## Flex Justify Content

The **justify-content** utilities can be used on flexbox containers to change the **alignment** of flex items on the main axis (the **x-axis to start**, y-axis if flex-direction: column). You may choose from start (browser default), end, center, between, or around.

Flex item	Flex item	Flex item	<code>&lt;div class="d-flex justify-content-start"&gt;...&lt;/div&gt;</code>				
<code>&lt;div class="d-flex justify-content-end"&gt;...&lt;/div&gt;</code>			Flex item	Flex item	Flex item		
			Flex item	Flex item	Flex item	<code>&lt;div class="d-flex justify-content-center"&gt;</code>	
Flex item				Flex item			Flex item
	Flex item			Flex item			Flex item
<code>&lt;div class="d-flex justify-content-around"&gt; ... &lt;/div&gt;</code>							



# Bootstrap Flex

## Flex Align

Use **align-items** utilities on flexbox containers to change the alignment of flex items on the cross axis (the y-axis to start, x-axis if flex-direction: column). Choose from start, end, center, baseline, or stretch (browser default).

```
<div class="d-flex align-items-start">...</div>  
<div class="d-flex align-items-end">...</div>  
<div class="d-flex align-items-center">...</div>  
<div class="d-flex align-items-baseline">...</div>  
<div class="d-flex align-items-stretch">...</div>
```

## Align-self

Use **align-items** utilities on flexbox containers to individually change the alignment of flex items on the cross axis.



# Bootstrap Flex

## Flex Align Content

Use **align-content** utilities on flexbox containers to align flex items together on the cross axis. Choose from start, end, center, between, around, or stretch (browser default).

```
<div class="d-flex align-content-start flex-wrap">  
  ...  
</div>
```



# Bootstrap Flex

## Flex Wrap and No wrap

You may change how flex items wrap in a flex container. Just choose from no wrapping at all (the browser default) with `.flex-nowrap`, wrapping with `.flex-wrap`, or reverse wrapping with `.flex-wrap-reverse`.

```
<div class="d-flex flex-nowrap">
```

```
...
```

```
</div>
```

```
<div class="d-flex flex-wrap">
```

```
...
```

```
</div>
```



# Grid System

Bootstrap **grid system** allows up to 12 columns across the page.

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1
span 4				span 4				span 4			
span 4				span 8							
span 6						span 6					
span 12											



# Grid System: Rows

In order to use the Bootstrap grid system, you need to insert at least a single row of columns. Each container class can have one or more rows nested inside of it.

## Example of 1 Row:

```
<div class="container">  
  <div class="row">  
    <!-- insert column code here -->  
  </div>  
</div>
```



# Grid System: Columns

Bootstrap consists of a six-column class at your disposal which can adapt across all six default breakpoints.

Class	Device Width	Container Max Width
<b><i>.col-xs-*</i></b>	<i>&lt;576px</i>	<i>None (auto)</i>
<b><i>.col-sm-*</i></b>	<i>≥576px</i>	<i>540px</i>
<b><i>.col-md-*</i></b>	<i>≥768px</i>	<i>720px</i>
<b><i>.col-lg-*</i></b>	<i>≥992px</i>	<i>960px</i>
<b><i>.col-xl-*</i></b>	<i>≥1200px</i>	<i>1140px</i>
<b><i>.col-xxl-*</i></b>	<i>≥1400px</i>	<i>1320px</i>





# Grid System: Columns

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Bootstrap consists of a six-column class at your disposal which can adapt across all six default breakpoints.

## Classes of Columns:

`.col-` (extra small devices - screen width less than 576px)

`.col-sm-` (small devices - screen width equal to or greater than 576px)

`.col-md-` (medium devices - screen width equal to or greater than 768px)

`.col-lg-` (large devices - screen width equal to or greater than 992px)

`.col-xl-` (xlarge devices - screen width equal to or greater than 1200px)



# Grid System: Columns

---

## Structure of Bootstrap 5 grid.


```
<div class="row">  
  <div class="col-*-*"></div>  
  <div class="col-*-*"></div>  
</div>
```


`col-*-*` class. The first (\*) represents the responsiveness: xs, sm, md, lg, xl, xxl. The second (\*) represents a number which should add up to 12 for each row. You can also use `.col-sm|md|lg|xl` to make the columns responsive.

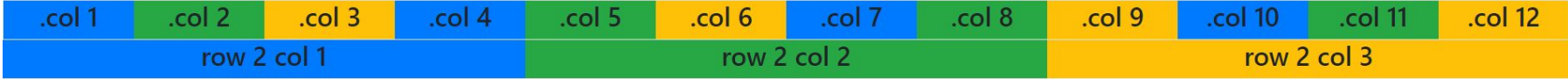
HTML Code: `<div class="col-sm-2"> ... </div>`



# Let's do the Bootstrap Grid

1. 

A horizontal row divided into three equal-width columns. The first column is blue and labeled ".col 1". The second column is green and labeled ".col 2". The third column is yellow and labeled ".col 3".
2. 

A horizontal row divided into twelve equal-width columns. The columns are labeled ".col 1" through ".col 12" from left to right. The colors alternate in a repeating pattern of blue, green, yellow, and blue: ".col 1" (blue), ".col 2" (green), ".col 3" (yellow), ".col 4" (blue), ".col 5" (green), ".col 6" (yellow), ".col 7" (blue), ".col 8" (green), ".col 9" (yellow), ".col 10" (blue), ".col 11" (green), ".col 12" (yellow).
3. 

A horizontal row divided into twelve equal-width columns. The top row of this section shows columns labeled ".col 1" through ".col 12" with alternating colors (blue, green, yellow, blue). The bottom row of this section shows the same columns but with labels "row 2 col 1", "row 2 col 2", and "row 2 col 3" spanning the first four, next four, and last four columns respectively. The colors are blue for "row 2 col 1", green for "row 2 col 2", and yellow for "row 2 col 3".



# Let's do the Bootstrap Grid

4.

.col 1	.col 2	.col 3	.col 4	.col 5	.col 6	.col 7	.col 8	.col 9	.col 10	.col 11	.col 12
row 2 col 1 span 4				row 2 col 2 span 4				row 2 col 3 span 4			
row 3 col 1 span 4				row 3 col 2 span 8							

5.

.col 1	.col 2	.col 3	.col 4	.col 5	.col 6	.col 7	.col 8	.col 9	.col 10	.col 11	.col 12
row 2 col 1 span 4				row 2 col 2 span 4				row 2 col 3 span 4			
row 3 col 1 span 4				row 3 col 2 span 8							
row 4 col 1 span 6						row 4 col 2 span 6					

6.

.col 1	.col 2	.col 3	.col 4	.col 5	.col 6	.col 7	.col 8	.col 9	.col 10	.col 11	.col 12
row 2 col 1 span 4				row 2 col 2 span 4				row 2 col 3 span 4			
row 3 col 1 span 4				row 3 col 2 span 8							
row 4 col 1 span 6						row 4 col 2 span 6					
row 5 col 1 span 12											



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Let's dive in!



# Bootstrap Exercise


1. Filename: bootstrap0719.html
2. Create the form using Bootstrap 5.

### Billing address

First name

Last name

Username

 Username

Email (Optional)

Address

Address 2 (Optional)

Country

Choose... ▾

State

Choose... ▾

Zip

☐ Shipping address is the same as my billing address

☐ Save this information for next time

### Payment

☒ Credit card

☐ Debit card

☐ PayPal

Name on card

Credit card number

Full name as displayed on card

Expiration

CVV

Continue to checkout

### Your E-CART

3

<b>Product name</b> Brief description	P100
<b>Second product</b> Brief description	P500
<b>Third item</b> Brief description	P1000
<b>Promo code</b> EXAMPLECODE	-P100
<b>Total (Php)</b>	<b>P1500</b>

Promo code

Redeem



# Bootstrap Reference

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[Bootstrap homepage: https://getbootstrap.com/](https://getbootstrap.com/)

[Cheatsheet · Bootstrap v5.0 \(getbootstrap.com\)](#)



**THANK YOU!**



**KodeGo**