

BOOTSTRAP-4

What is Bootstrap?

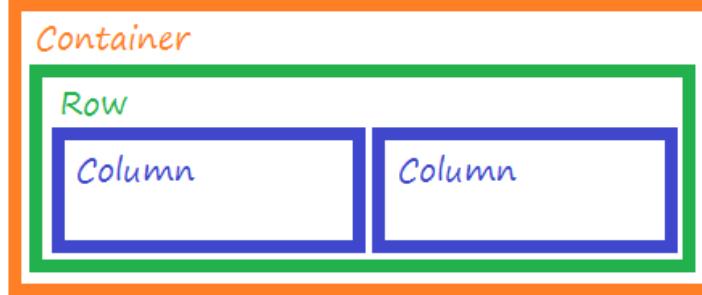
- Bootstrap is a free **front-end framework** for faster and easier web development
- Bootstrap includes HTML and CSS, as well as optional JavaScript plugins
- Bootstrap also gives you the ability **to easily create responsive designs**

Advantages of Bootstrap:

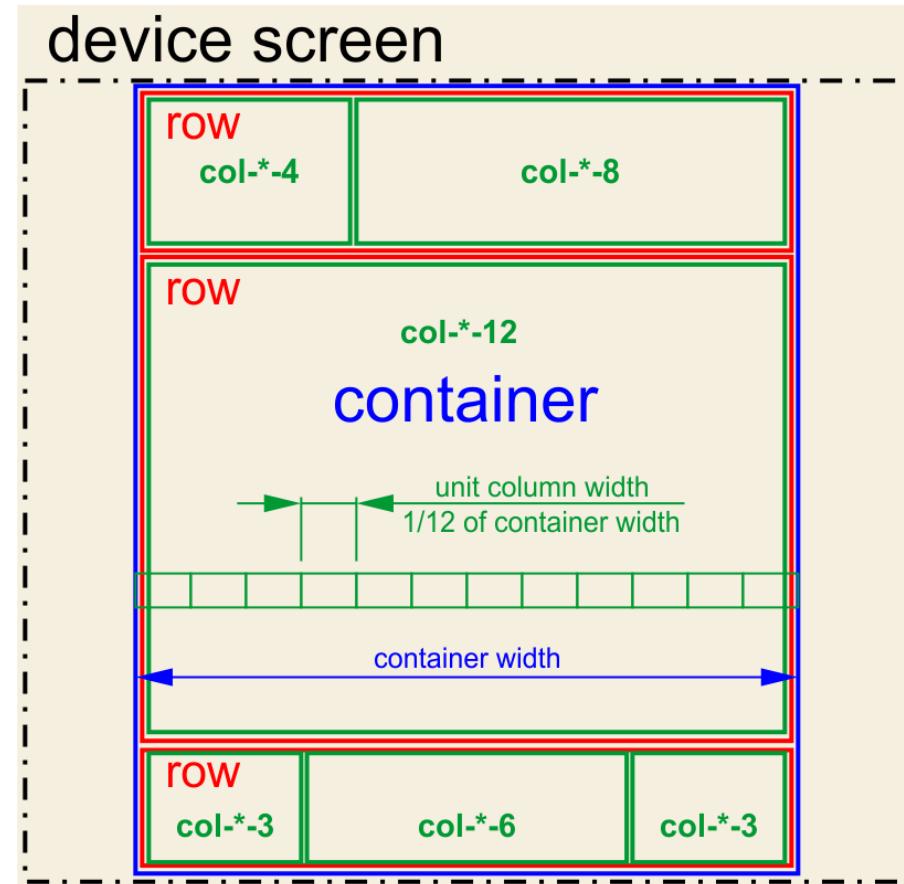
- Easy to use
- Responsive features
- Mobile-first approach
- Browser compatibility: Bootstrap 4 is compatible with all modern browsers

LAYOUT – GRID SYSTEM

LAYOUT - CONTAINERS



- Rows are wrappers for columns.



.container-fluid

```
<div class="container-fluid">  
    ...  
</div>
```

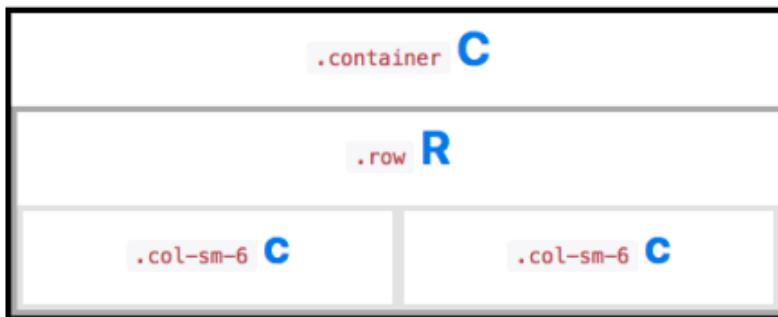
.container

```
<div class="container">  
    <!-- Content here -->  
</div>
```

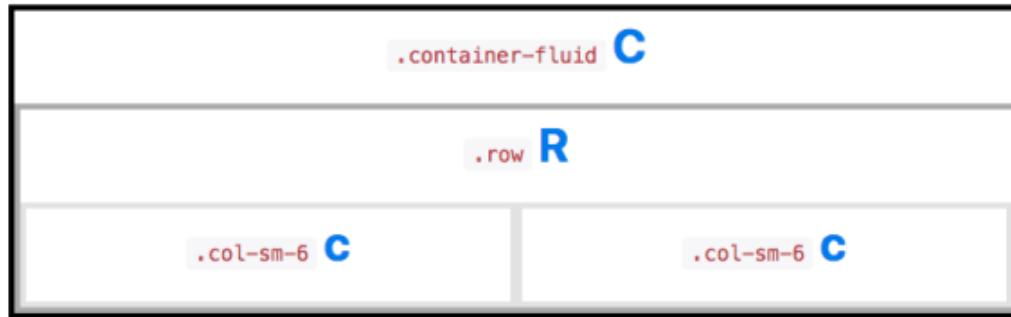
LAYOUT - CONTAINERS

Container

Sets max-width at breakpoints

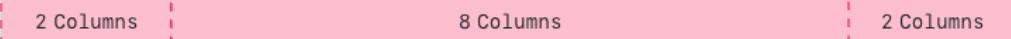


Container Fluid



```
<div class="container">
```

```
    <div class="row">
```



```
        <div class="col-*-*>col1</div>
```

```
        <div class="col-*-*>col2</div>
```

```
        <div class="col-*-*>col3</div>
```

```
    </div>
```

```
    <div class="row">
```

```
        ...
```

```
    </div>
```

```
</div>
```

row class

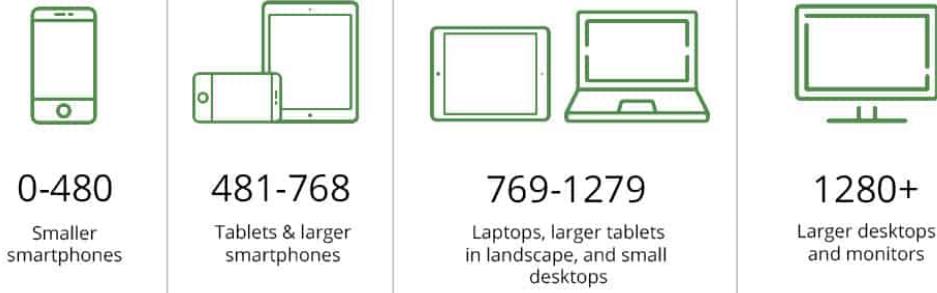
Container Class

```
</div>
```

LAYOUT - CONTAINERS

Bootstrap comes with three different containers:

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



	Extra small <code><576px</code>	Small <code>≥576px</code>	Medium <code>≥768px</code>	Large <code>≥992px</code>	Extra large <code>≥1200px</code>
<code>.container</code>	100%	540px 93%	720px 93%	960px 96%	1140px 95%
<code>.container-sm</code>	100%	540px 93%	720px 93%	960px 96%	1140px 95%
<code>.container-md</code>	100%	100%	720px 93%	960px 96%	1140px 95%
<code>.container-lg</code>	100%	100%	100%	960px 96%	1140px 95%
<code>.container-xl</code>	100%	100%	100%	100%	1140px 95%
<code>.container-fluid</code>	100%	100%	100%	100%	100%

BOOTSTRAP-4

LAYOUT - CONTAINERS

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
.container	100%	540px	720px	960px	1140px
.container-sm	100%	540px	720px	960px	1140px
.container-md	100%	100%	720px	960px	1140px
.container-lg	100%	100%	100%	960px	1140px
.container-xl	100%	100%	100%	100%	1140px
.container-fluid	100%	100%	100%	100%	100%

	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	Extra large ≥1200px
Max container width	None (auto)	540px	720px	960px	1140px
Class prefix	.col-	.col-sm-	.col-md-	.col-lg-	.col-xl-
# of columns	12				
Gutter width	30px (15px on each side of a column)				
Nestable	Yes				
Column ordering	Yes				

UTILITIES - SPACING

{property}{sides}-{size}

{property}{sides}-{breakpoint}-{size}

Where *property* is one of:

- **m** - for classes that set `margin`
- **p** - for classes that set `padding`

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`
- **l** - for classes that set `margin-left` or `padding-left`
- **r** - 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

- **0** : `0` : `0`
- **1** : `0.25rem` : `4px`
- **2** : `0.5rem` : `8px`
- **3** : `1rem` : `16px`
- **4** : `1.5rem` : `24px`
- **5** : `3rem` : `48px`
- **auto** : `auto`

Negative values for margin

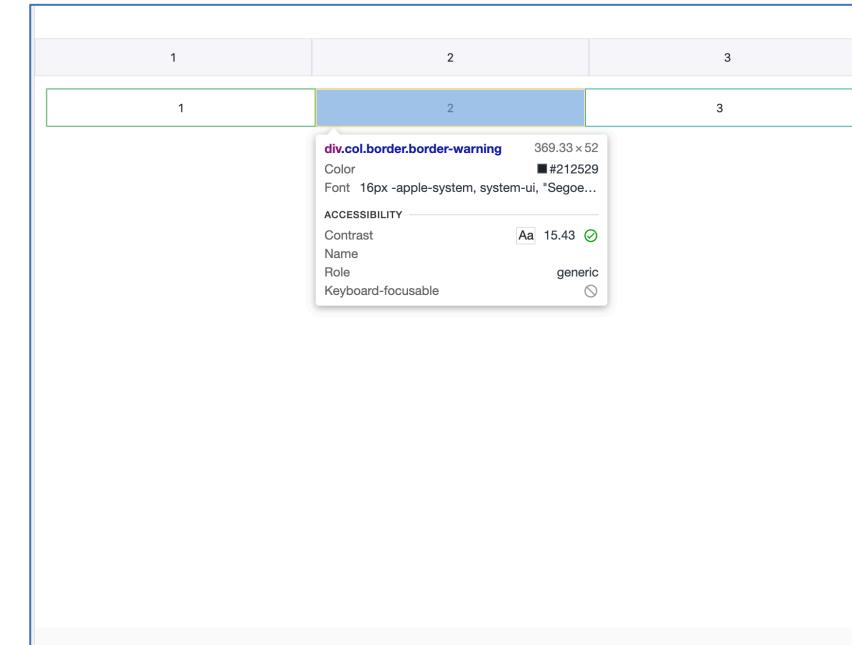
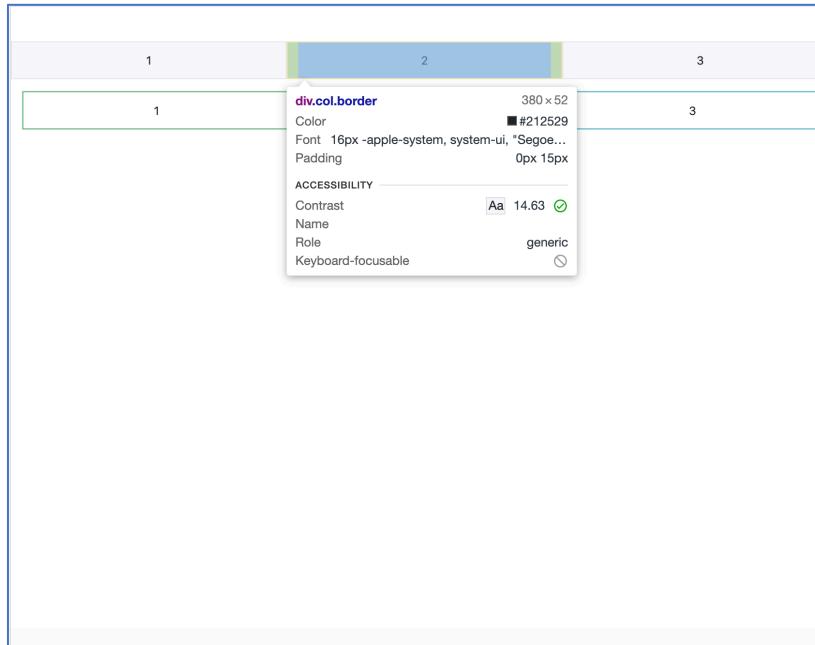
- **n1** : `-0.25rem`
- **n2** : `-0.5rem`
- **n3** : `-1rem`
- **n4** : `-1.5rem`
- **n5** : `-3rem`

LAYOUT - GUTTER

- Each **column** has **horizontal padding (called a gutter)** for controlling the space between them.
- This padding is then counteracted on the rows with **negative margins**.

```
<div class="container-fluid mt-5">
  <div class="row mb-3 bg-light">
    <div class="col border">1</div>
    <div class="col border">2</div>
    <div class="col border">3</div>
  </div>

  <div class="row mb-3 no-gutters border">
    <div class="col border border-success">1</div>
    <div class="col border border-warning">2</div>
    <div class="col border border-info">3</div>
  </div>
</div>
```



no-gutters

```
.no-gutters {
  margin-right: 0;
  margin-left: 0;

  > .col,
  > [class*="col-"] {
    padding-right: 0;
    padding-left: 0;
  }
}
```

UTILITIES

1 - SPACING

margin & padding

{property}{sides}-{size} => **mt-4 / pb-2 / p-0 / mr-3**

{property}{sides}-{breakpoint}-{size} => **mt-md-3 / pb-lg-5 / p-sm-3 / mr-md-5**

property

- **m** - margin
- **p** - padding

sides

- **t** - top / margin-top or padding-top
- **b** - bottom / margin-bottom or padding-bottom
- **l** - left / margin-left or padding-left
- **r** - right / margin-right or padding-right
- **x** - left and right / *-left and *-right
- **y** - top and bottom / *-top and *-bottom
- **blank** - for all 4 sides of the element. (p-4 / m-2 etc.)

Negative values for margin

- **n1** : - 0.25rem
- **n2** : - 0.5rem
- **n3** : - 1rem
- **n4** : - 1.5rem
- **n5** : - 3rem

size

- | | |
|----------------------|--------|
| • 0 : 0 | : 0 |
| • 1 : 0.25rem | : 4px |
| • 2 : 0.5rem | : 8px |
| • 3 : 1rem | : 16px |
| • 4 : 1.5rem | : 24px |
| • 5 : 3rem | : 48px |
| • auto : auto | |

2 - TEXT

text alignment

`text-left` : Left aligned text

`text-center` : Center aligned text

`text-right` : Right aligned text

`Text-justify` : Justify aligned text

`text-sm-left` : Left aligned text on viewports sized SM (small) or wider.

`text-md-right` : Right aligned text on viewports sized MD (medium) or wider.

`text-lg-center` : Center aligned text on viewports sized LG (large) or wider.

`text-xl-justify` : Justify aligned text on viewports sized XL (extra-large) or wider.

2 - TEXT

text wrapping and overflow

text-wrap : to wrap the text

text nowrap : Prevent text from wrapping

text-truncate : For longer content, you can add a **.text-truncate** class to truncate the text with an ellipsis.

```
<p class="text-wrap border" style="width:100px;">  
| This text should wrap.  
</p>  
<p class="text nowrap border" style="width:100px;">  
| This text should no-wrap.  
</p>  
<p class="text nowrap text-truncate border" style="width:100px;">  
| This text should no-wrap and truncated.  
</p>
```

This text
should wrap.

This text should no-wrap.

This text sh...

2 - TEXT

text transform

text-lowercase : Lowercased text.

text-uppercase : Uppercased text.

text-capitalize : Capitalized text.

```
<p class="text-lowercase">LOWERCASED TEXT.</p>
<p class="text-uppercase">uppercased text.</p>
<p class="text-capitalize">capitalized text.</p>
```

lowercased text.

UPPERCASED TEXT.

Capitalized Text.

2 - TEXT

font weight and italics

`font-weight-bold` : Bold text.

`font-weight-bolder` : Bolder weight text (relative to the parent element).

`font-weight-normal`: Normal weight text.

`font-weight-light` : Light weight text.

`font-weight-lighter` : Lighter weight text (relative to the parent element).

`font-italic` : Italic text.

```
<p class="font-weight-bold">Bold text.</p>
<div class="font-weight-bold">
    <p>Bold weight text as child element in a div</p>
    <p class="font-weight-bolder">Bolder weight text (relative to the parent element).</p>
</div>
<p class="font-weight-normal">Normal weight text.</p>
<p class="font-weight-light">Light weight text.</p>
<div class="font-weight-light">
    <p>Light weight text as child element in a div</p>
    <p class="font-weight-lighter">Lighter weight text (relative to the parent element).</p>
</div>
<p class="font-italic">Italic text.</p>
```

Bold text.

Bold weight text as child element in a div

Bolder weight text (relative to the parent element).

Normal weight text.

Light weight text.

Light weight text as child element in a div

Lighter weight text (relative to the parent element).

Italic text.

2 - TEXT

text decoration

text-decoration-none : Remove a text decoration.

```
<a href="#" class="text-danger mx-3">Primary link</a>
<a href="#" class="text-secondary mx-3">Secondary link</a>
<a href="#" class="text-success mx-3">Success link</a>
<a href="#" class="text-decoration-none mx-3">Non-underlined link</a>
```

Primary link Secondary link Success link Non-underlined link

Primary link Secondary link Success link Non-underlined link



Primary link Secondary link Success link Non-underlined link



2 - TEXT

reset color

text-reset : Reset a text or link's color with .text-reset, so that it inherits the color from its parent.

```
<p class="text-danger">  
    Text with a red color <a href="#">reset link</a>.  
</p>
```

Text with a red color **reset link**.

Links have by default blue color !!!

```
<p class="text-danger">  
    Text and link with a red color <a href="#" class="text-reset">reset link</a>.  
</p>
```

Text and link with a red color **reset link**.

Link has the same color with text

2 - TEXT

user-select

user-select-all : Text will be entirely selected when clicked by the user.

user-select-auto : Text has the default select behavior.

user-select-none : Text will not be selectable when clicked by the user.

```
<p class="user-select-all">This paragraph will be entirely selected when clicked by the user.</p>
<p class="user-select-auto">This paragraph has the default select behavior.</p>
<p class="user-select-none">This paragraph will not be selectable when clicked by the user.</p>
```

This paragraph will be entirely selected when clicked by the user.

This paragraph has the default select behavior.

This paragraph will not be selectable when clicked by the user.

This paragraph will be entirely selected when clicked by the user.

This paragraph has the default select behavior.

This paragraph will not be selectable when clicked by the user.

3 - COLORS

text-*

```
<p class="text-primary">.text-primary</p>
<p class="text-secondary">.text-secondary</p>
<p class="text-success">.text-success</p>
<p class="text-danger">.text-danger</p>
<p class="text-warning">.text-warning</p>
<p class="text-info">.text-info</p>
<p class="text-light bg-dark">.text-light</p>
<p class="text-dark">.text-dark</p>
<p class="text-body">.text-body</p>
<p class="text-muted">.text-muted</p>
<p class="text-white bg-dark">.text-white</p>
<p class="text-black-50">.text-black-50</p>
<p class="text-white-50 bg-dark">.text-white-50</p>
```

.text-primary

.text-secondary

.text-success

.text-danger

.text-warning

.text-info

.text-light

.text-dark

.text-body

.text-muted

.text-white

.text-black-50

.text-white-50

3 - COLORS

bg-*

```
<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>
<div class="p-3 mb-2 bg-success text-white">.bg-success</div>
<div class="p-3 mb-2 bg-danger text-white">.bg-danger</div>
<div class="p-3 mb-2 bg-warning text-dark">.bg-warning</div>
<div class="p-3 mb-2 bg-info text-white">.bg-info</div>
<div class="p-3 mb-2 bg-light text-dark">.bg-light</div>
<div class="p-3 mb-2 bg-dark text-white">.bg-dark</div>
<div class="p-3 mb-2 bg-white text-dark">.bg-white</div>
<div class="p-3 mb-2 bg-transparent text-dark">.bg-transparent</div>
```

.bg-primary

.bg-secondary

.bg-success

.bg-danger

.bg-warning

.bg-info

.bg-light

.bg-dark

.bg-white

.bg-transparent

3 - COLORS

bg-gradient-*

scss file

```
$enable-gradients:true;
```

```
<div class="p-3 mb-2 bg-gradient-primary text-white">.bg-gradient-primary</div>
<div class="p-3 mb-2 bg-gradient-secondary text-white">.bg-gradient-secondary</div>
<div class="p-3 mb-2 bg-gradient-success text-white">.bg-gradient-success</div>
<div class="p-3 mb-2 bg-gradient-danger text-white">.bg-gradient-danger</div>
<div class="p-3 mb-2 bg-gradient-warning text-dark">.bg-gradient-warning</div>
<div class="p-3 mb-2 bg-gradient-info text-white">.bg-gradient-info</div>
<div class="p-3 mb-2 bg-gradient-light text-dark">.bg-gradient-light</div>
<div class="p-3 mb-2 bg-gradient-dark text-white">.bg-gradient-dark</div>
```

.bg-gradient-primary

.bg-gradient-secondary

.bg-gradient-success

.bg-gradient-danger

.bg-gradient-warning

.bg-gradient-info

.bg-gradient-light

.bg-gradient-dark

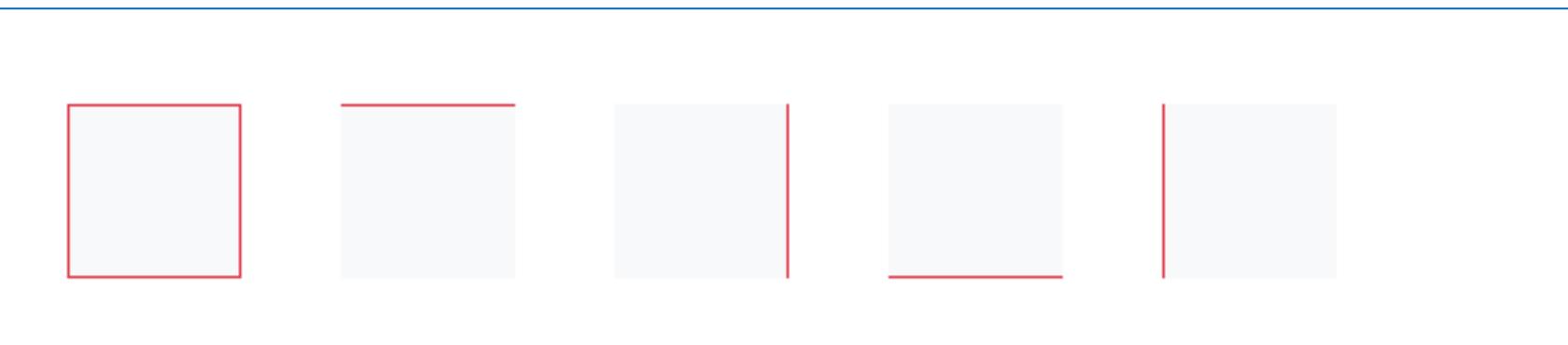
NOTE : When **\$enable-gradients** is set to **true** (**default is false**), you can use **.bg-gradient-** utility classes.

4 - BORDERS

border / border-*

Additive Border

```
<div class="row my-3">
  <span class="border border-danger bg-light"></span>
  <span class="border-top border-danger bg-light"></span>
  <span class="border-right border-danger bg-light"></span>
  <span class="border-bottom border-danger bg-light"></span>
  <span class="border-left border-danger bg-light"></span>
</div>
```



4 - BORDERS

border-0 / border-*-0

Subtractive Border

```
<div class="row my-3">
  <span class="border border-danger bg-light"></span>
  <span class="border border-0 bg-light"></span>
  <span class="border border-top-0 border-danger bg-light"></span>
  <span class="border border-right-0 border-danger bg-light"></span>
  <span class="border border-bottom-0 border-danger bg-light"></span>
  <span class="border border-left-0 border-danger bg-light"></span>
</div>
```

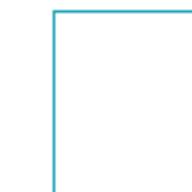


4 - BORDERS

border-*

Border Color

```
<div class="row my-3">
  <span class="border border-primary"></span>
  <span class="border border-secondary"></span>
  <span class="border border-success"></span>
  <span class="border border-danger"></span>
  <span class="border border-warning"></span>
  <span class="border border-info"></span>
  <span class="border border-light"></span>
  <span class="border border-dark"></span>
  <span class="border border-white"></span>
</div>
```

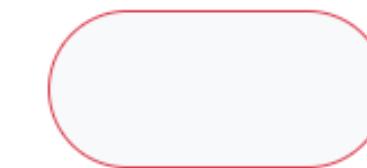
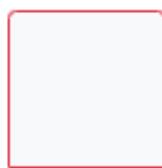


4 - BORDERS

rounded / rounded-*

Border Radius

```
<div class="row my-3">
  <span class="border border-danger rounded bg-light"></span>
  <span class="border border-danger rounded-top bg-light"></span>
  <span class="border border-danger rounded-right bg-light"></span>
  <span class="border border-danger rounded-bottom bg-light"></span>
  <span class="border border-danger rounded-left bg-light"></span>
  <span class="border border-danger rounded-circle bg-light"></span>
  <span class="border border-danger rounded-pill bg-light" style="width: 150px;"></span>
  <span class="border border-danger rounded-0 bg-light"></span>
</div>
```



4 - BORDERS

rounded / rounded-sm / rounded-lg

normal	:	0.25rem	:	4px
small	:	0.2rem	:	3.2px
large	:	0.3rem	:	4.8px

Border Radius Sizes

```
<div class="row my-3">
  <span class="border border-danger rounded bg-light"></span>
  <span class="border border-danger rounded-sm bg-light"></span>
  <span class="border border-danger rounded-lg bg-light"></span>
</div>
```

normal

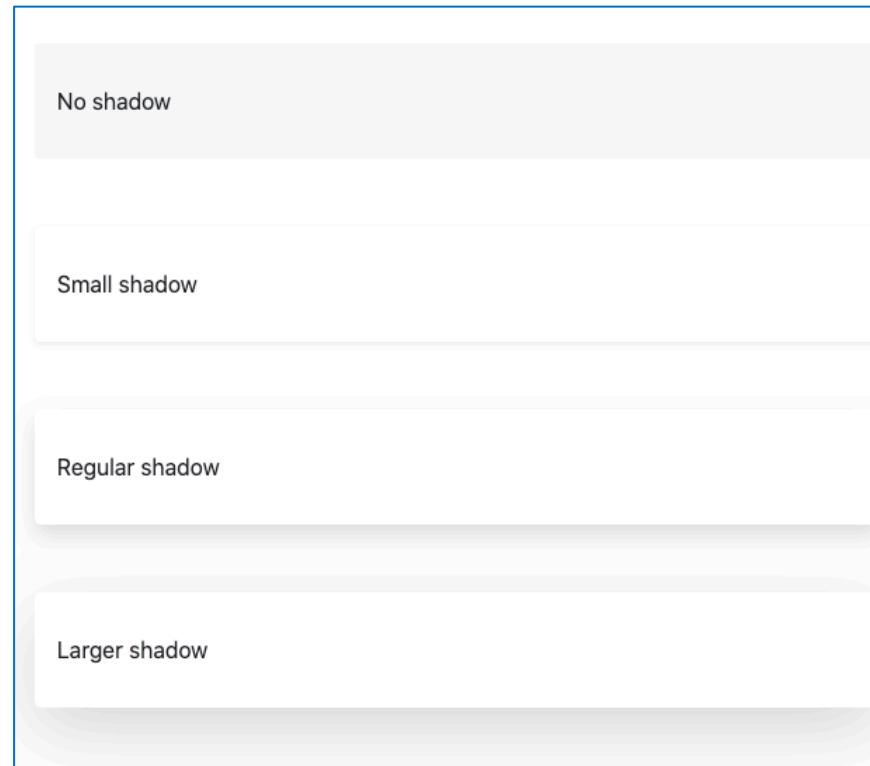
sm

lg

5 - SHADOWS

shadow-none / shadow / shadow-sm /shadow-lg

```
<div class="shadow-none p-3 mb-5 bg-light rounded">No shadow</div>
<div class="shadow-sm p-3 mb-5 bg-white rounded">Small shadow</div>
<div class="shadow p-3 mb-5 bg-white rounded">Regular shadow</div>
<div class="shadow-lg p-3 mb-5 bg-white rounded">Larger shadow</div>
```

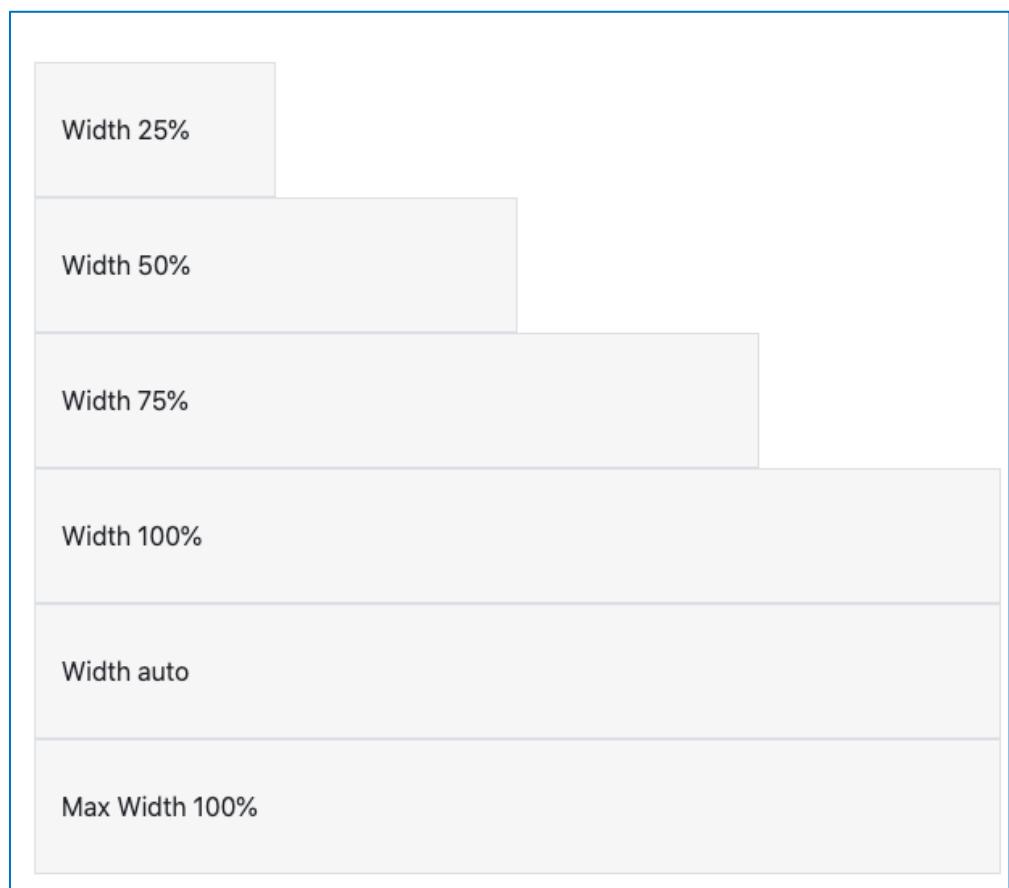


6 - SIZING

w-25 / w-50 / w-75 / w-100 / w-auto / mw-100

Relative to Parent - Width

```
<div style="width: 600px;">
  <div class="w-25 p-3 bg-light border" >Width 25%</div>
  <div class="w-50 p-3 bg-light border" >Width 50%</div>
  <div class="w-75 p-3 bg-light border" >Width 75%</div>
  <div class="w-100 p-3 bg-light border" >Width 100%</div>
  <div class="w-auto p-3 bg-light border" >Width auto</div>
  <div class="mw-100 p-3 bg-light border" >Max Width 100%</div>
</div>
```



6 - SIZING

h-25 / h-50 / h-75 / h-100 / h-auto

Relative to Parent - Height

```
<div style="height: 150px; background-color: #f5f5f5; color: white;">
  <div class="h-25 d-inline-block" style="width: 120px; background: dodgerblue">Height 25%</div>
  <div class="h-50 d-inline-block" style="width: 120px; background: dodgerblue">Height 50%</div>
  <div class="h-75 d-inline-block" style="width: 120px; background: dodgerblue">Height 75%</div>
  <div class="h-100 d-inline-block" style="width: 120px; background: dodgerblue">Height 100%</div>
  <div class="h-auto d-inline-block" style="width: 120px; background: dodgerblue">Height auto</div>
</div>
```

Height 25% Height 50% Height 75% Height 100% Height auto

6 - SIZING

min-vw-100 / min-vh-100 / vw-100 / vh-100

Relative to Viewport - Width & Height

```
<div class="min-vw-100 border bg-light">Min-width 100vw</div>
<div class="min-vh-100 border bg-warning">Min-height 100vh</div>
<div class="vw-100 border bg-secondary">Width 100vw</div>
<div class="vh-100 border bg-info">Height 100vh</div>
```

7 – FLOAT & CLEARFIX

float-none / float-right / float-left / float-{breakpoints}-*

clearfix

← Add .clearfix to parent element

```
<div class="clearfix">
  
  <p class="w-75 p-3 float-right float-lg-left">Lorem ipsum dolor sit, amet consectetur adipisicing elit. Optio reiciendis laborum eos maxime, sunt necessitatibus animi, adipisci molestiae veniam exercitationem perferendis, dolor at autem sint doloremque! Enim, itaque maxime. Quaerat, nobis enim libero assumenda officia officiis molestias, natus sit exercitationem laboriosam omnis tenetur quos alias iure obcaecati reprehenderit? Optio, veniam.</p>
</div>

<div class="clearfix">
  
  <p class="w-75 p-3 float-left float-lg-right">Lorem ipsum dolor sit, amet consectetur adipisicing elit. Optio reiciendis laborum eos maxime, sunt necessitatibus animi, adipisci molestiae veniam exercitationem perferendis, dolor at autem sint doloremque! Enim, itaque maxime. Quaerat, nobis enim libero assumenda officia officiis molestias, natus sit exercitationem laboriosam omnis tenetur quos alias iure obcaecati reprehenderit? Optio, veniam.</p>
</div>
```

- smaller than lg size



Lore ipsum dolor sit, amet consectetur adipisicing elit. Optio reiciendis laborum eos maxime, sunt necessitatibus animi, adipisci molestiae veniam exercitationem perferendis, dolor at autem sint doloremque! Enim, itaque maxime. Quaerat, nobis enim libero assumenda officia officiis molestias, natus sit exercitationem laboriosam omnis tenetur quos alias iure obcaecati reprehenderit? Optio, veniam.



Lore ipsum dolor sit, amet consectetur adipisicing elit. Optio reiciendis laborum eos maxime, sunt necessitatibus animi, adipisci molestiae veniam exercitationem perferendis, dolor at autem sint doloremque! Enim, itaque maxime. Quaerat, nobis enim libero assumenda officia officiis molestias, natus sit exercitationem laboriosam omnis tenetur quos alias iure obcaecati reprehenderit? Optio, veniam.

- wider and equal than lg size

Lore ipsum dolor sit, amet consectetur adipisicing elit. Optio reiciendis laborum eos maxime, sunt necessitatibus animi, adipisci molestiae veniam exercitationem perferendis, dolor at autem sint doloremque! Enim, itaque maxime. Quaerat, nobis enim libero assumenda officia officiis molestias, natus sit exercitationem laboriosam omnis tenetur quos alias iure obcaecati reprehenderit? Optio, veniam.



Lore ipsum dolor sit, amet consectetur adipisicing elit. Optio reiciendis laborum eos maxime, sunt necessitatibus animi, adipisci molestiae veniam exercitationem perferendis, dolor at autem sint doloremque! Enim, itaque maxime. Quaerat, nobis enim libero assumenda officia officiis molestias, natus sit exercitationem laboriosam omnis tenetur quos alias iure obcaecati reprehenderit? Optio, veniam.

8 – DISPLAY

d-* / d-*-*

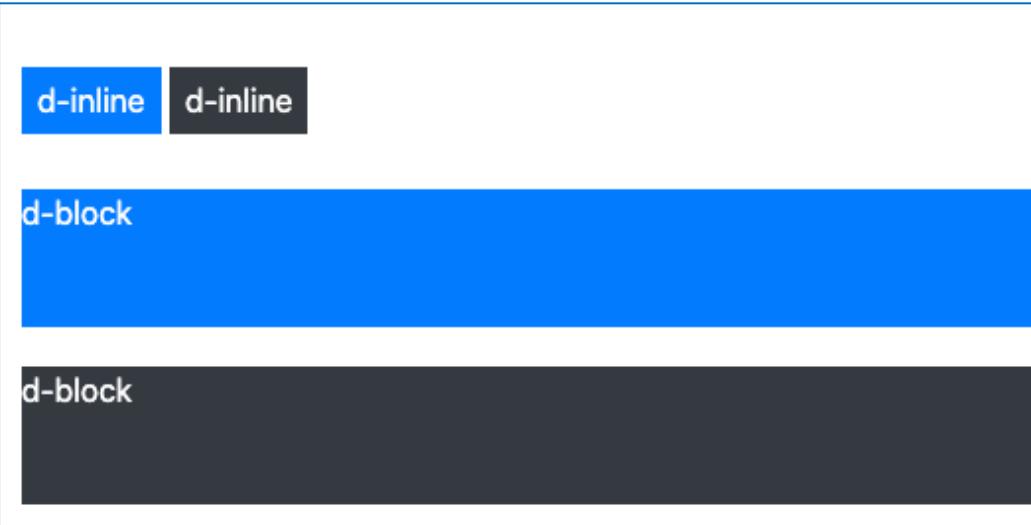
- **d-{value}** for xs
- **d-{breakpoint}-{value}** for sm, md, lg, and xl.

values

- **none**
- **inline**
- **inline-block**
- **block**
- **flex**
- **inline-flex**
- **table**
- **table-cell**
- **table-row**

```
<!-- normally div is a block-level element -->
<div class="d-inline p-2 bg-primary text-white">d-inline</div>
<div class="d-inline p-2 bg-dark text-white">d-inline</div>

<!-- normally span is an inline-level element -->
<span class="d-block w-100 mx-0 bg-primary text-white">d-block</span>
<span class="d-block w-100 mx-0 bg-dark text-white">d-block</span>
```

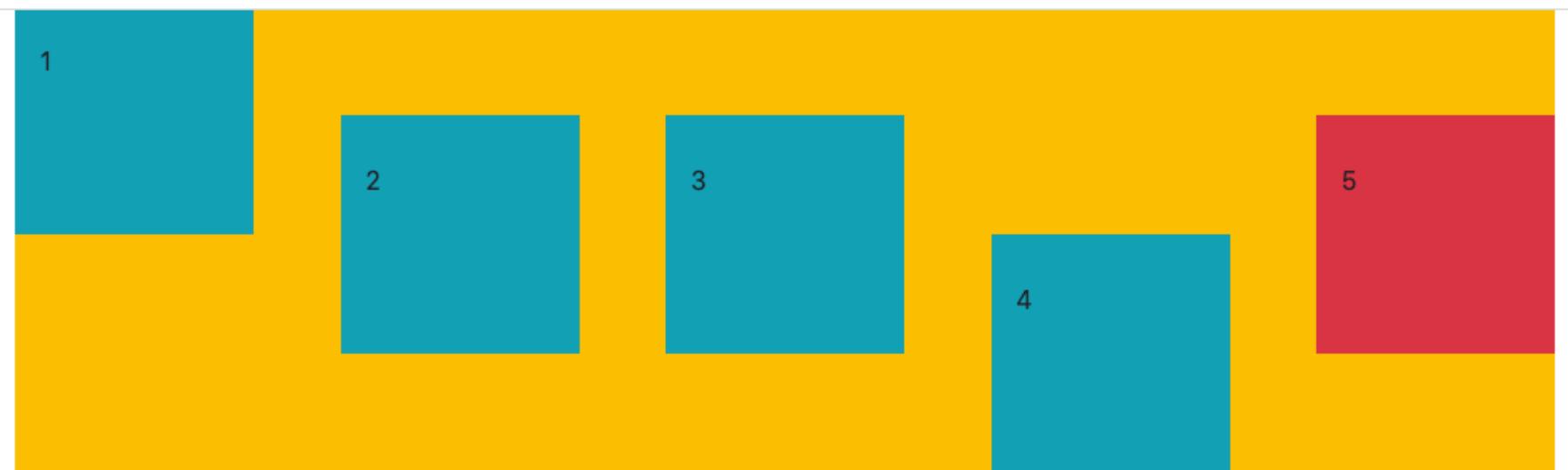


8 – DISPLAY

d-* / d-*-***values**

- **none**
- **inline**
- **inline-block**
- **block**
- **flex**
- **inline-flex**
- **table**
- **table-cell**
- **table-row**

```
<div class="d-flex justify-content-between bg-warning align-items-center" style="height:300px;">
    <div class="bg-info align-self-start p-3" style="width:150px;height:150px;">1</div>
    <div class="bg-info p-3 " style="width:150px;height:150px;">2</div>
    <div class="bg-info p-3" style="width:150px;height:150px;">3</div>
    <div class="bg-info align-self-end p-3 d-xl-none" style="width:150px;height:150px;">4</div>
    <div class="d-none bg-danger p-3 d-lg-block" style="width:150px;height:150px;">5</div>
</div>
```



8 – DISPLAY

d-* / d-*-*

values

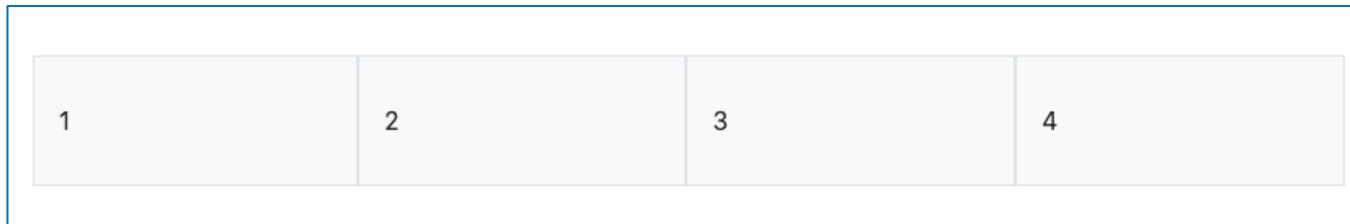
- none
- inline
- inline-block
- block
- flex
- inline-flex
- table
- table-cell
- table-row

```
<div class="d-flex flex-column flex-md-row my-5">
  <div class="bg-light flex-grow-1 border p-3">1</div>
  <div class="bg-light flex-grow-1 border p-3">2</div>
  <div class="bg-light flex-grow-1 border p-3">3</div>
  <div class="bg-light flex-grow-1 border p-3">4</div>
</div>
```

- smaller than md size



- wider and equal than md size



9 – POSITION

position-*

position-static
position-relative
position-absolute
position-fixed => fixed-top / fixed-bottom
position-sticky => sticky-top

```
<div class="w-100 bg-light border border-secondary position-relative" style="height:200px;">
  <div class="p-2 bg-warning position-relative " style="width:50px;height:50px;left:300px;top:10px;">1</div>
  <div class="p-2 bg-danger position-absolute" style="width:50px;height:50px;bottom:0;right:0;">2</div>
  <div class="p-2 bg-success position-absolute" style="width:50px;height:50px;top:0;right:0;">3</div>
  <div class="p-2 bg-primary sticky-top" style="width:50px;height:50px;">4</div>
</div>
```



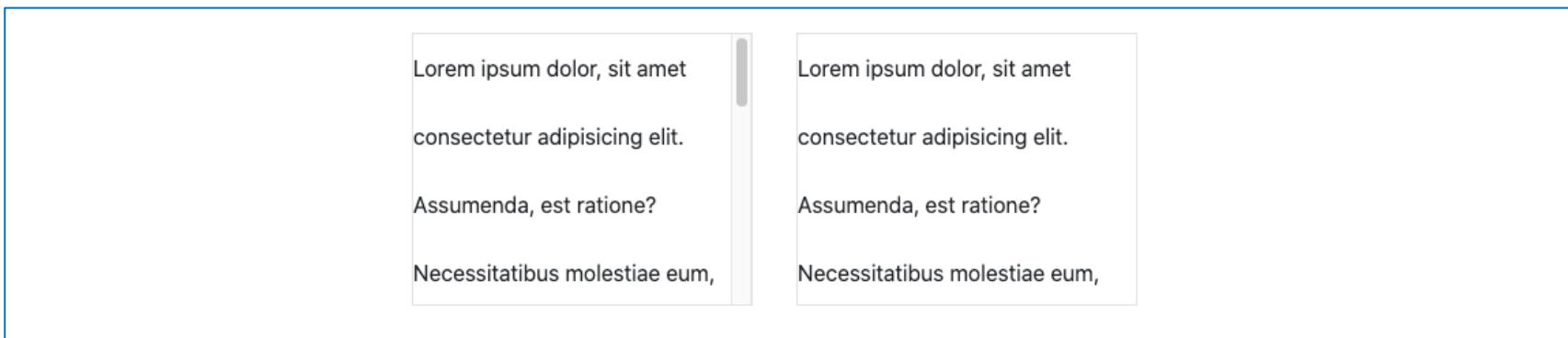
Div-1 : relative to **itself**
Div-2 : relative to **parent**
Div-3 : relative to **parent**
Div-4 : relative to **viewport (sticky)**

10 – OVERFLOW

overflow- auto / hidden

```
<div class="d-flex justify-content-center ">
  <div class="overflow-auto mx-3 border" style="width:250px;height:200px;">Lorem ipsum dolor, sit
    amet consectetur adipisicing elit. Assumenda, est ratione? Necessitatibus molestiae eum, dolores
    soluta magnam ipsum cumque culpa iusto, dignissimos fugit vero a quis impedit officiis esse magni
    assumenda unde exercitationem dolore. Ratione quae amet saepe neque eum ducimus! Cupiditate dolor
    voluptatem architecto omnis culpa porro dicta facere.</div>

  <div class="overflow-hidden mx-3 border" style="width:250px;height:200px;">Lorem ipsum dolor, sit
    amet consectetur adipisicing elit. Assumenda, est ratione? Necessitatibus molestiae eum, dolores
    soluta magnam ipsum cumque culpa iusto, dignissimos fugit vero a quis impedit officiis esse magni
    assumenda unde exercitationem dolore. Ratione quae amet saepe neque eum ducimus! Cupiditate dolor
    voluptatem architecto omnis culpa porro dicta facere.</div>
</div>
```

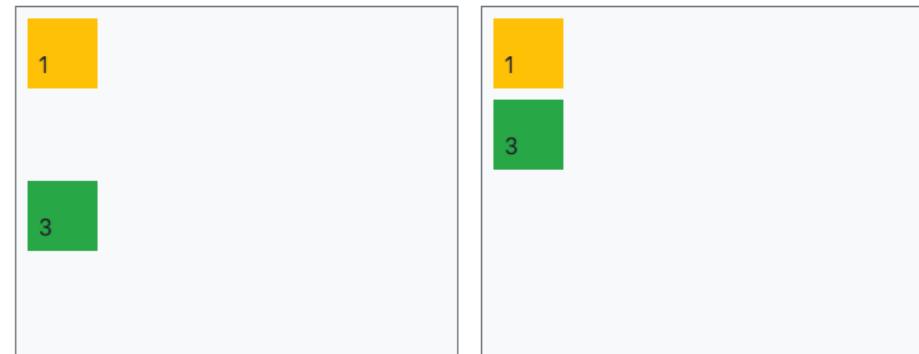


11 – VISIBILITY

visible / invisible

```
<div class="row">
  <div class="w-25 bg-light border border-secondary mx-3" style="height:250px;">
    <div class="p-2 bg-warning m-2 visible" style="width:50px;height:50px;">1</div>
    <div class="p-2 bg-danger m-2 invisible" style="width:50px;height:50px;">2</div>
    <div class="p-2 bg-success m-2 visible" style="width:50px;height:50px;">3</div>
    <div class="p-2 bg-primary m-2 invisible" style="width:50px;height:50px;">4</div>
  </div>

  <div class="w-25 bg-light border border-secondary" style="height:250px;">
    <div class="p-2 bg-warning m-2" style="width:50px;height:50px;">1</div>
    <div class="p-2 bg-danger m-2 d-none" style="width:50px;height:50px;">2</div>
    <div class="p-2 bg-success m-2" style="width:50px;height:50px;">3</div>
    <div class="p-2 bg-primary m-2 d-none" style="width:50px;height:50px;">4</div>
  </div>
</div>
```



comparison between
`.invisible` and `.d-none`

12 – VERTICAL ALIGN

align- top / middle / bottom

```
<table style="height: 100px;">
  <tbody>
    <tr>
      <td class="align-top border">top</td>
      <td class="align-middle border">middle</td>
      <td class="align-bottom border">bottom</td>
    </tr>
  </tbody>
</table>
```

top		
	middle	
		bottom

NOTE : Vertical-align only affects **inline**, **inline-block**, **inline-table**, and **table cell** elements.

13 – CLOSE ICON

close

```
<button type="button" class="close" aria-label="Close">
|   <span aria-hidden="true">&times;</span>
</button>
```



14 – SCREEN READERS

sr-only / sr-only-focusable

Hide an element to all devices **except screen readers** with `.sr-only`.

```
<div class="border my-5">
|   <a class="sr-only" href="#content">Skip to main content</a>
</div>
```

CONTENT

1 – TYPOGRAPHY

[h1 / h2 / h3 / h4 / h5 / h6](#)

```
<div class="row">
  <div class="col border">
    <h1>h1. Bootstrap heading</h1>
    <h2>h2. Bootstrap heading</h2>
    <h3>h3. Bootstrap heading</h3>
    <h4>h4. Bootstrap heading</h4>
    <h5>h5. Bootstrap heading</h5>
    <h6>h6. Bootstrap heading</h6>
  </div>

  <div class="col border">
    <p class="h1">h1. Bootstrap heading</p>
    <p class="h2">h2. Bootstrap heading</p>
    <p class="h3">h3. Bootstrap heading</p>
    <p class="h4">h4. Bootstrap heading</p>
    <p class="h5">h5. Bootstrap heading</p>
    <p class="h6">h6. Bootstrap heading</p>
  </div>
```

h1. Bootstrap heading

h2. Bootstrap heading

h3. Bootstrap heading

h4. Bootstrap heading

h5. Bootstrap heading

h6. Bootstrap heading

h1. Bootstrap heading

h2. Bootstrap heading

h3. Bootstrap heading

h4. Bootstrap heading

h5. Bootstrap heading

h6. Bootstrap heading

1 – TYPOGRAPHY

display- 1 / 2 / 3 / 4

```
<div class="my-5">
  <h1 class="display-1">Display 1</h1>
  <h1 class="display-2">Display 2</h1>
  <h1 class="display-3">Display 3</h1>
  <h1 class="display-4">Display 4</h1>
</div>
```

When you need a heading to stand out, consider using a **display heading**—a larger, slightly more opinionated heading style.

Display 1
Display 2
Display 3
Display 4

NOTE : These headings are not responsive by default.

1 – TYPOGRAPHY

lead

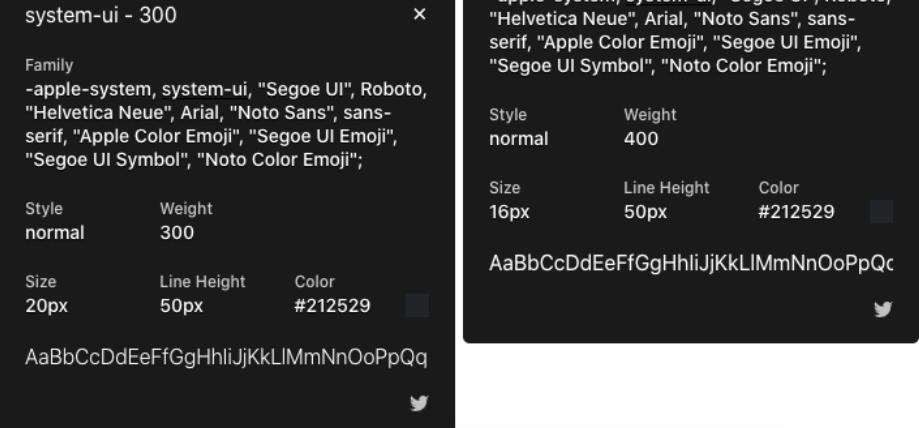
```
<div class="my-5">
  <p>
    Vivamus sagittis lacus vel augue laoreet rutrum
    faucibus dolor auctor. Duis mollis, est non commodo
    luctus.
  </p>
  <p class="lead">
    Vivamus sagittis lacus vel augue laoreet rutrum
    faucibus dolor auctor. Duis mollis, est non commodo
    luctus.
  </p>
</div>
```

Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Duis mollis, est non commodo luctus.

Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Duis mollis, est non commodo luctus.

Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Duis mollis, est non commodo luctus.

Vivamus sagittis lacus vel augue laoreet rutrum faucibus dolor auctor. Duis mollis, est non commodo luctus.



1 – TYPOGRAPHY

```
<div class="my-5">
  <p>You can use the mark tag to <mark>highlight</mark> text.</p>
  <p><del>This line of text is meant to be treated as deleted text.</del></p>
  <p><s>This line of text is meant to be treated as no longer accurate.</s></p>
  <p><ins>This line of text is meant to be treated as an addition to the document.</ins></p>
  <p><u>This line of text will render as underlined</u></p>
  <p><small>This line of text is meant to be treated as fine print.</small></p>
  <p><strong>This line rendered as bold text.</strong></p>
  <p><em>This line rendered as italicized text.</em></p>
</div>
```

You can use the mark tag to highlight text.

~~This line of text is meant to be treated as deleted text.~~

~~This line of text is meant to be treated as no longer accurate.~~

This line of text is meant to be treated as an addition to the document.

This line of text will render as underlined

This line of text is meant to be treated as fine print.

This line rendered as bold text.

This line rendered as italicized text.

1 – TYPOGRAPHY

initialism

```
<p><abbr title="W3Schools">W3S</abbr></p>
<p><abbr title="HyperText Markup Language">HTML</abbr></p>
<p><abbr title="HyperText Markup Language" class="initialism">HTML</abbr></p>
```



1 – TYPOGRAPHY

Blockquote / `blockquote-footer`

```
<blockquote class="blockquote">
  <p class="mb-0">Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere
  erat a ante.</p>
  <footer class="blockquote-footer">Someone famous</footer>
</blockquote>
```

— Someone famous

```
<blockquote class="blockquote text-center">
  <p class="mb-0">Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere
  erat a ante.</p>
  <footer class="blockquote-footer">Someone famous</footer>
</blockquote>
```

— Someone famous

1 – TYPOGRAPHY

Blockquote /blockquote-footer

```
<blockquote class="blockquote text-right">
  <p class="mb-0">Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere
  erat a ante.</p>
  <footer class="blockquote-footer">Someone famous</footer>
</blockquote>
```

 Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer posuere erat a ante.

— Someone famous

1 – TYPOGRAPHY

list-unstyled

```
<div class="row my-5">
  <div class="col">
    <h4>.list-unstyled</h4>
    <ul class="list-unstyled">
      <li>Lorem ipsum dolor sit amet</li>
      <li>Consectetur adipiscing elit</li>
      <li>Integer molestie lorem at massa</li>
      <li>Facilisis in pretium nisl aliquet</li>
    </ul>
  </div>
  <div class="col">
    <h4>list by default</h4>
    <ul>
      <li>Lorem ipsum dolor sit amet</li>
      <li>Consectetur adipiscing elit</li>
      <li>Integer molestie lorem at massa</li>
      <li>Facilisis in pretium nisl aliquet</li>
    </ul>
  </div>
  <div class="col">
    <h4>.list-inline</h4>
    <ul class="list-inline">
      <li class="list-inline-item">Lorem ipsum</li>
      <li class="list-inline-item">Phasellus iaculis</li>
      <li class="list-inline-item">Nulla volutpat</li>
    </ul>
  </div>
</div>
```

list-inline / list-inline-item

.list-unstyled

• Lorem ipsum dolor sit amet
 • Consectetur adipiscing elit
 • Integer molestie lorem at massa
 • Facilisis in pretium nisl aliquet

list by default

- Lorem ipsum dolor sit amet
- Consectetur adipiscing elit
- Integer molestie lorem at massa
- Facilisis in pretium nisl aliquet

.list-inline

• Lorem ipsum Phasellus iaculis Nulla volutpat

NOTE : .list-unstyled only applies to immediate children list items

2 – CODE

Inline code

```
<p>For example, <code>&lt;section&gt;</code> should be wrapped as inline.</p>
```

For example, `<section>` should be wrapped as inline.

Code block

```
<pre>
  <code>
    &lt;p&gt;Sample text here...&lt;/p&gt;
    &lt;p&gt;And another line of sample text here...&lt;/p&gt;
  </code>
</pre>

<pre>
<code>
&lt;p&gt;Sample text here...&lt;/p&gt;
&lt;p&gt;And another line of sample text here...&lt;/p&gt;
</code>
</pre>
|
```

```
<p>Sample text here...</p>
<p>And another line of sample text here...</p>
```

```
<p>Sample text here...</p>
<p>And another line of sample text here...</p>
```

2 – CODE

Variables

```
<var>y</var> = <var>m</var><var>x</var> + <var>b</var>
```

$$y = mx + b$$

User input – entered via keyboard

```
<p>
  To switch directories, type <kbd>cd</kbd> followed by the name of the directory.<br>
  To edit settings, press <kbd><kbd>ctrl</kbd> + <kbd>, </kbd></kbd>
</p>
```

To switch directories, type **cd** followed by the name of the directory.
To edit settings, press **ctrl + ,**

Sample output

```
<samp>This text is meant to be treated as sample output from a computer program.</samp>
```

This text is meant to be treated as sample output from a computer program.

3 – IMAGES

img-fluid

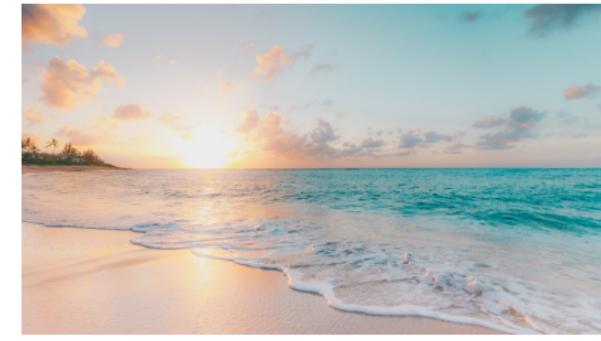
← Responsive images

```
<div class="row">
  <div class="col-12 col-md-6 p-0 mb-2">
    
  </div>
  <div class="col-12 col-md-6 border bg-info mb-2">2</div>
</div>
```

- wider and equal than md size



- smaller than md size

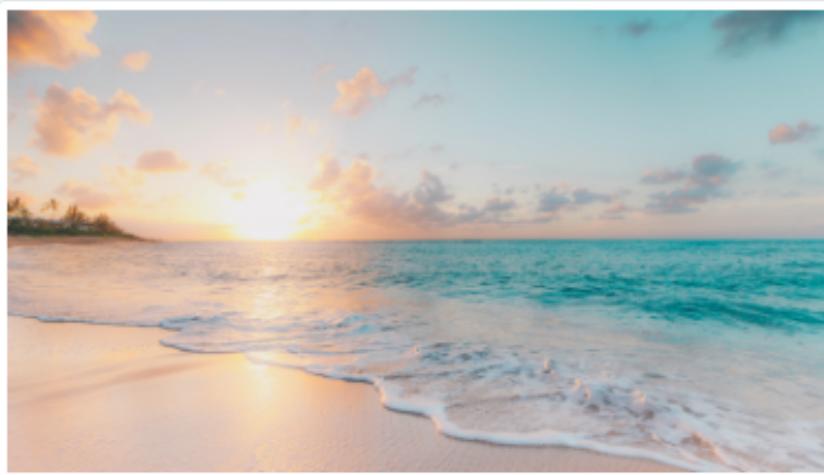


3 – IMAGES

img-thumbnail

an image with a rounded 1px border appearance

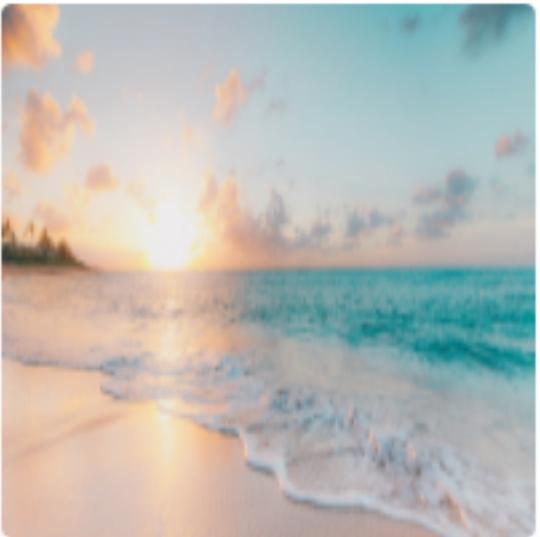
```
<div class="row">
    <div class="col-6 mb-2">
        
    </div>
</div>
```



3 – IMAGES

rounded

```
<div class="row">
  <div class="col-6 mb-2" >
    |   
    | </div>
  </div>
```



4 – FIGURES

figure

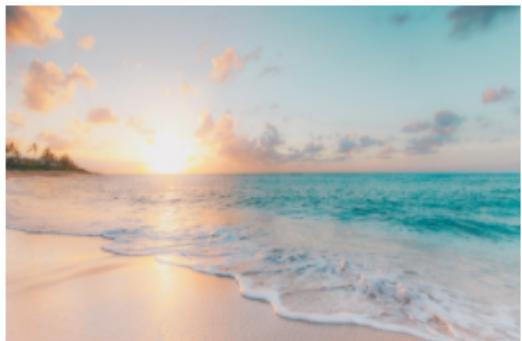
figure-img

figure-caption

```
<figure class="figure mr-3">
  
  <figcaption class="figure-caption">A caption for the above image.</figcaption>
</figure>

<figure class="figure mr-3">
  
  <figcaption class="figure-caption text-center">A caption for the above image.</figcaption>
</figure>

<figure class="figure">
  
  <figcaption class="figure-caption text-right">A caption for the above image.</figcaption>
</figure>
```



A caption for the above image.



A caption for the above image.



A caption for the above image.