

Bootstrap Framework

What is BOOTSTRAP ?

- ❖ Bootstrap is a free front-end framework for faster and easier web development
- ❖ Bootstrap 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
- ❖ Bootstrap also gives you the ability to easily create responsive designs

What is Responsive Web Design?

- ❖ Responsive web design is about creating web sites which automatically adjust themselves to look good on all devices, from small phones to large desktops.

Bootstrap Versions

- Bootstrap 5 (released 2021) is the newest version of Bootstrap (released 2013); with new components, faster stylesheet and more responsiveness.
- Bootstrap 5 supports the latest, stable releases of all major browsers and platforms. However, Internet Explorer 11 and down is not supported.
- The main differences between Bootstrap 5 and Bootstrap 3 & 4, is that Bootstrap 5 has switched to vanilla JavaScript instead of jQuery.

Why Use Bootstrap?

- ✓ **Easy to use:** Anybody with just basic knowledge of HTML and CSS can start using Bootstrap
- ✓ **Responsive features:** Bootstrap's responsive CSS adjusts to phones, tablets, and desktops
- ✓ **Mobile-first approach:** In Bootstrap, mobile-first styles are part of the core framework
- ✓ **Browser compatibility:** Bootstrap 5 is compatible with all modern browsers (Chrome, Firefox, Edge, Safari, and Opera).

Where to Get Bootstrap 5?

There are two ways to start using Bootstrap 5 on your own web site.

You can:

- ❖ Include Bootstrap 5 from a CDN
- ❖ Download Bootstrap 5 from getbootstrap.com

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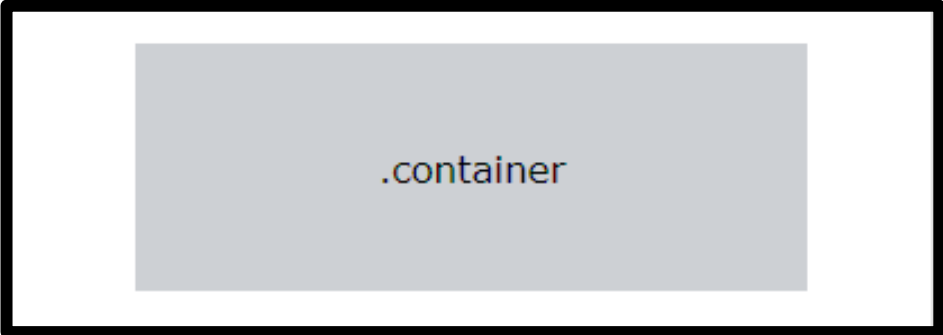
```
<link href="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/css/bootstrap.min.css" rel="stylesheet">
```

```
<script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.3/dist/js/bootstrap.bundle.min.js"></script>
```

Containers

There are two container classes to choose from:

- ✓ The `.container` class provides a responsive **fixed width container**.
- ✓ The `.container-fluid` class provides a **full width container**, spanning the entire width of the viewport.

A diagram illustrating the `.container` class. It consists of a large white rectangle with a thick black border. Inside this rectangle, centered, is a smaller gray rectangle. The text `.container` is written in blue in the center of the gray rectangle.

`.container`

A diagram illustrating the `.container-fluid` class. It consists of a large white rectangle with a thick black border. Inside this rectangle, centered, is a gray rectangle that fills almost the entire width and height of the white container, leaving only thin white margins on the top, bottom, and sides. The text `.container-fluid` is written in blue in the center of the gray rectangle.

`.container-fluid`

Responsive Containers

You can also use the `.container-sm|md|lg|xl` classes to determine when the container should be responsive.

The `max-width` of the container will change on different screen sizes/viewports:

| Class | Extra small <576px | Small ≥576px | Medium ≥768px | Large ≥992px | Extra large ≥1200px | XXL ≥1400px |
|-----------------------------|-----------------------|-----------------|------------------|-----------------|------------------------|----------------|
| <code>.container-sm</code> | 100% | 540px | 720px | 960px | 1140px | 1320px |
| <code>.container-md</code> | 100% | 100% | 720px | 960px | 1140px | 1320px |
| <code>.container-lg</code> | 100% | 100% | 100% | 960px | 1140px | 1320px |
| <code>.container-xl</code> | 100% | 100% | 100% | 100% | 1140px | 1320px |
| <code>.container-xxl</code> | 100% | 100% | 100% | 100% | 100% | 1320px |

1.

Color – Utilities

Primary

Secondary

Success

Danger

Warning

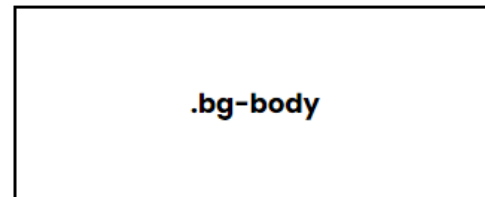
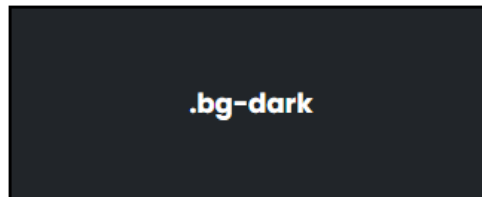
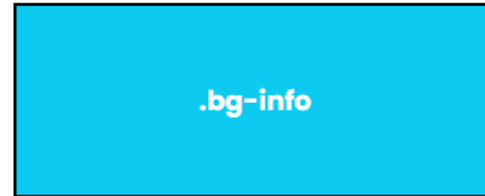
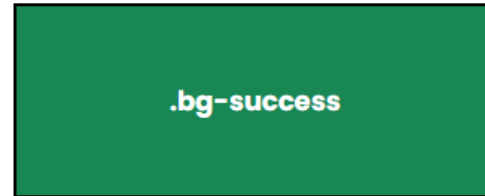
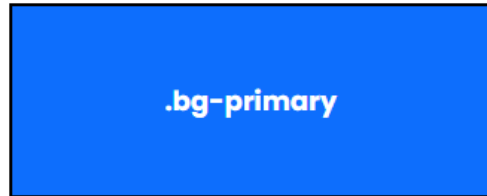
Info

Light

Dark

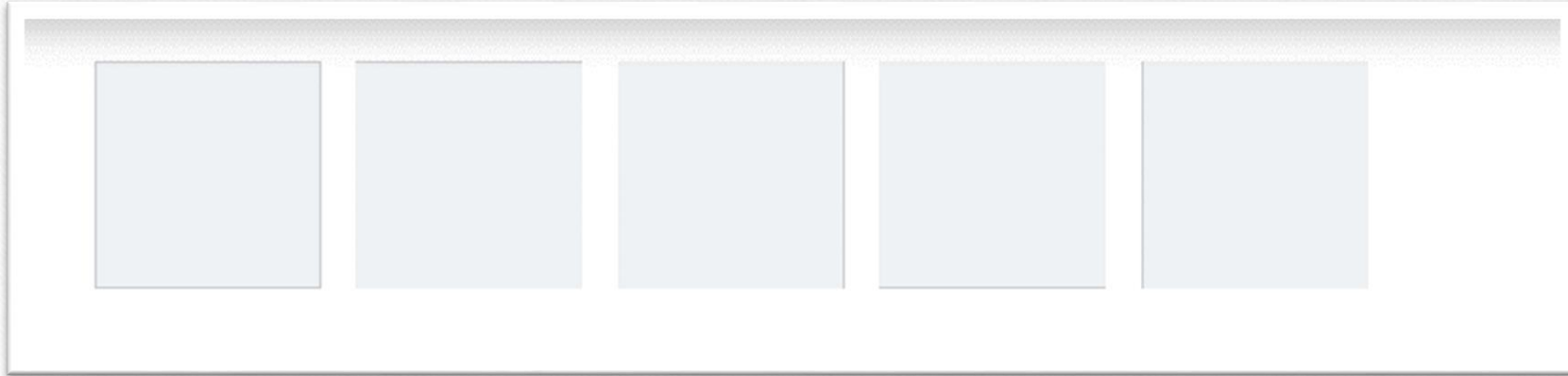
Background-color (.bg-colorname)

2.



Border (.border)

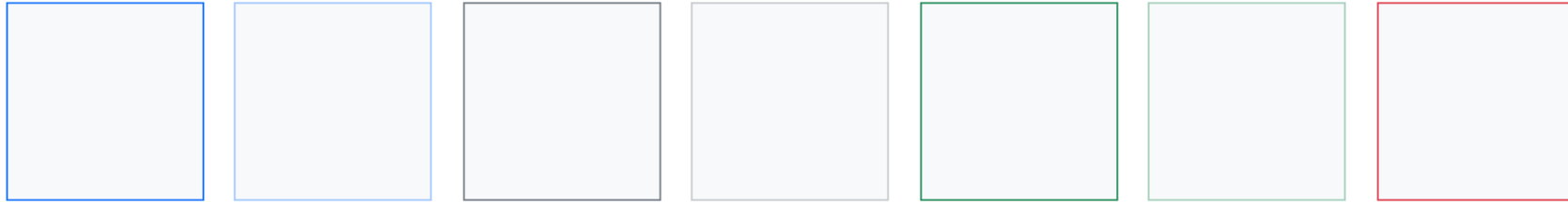
3.



```
<span class="border"></span>  
<span class="border-top"></span>  
<span class="border-end"></span>  
<span class="border-bottom"></span>  
<span class="border-start"></span>
```

Border color (.border-color)

4.



```
<span class="border border-primary"></span>
```

```
<span class="border border-primary-subtle"></span>
```

```
<span class="border border-secondary"></span>
```

```
<span class="border border-secondary-subtle"></span>
```

```
<span class="border border-success"></span>
```

```
<span class="border border-success-subtle"></span>
```

```
<span class="border border-danger"></span>
```

Border width (.border-width)

5.



```
<span class="border border-1"></span>  
<span class="border border-2"></span>  
<span class="border border-3"></span>  
<span class="border border-4"></span>  
<span class="border border-5"></span>
```


Border radius (.border-radius)

6.

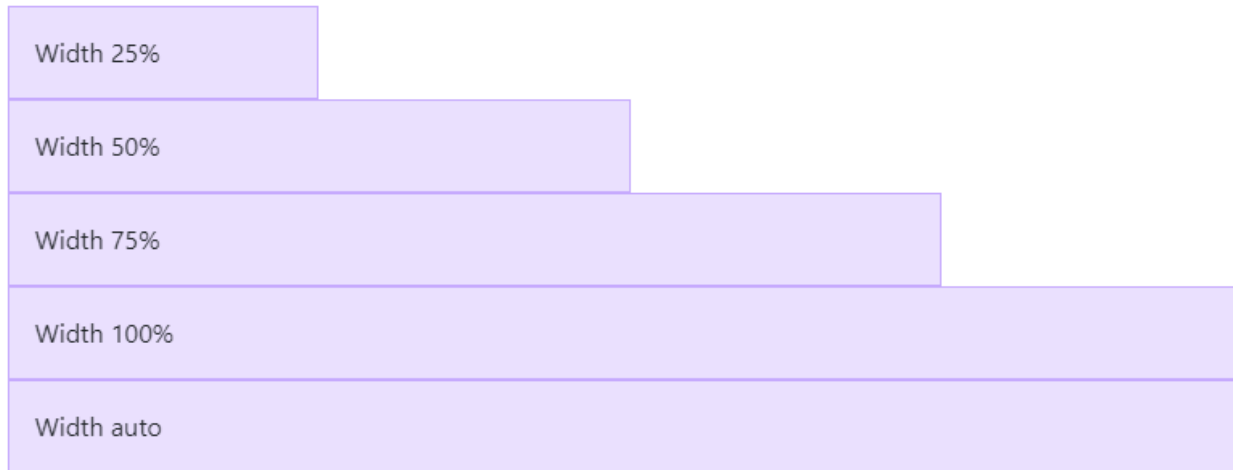


```
  
  
  
  
  
  

```

Sizing(width[.w])

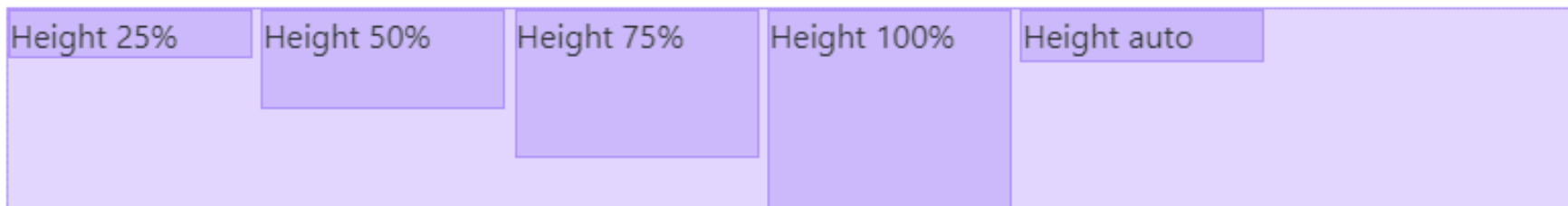
7.



```
<div class="w-25 p-3">Width 25%</div>  
<div class="w-50 p-3">Width 50%</div>  
<div class="w-75 p-3">Width 75%</div>  
<div class="w-100 p-3">Width 100%</div>  
<div class="w-auto p-3">Width auto</div>
```

Sizing(height[.h])

8.



```
<div style="height: 100px;">  
  <div class="h-25 d-inline-block" style="width: 120px;">Height 25%</div>  
  <div class="h-50 d-inline-block" style="width: 120px;">Height 50%</div>  
  <div class="h-75 d-inline-block" style="width: 120px;">Height 75%</div>  
  <div class="h-100 d-inline-block" style="width: 120px;">Height 100%</div>  
  <div class="h-auto d-inline-block" style="width: 120px;">Height auto</div>  
</div>
```


Spacing - (Margin and padding)

8.

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`
- `s` - (start) for classes that set `margin-left` or `padding-left` in LTR, `margin-right` or `padding-right` in RTL
- `e` - (end) for classes that set `margin-right` or `padding-right` in LTR, `margin-left` or `padding-left` in RTL
- `x` - for classes that set both `*-left` and `*-right`
- `y` - for classes that set both `*-top` and `*-bottom`

Text alignment

9.

Start aligned text on all viewport sizes.

Center aligned text on all viewport sizes.

End aligned text on all viewport sizes.

```
<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 transform

10.

lowercased text.

UPPERCASED TEXT.

CapiTaliZed Text.

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

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

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


Grid System

Column

Column

Column

```
<div class="container text-center">  
  <div class="row">  
    <div class="col">  
      Column  
    </div>  
    <div class="col">  
      Column  
    </div>  
    <div class="col">  
      Column  
    </div>  
  </div>  
</div>
```

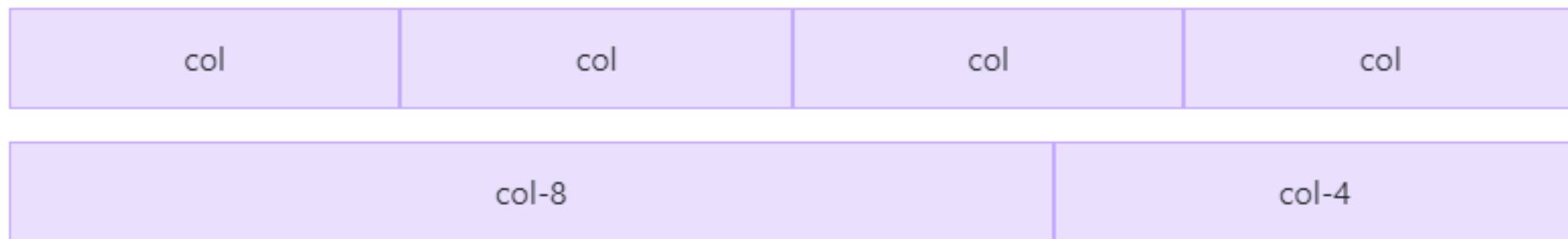
Responsive classes -:

Bootstrap's grid includes six tiers of predefined classes for building complex responsive layouts. Customize the size of your columns on extra small, small, medium, large, or extra large devices however you see fit.

All breakpoints -:

For grids that are the same from the smallest of devices to the largest, use the `.col` and `.col-*` classes. Specify a numbered class when you need a particularly sized column; otherwise, feel free to stick to `.col`.


```
<div class="container text-center">
  <div class="row">
    <div class="col">col</div>
    <div class="col">col</div>
    <div class="col">col</div>
    <div class="col">col</div>
  </div>
  <div class="row">
    <div class="col-8">col-8</div>
    <div class="col-4">col-4</div>
  </div>
</div>
```



Responsive Layout using Bootstrap

