

# Bootstrap Grid

## Topics Covered:

- Grid System.
- Grid Classes.
- Stacked to Horizontal.
- Auto Layout Columns.
- Three equal columns.
- Three equal columns using numbers.
- Three unequal columns.
- Setting one column width.
- Rows, Cols and Height.
- Nested columns.

## Topics in Detail:

### Grid System:

- Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page.
- If required you can group the columns together to create wider columns.
- The grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

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 Classes:

Class Name	Description
.col-	extra small devices
.col-sm-	small devices
.col-md-	medium devices
.col-lg-	large devices
.col-xl-	xlarge devices
.col-xxl-	xxlarge devices

## Stacked to horizontal:

- The following example shows a simple "stacked-to-horizontal" two-column layout, meaning.
- It will result in a 50%/50% split on all screens, except for extra small screens, which it will automatically stack (100%)
- The numbers in the **.col-sm-\*** classes indicates how many columns the div should span (out of 12). So, **.col-sm-1** spans 1 column, **.col-sm-4** spans 4 columns, **.col-sm-6** spans 6 columns, etc.

```
<div class="container-fluid mt-3">
  <h1>Grid Example</h1>
  <div class="row">
    <div class="col-sm-6 bg-primary text-white p-3">
      col-sm-6
    </div>
    <div class="col-sm-6 bg-dark text-white p-3">
      col-sm-6
    </div>
  </div>
</div>
```

col-sm-6

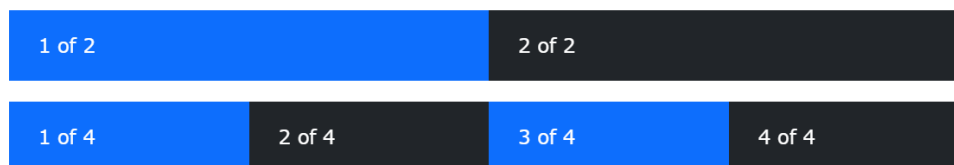
col-sm-6

## Auto Layout Columns:

- To create equal width columns for all devices remove the number from **.col-size-\*** and only use the **.col-size** class on a specified number of col elements.
- Bootstrap will recognize how many columns there are, and each column will get the same width. The size classes (sm, md, etc.) determine when the columns should be responsive.

```
<!-- Two columns: 50% width on all screens, except for extra small (100% width) -->
<div class="row">
  <div class="col-sm">1 of 2</div>
  <div class="col-sm">2 of 2</div>
</div>

<!-- Four columns: 25% width on all screens, except for extra small (100% width)-->
<div class="row">
  <div class="col-sm">1 of 4</div>
  <div class="col-sm">2 of 4</div>
  <div class="col-sm">3 of 4</div>
  <div class="col-sm">4 of 4</div>
</div>
```



## Three Equal Columns:

- The **.col** class is used to specify the number of elements and Bootstrap will recognize how many elements there are (and create equal-width columns). In the example below, we use three col elements, which gets a width of 33.33% each.

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



## Three Equal Columns Using Numbers:

- Numbers can also be used to control the column width.
- Just make sure that the sum adds up to 12 or fewer (it is not required that you use all 12 available columns)

```
<div class="row">
  <div class="col-4">col-4</div>
  <div class="col-4">col-4</div>
  <div class="col-4">col-4</div>
</div>
```



## Three Unequal Columns:

- Numbers must be used to create unequal columns.
- The following example will create a 25%/50%/25% split.

```
<div class="row">
  <div class="col-3">col-3</div>
  <div class="col-6">col-6</div>
  <div class="col-3">col-3</div>
</div>
```



## Setting one column width:

- However, it is enough to only set the width of one column, and have the sibling columns automatically resize around it.
- The following example will create a 25%/50%/25% split.

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



## Row, Cols, and Height:

- You can also control how many columns that should appear next to each other (regardless of how many cols), with the **.row-cols-\*** classes.



- If one of the columns is taller than the other (due to text or CSS height), the rest will follow.



## Nested Columns:

Two column layout, with another two columns inside one of the columns.

```
<div class="row">
  <div class="col-8">
    .col-8
    <div class="row">
      <div class="col-6">.col-6</div>
      <div class="col-6">.col-6</div>
    </div>
  </div>
  <div class="col-4">.col-4</div>
</div>
```

