**Bootstrap and responsiveness**

**1- Containers**

**Fixed Container**

Use the .container class to create a responsive, fixed-width container. Note that its width (max-width) will change on different screen sizes:

<div class="container">  
  <h1>My First Bootstrap Page</h1>  
  <p>This is some text.</p>   
</div>

|  | **Extra small <576px** | **Small ≥576px** | **Medium ≥768px** | **Large ≥992px** | **Extra-large ≥1200px** |
| --- | --- | --- | --- | --- | --- |
| max-width | 100% | 540px | 720px | 960px | 1140px |

## Fluid Container

Use the .container-fluid class to create a full width container, that will always span the entire width of the screen (width is always 100%):

<div class="container-fluid">  
  <h1>My First Bootstrap Page</h1>  
  <p>This is some text.</p>   
</div>

## Container Padding

By default, containers have 15px left and right padding, with no top or bottom padding. Therefore, we often use **spacing utilities**, such as extra padding and margins to make them look even better. For example, .pt-3 means "add a top padding of 16px":

<div class="container pt-3"></div>

**Responsive Containers**

You can also use the .container-sm|md|lg|xl classes to create responsive containers.

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** |
| --- | --- | --- | --- | --- | --- |
| .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 |

## Bootstrap 4 Grid System

Bootstrap's grid system is built with flexbox and allows up to 12 columns across the page.

If you do not want to use all 12 columns individually, you can group the columns together to create wider columns:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | | | | | | | | | | | |

The grid system is responsive, and the columns will re-arrange automatically depending on the screen size.

Make sure that the sum adds up to 12 or fewer (it is not required that you use all 12 available columns).

## Grid Classes

The Bootstrap 4 grid system has five classes:

* .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)

The classes above can be combined to create more dynamic and flexible layouts.

**Tip:** Each class scales up, so if you wish to set the same widths for sm and md, you only need to specify sm.