Bootstrap

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HTML5 & VIEWPORT

The HTML5 doctype should be used.

Use the viewport

Bootstrap supports the latest, stable releases of all major browsers and platforms

STANDARD BASELINE TEMPLATE

```
<!doctype html>
<html lang="en">
   <head>
        <meta charset="utf-8">
        <meta name="viewport" content="width=device-width, initial-scale=1">
        <title>Bootstrap demo</title>
        link href="bootstrap.min.css" rel="stylesheet">
        </head>
   <body>
        <h1>Hello, world!</h1>
        <script src="bootstrap.bundle.min.js" ></script>
        </body>
   </html>
```

While the Bootstrap CSS can be used with any framework, the Bootstrap

JavaScript is not fully compatible with JavaScript frameworks like React, Vue,
and Angular which assume full knowledge of the DOM. Both Bootstrap and the
framework may attempt to mutate the same DOM element, resulting in bugs like
dropdowns that are stuck in the "open" position.

A better alternative for those using this type of frameworks is to use a framework-specific package **instead of** the Bootstrap JavaScript. Here are some of the most popular options:

React: React Bootstrap

Vue: <u>BootstrapVue</u> (currently only supports Vue 2 and Bootstrap 4)

Angular: ng-bootstrap

CONTAINERS

Containers are the most basic element in bootstrap

You must use them



	Extra small <576px	Small ≥576px	Medium ≥768px	Large ≥992px	X-Large ≥1200px	XX-Large ≥1400px
.container	100%	540px	720px	960px	1140px	1320px
.container-sm	100%	540px	720px	960px	1140px	1320px
.container-md	100%	100%	72 <mark>0</mark> px	960px	1140px	1320px
.container-lg	100%	100%	100%	960px	1140px	1320px
.container-xl	100%	100%	100%	100%	1140px	1320px
.container-xxl	100%	100%	100%	100%	100%	1320px
.container-fluid	100%	100%	100%	100%	100%	100%

THE CONTAINER

At every breakpoint, bootstrap will adjust the width of your container element

```
<div id='container'>
    <!- your elements/content ->
</div>
```

The container (and your content) will span the entire viewport

100% width

```
<div id='container-fluid'>
          <!- your elements/content ->
</div>
```

Bootstrap's grid system uses a series of containers, rows, and columns to layout and align content

Built with Flexbox

GRIDS

```
<!doctype html>
<html lang="en">
 <head>
   <meta charset="utf-8">
   <meta name="viewport" content="width=device-width, initial-scale=1">
   <title>Bootstrap Grid</title>
   <link href="bootstrap.min.css">
     .col {
       background-color: □blue;
       color: white;
       border: 1px dotted ■white;
       height: 12vh;;
 </head>
   <div class="container text-center">
     <div class="row">
       <div class="col">
         I like
       <div class="col">
         Met Cs601
       <div class="col">
         A LOT
       </div>
     </div>
   </div>
   <script src="bootstrap.bundle.min.js"></script>
 </body>
```

3 COLUMN LAYOUT

l like	Met cs601	A LOT

There are 12 columns per row

You do not need to use all 12 columns. Each column uses percentages

```
1 of 2
                                        2 of 2
 1 of 3
                           2 of 3
                                                    3 of 3
<div class="container">
 <div class="row">
   <div class="col">
     1 of 2
   </div>
                                col
                                                    col
                                                                        col
                                                                                            col
   <div class="col">
     2 of 2
   </div>
                                col-8
                                                                                      col-4
 </div>
 <div class="row">
   <div class="col">
     1 of 3
                              <div class="container">
   </div>
                               <div class="row">
   <div class="col">
                                 <div class="col">col</div>
     2 of 3
                                 <div class="col">col</div>
   </div>
                                 <div class="col">col</div>
   <div class="col">
                                 <div class="col">col</div>
     3 of 3
                               </div>
   </div>
                               <div class="row">
 </div>
                                 <div class="col-8">col-8</div>
</div>
                                 <div class="col-4">col-4</div>
                               </div>
                              </div>
```

ALIGNMENT IN ROWS



ALIGNMENT IN ROWS (CODE)

```
<div class="container">
  <div class="row align-items-start">
    <div class="col">
      One of three columns
    </div>
    <div class="col">
      One of three columns
    </div>
    <div class="col">
      One of three columns
    </div>
  </div>
  <div class="row align-items-center">
    <div class="col">
      One of three columns
    </div>
    <div class="col">
      One of three columns
    </div>
    <div class="col">
      One of three columns
    </div>
  </div>
  <div class="row align-items-end">
    <div class="col">
      One of three columns
    </div>
    <div class="col">
      One of three columns
    </div>
    <div class="col">
      One of three columns
    </div>
  </div>
</div>
```

PRACTICAL EXAMPLE

```
(body)
 <div class="clearfix">
   <img class="col-md-6 float-md-end mb-3 ms-md-3">
   A paragraph of placeholder text. We're using it here to show the use of the clearfix class.
     We're adding quite a few meaningless phrases here to demonstrate how the columns
     interact here with the floated image.
   As you can see the paragraphs gracefully wrap around the floated image. Now imagine
     how this would look with some actual content in here, rather than just this boring
     placeholder text that goes on and on, but actually conveys no tangible information at.
     It simply takes up space and should not really be read.
   And yet, here you are, still persevering in reading this placeholder text, hoping for some
     more insights, or some hidden easter egg of content. A joke, perhaps.
 </div>
 <script src="https://cdn.jsdelivr.net/npm/bootstrap@5.2.0/d</pre>
                                                               A paragraph of placeholder text. We're using it
(/body>
```

A paragraph of placeholder text. We're using it here to show the use of the clearfix class. We're adding quite a few meaningless phrases here to demonstrate how the columns interact here with the floated image.

As you can see the paragraphs gracefully wrap around the floated image. Now imagine how this would look with some actual content in here, rather than just this boring placeholder text that

goes on and on, but actually conveys no tangible information at. It simply takes up space and should not really be read.

And yet, here you are, still persevering in reading this placeholder text, hoping for some more insights, or some hidden easter egg of content. A joke, perhaps. Unfortunately, there's none of that here.

Responsive floated image

BOSTON UNIVERSITY

∨ Utilities

API

Background

Borders

Colors

Display

Flex

Float

Interactions

Overflow

Position

Shadows

Sizing

Spacing

Text

Vertical align

Visibility

Online.