

3416-003 Web Development Using Angular 8 and TypeScript Module 3: Introduction Bootstrap



Module 1: Section 1

What Is This Course About



Learning Outcomes for this Module

Bootstrap 4



Bootstrap4

- Bootstrap 4 is a the most popular front end framework in the recent time. It is sleek, intuitive, and powerful mobile first front-end framework for faster and easier web development. It uses HTML, CSS, and JavaScript.
- What is Bootstrap 4? Bootstrap 4 is a powerful and popular mobile front-end framework for building responsive mobile first sites on the web. It is a latest version of Bootstrap, which uses HTML, CSS, and JavaScript.



Why use Bootstrap?

- It contains mobile first styles throughout the entire library, instead of using them in the separate files.
- With just the knowledge of HTML and CSS anyone can get started with Bootstrap. Also the Bootstrap official site has a good documentation.
- It is supported by all popular browsers and its responsive CS adjusts to Desktops, Tablets and Mobiles.
- Provides a clean and uniform solution for building an interface for developers.
- It contains beautiful and functional built-in components which are easy to customize.
- It is an open source and provides web based customization.



- Bootstrap 4 uses container classes to wrap the page's contents. It contains two container classes –
 - container It represents a fixed width container.
 - container-fluid It represents a full width container
- Both .container and .container-fluid are responsive(i.e they change the layout based on the screen width), but in different ways(I know, the naming doesn't make it sound that way).
- Short Answer:
 - container is jumpy /chopyy resizing, and
 - container-fluid is continuous / fine resizing at width: 100%



- From a functionality perspective:
 - container-fluid continuously resizes as you change the width of your window/brower by any amount, leaving no extra empty space on the sides ever, unlike how .container does (Hence the naming: "fluid" as opposed to "digital", "discrete", chunked", or "quantized").
 - container resizes in chunks at several widths. In other words, it will be different specific aka "fixed" widths different ranges of screen widths.
 - Semantics: "fixed width"
 - You can see how naming confusion can arise. Technically, we can say .container is "fixed width", but it is fixed only in the sense that it doesn't resize at every granular width. It's actually not "fixed" in the sense that it's always stays at a specific pixel width, since it actually can change size.



From a fundamental perspective:

```
    container-fluid has the CSS property width: 100%; so it continually

  readjusts at every screen width granularity.
    .container-fluid {
            width: 100%;
-.container has something like this:
@media screen and (max-width:400px) {
    .container {
            width: 123px;
```



```
@media screen and (max-width:401px) and (max-width:800px) {
   .container {
           width: 456px;
@media screen and (min-width: 801px) {
   .container {
           width: 709px;
```



 See C:\workspace-UT-Angular8-SEPT-2020\Session3\Examples\Example1.html

```
<html lang="en">
         <head>
  3
             <!-- Meta tags-->
             <meta charset="utf-8">
             <meta name="viewpoint" content="width = device-width, inital-scale=1, shrink-to-fit=no" />
             <!-- Bootstrap CSS-->
             k rel = "stvlesheet"
              href = "https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css"
              integrity = "sha384-MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkF0JwJ8ERdknLPM0"
 10
 11
              crossorigin = "anonymous">
              <title>Bootstrap 4 Example</title>
 13
              <stvle>
 14
                   .container {
 15
                       background: #a52c644a;
 16
                       text-align:center;
 17
                       padding-top: 100px;
 18
                       padding-bottom: 100px;
 19
 20
              </style>
 21
               <!-- jQuery first, then Popper.js, then Bootstrap JS -->
             <script src = "https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre>
 23
             integrity = "sha384-q8i/X+965Dz00rT7abK41JStQIAqVqRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo"
 24
             crossorigin = "anonymous">
 25
             </script>
 26
 27
             <script src = "https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"</pre>
 28
                 integrity =" sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49"
 29
                 crossorigin = "anonymous">
 30
             </script>
 31
 32
             <script src = "https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"</pre>
 33
                 integrity = "sha384-ChfqqxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy"
£34
                 crossorigin = "anonymous">
35
36
             </script>
 37
         </head>
 38
         <body>
```

See Example2.html

Lam\Angular7-UT-Sept2019\Session3\Examples\Example2.html] Search Document Project Tools Window Help 🔯 | B / U F 🍪 | nb 🗸 ¶ H | 🚜 🕸 🗕 🖖 🎯 | 🖽 🚍 ె 🕬 📋 🗒 J 🐉 | 🗗 🚍 🖽 ---+---1---+---2**-**---+---3---+---4---+---5---+---6---+---7---+---8---+---9---+---9---+---0---+---<html lang="en"> <head> 19 3 <!-- Meta tags--> 4 <meta charset="utf-8"> <meta name="viewpoint" content="width = device-width, inital-scale=1, shrink-to-fit=no" /> <!-- Bootstrap CSS--> k rel = "stylesheet" href = "https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/css/bootstrap.min.css" 10 integrity = "sha384-MCw98/SFnGE8fJT3GXwEOngsV7Zt27NXFoaoApmYm81iuXoPkF0JwJ8ERdknLPM0" 11 crossorigin = "anonymous"> <title>Bootstrap 4 Example</title> 13 <style> .container-fluid { background: #a52c644a; 15 text-align:center; padding-top: 100px; padding-bottom: 100px; 19 </style> <!-- jQuery first, then Popper.js, then Bootstrap JS --> <script src = "https://code.jquery.com/jquery-3.3.1.slim.min.js"</pre> integrity = "sha384-q8i/X+965Dz00rT7abK41JStQIAqVgRVzpbzo5smXKp4YfRvH+8abtTE1Pi6jizo" crossorigin = "anonymous"> 24 </script> 26 27 <script src = "https://cdnjs.cloudflare.com/ajax/libs/popper.js/1.14.3/umd/popper.min.js"</pre> integrity = " sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIPm49" crossorigin = "anonymous"> </script> 31 <script src = "https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"</pre> 33 integrity = "sha384-ChfqqxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwEULTy" crossorigin = "anonymous"> 34 </script> 36 37 </head> 38 <body> <div class="container-fluid"> 39 ▶40 <h2>Full With Container</h2> 41 This is a simple web page with full width container by using 42 <code>.container-fluid</code> class. 43 </div> 44 </body> </html>

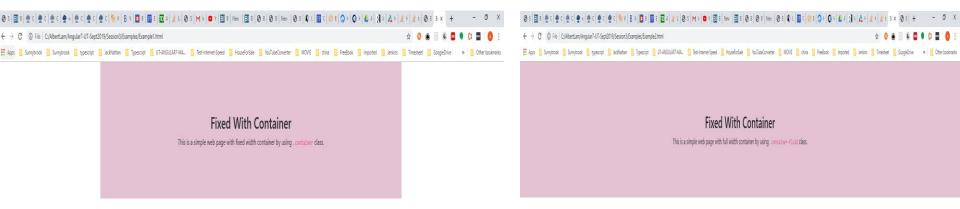


Comparison of Example1.html vs Example2.html:

```
C:\AlbertLam\Angular7-UT-Sept2019\Session3\Examples\Example1.html
                                                                                             C:\AlbertLam\Angular7-UT-Sept2019\Session3\Examples\Example2.html
                                                                                                                                                                               - - X
[집] B / U F 🚿 mb 시 ¶ H / 🚜 � = (+ @ | 用 🗏 🗑 ms H il 📳 J 🧩 🕒 다 다 🔣 🖂
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                                                                                                              sha384-ZMP7rVo3mIykV+2+9J3UJ46jBk0WLaUAdn689aCwoqbBJiSnjAK/18WvCWPIP
                crossorigin = "anonymous">
                                                                                                              crossorigin = "anonymous">
            </script>
                                                                                                          </script>
            "https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"
                                                                                                          <script src =
                                                                                                          "https://stackpath.bootstrapcdn.com/bootstrap/4.1.3/js/bootstrap.min.js"
                "sha384-ChfqqxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwE
                                                                                                              "sha384-ChfqqxuZUCnJSK3+MXmPNIyE6ZbWh2IMqE241rYiqJxyMiZ6OW/JmZQ5stwE
34
                crossorigin = "anonymous">
                                                                                                              crossorigin = "anonymous">
            </script>
                                                                                                          </script>
        </head>
        <body>
                                                                                                      </head>
                                                                                                      <body>
            <div class="container">
                                                                                                          <div class="container-fluid">
40
                 <h2>Fixed With Container</h2>
                                                                                                               <h2>Full With Container</h2>
 41
                This is a simple web page with fixed width container by using
                                                                                             ▶40
                 <code>.container</code> class.
                                                                                                              This is a simple web page with full width container by using
 43
                                                                                                               <code>.container-fluid</code> class.
44
        </body>
                                                                                              43
45 </html>
                                                                                              44
                                                                                                      </body>
                                                                                              45 </html>
```

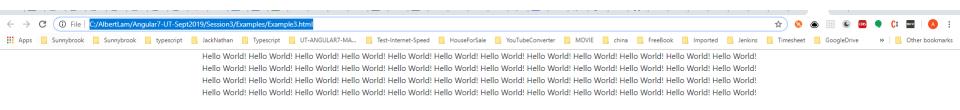


Comparison of Example1.html vs Example2.html:





Comparison of Example3.html is a container class.





Comparison of Example4.html is a container-fluid class.



Hello World! Hello



- Bootstrap 4 grid system built with flexbox which is fully responsive and scales up to 12 columns(according to the size of device) by creating layout with rows and columns across the page. It provides responsive, mobile first fluid grid system which scales the columns as the device or viewport size increases.
- C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example1-Grid-version1\
- Open C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example1-Gridversion1\original-01-grid.html and saved as 01-grid.html



– Add class="containers" to 01-grid.html:

```
01-grid.html ×
AlbertLam ▷ Angular7-UT-May2019 ▷ Session6 ▷ Exercise ▷ Example1-Grid-version1 ▷ ♦ 01-grid.html ▷ ♦ html ▷ ♦ body ▷ ♦ div.containe
    <!DOCTYPE html>
    <html lang="en">
      <head>
        <meta charset="utf-8">
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
        <link rel="stylesheet" href="css/bootstrap.min.css">
        <link href="https://fonts.googleapis.com/css?family=Anton|Dosis:400,800" rel="stylesheet">
        <link rel="stylesheet" href="css/styles.css">
      </head>
      <body>
        <header class="site-header">
            <div class="container">
                <div class="row align-items-center">
                    <div class="col">
                      <h1 class="align-middle text-center text-lg-left">Angular 7 Course</h1>
                      Learn Angular 7
                    </div>
                </div>
                                             add class="container"
            </div>
        </header>
        <h2 class="lecture-title"</pre>
                                 /Grid</h2>
4
        <div class="container">
                    <h2>Main Content</h2>
```

– Add class="containers" to 01-grid.html:

```
01-grid.html ×
▶ AlbertLam ▶ Angular7-UT-May2019 ▶ Session6 ▶ Exercise ▶ Example1-Grid-version1 ▶ ♦ 01-grid.html ▶ ♦ html ▶ ♦ body ▶ ♦ div.containe
    <!DOCTYPE html>
    <html lang="en">
      <head>
        <meta charset="utf-8">
        <meta http-equiv="X-UA-Compatible" content="IE=edge">
        <meta name="viewport" content="width=device-width, initial-scale=1, shrink-to-fit=no">
7
        <link rel="stylesheet" href="css/bootstrap.min.css">
        <link href="https://fonts.googleapis.com/css?family=Anton|Dosis:400,800" rel="stylesheet">
        <link rel="stylesheet" href="css/styles.css">
      </head>
      <body>
        <header class="site-header">
            <div class="container">
                <div class="row align-items-center">
                    <div class="col">
                      <h1 class="align-middle text-center text-lg-left">Angular 7 Course</h1>
                      Learn Angular 7
                    </div>
                </div>
                                             add class="container"
            </div>
        </header>
        <h2 class="lecture-title</pre>
                                 Grid</h2>
6
        <div class="container">
                    <h2>Main Content</h2>
7
                    Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.
```



– Add new div with class="row":



– Current result in browser:

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Grid

 $\textbf{Main Content}^{\text{Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.}$

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard. Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.Ramps kickstarter pop-up brooklyn tousled.

Services Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

- Copy C:\workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version1 to C:\ workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version2
- Open C:\ workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version2\01-grid.html
- Bootstrap uses 12 column grids. Add a new <div> with a class="col-8".



```
<h2 class="lecture-title">Grid</h2>
                                     Add an extra div tag with class="col-8"
<div class="container">
     <div class="row">
      <div class="col-8">
             <h2>Main Content</h2>
             Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.
             Visrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter. 
             Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrup
             Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.
             Pork belly portland enamel pin, hell of direct trade street art YOLO godard.
      </div>
          <h2>Sidebar</h2>
          Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them. 
          Ramps kickstarter pop-up brooklyn tousled. 
    </div>
```



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Grid

Main Content Sidebar

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.Ramps kickstarter pop-up brooklyn tousled.

Services Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

```
Add another div tag with class="col-4"
<div class="container">
     <div class="row">
       <div class="col-8">
               <h2>Main Content</h2>
               Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.
               Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table. 
               Disrupt iPhone bank sustainable, neutra ennui pabst offal kickstarter. 
               Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disru
               Aesthetic Yanh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.
                         lly portland enamel pin, hell of direct trade street art YOLO godard.
       </div>
       <div class="col-4">
           <h2>Sidebar</h2>
           Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them. 
           Ramps kickstarter pop-up brooklyn tousled. 
       </div>
    </div>
```



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Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Services

Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Contact He



Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Resized the screen size to show bootstrap is working.

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Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Services Web Design



Resized the screen size to show bootstrap is working.

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Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats churchkey synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.



- Resized the screen size to show bootstrap is working.
- Copy C:\ workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version2 to
 C:\workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version3



Change to "col-12"

```
<div class="container">
     <div class="row">
       <div class="col-12">
               <h2>Main Content</h2>
               Kitsch raw denim cliche chicharroles, chambray tbh neutra sustainable polaroid four dollar.
               Polaroid thundercats church-lay synth, chillwave pug scenester ethical meggings farm-to-table. 
               Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter. 
               Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cra
                                  venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.
               Aesthetic banh
                              ortland enamel pin, hell of direct trade street art YOLO godard. 
       </div>
       <div class="col-12">
           <h2>Sidebar</h2>
           Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them. 
           Ramps kickstarter pop-up brooklyn tousled. 
       </div>
    </div>
</div>
```



```
Changed both class="col-12"
<div class="container">
     <div class="row">
       <div class="col-12">
               <h2>Main Content</h2>
              Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.
               Polaroid thunderca
                                  ts church-key synth, chillwave pug scenester ethical meggings farm-to-table. 
              Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter. 
               Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cra
               Aesthetic balk mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.
               Pork belly portland enamel pin, hell of direct trade street art YOLO godard.
       </div>
       <div class="col-12"
           <h2>Sidebar</h2>
           Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them. 
           Ramps kickstarter pop-up brooklyn tousled. 
       </div>
    </div>
</div>
```



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Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

- Copy C:\workspace-UT-Angular8-SEPT-2020
 \Session36\Examples\Exercise\Example1-Grid-version3 to
 C:\workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version4
- You can use different classes in bootstrap. Add another class example class="col-12 col-md-8". "md" is stand for medium size.



Bootstrap 4 - Grid System(Example1-Grid-version4)

```
<div class="container">
                                                  Add new class
     <div class="row">
       <div class="col-12 col-md-8">
               <h2>Main Content</h2>
               Kitsch raw denim cliche charcharrones, chambray tbh neutra sustainable polaroid four dollar.
               Polaroid thundercats charch-key synth, chillwave pug scenester ethical meggings farm-to-table. 
               Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter. 
               Narwhal salvia ma fa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic
               Aesthetic bank mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.
                             ortland enamel pin, hell of direct trade street art YOLO godard.
       </div>
       <div class="col-12 col-md-4">
           <h2>Sidebar</h2>
           Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them. 
           Ramps kickstarter pop-up brooklyn tousled. 
       </div>
     </div>
</div>
```



Bootstrap 4 – Grid System(Example1-Grid-version4)

Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Assignment1-Re....docx

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Services

Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

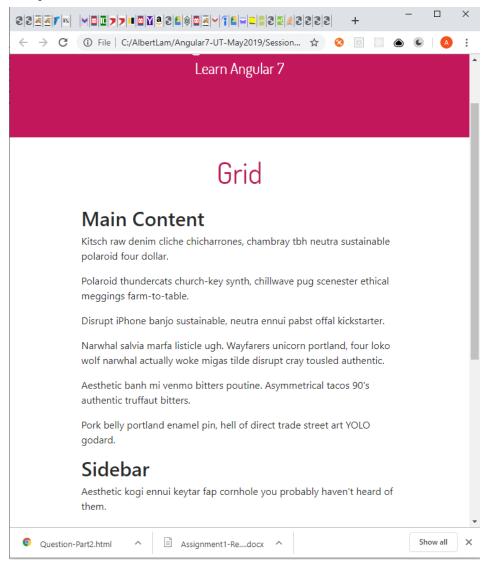
Contact Us

Contact Us here...



Bootstrap 4 - Grid System(Example1-Grid-version4)

Less than 768px it uses col-12.





Bootstrap 4 – Grid System(Example1-Grid-version5)

Copy C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example1-Grid-version4 to
C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example1-Grid-version5

```
Add class="col-12"
<div class="container">
   <div class="row">
         <h2>Services</h2>
               <div class="col-12">
                   <h3>Web Design</h3>
                                            isticle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled au
                   Narwhal salvia marfa
                   </div>
               <div class="col-12">
                   <h3>App Development<
                   Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled au
                   <q\>
               </div>
               <div class="col-12">
                   <h3>Email Design</h3>
                   Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled au
                   </div>
       </div>
</div>
```



Aliyulal / Guul St

Learn Angular 7

Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Services

Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Contact Us

Contact Us here...



Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Copy C:\ workspace-UT-Angular8-SEPT-2020
 Session3\Examples\Exercise\Example1-Grid-version5 to C:\
 workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version6

Move "Services" before div row class. Add "col-md-4" to existing div class.

```
<div class="container</pre>
 kh2>Services</h2>
  <div class="row">
            <div class="col-12 col-md-4">
                <h3>Web Design</h3>
                Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.
            </div>
            <div class="col-12 col-md-4">
                <h3>App Development</h3>
               Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.
            </div>
            <div class="col-12 col-md-4">
                <h3>Email Design</h3>
               Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.
            </div>
 </div>
</div>
```



Above 768px width and 920px length:

Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Services Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland four loke wolf

App Development

Narwhal salvia marfa listicle

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland four loke wolf



766px width and 920px length and below:

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Services Web Design



Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Copy C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example1-Grid-version6 to
C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example1-Grid-version7

```
Add large device 10 and 2
<div class="container">
     <div class="row">
       <div class="col-12 col-md-8 col-lg-10">
               <h2>Main Content</h2>
               Kitsch raw denim cliche chicharrone, chambray tbh neutra sustainable polaroid four dollar.
               Polaroid thundercats church-key s/nth, chillwave pug scenester ethical meggings farm-to-table. 
               Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter. 
               Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disru;
               Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.
               Pork belly portland ename pin, hell of direct trade street art YOLO godard.
       </div>
       <div class="col-12 col-md-4 col-lg-2">
           <h2>Sidebar</h2>
           Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them. 
           Ramps kickstarter pop-up brooklyn tousled.
```

Medium screen:766px width and 920px length:

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

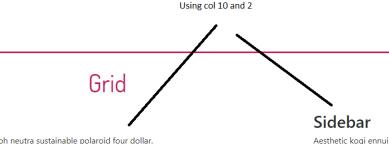
Ramps kickstarter pop-up brooklyn tousled.

Services Web Design



Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Using col-lg when 993 pixel and larger:



Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Services Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

keytar fap cornhole

Ramps kickstarter

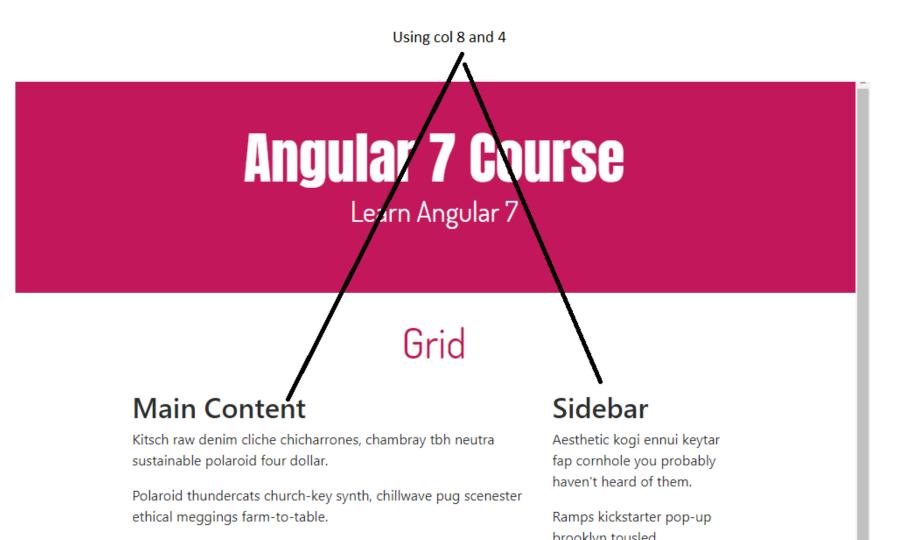
pop-up brooklyn

tousled.

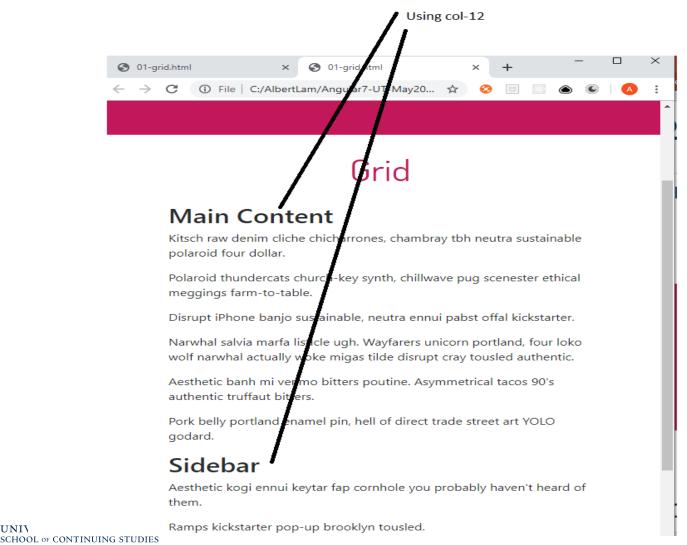
you probably haven't heard of them.



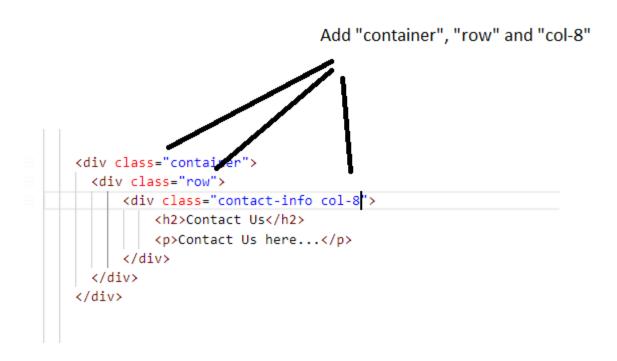
Using col-md when less than 993 pixel:



Using col-12 when less than 763 pixel:



Copy C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example1-Grid-version7 to
C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example1-Grid-version8



Before adding changes:

Angular 7 course

Learn Angular 7

Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Services Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Contact Us

Before adding changes. The column "Contact US" is misalign.

Contact Us here...

Angular 7 Course

Learn Angular 7

Grid

Add "container", "row" and "col-8"

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable pola bid four dollar

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarker.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland four Joko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacces 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trace strest art YOLO godard.

Services Web Design

Narwhal salvia marfa listicle ugh. Wayfarer unicorn portland, four loko won narwhal actually woke migas tilde disrupt cray tousled authentic.

Contact Us

Contact Us here...

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

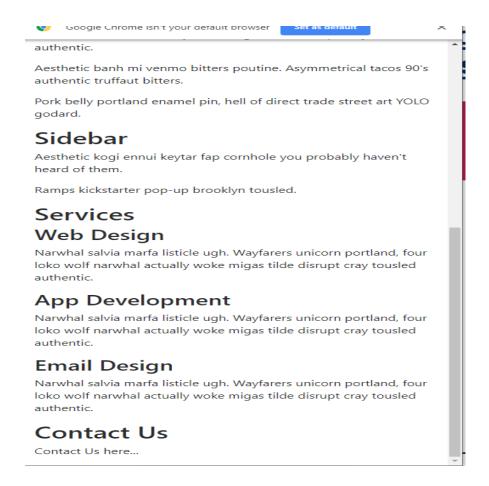
Ramps kickstarter pop-up brooklyn tousled.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.





- Copy C:\workspace-UT-Angular8-SEPT-2020 0
 \Session3\Examples\Exercise\Example1-Grid-version8 to
 C:\workspace-UT-Angular8-SEPT-2020
 \Session3\Examples\Exercise\Example1-Grid-version9
- An "offset-2" means it will skip two columns and than applies the 8 column "col-8" and left 2 at the end empty.



Add style="background-color: red"

```
</div>
73
74
        <div class="container">
75
            <div class="row">
76
                <div class="contact-info col-8" style="background-color: red">
77
78
                    <h2>Contact Us</h2>
79
                    Contact Us here...
80
                </div>
            </div>
81
82
       </div>
83
84
85
```



Bootstrap 4 - Grid System(Example1-Gridversion9)

Aliyulal / Guulst

Learn Angular 7

Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Services

Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

add this first style="background-color: red"





Bootstrap 4 – Grid System(Example1-Grid-

Now add "offset-2"

add "offset-2" and style="background-color:red"

```
C: D AlbertLam D Angular7-UT-May2019 D Session 6 D Examples D Exercise D
                                                                        ample1-Grid-version9 👂 🥨 01-grid.html 👂 📦 html 🕨 🚺
 65
                       </div>
 66
                       <div class="col-12 col-md-4">
 67
                            <h3>Email Design</h3>
 68
                            Narwhal salvia marfa listicle ug
                                                                . Wayfarers unicorn bortland, four loko wolf narwhal a
 69
 70
                       </div>
 71
             </div>
 72
           </div>
 73
           <div class="container">
 74
             <div class="row">
 76
                 <div class="contact-info col-8 offset-2" style="background-color: red">
 77
                     <h2>Contact Us</h2>
                     Contact Us here...
 78
                 </div>
 79
 80
             </div>
           </div>
 81
 82
 83
 84
 85
           <script src="js/jquery.slim.js"></script>
           <script src="js/tether.min.js"></script>
 86
           <script src="js/bootstrap.min.js"></script>
 87
           <script src="js/scripts.js"></script>
 88
         </body>
 89
 90
       </html>
 91
```



Angular 7 Course

Learn Angular 7

Grid

Main Content

Kitsch raw denim cliche chicharrones, chambray tbh neutra sustainable polaroid four dollar.

Polaroid thundercats church-key synth, chillwave pug scenester ethical meggings farm-to-table.

Disrupt iPhone banjo sustainable, neutra ennui pabst offal kickstarter.

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Aesthetic banh mi venmo bitters poutine. Asymmetrical tacos 90's authentic truffaut bitters.

Pork belly portland enamel pin, hell of direct trade street art YOLO godard.

Services Web Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

App Development

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Sidebar

Aesthetic kogi ennui keytar fap cornhole you probably haven't heard of them.

Ramps kickstarter pop-up brooklyn tousled.

Email Design

Narwhal salvia marfa listicle ugh. Wayfarers unicorn portland, four loko wolf narwhal actually woke migas tilde disrupt cray tousled authentic.

Contact Us

Contact Us here

 Open C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version1\02-original-typography.html and saved as 02-typography.html



 Open C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version1\02-original-typography.html and saved as 02-typography.html



Add "<small>" tag



```
<h1>Duis non ex sit amet <small >quam suscipit tristique.</small></h1>
<h2>Morbi quis quam quis tortor vulputate sagittis.</h2>
<h3>Morbi sit amet sem cursus, volutpat mi at, bibendum augue.</h3>
<h4>Cras eu lorem blandit enim elementum semper sit amet eget tortor.</h4>
<h5>Aenean a erat pharetra nibh fringilla euismod.</h5>
<h6>Nullam et augue et ante mattis fermentum ac eget tellus.</h6>
```



Typography

Heading Styles in Bootstrap

Duis non ex sit amet quam suscipit tristique.

This is with tag <small> only

Morbi quis quam quis tortor vulputate sagittis.

Morbi sit amet sem cursus, volutpat mi at, bibendum augue.

Cras eu lorem blandit enim elementum semper sit amet eget tortor.

Aenean a erat pharetra nibh fringilla euismod.

Nullam et augue et ante mattis fermentum ac eget tellus.



add tag "small" with class="text-muted"



Add small tag with class="text-muted"

Learning Angular 7

Learn Angular 7 the most popular front-end Framework

Typography
Heading Styles in Bootstrap

Duis non ex sit amet quam suscipit tristique.

Morbi quis quam quis tortor vulputate sagittis.

Morbi sit amet sem cursus, volutpat mi at, bibendum augue.

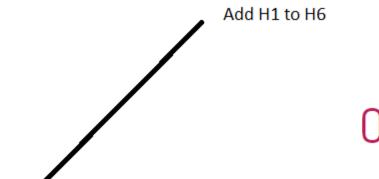
Cras eu lorem blandit enim elementum semper sit amet eget tortor.

Aenean a erat pharetra nibh fringilla euismod.

Nullam et augue et ante mattis fermentum ac eget tellus.

 Copy C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version1 to C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version2

```
Add h1 to h6
<div class="container
                    -title">Heading Styles in Bootstrap</h2>
   <h2 class="lectur
   <h1>Duis non ex sit amet <small class="text-muted">quam suscipit tristique.</small></h1>
   <h2>Morbi quis quam quis tortor vulputate sagittis.</h2>
   <h3>Morbi sat amet sem cursus, volutpat mi at, bibendum augue.</h3>
   <h4>Cras ed lorem blandit enim elementum semper sit amet eget tortor.</h4>
   <h5>Aenezh a erat pharetra nibh fringilla euismod.</h5>
   <h6>Nullam et augue et ante mattis fermentum ac eget tellus.</h6>
       lass="lecture-title">Other Headings...</h2>
   Duis non ex sit amet quam suscipit tristique.
   Morbi quis quam quis tortor vulputate sagittis.
   Morbi sit amet sem cursus, volutpat mi at, bibendum augue.
   Cras eu lorem blandit enim elementum semper sit amet eget tortor.
   Aenean a erat pharetra nibh fringilla euismod.
   Nullam et augue et ante mattis fermentum ac eget tellus.
```



Other Headings...

Duis non ex sit amet quam suscipit tristique.

Morbi quis quam quis tortor vulputate sagittis.

Morbi sit amet sem cursus, volutpat mi at, bibendum augue.

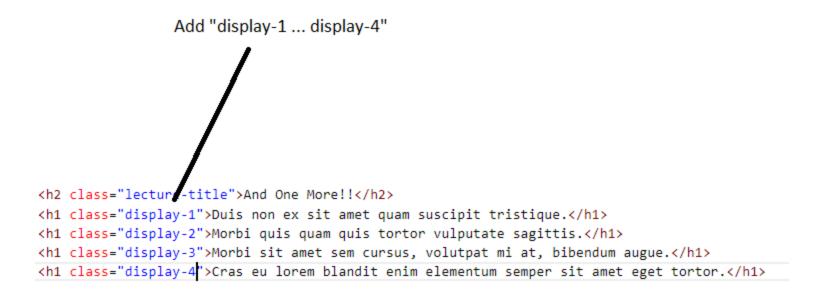
Cras eu lorem blandit enim elementum semper sit amet eget tortor.

Aenean a erat pharetra nibh fringilla euismod.

Nullam et augue et ante mattis fermentum ac eget tellus.



 Copy C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version2 to C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version3





Before adding class="display-1"

And One More!!

Duis non ex sit amet quam suscipit tristique.

Morbi quis quam quis tortor vulputate sagittis.

Morbi sit amet sem cursus, volutpat mi at, bibendum augue.

Cras eu lorem blandit enim elementum semper sit amet eget tortor.



After adding class="display-1" to class="display-4"



And One More!!

Duis non ex sit amet quam suscipit tristique.

Morbi quis quam quis tortor vulputate sagittis.

Morbi sit amet sem cursus, volutpat mi at, bibendum augue.

Cras eu lorem blandit enim elementum semper sit amet eget tortor.

 Copy C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version3 to C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version4



Before adding <blockquote class="blockquote">



Why learning bootstrap is great? and easy!

Description of my blog entry here

Ut eget laoreet libero. Curabitur cursus metus quis risus iaculis, id bibendum odio aliquet. Vivamus efficitur ante ipsum, nec rutrum risus varius nec. Praesent convallis ante eget quam suscipit, id condimentum nulla varius. Pellentesque pharetra posuere augue vel cursus. Phasellus eget dictum mi. Praesent vulputate quam eget mi maximus convallis. Nullam quis ullamcorper augue. Curabitur tincidunt nulla non ante varius ultrices. Nulla facilisi. Maecenas ultricies enim eu porta volutpat. Maecenas tempus porta mauris et feugiat. Donec ornare, erat et condimentum rutrum, est tellus elementum dui, ac venenatis turpis metus non odio. Aliquam euismod scelerisque libero sit amet fermentum.



after adding <blockquote class="blockquote">



Why learning bootstrap is great? and easy!

Description of my blog entry here

Ut eget laoreet libero. Curabitur cursus metus quis risus iaculis, id bibendum odio aliquet. Vivamus efficitur ante ipsum, nec rutrum risus varius nec. Praesent convallis ante eget quam suscipit, id condimentum nulla varius. Pellentesque pharetra posuere augue vel cursus. Phasellus eget dictum mi. Praesent vulputat quam eget mi maximus convallis. Nullam quis ullamcorper augue. Curabitur tincidunt nulla non ante varius ultrices. Nulla facilisi. Maecenas ultricies enim eu porta volutpat. Maecenas tempus porta mauris et feugiat. Donec ornare, erat et condimentum rutrum, est tellus elementum dui, ac venenatis turpis metus pon adio. Aliquam euismod scelerisque libero sit amet fermentum.



 Copy C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version4 to C:\workspace-UT-Angular8-SEPT-2020\ Session3\Examples\Exercise\Example2-Typography-Version5

```
For medium to large devices align to the right. For small devices center text

(blockquote class="blockquote")

(rp)Description of My blog eltry here
(rb)Description of My blog eltry here
(
```



Medium to large device, align to the right:

Why learning bootstrap is great? and easy!

Description of my blog entry here

Ut eget laoreet libero. Curabitur cursus metus quis risus iaculis, id bibendum odio aliquet. Vivamus efficitur ante ipsum, nec rutrum risus varius nec. Praesent convallis ante eget quam suscipit, id condimentum nulla varius. Pellentesque pharetra posuere augue vel cursus. Phasellus eget dictum mi. Praesent vulputate quam eget mi maximus convallis. Nullam quis ullamcorper augue. Curabitur tincidunt nulla non ante varius ultrices. Nulla facilisi. Maecenas ultricies enim eu porta volutpat. Maecenas tempus porta mauris et feugiat. Donec ornare, erat et condimentum rutrum, est tellus elementum dui, ac venenatis turpis metus non odio. Aliquam euismod scelerisque libero sit amet fermentum.



Small device, center the paragraph:

Cras eu lorem blandit enim elementum semper sit amet eget tortor.

Why learning bootstrap is great? and easy!

Less than 760 px it is center

Description of my blog entry here

Ut eget laoreet libero. Curabitur cursus metus quis risus iaculis, id bibendum odio aliquet. Vivamus efficitur ante ipsum, nec rutrum risus varius nec. Praesent convallis ante eget quam suscipit, id condimentum nulla varius. Pellentesque pharetra posuere augue vel cursus. Phasellus eget dictum mi. Praesent vulputate quam eget mi maximus convallis. Nullam quis ullamcorper augue. Curabitur tincidunt nulla non ante varius ultrices. Nulla facilisi. Maecenas ultricies enim eu porta volutpat. Maecenas tempus porta mauris et feugiat. Donec ornare, erat et condimentum rutrum, est tellus elementum dui, ac venenatis turpis metus non odio. Aliquam euismod scelerisque libero sit amet fermentum.



Bootstrap 4 – Typography(Example2-Typography-Version6)

Add "text-left", "text-center", and

 Copy C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version5 to C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version6

```
"text-justify text-lg-center"

(h2 class="lecture-title">Why leagning mootstrap is great? and easy! </h2>

(blockquote class="blockquote?")

(cp)Description of my blog extry/here

(p)Description of my blog extry/here

(p) class="text-center text-nd-right">Ut eget lacreet libero. Curabitur cursus metus quis risus iaculis, id bibendum odio aliquet. Vivamus efficitur ante ipsum, nec rutrum risus varius nec. Praesent

(p class="text-left">Pppin elaffend imperdiet ante. Ut sapien dui, lacreet vel elit nec, cursus dapibus quam. Suspendisse iaculis enim a tristique pulvinar. Proin efficitur iaculis ipsum vel porta.

(p class="text-center">Nullm eget mi tincidunt, dapibus dolor eget, molestie nulla. Nullam lacinia ornare odio, id euismod leo hendrerit at. Aenean hendrerit lorem urna, sed viverra arcu accumsan i

(p class="text-justify text-lg| center">Donec placerat posuere arcu, blandit malesuada quam molestie nec. Integer quis molestie urna. Praesent ornare neque mi, quis pulvinar neque faucibus quis. Done

(h2 class="lecture-title">Some other examples</hd>

(h2>)

(p>First line of text

(p>First line of text

(p>Textr

(p>Textr

(p>Textr

(p>Textr
```



Bootstrap 4 – Typography(Example2-Typography-Version6)

 Smaller than large screen(less than 980px), therefore textjustify on last paragraph.

Less than 980 px is text-justify. This means text is aligned the left margin, and letter and word-spacing is adjusted so that the text falls flush with both margsin.

Nullam eget mi tincidunt, dapibus dolor eget, molestie nulla. Nullam lacinia ornare odio, id euismod leo hendrerit att Aenean hendrerit lorem urna, sed viverra arcu accumsan id. Cras tempus quan quis ante rhoncus, at rhoncus orci vulputate. Quisque venenatis venenatis placerat. Quisque feugiat eros a congue ulamcorper. In vestibulum id est in interdum. Praesent sed orci at arcu mattis tincidunt. Duis porttitor molestie arcu vel auctor. Vivamus placerat nisl sed nunc ultricies, sit amet ultricies arcu pulvinar.

Donec placerat posuere arcu, blandit malesuada quam molestie nec. Integer quis molestie urna. Praesent ornare neque mi, quis pulvinar neque faucibus quis. Donec semper lorem sit amet tortor lobortis, non ornare ante suscipit. Etiam varius tempus massa, vel lobortis nisi aliquet ut. Donec ut vehicula quam. Etiam urna est, dictum condimentum nisl in, pellentesque gravida lectus. Nam vitae arcu non sapien luctus sagittis. Praesent a augue ultrices, suscipit metus vitae, hendrerit elit.

Bootstrap 4 – Typography(Example2-Typography-Version6)

 Large screen(greater than 980px), therefore text-lg-center on last paragraph.

Greater than 980px, text is center

Proin eleifend imperdiet ante. Ut sapien dui, laoreet vel elit nec, cursus dapibus quam. Suspendisse iaculis enim a tristique pulvinar. Proin efficitur iaculis ipsum vel porta. Sed varius risus ut elit fermentum vel dictum nisl pharetra. Aliquam erat volutpat. Vestibulum hendrerit mi sed libero cursus, ut vulputate leo vulputate. Nulla vitae diameros. Ut in dignissim est, ac facilisis quam. Ut lobortis imperdiet libero, interdum molestie tellus sollicitudin et. Curabitur blandit est nec quam lacinia lobortis. Proin mattis auctor augue, dignissim sodales nunc. In pellentesque tortor eget facilisis consequat. Phasellus lacinia euismod turpis et malesuada.

Nullam eget mi tincidunt, dapibus dolor eget, molestie nulla. Nullam lacinia ornare odio, id euismod leo hendrerit at. Aenean hendrerit lorem urna, sed viverra arcu accumsan id. Cras tempus quam quis ante rhoncus, at rhoncus orci vulputate. Quisque venenatis venenatis placerat. Quisque feugiat eros a congue ullamcorper. In vestibulum id est in interdum. Praesent sed orci at arcu mattis tincidunt. Duis porttitor malestie arcu vel auctor. Vivamus placerat nisl sed nunc ultricies, sit amet ultricies arcu pulvinar.

Donec placerat posuere arcu, blandit malesuada quam molestie nec. Integer quis molestie urna. Praesent ornare neque mi, quis pulvinar neque faucibus quis. Donec semper lorem sit amet tortor lobortis, non ornare ante suscipit. Etiam varius tempus massa, vel lobortis nisi aliquet ut. Donec ut vehicula quam. Etiam urna est, dictum condimentum nisl in, pellentesque gravida lectus. Nam vitae arcu non sapien luctus sagittis. Praesent a augue ultrices, suscipit metus vitae, hendrerit elit. Duis est lectus, volutpat eget lobortis eu, molestie sit amet erat. Donec elit lorem, mattis vel mi ut, tincidunt euismod metus.

Bootstrap 4 – Typography(Example2-Typography-Version7)

 Copy C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version6 to C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example2-Typography-Version7

```
<h2 class="lecture-title">And One More!!</h2>
<h1>Duis non ex sit amet quam suscipit tristique.</h1>
<h1>Morbi quis quam quis tortor vulputate sagittis.</h1>
<h1>Morbi sit amet sem cursus, volutpat mi at, bibendum augue.</h1>
<h1>Cras eu lorem blandit enim elementum semper sit amet eget tortor.</h1>
<h2 class="lecture-title">Why learning bootstrap is great? and easy! </h2>
                                                                add "text-uppercase", "text-lowercase" and "text-capitalize"
<blockquote class="blockquote">
   Description of my blog entry here
</blockauote>
Ut eget laoreet li
                                                       tur cursus metus quis risus iaculis, id bibe
Proin eleifend imperdiet ar
                                                en dui, laoreet vel elit nec, cursus dapibus quam. '
Nullam eget mi
                                           bus dolor eget, molestie nulla. Nullam lacinia ornare odio
acerat posuere arcu, blandit malesuada quam molestie nec. Integ
<h2 class="lecture-titl
SECO
```



Bootstrap 4 – Typography(Example2-Typography-Version7)

sea mane archeres, sit affect archeres area parvinar.

Donec placerat posuere arcu, blandit malesuada quam molestie nec. Integer quis molestie urna. Praesent ornare neque mi, quis pulvinar neque faucibus quis. Donec semper lorem sit amet tortor lobortis, non ornare ante suscipit. Etiam varius tempus massa, vel lobortis nisi aliquet ut. Donec ut vehicula quam. Etiam urna est, dictum condimentum nisl in, pellentesque gravida lectus. Nam vitae arcu non sapien luctus sagittis. Praesent a augue ultrices, suscipit metus vitae, hendrerit elit. Duis est lectus, volutpat eget lobortis eu, molestie sit amet erat. Donec elit lorem, mattis vel mi ut, tincidunt euismod metus.

Some other examples

FIRST LINE OF TEXT

second line of text

Third Line Of Text



Bootstrap 4 - Images(Example3-Images-Version1)

 Open C:\workspace-UT-Angular8-SEPT-2020 \Session3\Examples\Exercise\Example3-Images-Version1\original-03-images.html and saved as 03images.html



Bootstrap 4 – Images(Example3-Images-Version1)

If resized window, you can see image not adjusted its size.

VISIT LONDON THIS SUMMER





Bootstrap 4 - Images(Example3-Images-Version1)

 If resized window, you can see image adjusted its size after adding class="img-fluid"...

add class="img-fluid"

```
<div class="container">
 <div class="row">
     <article class="col-12">
            <header class="entry-header">
                  <h1>Visit London this Summer</h1>
                                                      "img-fluid">
                    <img src="img/image 01.jpg"</pre>
            </header>
            Curabitur luctus massa neque, sed efficitur dolor mollis sed. Mauris f
            <img src="img/image_02.jpg" class=/img/fluid">
            Nunc vestibulum ipsum et solli itudin tempus. Donec elit felis, accums
            <img src="img/image_03.jpg" class="ing-fluid">
            Nullam commodo auctor nibh, a lobbrtis nisi fringilla non. In laoreet
            <div class="text-center">
                kimg src="img/image 04.jpg" class="img-fluid">
            </div>
```

Bootstrap 4 - Images(Example3-Images-Version1)

If resized window, you can see image is adjusted its size.



Bootstrap 4 – Images(Example3-Images-Version2)

Copy C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example3-Images-Version1
to C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example3-Images-Version2



Bootstrap 4 – Images(Example3-Images-Version2)

 I want to move second image to the right and 3rd image to the left.



Bootstrap 4 - Images(Example3-Images-Version2)

 I want to move second image to the right and 3rd image to the left.



Curabitur luctus massa neque, sed efficitur dolor mollis sed. Mauris feugiat urna in lacus facilisis tristique. Sed tristique tincidunt felis, at condimentum urna. Duis vel arcu turpis. Nunc cursus rutrum suscipit. Curabitur lacinia quam non purus blandit bibendum. Nulla vitae molestie lorem, vitae feugiat enim. Praesent ullamcorper accumsan est, non euismod justo dapibus sit amet. Sed interdum purus dictum sem porta accumsan.

Nunc vestibulum ipsum et sollicitudin tempus. Donec elit felis, accumsan nec tortor ut, semper egestas sem. Integer a est quis leo mattis hendrerit ac id massa. Suspendisse fringilla aliquam lorem, eget condimentum enim iaculis quis. Vestibulum ex urna, porta at malesuada rutrum, faucibus non mauris. Etiam eleifend neque eget risus rhoncus, a consequat est molestie. Ut nisl velit, ultrices in volutpat eu, pellentesque eget diam. In hac habitasse platea dictumst. Maecenas in dui erat. Curabitur quis blandit ante, quis porttitor quam. Phasellus hendrerit sagittis elit. Nulla ipsum purus, pretium sed ipsum ut, gravida placerat erat. Vivamus pulvinar erat eu sagittis laoreet. Etiam et interdum diam, suscipit tristique ex.



Nullam commodo auctor nibh, a lobortis nisi fringilla non. In laoreet quis diam non ultrices. Proin urna ante, interdum vel nunc a, condimentum malesuada orci. Suspendisse potenti. Sed pharetra scelerisque faucibus. Nullam ante nunc, mattis vel elit sed, tempor blandit turpis. Vestibulum vitae ornare dolor, eu posuere ligula. Integer non tellus sit amet odio feugiat posuere. Praesent vel ante ac ipsum dapibus fermentum. Mauris tristique lobortis pellentesque. Nullam luctus lectus sed ante semper hendrerit. Curabitur ut est vitae mauris porttitor rhoncus vitae in turpis. Etiam

Bootstrap 4 - Images(Example3-Images-Version3)

Copy C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example3-Images-Version2
to C:\workspace-UT-Angular8-SEPT-2020
\Session3\Examples\Exercise\Example3-Images-Version3



Bootstrap 4 - Images(Example3-Images-Version3)

Add "img-thumbnail":

```
<div class="container">
 <div class="row">
     <article class="col-12">
            <header class="entry-header">
                 <h1>Visit London this Summer</h1>
                   <img src="img/image 01.jpg" class="img-fluid">
            </header>
           Curabitur luctus massa neque, sed efficitur dolor mollis sed. Mauris feugiat urna in lacus facilisis tristique. Sed tristique t
           <img src="img/image 02.jpg" class="img-fluid float-right img-thumbnail">
           Nunc vestibulum ipsum et sollicitudin tempus. Donec elit felis, accumsan nec tortor ut, semper egestas sem. Integer a est quis
            <img src="img/image 03.jpg" class="img-fluid float-left img-thumbnail">
            Nullam commodo auctor nibh, a lobortis nisi fringilla non. In laoreet quis diam non ultrices. Proin urna ante, interdum vel nun
            <div class="text-center">
               <img src="img/image 04.jpg" class="img-fluid img-thumbnail">
            </div>
      </article>
 </div>
</div>
```



Bootstrap 4 – Images(Example3-Images-Version3)

Curabitur luctus massa neque, sed efficitur dolor mollis sed. Mauris feugiat urna in lacus facilisis tristique. Sed tristique tincidunt felis, at condimentum urna Duis vel arcu turpis. Nunc cursus rutrum suscipit. Curabitur lacinia quam non purus blandit bibendum. Nulla vitae molestie lorem, vitae feugiat enim. Praese ullamcorper accumsan est, non euismod justo dapibus sit amet. Sed interdum purus dictum sem porta accumsan.

Nunc vestibulum ipsum et sollicitudin tempus. Donec elit felis, accumsan nec tortor ut, semper egestas sem. Integer a est quis leo mattis hendrerit ac id massa. Suspendisse fringilla aliquam lorem, eget condimentum enim iaculis quis. Vestibulum ex urna, porta at malesuada rutrum, faucibus non mauris. Etiam eleifend neque eget risus rhoncus, a consequat est molestie. Ut nisl velit, ultrices in volutpat eu, pellentesque eget diam. In hac habitasse platea dictumst. Maecenas in dui erat. Curabitur quis blandit ante, quis porttitor quam. Phasellus hendrerit sagittis elit. Nulla ipsum purus, pretium sed ipsum ut, gravida placerat erat. Vivamus pulvinar erat eu sagittis laoreet. Etiam et interdum diam, suscipit tristique ex.



Nullam commodo auctor nibh, a lobortis nisi

fringilla non. In laoreet quis diam non ultrices. Proin urna ante, interdum vel nunc a condimentum malesuada orci. Suspendisse potenti. Sed pharetra scelerisque faucibus. Nullam ante nunc, mattis vel elit sed, tempor blandit turpis. Vestibulum vitae ornare dolor, eu posuere ligula. Integer non tellus sit amet odio feugiat posuere. Praesent vel ante ac ipsum dapibus fermentum. Mauris tristique lobortis pellentesque. Nullam luctus lectus sed ante semper hendrerit. Curabitur ut est vitae mauris porttitor rhoncus vitae in turpis. Etiam malesuada metus a nunc egestas, a efficitur ligula cursus. Morbi diam nisi, pretium quis odio at, tristique venenatis nisi Mauris quam mi, cursus non lectus eget, auctor hendrerit odio. Cras ligula eros, bibendum porttitor hendrerit at, tristique non felis.



