


Practice using Bootstrap to design a layout

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We have seen the possibilities offered by the Bootstrap grid in detail. We have also seen how to create layouts tailored to different types of media. Now it's time to put all this knowledge into practice with some exercises.

Combining formats and sample page

Now we will apply what we saw in previous chapters to build a sample page.

Combining classes "col-*"

We have seen layouts selectively using classes for columns depending on various viewing sizes. We will now look at combining them to handle particular cases. On the page I want to build, I want to place small photos side by side. Suppose I use this structure for this part of the page:

```

1 <!DOCTYPE HTML>
2 <html>
3
4     <head>
5         <meta charset="utf-8">
6         <link href="assets/css/bootstrap.css"
7         rel="stylesheet">
8         <style type="text/css">
9             [class*="col"] { margin-bottom:
10             20px; }
11             img { width: 100%; }
12             body { margin-top: 10px; }
13         </style>
14     </head>
15
16     <body>
17
18         <div class="container">
19             <section class="row">
20                 <div class="col-lg-2"></div>
22                 <div class="col-lg-2"></div>
24                 <div class="col-lg-2"></div>
26                 <div class="col-lg-2"></div>
28                 <div class="col-lg-2"></div>
30                 <div class="col-lg-2"></div>
32                 <div class="col-lg-2"></div>
34                 <div class="col-lg-2"></div>
36                 <div class="col-lg-2"></div>
38                 <div class="col-lg-2"></div>
40                 <div class="col-lg-2"></div>
42                 <div class="col-lg-2"></div>
44             </section>
45         </div>
46     </body>
47 </html>

```

```
31     </div>
32
33     </body>
34 </html>
```

The result on a large screen is perfect with 6 photos across the width (see figure below).



Display on a large screen

But this breaks when I narrow the window, since I know that below 1200 pixels the elements stack. So I end up with one image across the width, and as I have provided them in low resolution, it pixelates, as shown in the following figure:





Display below 1200 pixels

The ideal would be to have:

- On medium and large screen: 6 images across the width.
- On tablet: 4 images across the width.
- On smartphone: 3 images across the width.

How do we do this? Simply by combining classes

```
col-* :
```

```

1 <div class="container">
2   <section class="row">
3     <div class="col-xs-4 col-sm-3 col-md-
4     2"></div>
5     <div class="col-xs-4 col-sm-3 col-md-
6     2"></div>
7     <div class="col-xs-4 col-sm-3 col-md-
8     2"></div>
9     <div class="col-xs-4 col-sm-3 col-md-
10    2"></div>
11    <div class="col-xs-4 col-sm-3 col-md-
12    2"></div>
13    <div class="col-xs-4 col-sm-3 col-md-
14    2"></div>
15    <div class="col-xs-4 col-sm-3 col-md-
16    2"></div>
17    <div class="col-xs-4 col-sm-3 col-md-
18    2"></div>
19    <div class="col-xs-4 col-sm-3 col-md-
20    2"></div>
21    <div class="col-xs-4 col-sm-3 col-md-
22    2">
23    </div>
24    <div class="col-xs-4 col-sm-3 col-md-
25    2">
26    </div>
27    <div class="col-xs-4 col-sm-3 col-md-
28    2">
29    </div>
30  </section>
31 </div>

```

So I will get this:

- On a screen more than 992 pixels wide: classes `col-md-2` active.
- On a screen between 768 and 992 pixels wide: classes `col-sm-3` active.

So I will get this:

- On a screen more than 992 pixels wide: classes `col-md-2` active.
- On a screen between 768 and 992 pixels wide: classes `col-sm-3` active.
- On a screen of less than 768 pixels width: classes `col-xs-4` active.

And here in the following figure is the result on a medium screen (classes `col-sm-3` active):



Display on medium screen

And in the following figure, the result on a small screen (classes `col-xs-4` active):



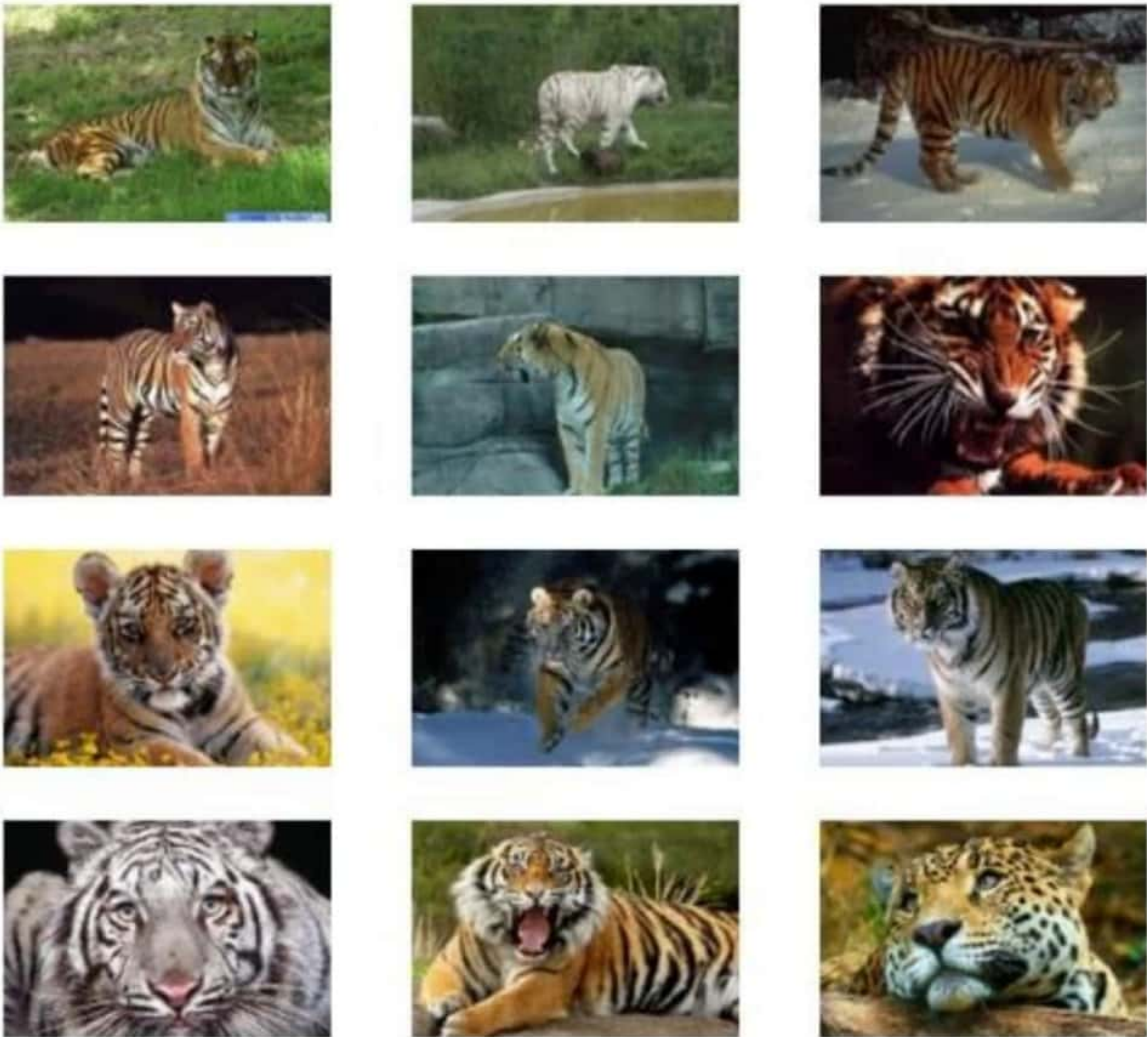
Scanned with CamScanner

Scanned with CamScanner



Display on medium screen

And in the following figure, the result on a small screen (classes `col-xs-4` active):



Display on small screen

I was easily able to adapt the presentation of my photos to take into account the media used to view them.

Sample Page

So we now build a complete page applying what we have just discussed:

html

```
1 <!DOCTYPE HTML>
2 <html>
3
4     <head>
5         <meta charset="utf-8">
6         <link href="assets/css/bootstrap.css"
7         rel="stylesheet">
8         <style type="text/css">
9             [class*="col"] { margin-bottom:
10             20px; }
11             img { width: 100%; }
12         </style>
13     </head>
14
15     <body>
16         <div class="container">
17             <header class="page-header">
18                 <h1>My love for tigers</h1>
19             </header>
20             <section class="row">
21                 <div class="col-lg-12">
22                     <p>
23                         I have been passionate
24                         about <strong>Tigers </strong> for a long
25                         time. This site was built as a <em>tribute to
26                         these wonderful felines ... </em><br>
27                         I am part of the <abbr
28                         title = "Tiger Lovers Society"> TLS </abbr>
29                         which aims to educate the public about these
30                         splendid animals.
31                     </p>
32                     <p> This is what Wikipedia
33                     says: </p>
34                     <blockquote>
35                         The Tiger (Panthera
36                         tigris) is a carnivorous mammal of the cat
37                         family (Felidae) of the genus Panthera.
38                         Easily recognisable by
```


27 Easily recognisable by
its reddish-orange fur with black stripes, it
is the largest wild cat and one of the largest
carnivores in the world.

28 The species is divided
into nine subspecies with minor differences in
size and behaviour. Superpredator,
29 it hunts mainly deer
and wild boar, although it can tackle larger
prey such as buffalo.

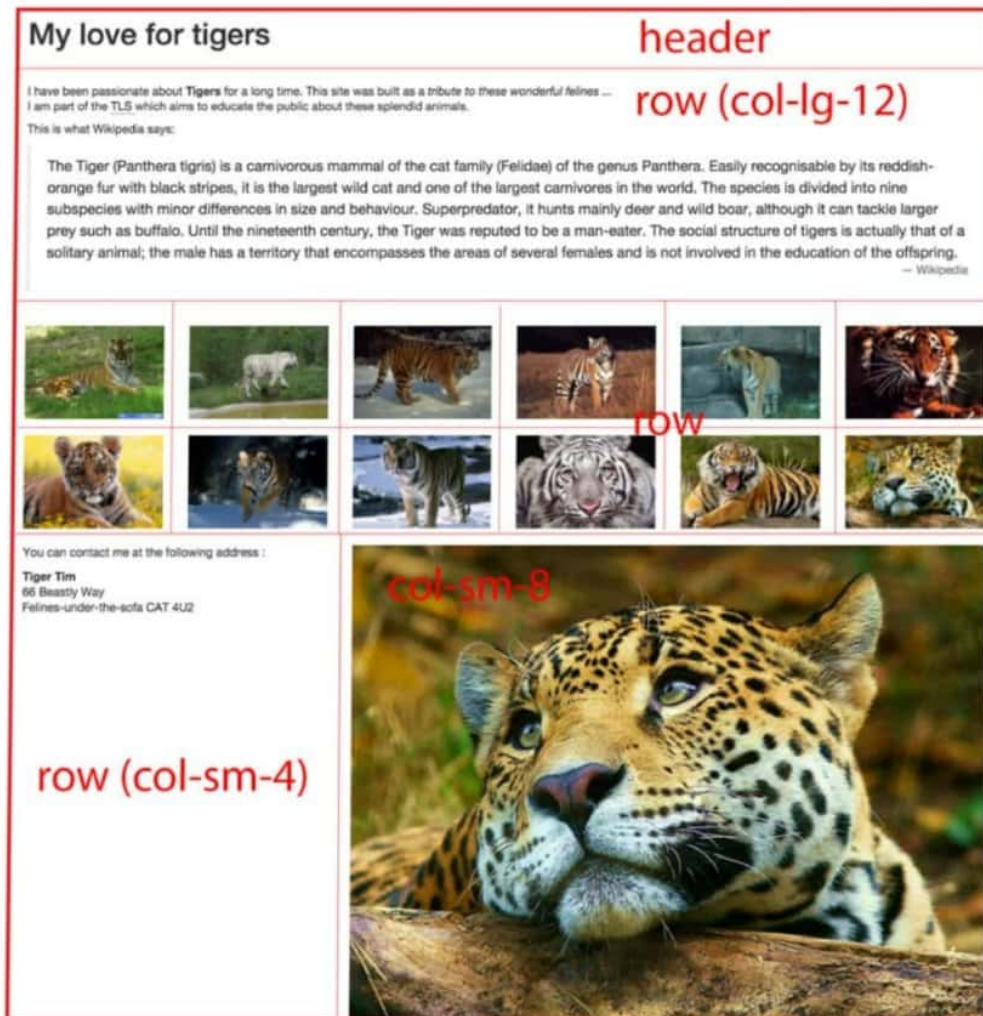
30 Until the nineteenth
century, the Tiger was reputed to be a man-
eater. The social structure of tigers is
actually that of a solitary animal; the male
has
31 a territory that
encompasses the areas of several females and
is not involved in the education of the
offspring.
32 33 </blockquote>
34 </div>
35 </section>
36 <section class="row">
37 <div class="col-xs-4 col-sm-3
col-md-2"></div>
38 <div class="col-xs-4 col-sm-3
col-md-2"></div>
39 <div class="col-xs-4 col-sm-3
col-md-2"></div>
40 <div class="col-xs-4 col-sm-3
col-md-2"></div>
41 <div class="col-xs-4 col-sm-3
col-md-2"></div>
42 <div class="col-xs-4 col-sm-3
col-md-2"></div>
43 <div class="col-xs-4 col-sm-3

```

42         <div class="col-xs-4 col-sm-3
col-md-2"></div>
43         <div class="col-xs-4 col-sm-3
col-md-2"></div>
44         <div class="col-xs-4 col-sm-3
col-md-2"></div>
45         <div class="col-xs-4 col-sm-3
col-md-2"></div>
46         <div class="col-xs-4 col-sm-3
col-md-2"></div>
47         <div class="col-xs-4 col-sm-3
col-md-2"></div>
48         <div class="col-xs-4 col-sm-3
col-md-2"></div>
49     </section>
50     <section class="row">
51         <aside class="col-sm-4">
52             <address>
53                 <p>You can contact me
at the following address :</p>
54                 <strong>Tiger
Tim</strong><br>
55                 66 Beastly Way<br>
56                 Felines-under-the-sofa
CAT 4U2<br>
57             </address>
58         </aside>
59         <div class="col-sm-8">
60             
61         </div>
62     </section>
63 </div>
64 </body>
65 </html>

```

A simple composition with a header and 3 rows. The header includes only the title with a rather special class that we'll look at further. The first row has just one element. The second however has 12 and corresponds to what we have seen previously. The following figure shows a breakdown:



Sample page

The class page-header

This class sets some values:

```
1 .page-header {
2     padding-bottom: 9px;
3     margin: 40px 0 20px;
4     border-bottom: 1px solid #eee;
5 }
```

CSS

An upper margin of 40 pixels and lower of 20 pixels. A bottom border of one pixel in gray, with a gap of 9 pixels between the content and this line. A nice page header format. Simply enter a title like I did here:

html

```
1 <header class="page-header">
2     <h1>My love for tigers</h1>
3 </header>
```

And the result is as shown in this figure:

My love for tigers

The class "page-header"

A little highlighting

In the first paragraph, I used some highlighting or bolding:

html

```
1 <p>I have been passionate about <strong>
  Tigers </strong> for a long time. This site
  was built as a <em> tribute to these wonderful
  felines ... </em>
2     I am part of the <abbr title = "Tiger
  Lovers Society"> TLS </abbr> which aims to
  educate the public about these splendid
  animals.
3 </p>
```

Note the popup in the following figure when the cursor moves over the abbreviation.

I have been passionate about **tigers** for a long time. This site was built as a *tribute to these wonderful felines ...*
I am part of the TLS which aims to educate the public about these splendid animals.
This is what Wikipedia says: **Tiger Lovers Society**

Display of an abbreviation

A quote

The next chapter includes a quote using the tag

`blockquote`:

html

```
1 <blockquote>The Tiger (Panthera tigris) is a  
  carnivorous mammal...<br>  
2   <small class="pull-  
    right">Wikipedia</small><br>  
3 </blockquote>
```

The result is simple and elegant (see figure below).

This is what Wikipedia says:

The Tiger (*Panthera tigris*) is a carnivorous mammal of the cat family (Felidae) of the genus *Panthera*. Easily recognisable by its reddish-orange fur with black stripes, it is the largest wild cat and one of the largest carnivores in the world. The species is divided into nine subspecies with minor differences in size and behaviour. Superpredator, it hunts mainly deer and wild boar, although it can tackle larger prey such as buffalo. Until the nineteenth century, the Tiger was reputed to be a man-eater. The social structure of tigers is actually that of a solitary animal; the male has a territory that encompasses the areas of several females and is not involved in the education of the offspring.

— Wikipedia

Displaying a quote

The "Wikipedia" reference below was moved to the right using the class `pull-right` which simply floats it over to the right:

CSS

```
1 .pull-right {  
2   float: right !important;  
3 }
```

An address

The lower left area shows an address. I got this by simply using the tag `<address>`:

html

Which produces the pleasing result shown in the following figure

You can contact me at the following address :

Tiger Tim

66 Beastly Way

Felines-under-the-sofa CAT 4U2

Displaying an address

And just a little added style

To make the page more harmonious, I needed to add a bottom margin of 20px to everything `col` and make the pictures fill all the available space:

CSS

```
1 [class*="col"] {  
2     margin-bottom: 20px;  
3 }  
4 img {  
5     width: 100%;  
6 }
```

This is the only style element added to this page.