

Today's topics

1. Discover [Bootstrap](#)
2. Build **advanced layouts** (with [CSS grid & Flexbox](#))

Lecture Boilerplate

<https://github.com/lewagon/layouts-demo>

```
cd ~/code/$GITHUB_USERNAME
git clone git@github.com:lewagon/layouts-demo.git
cd layouts-demo
rm -rf .git
stt
serve
```

Bootstrap (v4.2)



Bootstrap basics

Buttons, Utility classes & Forms

Semantic scheme

primary

success

info

warning

danger

Buttons

Click me

Click me

Click me

Click me

```
<a href="..." class="btn btn-primary">Click me</a>
<a href="..." class="btn btn-sucess">Click me</a>
<a href="..." class="btn btn-danger">Click me</a>
<a href="..." class="btn btn-warning">Click me</a>
```

Utility (text)



```
<div class='text-justify'></div>
```



```
<div class='text-left'></div>
```

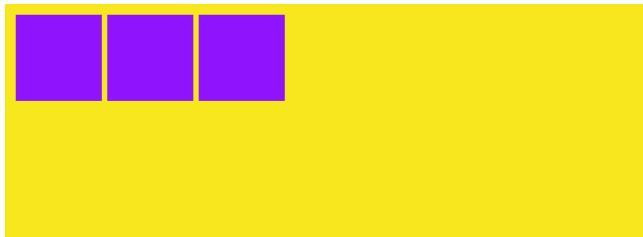


```
<div class='text-center'></div>
```

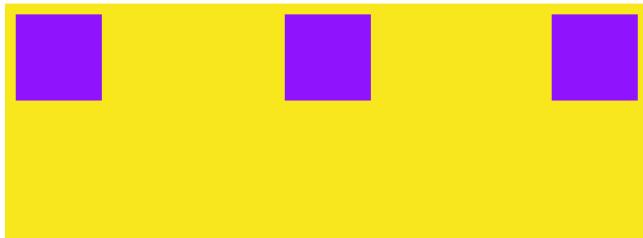


```
<div class='text-right'></div>
```

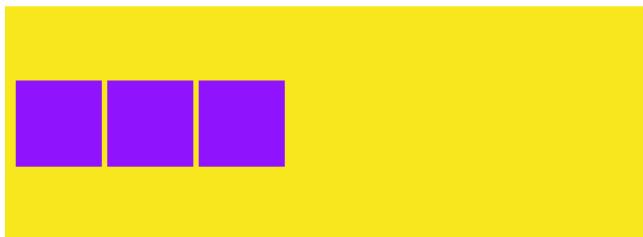
Utility (Flexbox)



```
<div class="d-flex">...</div>
```



```
<div class="d-flex justify-content-between">...</div>
```



```
<div class="d-flex align-items-center">...</div>
```

Utility (border)



.rounded



.rounded-circle

.border-bottom

```
  
  
  
  
<div class="border-bottom"></div>
```

And more in [the documentation](#)

Forms with label

form

```
.form-group
  label
  .form-control
.form-group
  label
  .form-control
.btn.btn-primary
```

What's your email?

What's your password?

Sign up

Forms without label

form

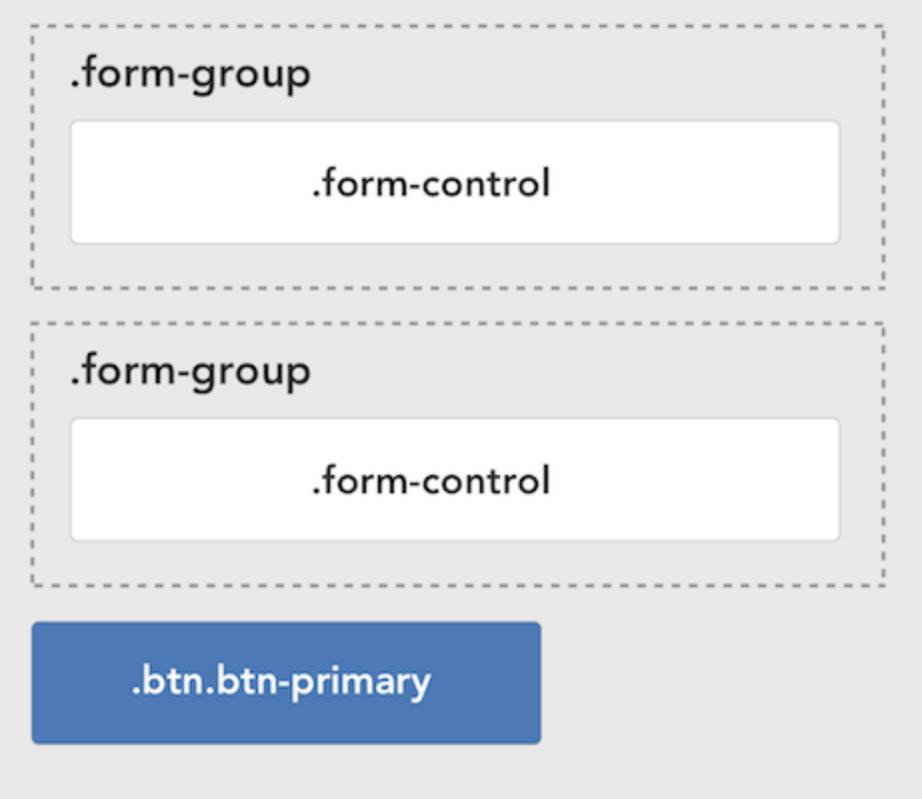
.form-group

.form-control

.form-group

.form-control

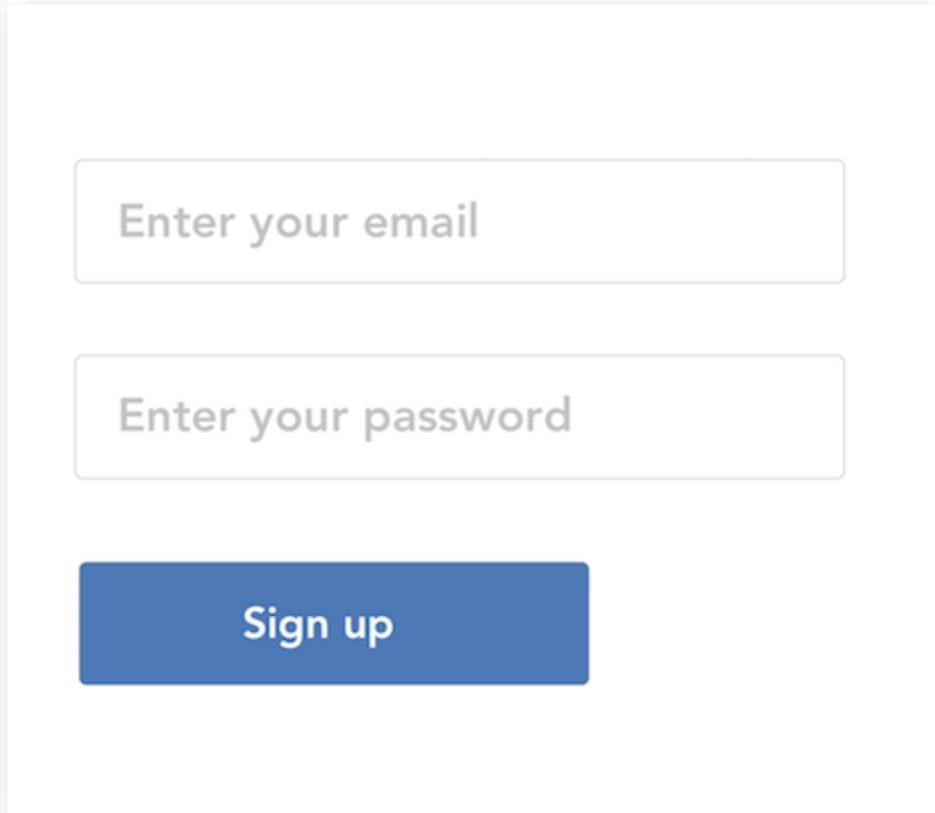
.btn.btn-primary



Enter your email

Enter your password

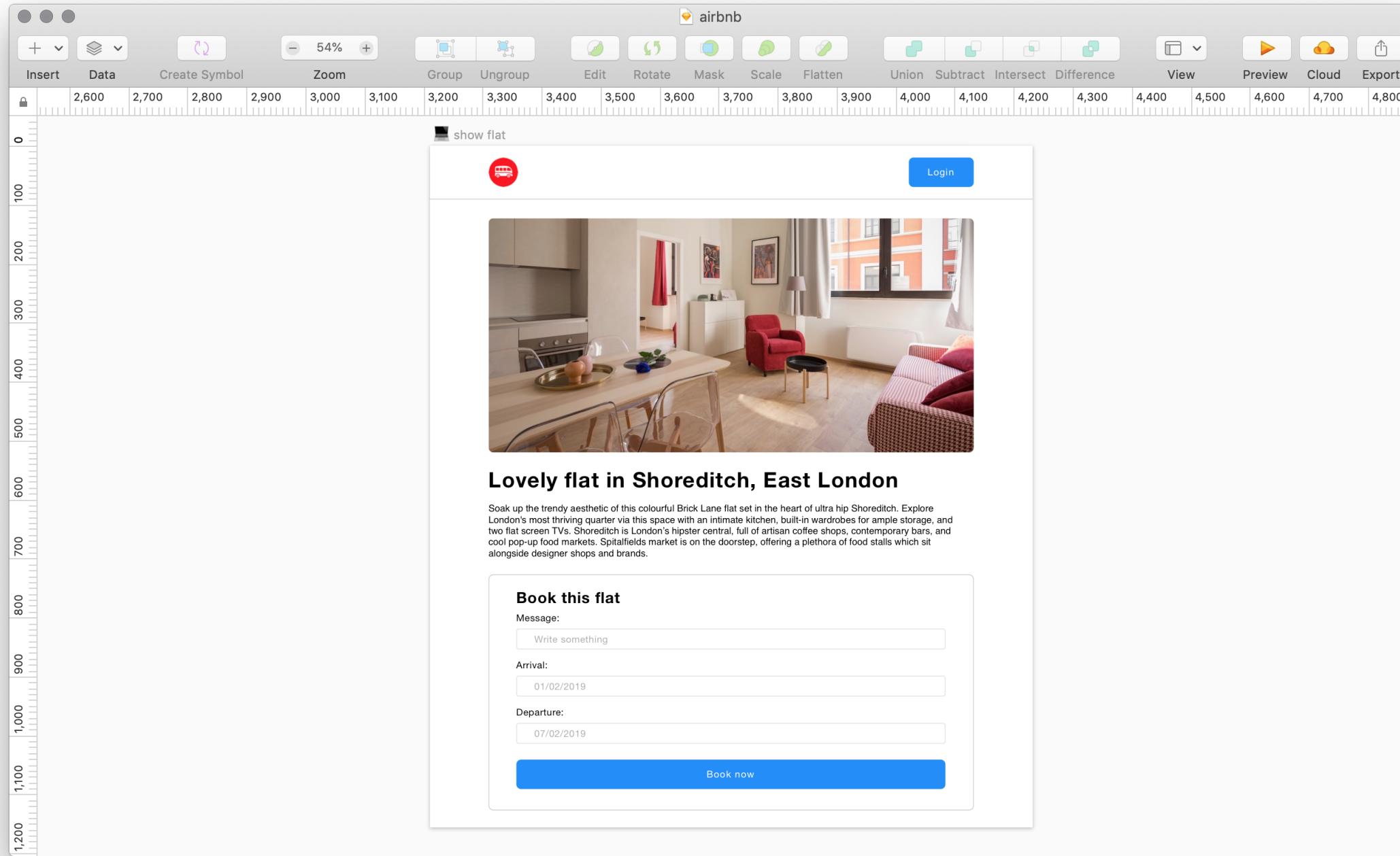
Sign up



Bootstrap only challenge

Let's code a **airbnb like flat page** writing zero CSS 😊

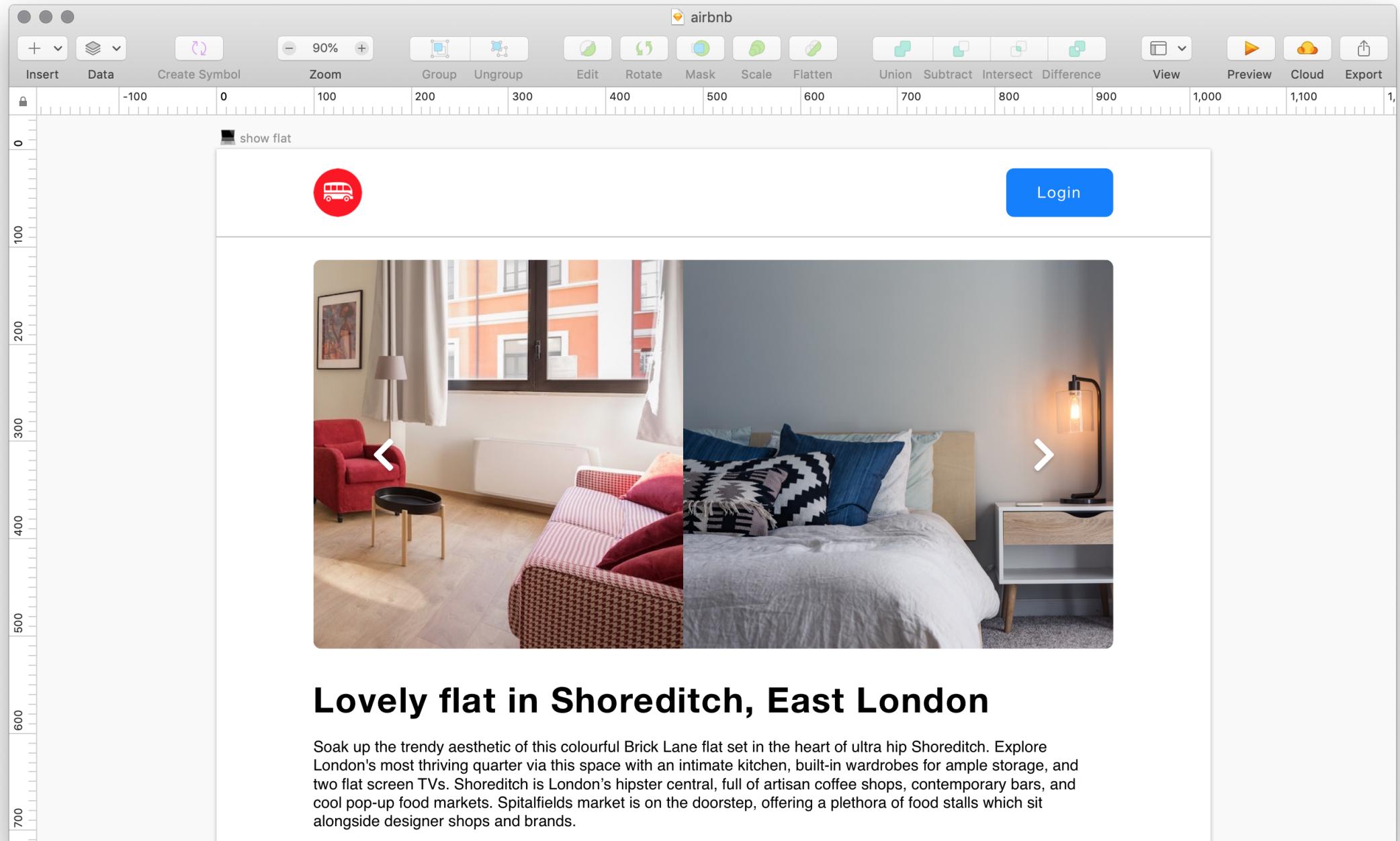
This is what your product designer sent you, now let's code it!



Bootstrap dynamic library

How to use dynamic components like [carousels](#), [dropdowns](#), [modals](#), and many more! 😎

Lets add a [carousel](#) to our airbnb page!



Lovely flat in Shoreditch, East London

Soak up the trendy aesthetic of this colourful Brick Lane flat set in the heart of ultra hip Shoreditch. Explore London's most thriving quarter via this space with an intimate kitchen, built-in wardrobes for ample storage, and two flat screen TVs. Shoreditch is London's hipster central, full of artisan coffee shops, contemporary bars, and cool pop-up food markets. Spitalfields market is on the doorstep, offering a plethora of food stalls which sit alongside designer shops and brands.

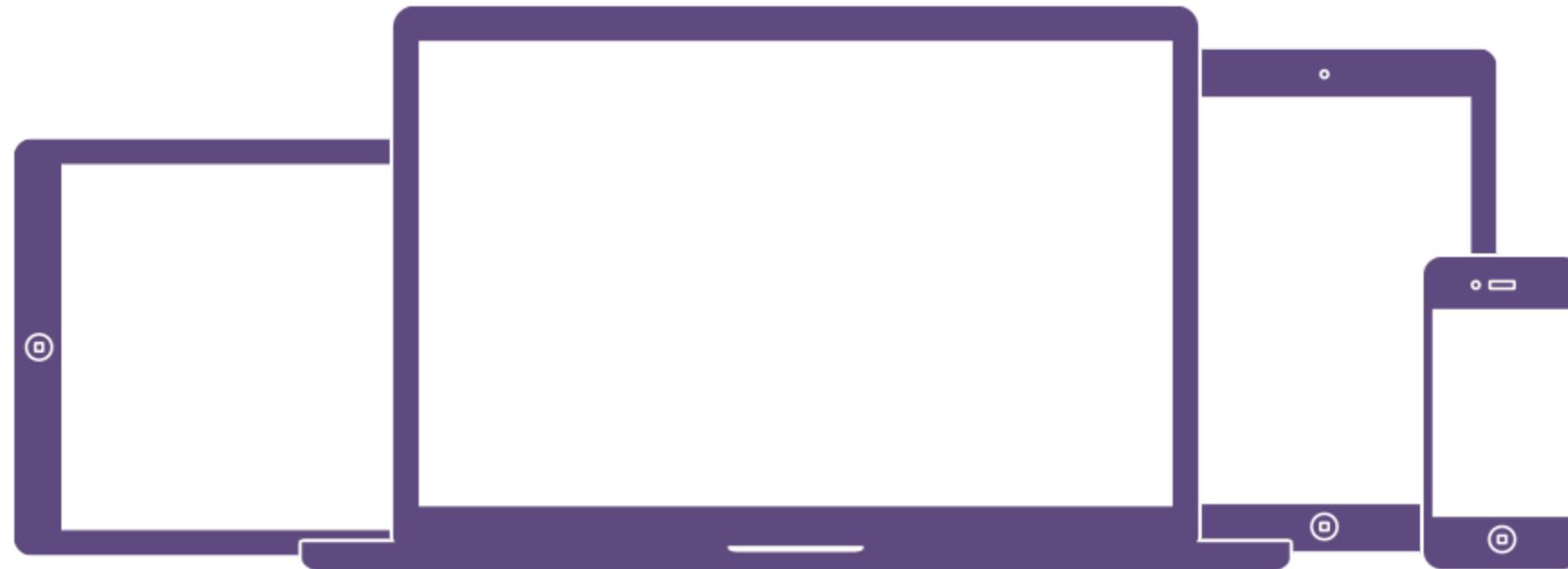
Bootstrap grid

How to make responsive layouts using the [Bootstrap grid](#)

Definition

Bootstrap's grid system uses a series of **containers**, **rows**, and **columns** to layout and align content. It's built with flexbox and is fully responsive.

Responsive

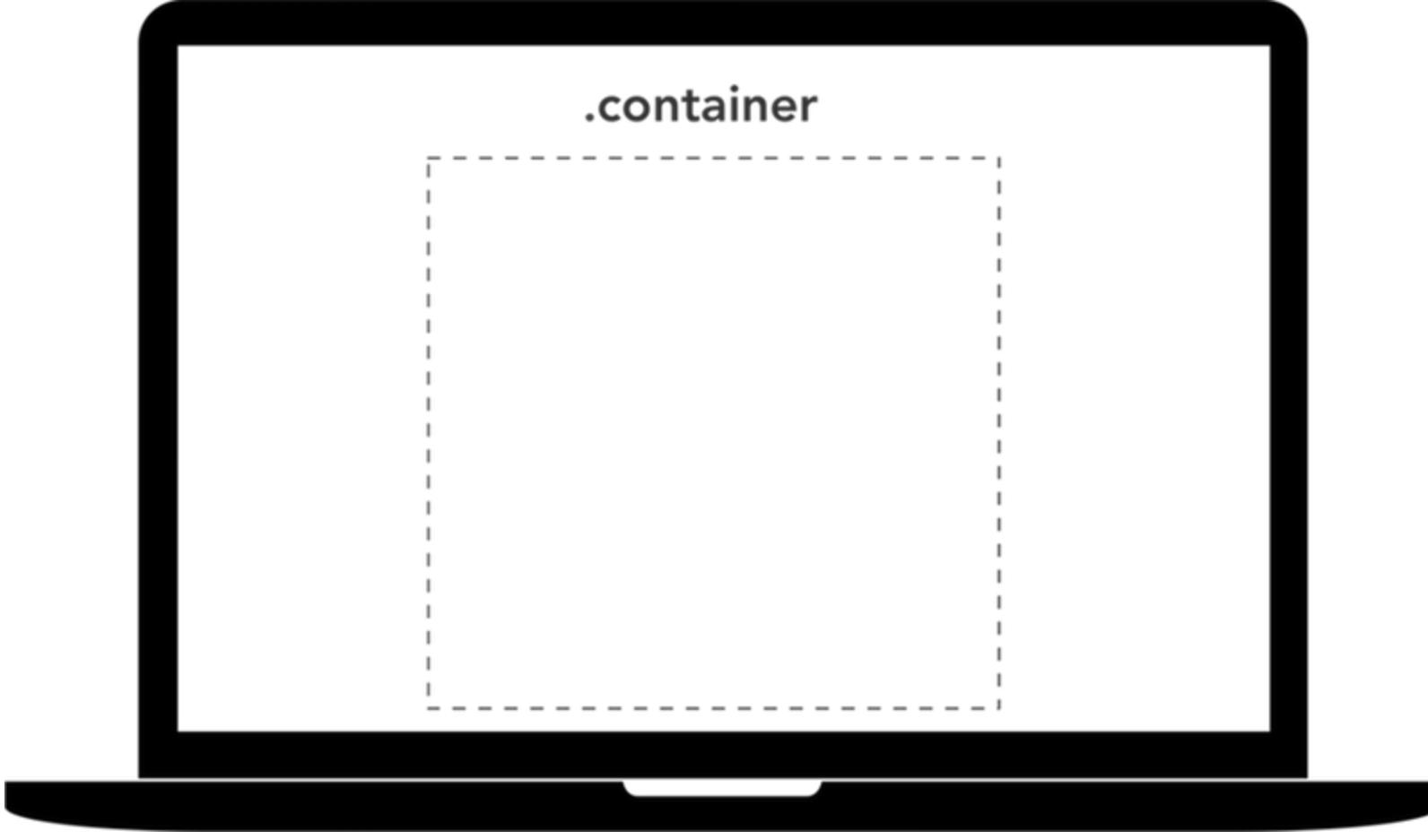


Mobile-first



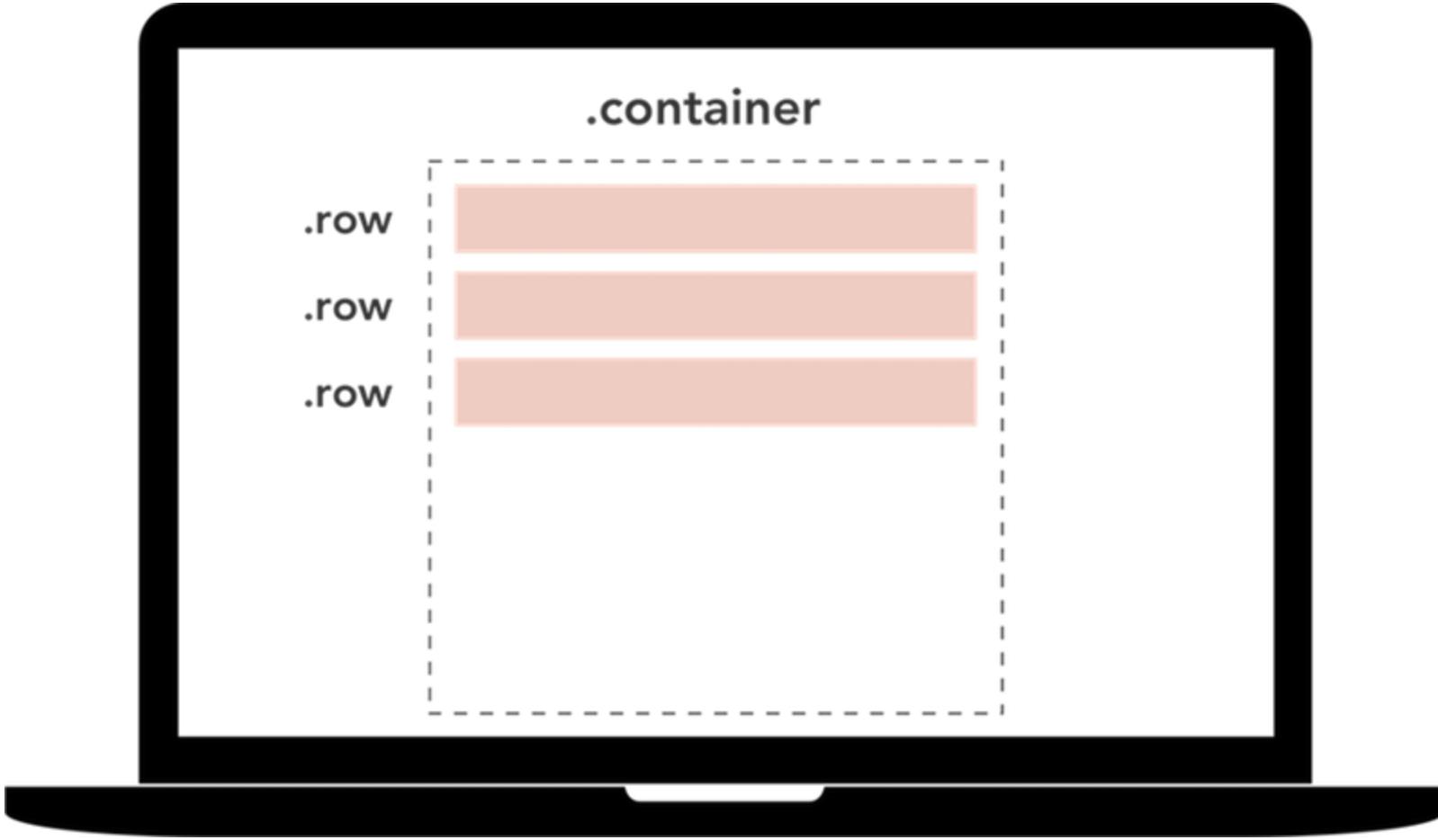
How does the grid work?

Start with a `container` as usual.



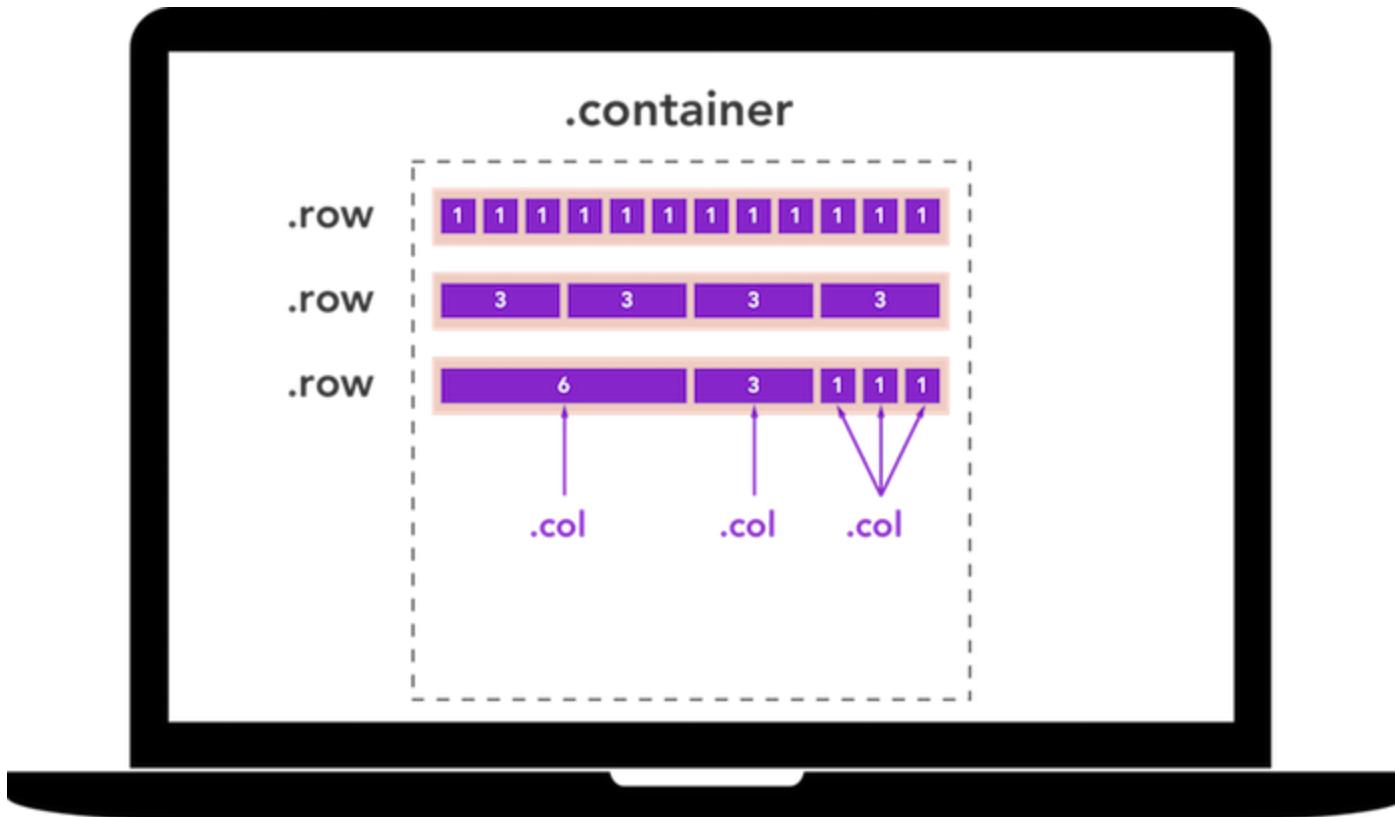
```
<div class="container">
  <!-- Inject the grid here -->
</div>
```

Add the **rows** you need.



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

Then the **columns**.



What's a column?

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

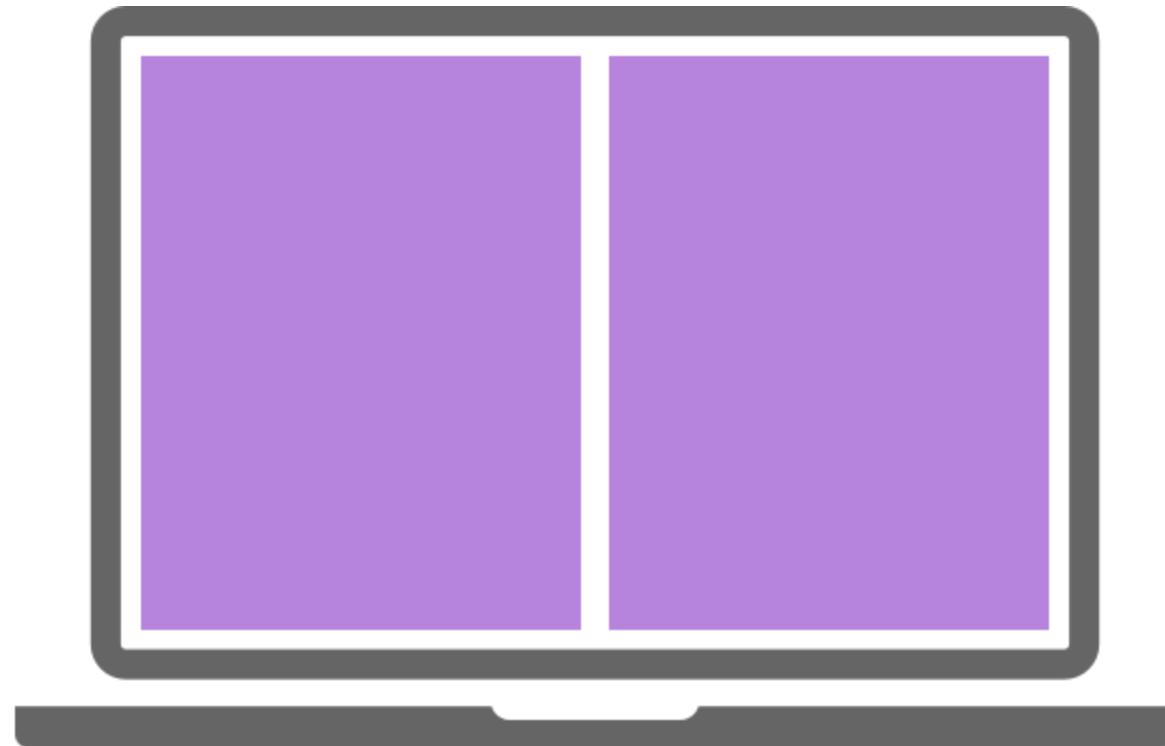
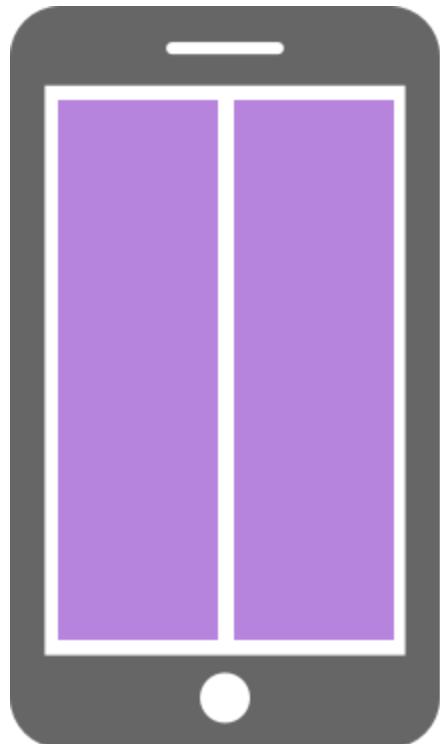
- **col**: because it fits a number of columns
- **sm**: screen width
- **6**: number of columns taken by the block (**max 12**)

Responsive breakpoints

- **default:** Extra small devices (Portrait phone ← less than 576px)
- **sm:** Small devices (Landscape phone ← 576px and up)
- **md:** Medium devices (Tablet ← 768px and up)
- **lg:** Large devices (Desktops ← 992px and up)
- **xl:** Extra large devices (Large desktops ← 1200px and up)

Let's see some real-life examples

Example 1



Code

```
<div class="container">
  <div class="row">

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

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

  </div>
</div>
```

Mobile first

- if you just give the `.col-X` classes
- it will apply on all larger screens

Example 2



Code

```
<div class="container">
  <div class="row">

    <div class="col-12 col-lg-8">
    </div>

    <div class="col-12 col-lg-4">
    </div>

  </div>
</div>
```

Example 3



Can we do this? 🤔

Of course we can

The `.row` is a flexbox by default and has alignment classes

```
<div class="container">
  <div class="row justify-content-center">
    <div class="col-12 col-lg-6">
      <!-- This div is centered and takes 6 columns --&gt;
    &lt;/div&gt;
  &lt;/div&gt;
&lt;/div&gt;</pre>
```

Useful technique for responsive form

 **Don't break the grid** 

Never add your own CSS rules to the bootstrap grid elements!

Let's make our airbnb page **responsive!**

Bootstrap conclusion

When do we need Bootstrap? 

- Atoms like [buttons](#) and [inputs](#).
- Dynamic components like [dropdowns](#) or [carousels](#).
- Responsive layouts without media queries.

Bootstrap conclusion (2)

When not to use Bootstrap? 

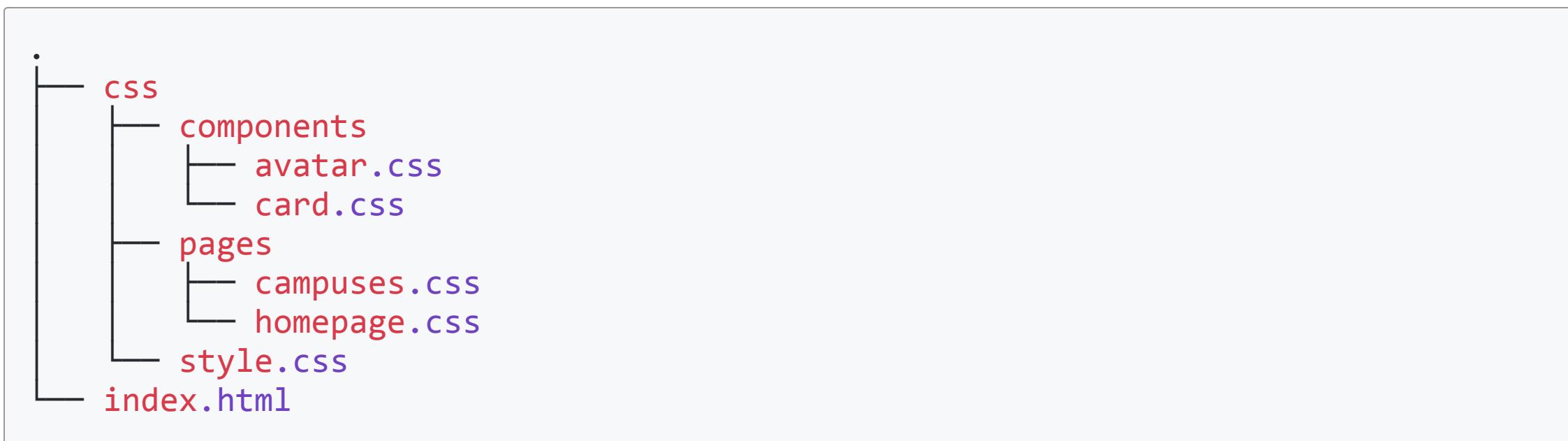
- Molecules like cards, banner, etc...  use your own design.
- Advanced layouts  use flexbox or CSS grid.

Documentation

<http://getbootstrap.com/docs/4.2>

Advanced layouts

New CSS organization



Cards grid layout

Screenshot of a web browser displaying Le Wagon's campus grid layout.

The page title is "Our 30 Campuses | Le Wagon".

The URL is <https://www.lewagon.com/campuses>.

The header includes the Le Wagon logo, navigation links for Campuses, Program, Graduates, Events, Career services, and a "Select a city" dropdown.

A main heading says "Find your campus among **30 cities**".

The grid displays cards for various campuses:

- Nantes**, Feb 4, 2019, Course in French
- Kyoto**, Feb 18, 2019, Course in English
- Shanghai**, Feb 18, 2019, Course in English
- Shenzhen**, Feb 25, 2019, Course in English
- Chengdu**, Mar 11, 2019, Course in English
- Belo Horizonte**, Mar 12, 2019, Course in Portuguese
- Copenhagen**, Apr 1, 2019, Course in English
- London**, Apr 1, 2019, Course in English
- Gotham** (partial view)

What do we build the grid with?

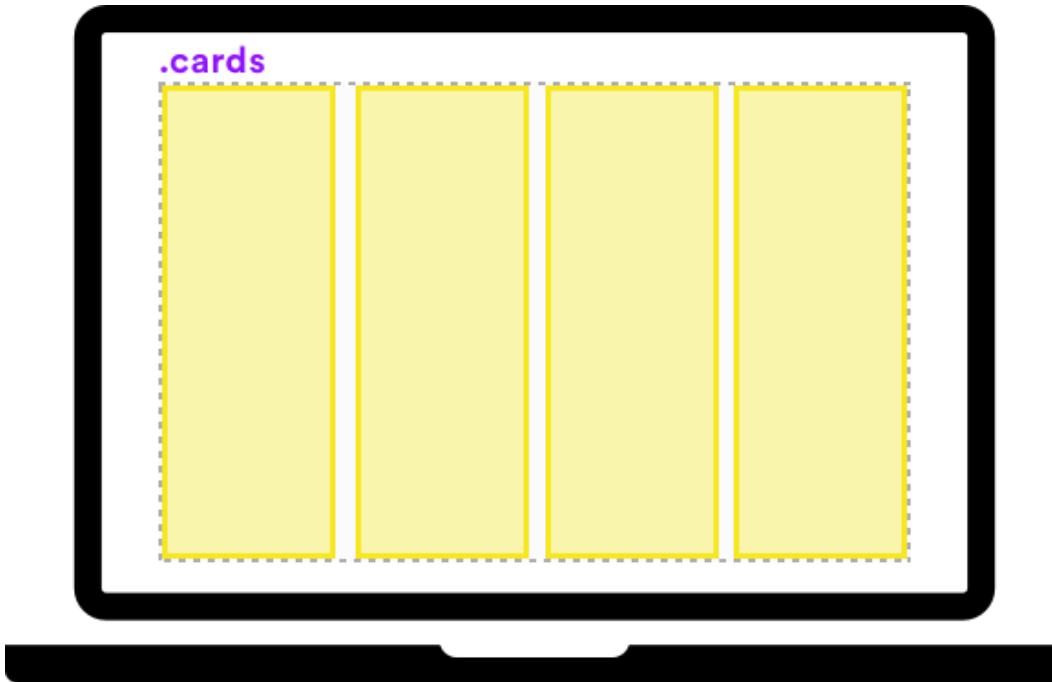
- When you have a grid of cards, **bootstrap grid is too complicated**
- ⚠ Instead we can use the **CSS grid!** 😎

How does the grid work?



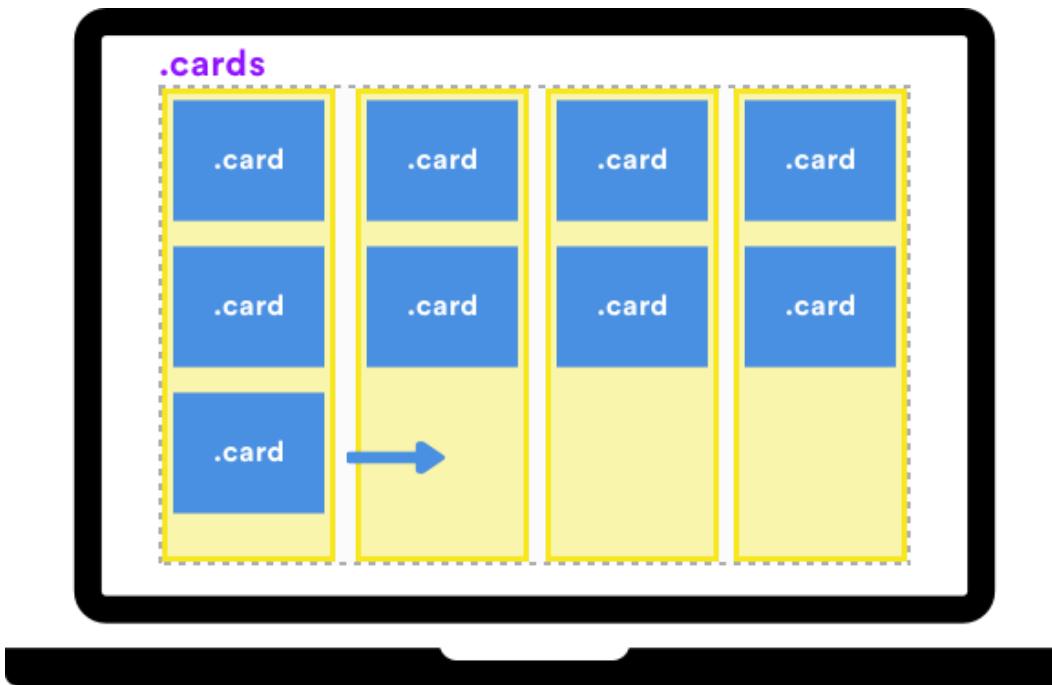
```
.cards {  
  display: grid;  
}
```

Then add your columns



```
.cards {  
  display: grid;  
  grid-template-columns: 1fr 1fr 1fr 1fr;  
  grid-gap: 16px;  
}
```

What happens to the cards inside the grid?



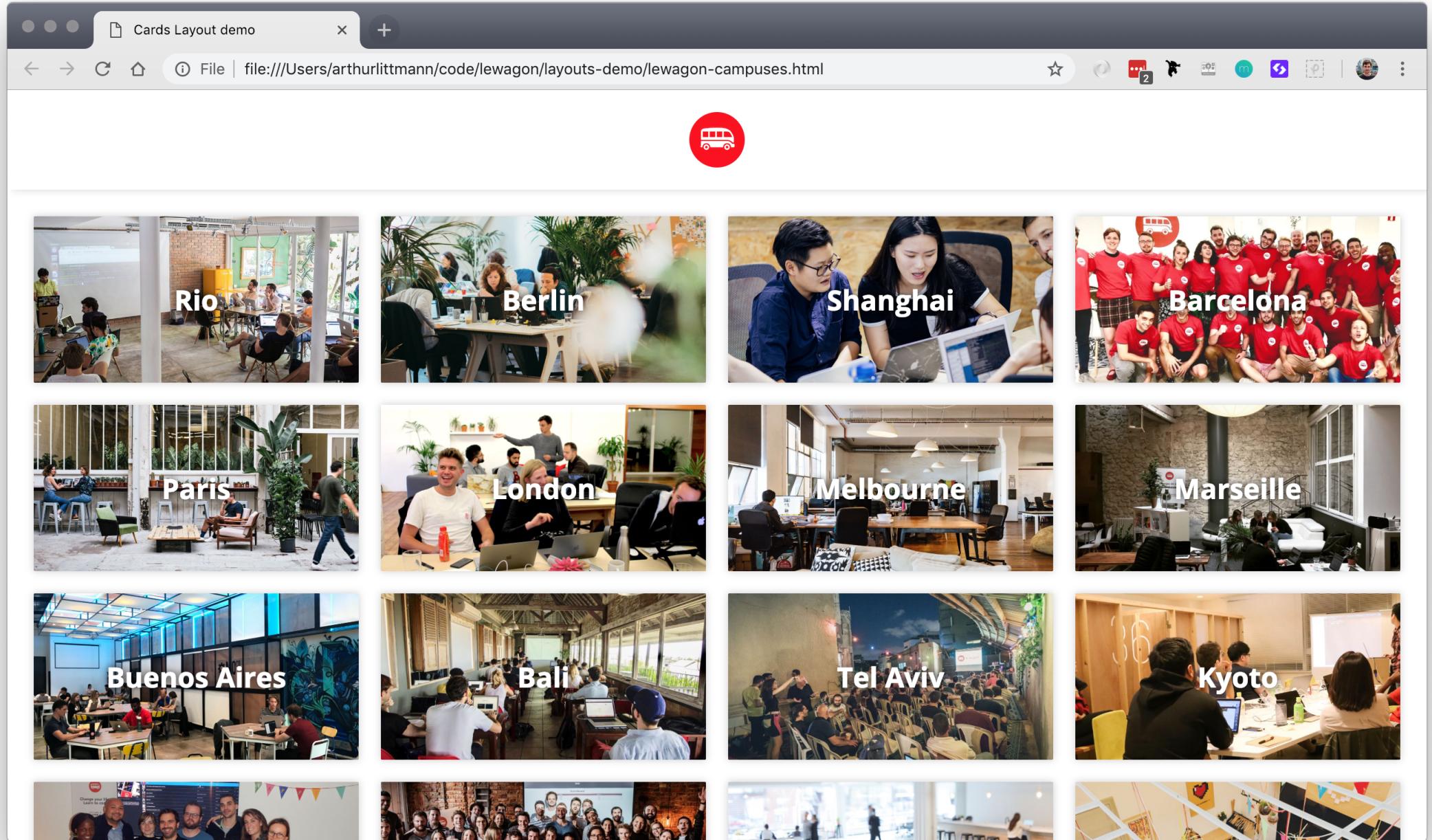
```
.cards {  
  display: grid;  
  grid-template-columns: 1fr 1fr 1fr 1fr;  
  grid-gap: 16px;  
}
```

Media queries

You can easily **re-write** your grid on phone / tablet!

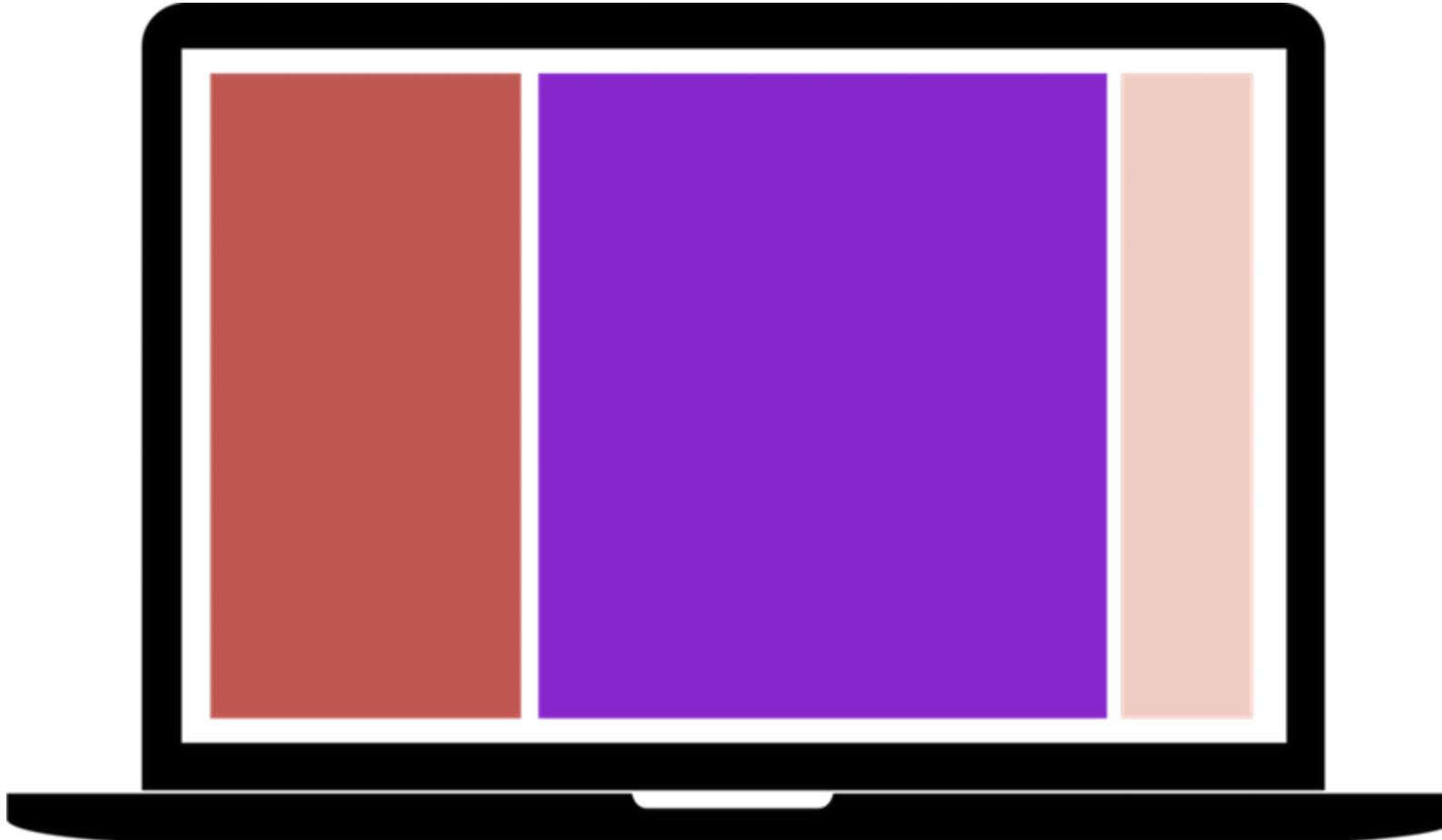
```
@media(max-width: 992px) {  
  .cards {  
    grid-template-columns: 1fr 1fr;  
  }  
}  
  
@media(max-width: 768px) {  
  .cards {  
    grid-template-columns: 1fr;  
  }  
}
```

Let's code this responsive **cards** layout!

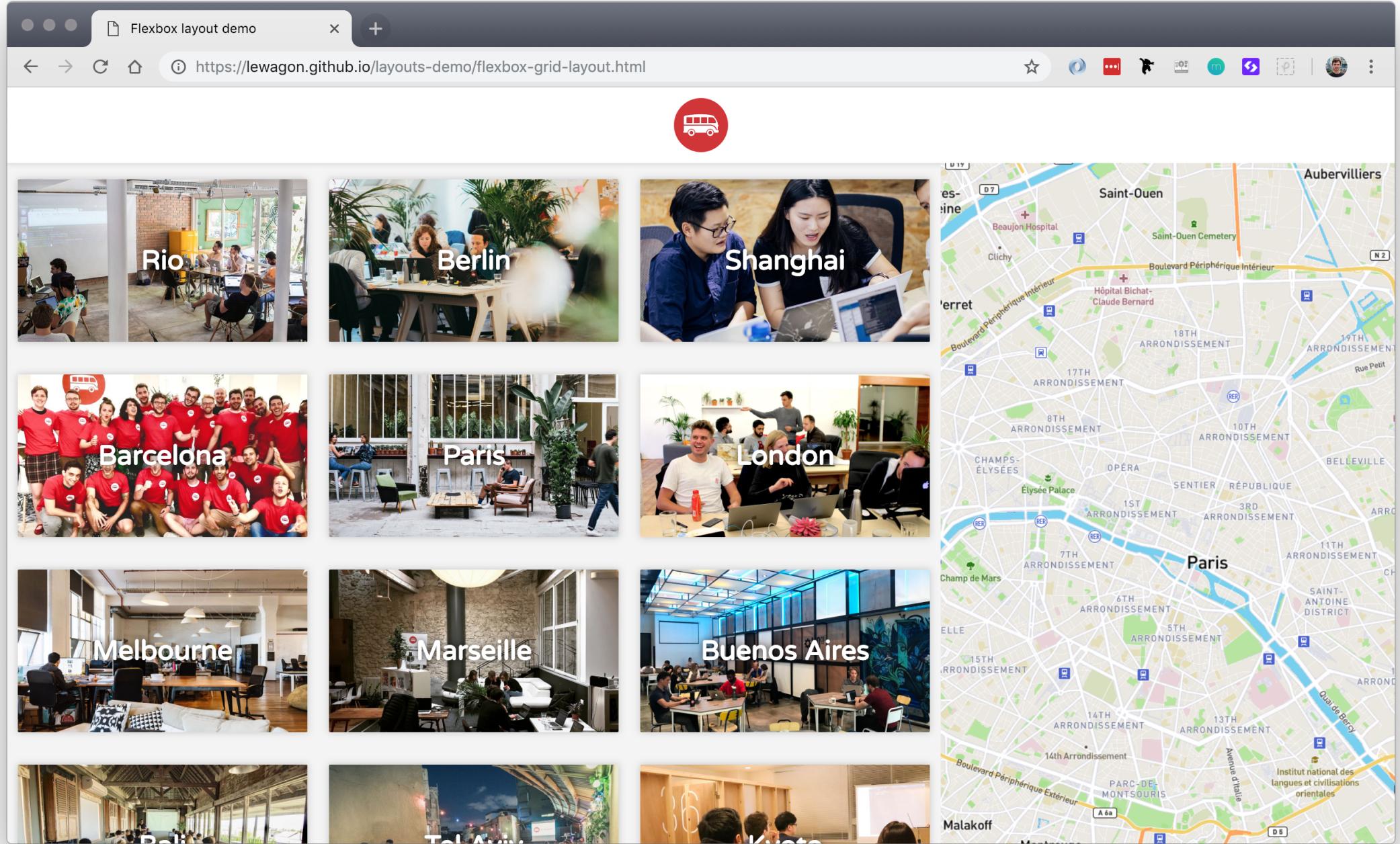


Column layouts

Split your page in columns with **flexbox** (e.g. a sidebar, a map)



Let's code this layout

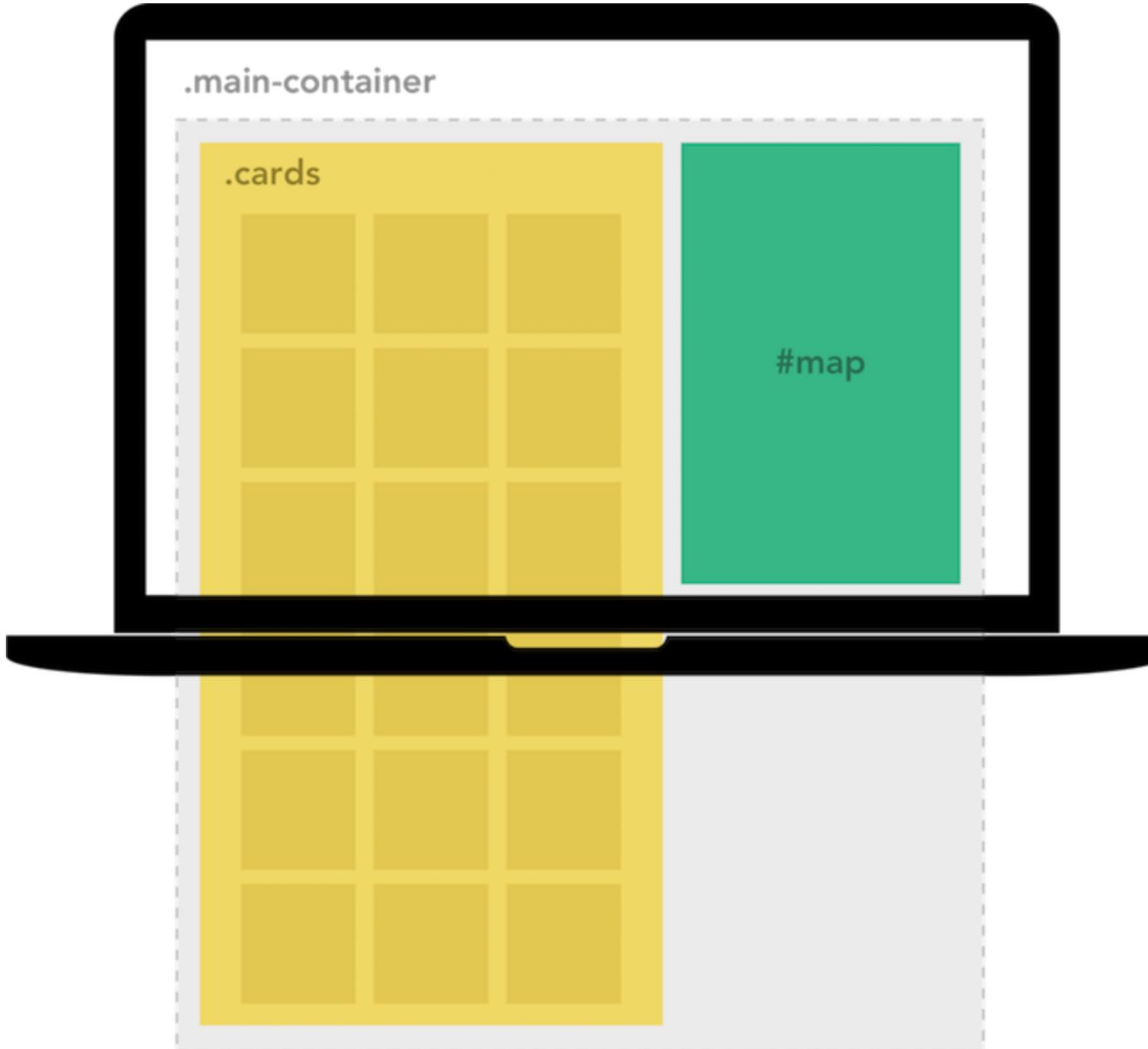


Add your Mapbox token

<https://www.mapbox.com/account/access-tokens/>

```
<!-- campuses-with-map.html -->
<img id="map" src='https://api.mapbox.com/ [...] ?access_token=YOUR-TOKEN-HERE' >
```

How do we code this layout?



What CSS do we need for this layout? 🤔

```
.main-container {  
  display: flex;  
}  
  
#map {  
  height: 100vh;  
}  
  
.cards {  
  flex-grow: 1;  
}
```

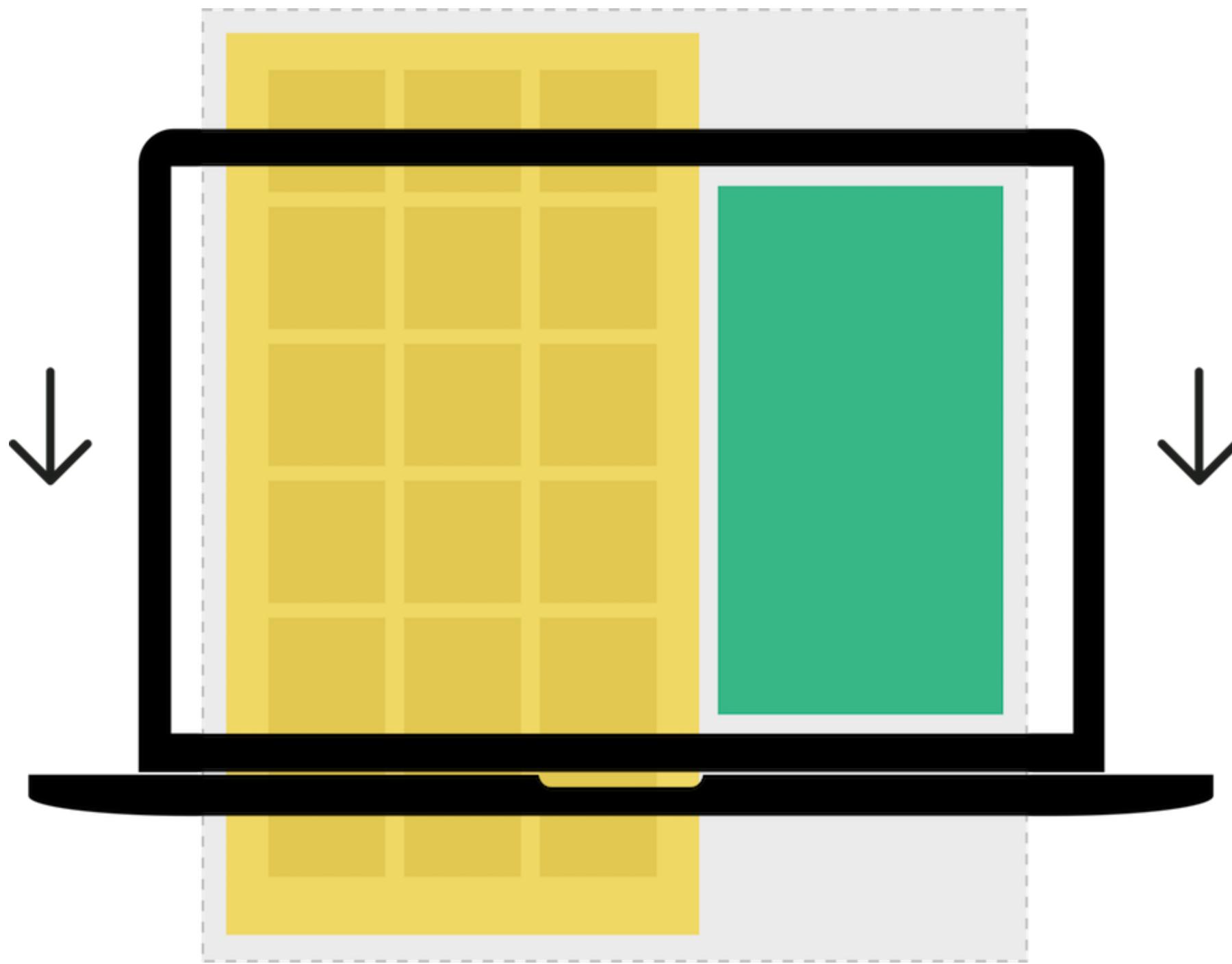
Live-code

Let's live code this layout in **campuses-with-map.html**

If we scroll the map disappears 😢

No problem

```
#map {  
  height: 100vh;  
  position: sticky;  
  top: 0;  
}
```



Live-code

Let's live code `position: sticky` in `campuses-with-map.html`

Let's build cool layouts 😎