

Grids, Bootstrap, & Wireframes

CS 160, Week 1: Topic B

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Link to Slides: <https://tinyurl.com/cs160-w1tB-su22>

Welcome!



I'm Rachel :)

Pronouns:

she/her

Major:

Computer Science (4th year)

Experience:

LOVE front-end development & React! (startups, past internships)

Hobbies:

Travelling, poker, tennis, movies
:D

Agenda

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1. **Bootstrap Overview (25 mins)**

Introduction to Bootstrap fundamentals & how to use Grids

2. **Wireframes & Why (10 mins)**

Reinforce importance of wireframes in the design process and this class (especially projects!)

3. **Bootstrap Practice! (15 mins)**

Practice creating a basic layout on Codepen

What is Bootstrap?

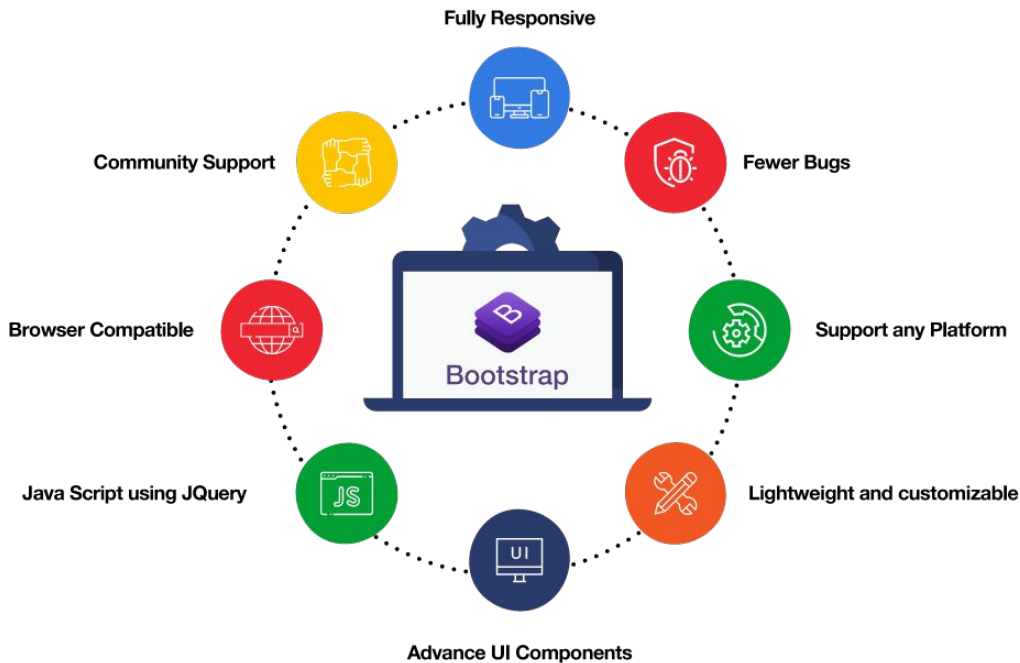


- **CSS Framework** for developing **responsive** mobile-first websites
- contains **HTML, CSS, & JavaScript** based templates for typography, forms, buttons, etc.

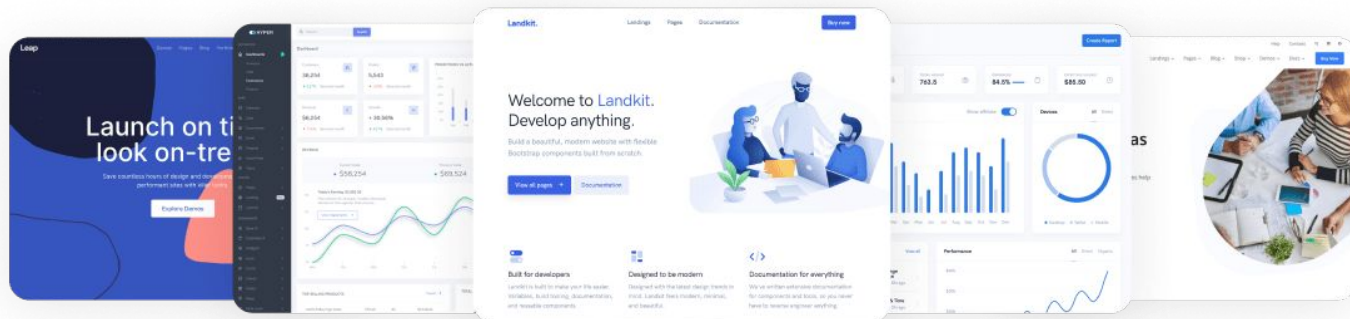


Advantages of Bootstrap

- Incredibly easy to use / thorough [documentation](#)
- Magically responsive!
- Many customizable components



Examples



Checkout form

Below is an example form built entirely with Bootstrap's form controls. Each required form group has a validation state that can be triggered by attempting to submit the form without completing it.

Billing address

First name

Last name

Username

Email (Optional)

Address

Address 2 (Optional)

Country State Zip

☐ Shipping address is the same as my billing address

☐ Save this information for next time

Your cart

Product name	\$12
Second product	\$8
Third item	\$5
Phone code	-\$5
Total (USD)	\$30

Phone code

Payment

☐ Credit card

12,000,000

Websites use Bootstrap
today!



Bloomberg
Business

Why Grids

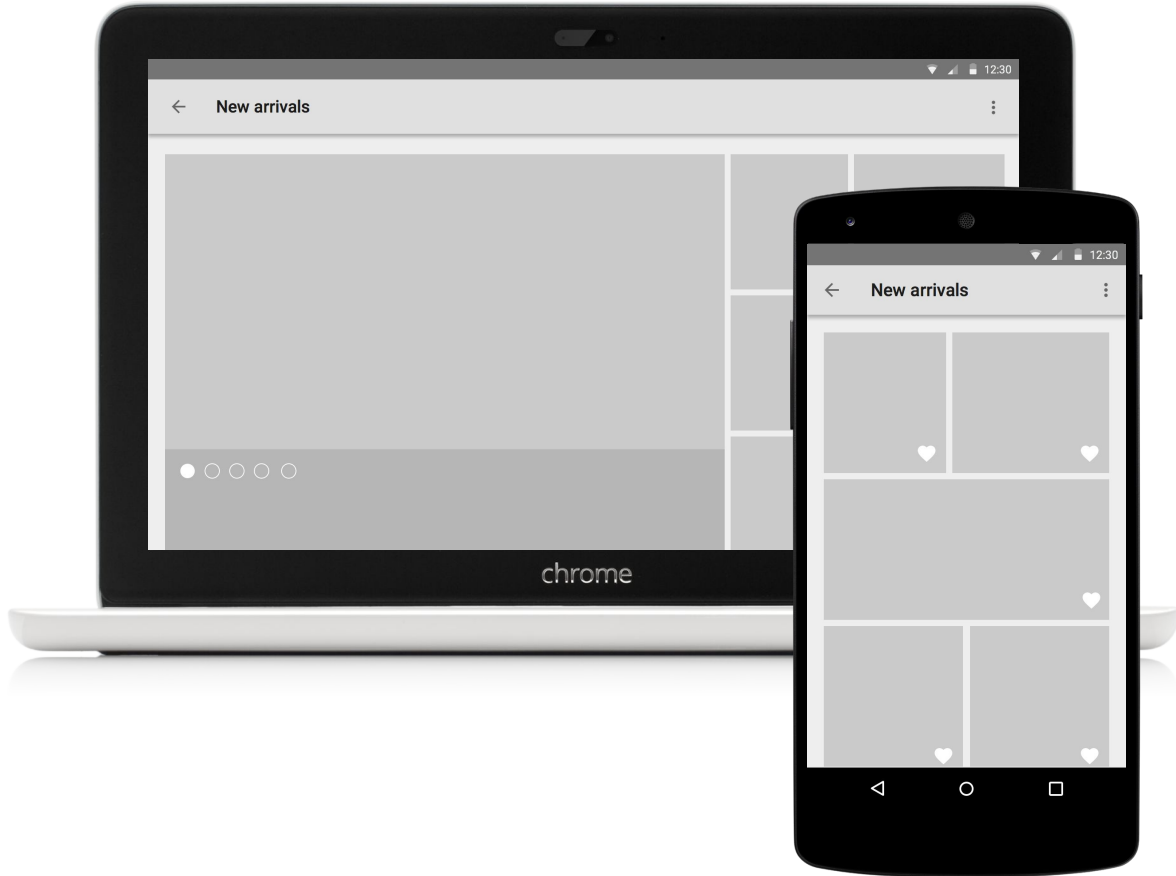
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Organization

bring order to a layout
allowing users to quickly
view information

Consistency

provides consistent and
aesthetic visuals for the
user



Bootstrap Grids

- Container (fluid or fixed) `<div class="container">`
- Rows `<div class="row">`
- Columns (12 col system)

Container



A screenshot of a code editor window titled "index.html" with a dark theme. The editor shows five lines of HTML code. Line 1 is the opening tag for a div with class "container". Line 2 is a comment indicating that all grid information should be placed inside. Line 3 is the closing tag for the div. Lines 4 and 5 are empty. The status bar at the bottom indicates "Line 5, Column 1", "Tab Size: 4", and "HTML".

```
1 <div class="container">
2   <!-- ALL GRID INFO
   GOES IN HERE -->
3 </div>
4
5
```

Line 5, Column 1 Tab Size: 4 HTML

Container

Row

Col 1	Col 1	Col 1	Col 1	Col 1	Col 1	Col 1	Col 1	Col 1	Col 1	Col 1	Col 1
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

Row



= 12

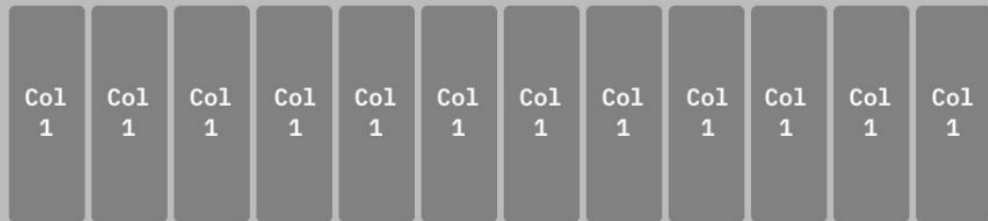
= 12

```
index.html
1 <div class="container">
2   <!-- ALL GRID INFO GOES
   IN HERE -->
3   <div class="row">
4     <div class="col-1">
5     </div>
6     <div class="col-1">
7     </div>
8     <div class="col-1">
9     </div>
10    <div class="col-1">
11    </div>
12    <div class="col-1">
13    </div>
14    <div class="col-1">
15    </div>
16    <div class="col-1">
17    </div>
18    <div class="col-1">
19    </div>
20    <div class="col-1">
21    </div>
22    <div class="col-1">
23    </div>
24    <div class="col-1">
25    </div>
26    <div class="col-1">
27    </div>
28  </div>
29
30  <div class="row">
31  </div>
32 </div>
```

Line 23, Column 11 Tab Size: 4 HTML

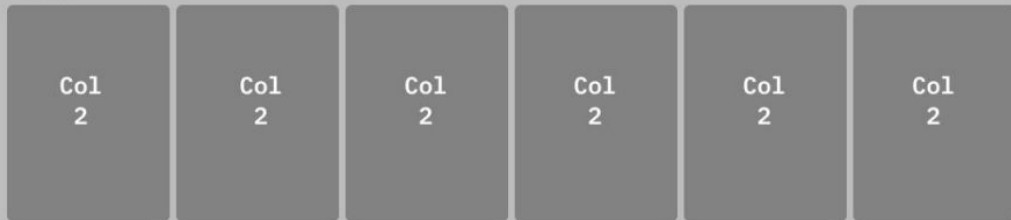
Container

Row



= 12

Row



= 12

```
index.html  UNREGISTERED
1 <div class="container">
2   <!-- ALL GRID INFO GOES IN
   HERE -->
3   <div class="row">
4     <div class="col-1" />
5     <div class="col-1" />
6     <div class="col-1" />
7     <div class="col-1" />
8     <div class="col-1" />
9     <div class="col-1" />
10    <div class="col-1" />
11    <div class="col-1" />
12    <div class="col-1" />
13    <div class="col-1" />
14    <div class="col-1" />
15    <div class="col-1" />
16  </div>
17
18  <div class="row">
19    <div class="col-2" />
20    <div class="col-2" />
21    <div class="col-2" />
22    <div class="col-2" />
23    <div class="col-2" />
24    <div class="col-2" />
25  </div>
26 </div>
27
28
```

Line 28, Column 1 Tab Size: 4 HTML

col-4

col-8

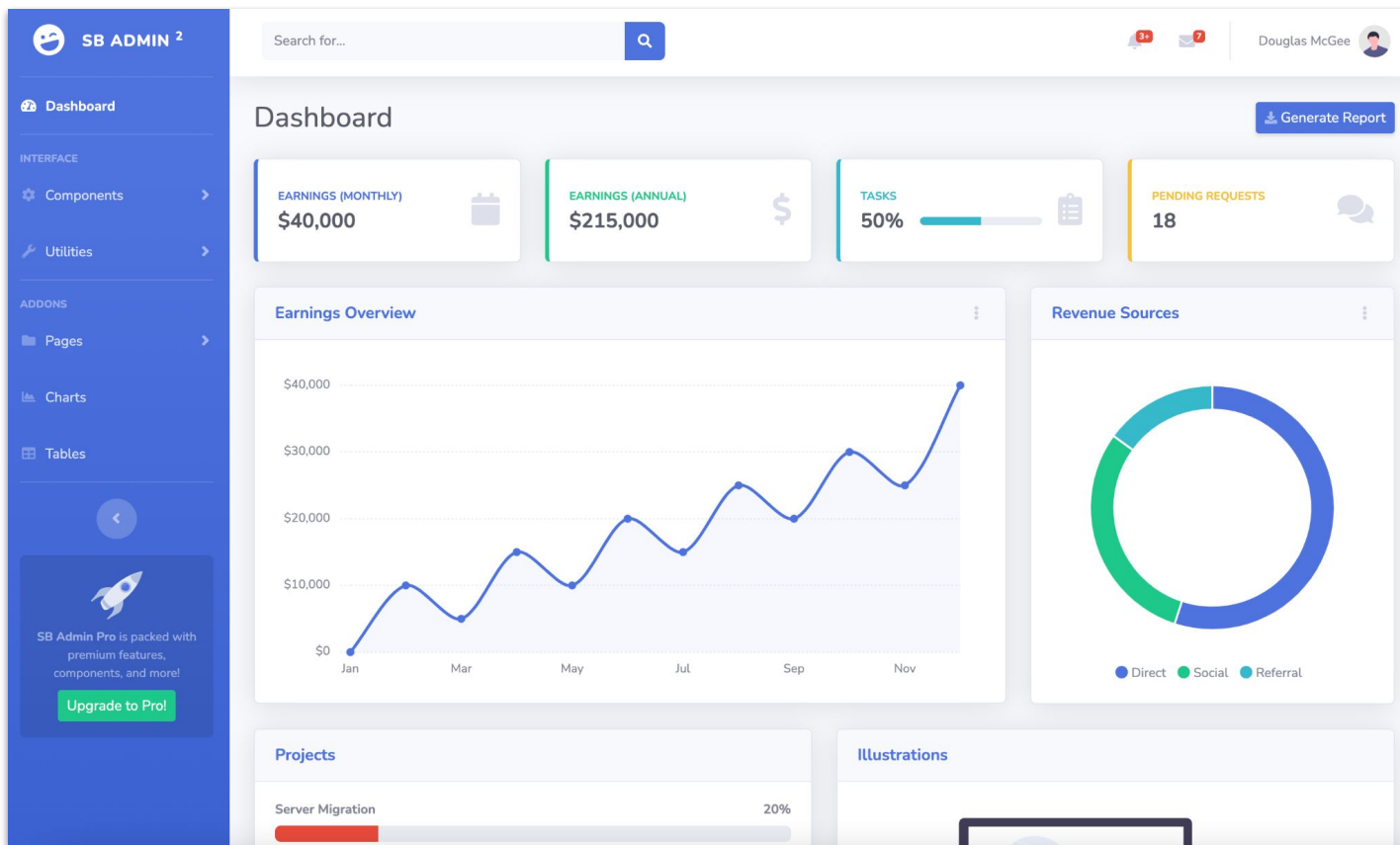
col-9

col-3

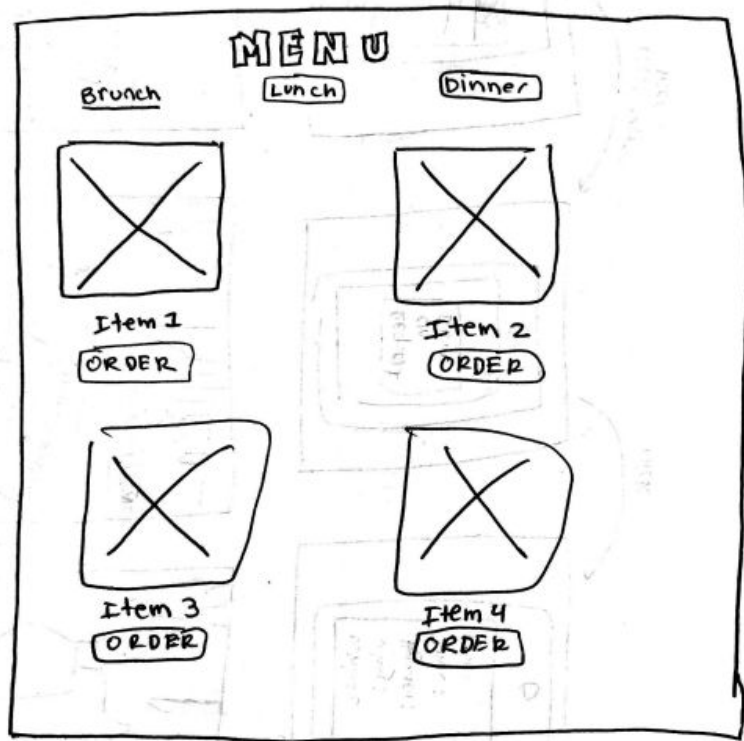
col-5

col-7

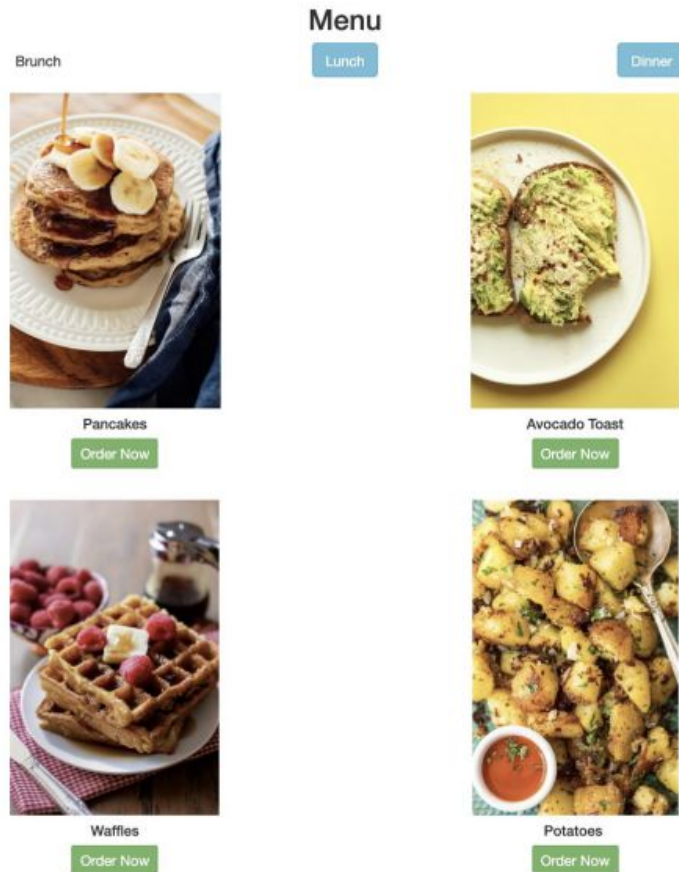
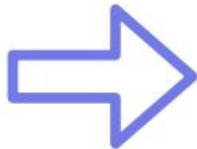
Let's Explore!



Wireframes



Go from this...

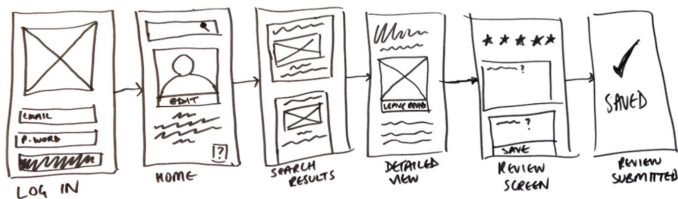


...to this!

Wireframe Features

- usually includes logos, search fields, titles & headers
- can use shading to represent selected items
- 2D depictions – avoid complex interactions like drop-downs or hover states





Low-fidelity

starting point of design, useful for mapping user flow and app navigation (pen & paper)



High-fidelity

includes relevant components and pixel-specific layouts (figma, adobe illustrator, etc.)

Practice!

<https://tinyurl.com/y7bd7dfh>

HTML

```
1 <!-- Containers are the most basic layout element -->
2 <div class="container-fluid">
3   <!--Rows hold the columns-->
4   <div class="row">
5     <!--Lay out the structure using columns-->
6     <div class="col-xs-12 text-center">
7       <h1>Menu</h1>
8     </div>
9   </div>
10  <!--Exercise 1. Create a new row. Use columns to lay out 3
    buttons with 1 button being active. Think about how to evenly
    distribute the 3 buttons in a 12 grid system.-->
11  <!--Exercise 2. Create a new row. Create 2 columns - one for
    image, one for text. Add photos and text.-->
12 </div>
```

Menu

Brunch

Dinner

Dessert



Boba

Lorem ipsum dolor sit amet,
consectetur adipiscing elit, sed
do eiusmod tempor incididunt.



Ice Cream

Lorem ipsum dolor sit amet,
consectetur adipiscing elit, sed
do eiusmod tempor incididunt.



Pie

Lorem ipsum dolor sit amet,
consectetur adipiscing elit, sed
do eiusmod tempor incididunt.

Drop Your Submissions Here!

<Link>

<Link>

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