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# art 4217

## Advanced Digital Applications

*Lesson 11 - 12 : JS + jQuery*  
*Ashwin Anandani*

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# Continue on your App UI

The rest of the pages

- Plan out new pages as blocks first

<http://codepen.io/ashwinbsd/pen/QpZrrw>

- Connect your pages using:

```
<a href="page2.html">
```

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# Intro to jQuery

- A new type of code, for interactions
  - Hide/Show sample code
  - Practical: Try it yourself
  - Adding interactions into your code
  - Practical: Add interactions to your UI
-

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# Code Review

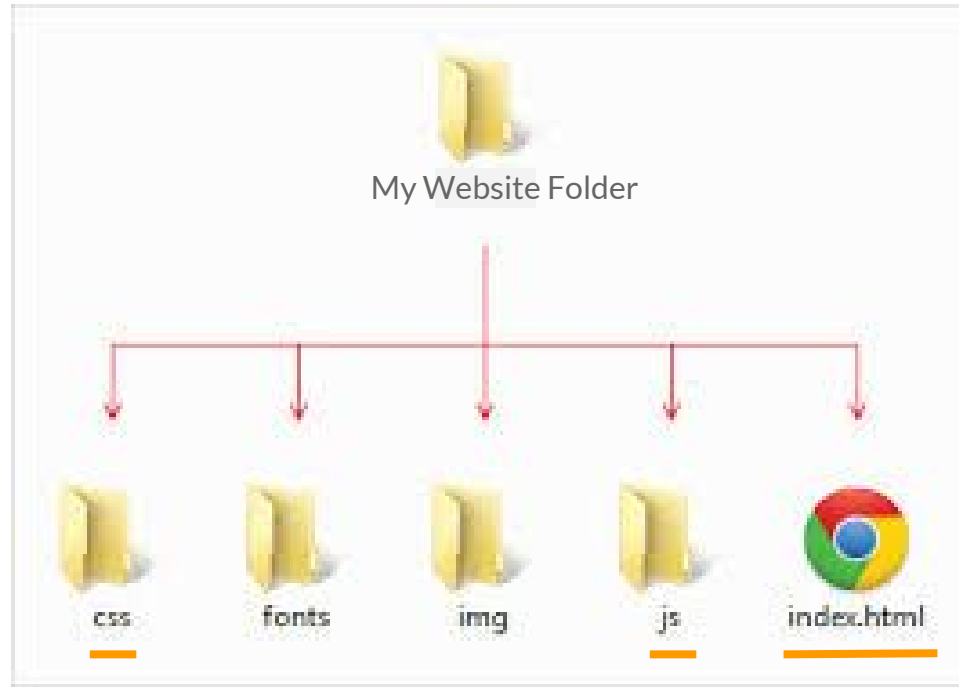
*A little demonstration....*

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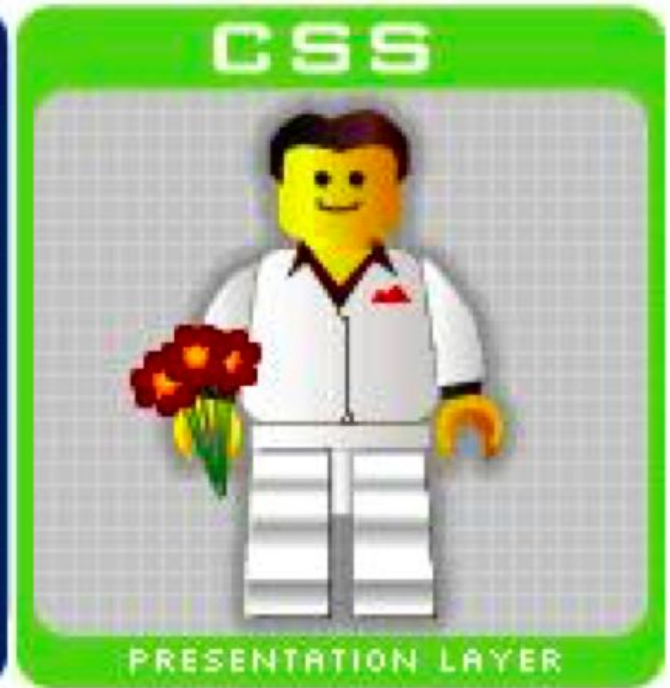
# How sites are structured

Different code in different folders



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# Two Languages To Use



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# How HTML pages are structured

As a design

**HTML**

`<div id="header">`

`<div id="nav">`

`<div class="article">`

`<div class="section">`

`<div id="sidebar">`

`<div id="footer">`

---

# HTML Tags

<head> will **not** be shown on the webpage

<title> : To set the name in the browser tab

<body> : Content of the page

<div> : Divider - used to create containers for control

<h1> ... <h6> : Header tags for titles (with pre-set sizes)

<p> : Use for regular writing

<a> : Link to another site

 : For images

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CSS needs to talk to the HTML:  
**ID** and **Class**

**Class** is for styles you want to use over and over

**ID** is for something really specific

```
<div class="col2" >  
<h2>HomePage</h2>  
  
```

---

## CSS uses # to choose IDs, and . to choose **C**lasses

```
<div class="col2" >
<h2>HomePage</h2>
    
```

```
.col2 {
    float:left;
    width:46%;
    padding:0 2% 1em 2%;
    overflow:hidden;
    position:relative;
    left:-75%;
}
```

```
#floatRight {
    float:right;
}
```

---

**Now we make them move...**

[CodePen.io/ashwinbsd/pen/wJozjy](https://CodePen.io/ashwinbsd/pen/wJozjy)

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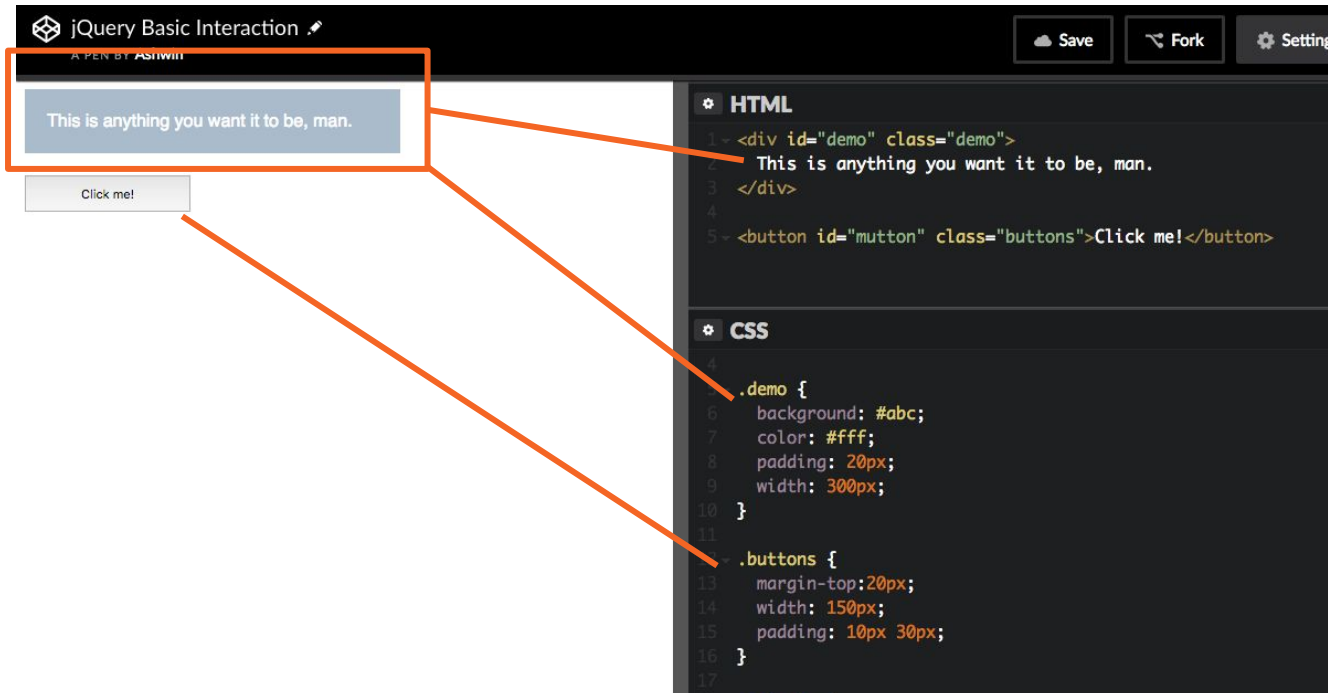
# Try It

*Create some basic interactions*

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# First we make a <div> to move

Keep it simple to start



The screenshot shows a CodePen project titled "jQuery Basic Interaction" by user "ASTWILL". The demo area on the left contains a light blue box with the text "This is anything you want it to be, man." and a button below it labeled "Click me!". An orange rectangle highlights the text box. Three orange lines originate from this rectangle: one points to the HTML code for the text, another points to the CSS rules for the ".demo" class, and a third points to the CSS rules for the ".buttons" class. The code editor on the right shows the following HTML and CSS:

```
HTML
1 <div id="demo" class="demo">
2   This is anything you want it to be, man.
3 </div>
4
5 <button id="mutton" class="buttons">Click me!</button>
```

```
CSS
4
5 .demo {
6   background: #abc;
7   color: #fff;
8   padding: 20px;
9   width: 300px;
10 }
11
12 .buttons {
13   margin-top: 20px;
14   width: 150px;
15   padding: 10px 30px;
16 }
17
```

# Then we add jQuery

Very important! But can also do other way around

The screenshot shows the 'Pen Settings' interface for a CodePen titled 'jQuery Basic Interaction'. The 'JavaScript' tab is selected. In the 'Add External JavaScript' section, a dropdown menu is open, showing a list of libraries. 'jQuery' is highlighted with a blue selection bar and a red rectangle. The list includes: Angular, Backbone, Bootstrap, D3, Ember, GreenSock TweenMax, Handlebars, jQuery, jQuery UI, and Lodash. The 'PEN TITLE' is 'jQuery Basic Interaction' and the 'PEN DESCRIPTION' explains the purpose of the text. A green 'Save & Close' button is visible at the bottom right.

Pen Settings

HTML CSS **JavaScript** Behavior Screenshot

**JavaScript Preprocessor**

None

**Add External JavaScript**

These scripts will run in this order and before the code in the JavaScript editor. You can also link to another Pen here, and it will run the JavaScript from it. Also try typing the name of any popular library.

https://yourwebsite.com/script.js

https://codepen.io/username/pen/aBcDef

+ add another resource

Quick-add ✓ ---

- Angular
- Backbone
- Bootstrap
- D3
- Ember
- GreenSock TweenMax
- Handlebars
- jQuery**
- jQuery UI
- Lodash

**PEN TITLE**

jQuery Basic Interaction

**PEN DESCRIPTION**

Explain what's going on in your Pen here. This text is searchable, so it can also help others find your work. Remember to credit others where credit is due. Markdown supported.

**TAGS** COMMA SEPARATED, MAX OF FIVE

TEMPLATE?

**Save & Close**

---

# I want to make a flip

Not really, but some of you do

Makes it  
happen

Controls  
speed and  
makes it  
smooth

## ⚙ CSS

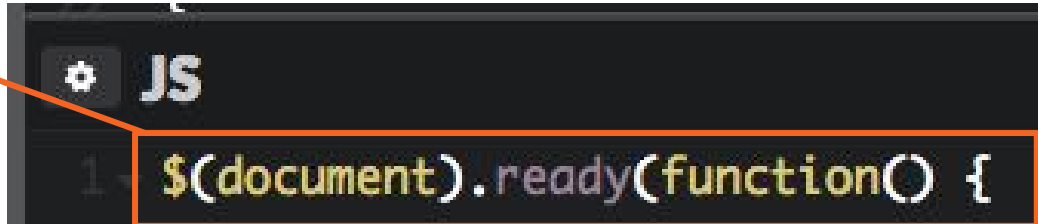
```
14 width: 150px;
15 padding: 10px 30px;
16 }
17
18 .animate {
19   transform: rotate(180deg);
20   -webkit-transform: rotate(180deg);
21   transition: all 1s ease;
22 }
```

---

# The magic.

Make it flip when you click the button

This is like  
saying  
<html>



```
JS
1 $(document).ready(function() {
2
3     $("#mutton").click(function() {
4         $("#demo").toggleClass('animate');
5     });
6
7 });
```



---

# The magic.

Make it flip when you click the button

This is like  
saying  
<html>

First we select  
the object



```
1  $(document).ready(function() {  
2  
3  $("#mutton").click(function() {  
4      $("#demo").toggleClass('animate');  
5  });  
6  
7  });
```

---

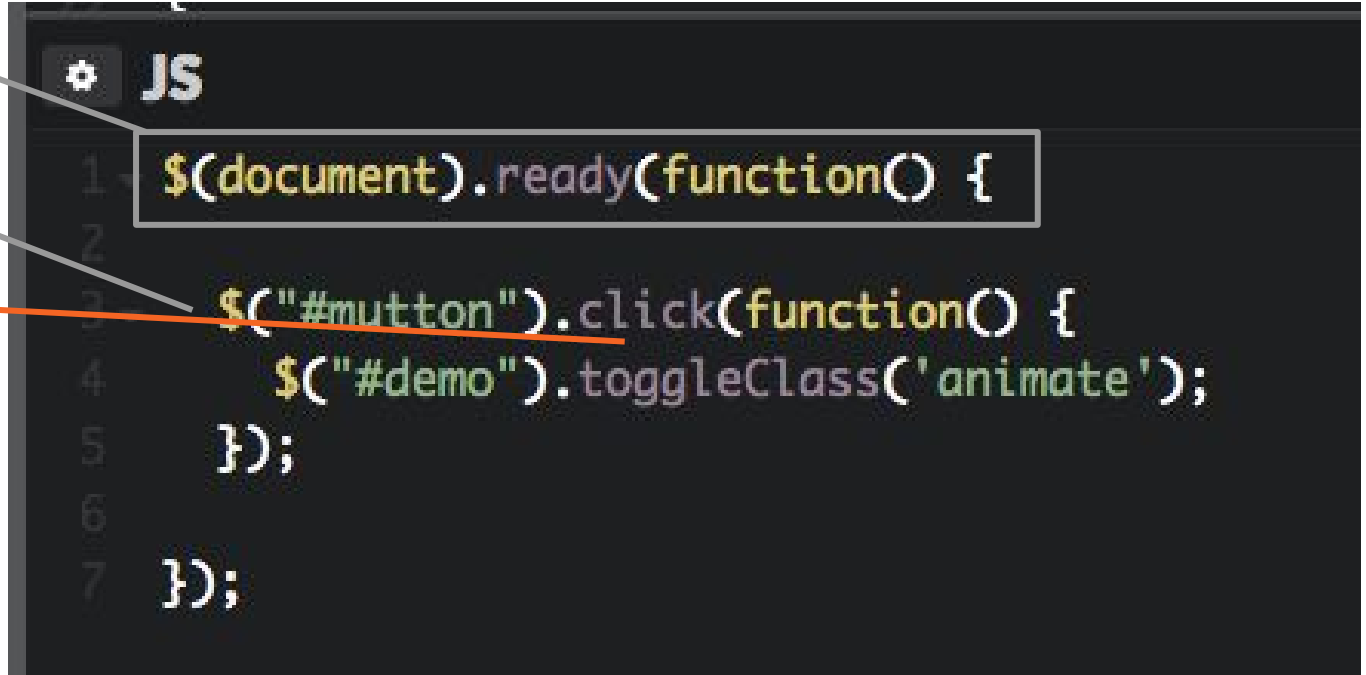
# The magic.

Make it flip when you click the button

This is like  
saying  
<html>

First we select  
the object

Then the  
action



```
1 $(document).ready(function() {  
2  
3     $("#mutton").click(function() {  
4         $("#demo").toggleClass('animate');  
5     });  
6  
7 });
```

---

# The magic.

Make it flip when you click the button

This is like  
saying  
<html>

First we select  
the object

Then the  
action

Then the object it  
affects

```
JS
1 $(document).ready(function() {
2
3   $("#mutton").click(function() {
4     $("#demo").toggleClass('animate');
5   });
6
7 });
```

The image shows a code editor with a dark background. The code is written in a light color. A box highlights the first line of the code: `$(document).ready(function() {`. There are four arrows pointing from text on the left to the code. The first arrow points from 'This is like saying <html>' to the `$(document).ready` part. The second arrow points from 'First we select the object' to the `$("#mutton")` part. The third arrow points from 'Then the action' to the `.click(function() {` part. The fourth arrow points from 'Then the object it affects' to the `$("#demo").toggleClass('animate');` part. The code is as follows:

---

# The magic.

Make it flip when you click the button



```
JS
1 $(document).ready(function() {
2
3     $("#mutton").click(function() {
4         $("#demo").toggleClass('animate');
5     });
6
7 });
```

Then the object it  
affects

The **'method'**  
(add / remove  
class)  
and its  
**'parameter'**  
(the class to  
toggle)

---

# The magic.

Make it flip when you click the button



```
JS
1 $(document).ready(function() {
2
3   $("#mutton").click(function() {
4     $("#demo").toggleClass('animate');
5   });
6
7 });
```

Then the object it  
affects

The **'method'**  
(add / remove  
class)  
and its  
**'parameter'**  
(the class to  
toggle)

---

# Create a 'toggle' button

To start and stop an animation

- Use [codepen.io](https://codepen.io)
  - Create a `<div>` and a `<button>`
  - Use `.toggleClass('animate')`  
to make an animation stop and start
-

---

**See the whole thing**

[codepen.io/ashwinbsd/pen/gWodPq](https://codepen.io/ashwinbsd/pen/gWodPq)

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# How does it work?

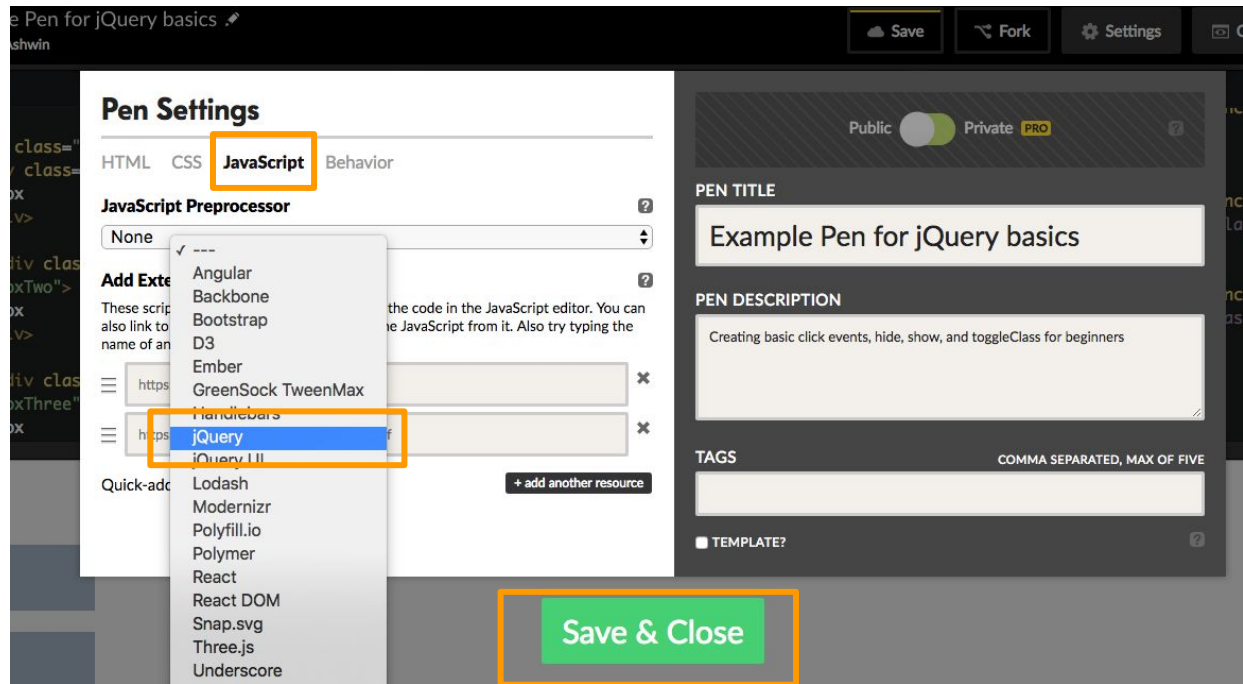
*Understanding jQuery*

---



# First we add jQuery

This is like Bootstrap; a way to code quicker



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## Then we start to write it

- It has to start with this:

```
$ (document) .ready (function () {
```

---

---

## Then we start to write it

- And it has to end with this:

} ) ;

---

---

## Then we start to write it

- It has to start with this:

I'm using jQuery

```
$(document).ready(function() {
```

---

## Then we start to write it

- It has to start with this:

I'm using jQuery

```
$ (document) .ready (function () {
```

This is the thing I want to  
do something to

---

# Then we start to write it

- It has to start with this:

I'm using jQuery

Method (the action)

```
$ (document) .ready (function () {
```

This is the thing I want to  
do something to

---

## Then we start to write it

- It has to start with this:

Method (the action)

```
$ (document).ready(function () {  
  
    //ALL YOUR CODE  
  
}
```

---

# Key interactions

Hide

- INSIDE that other stuff, is this stuff:

```
$ ("#TheID").click(function() {  
    $("#Thing").hide();  
});
```



---

# Key interactions

Show

```
$ ("#TheID").click(function() {  
    $("#Thing").show();  
});
```

---

---

# Key interactions

ToggleClass

- This is more common

```
$("#TheID").click(function() {  
    $("#Thing").toggleClass('hidden');  
});
```

The class to turn  
on and off

---

---

# Key interactions

ToggleClass

- The CSS for that is then:

```
.hidden {  
    display: none;  
}
```

---

CSS needs to talk to the HTML:  
**ID** and **Class**

**Class** is for styles you want to use over and over

**ID** is for something really specific

```
<div class="col2" >  
<h2>HomePage</h2>  
  
```

---

## CSS uses # to choose IDs, and . to choose **C**lasses

```
<div class="col2" >
<h2>HomePage</h2>
    
```

```
.col2 {
    float:left;
    width:46%;
    padding:0 2% 1em 2%;
    overflow:hidden;
    position:relative;
    left:-75%;
}
```

```
#floatRight {
    float:right;
}
```

---

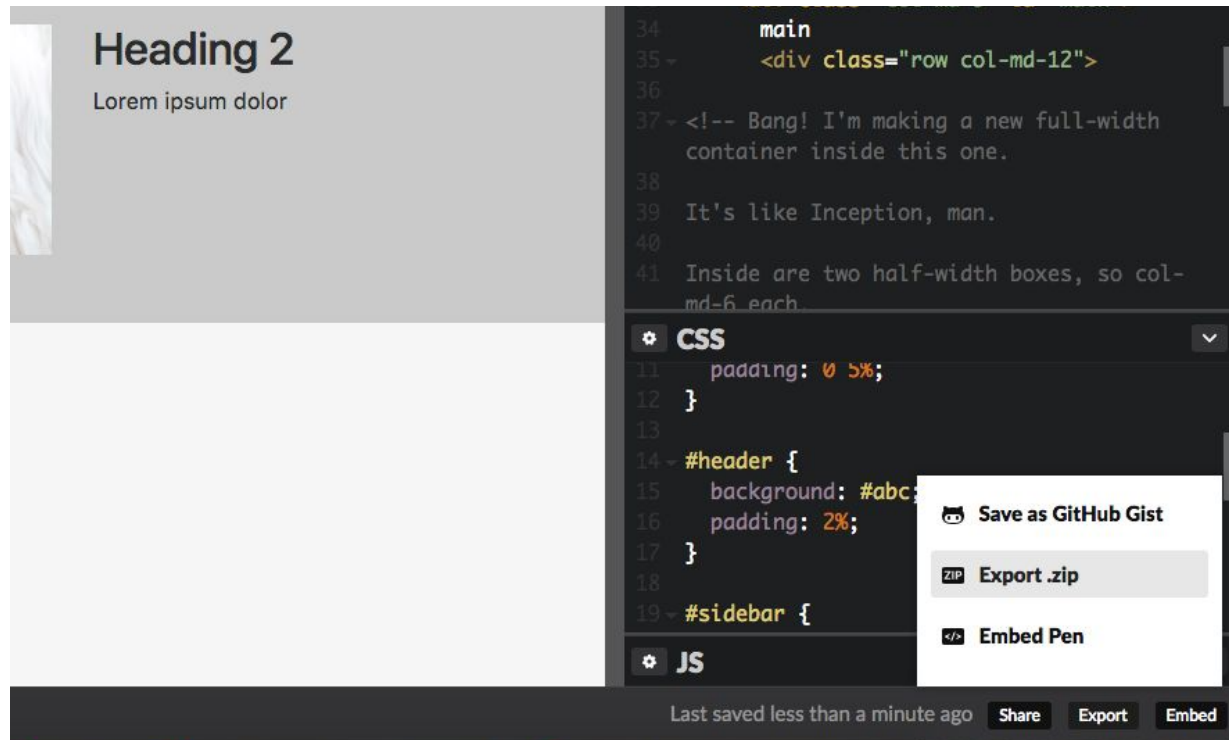
---

**See all three:**

[CodePen.io/ashwinbsd/pen/doEedx](https://CodePen.io/ashwinbsd/pen/doEedx)

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# Export your code in the end



The screenshot displays a code editor interface with a light gray sidebar on the left and a dark gray main area on the right. The sidebar contains a preview of a web page with a heading and placeholder text. The main area shows code in three tabs: HTML, CSS, and JS. The HTML tab is active, showing a snippet of code with a comment. The CSS tab is also visible, showing a snippet of code. The JS tab is partially visible at the bottom. An export menu is open over the JS tab, offering options to save as a GitHub Gist, export as a ZIP file, or embed the code. At the bottom of the editor, a status bar indicates the last save time and provides buttons for sharing, exporting, and embedding.

Heading 2  
Lorem ipsum dolor

```
34      main
35      <div class="row col-md-12">
36
37      <!-- Bang! I'm making a new full-width
38           container inside this one.
39           It's like Inception, man.
40
41           Inside are two half-width boxes, so col-
42                md-6 each
```

**CSS**

```
11 padding: 0 5%;
12 }
13
14 #header {
15     background: #abc;
16     padding: 2%;
17 }
18
19 #sidebar {
```

**JS**

- Save as GitHub Gist
- Export .zip
- Embed Pen

Last saved less than a minute ago [Share](#) [Export](#) [Embed](#)

---

# Add additional pages from the UI

And link them to each other

- Use `<a href="filename.html">`
  - Understand how to link your CSS correctly
    - One CSS file for all HTML files
    - Use `<link ref="style.css">`
-



---

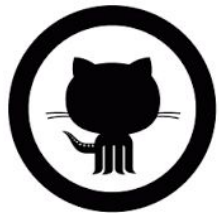
# Sync all your work

*To GitHub, and give me address*

---

---

# Continue using GitHub



You may need to **clone**

If so, ask me about it

---

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## If you don't see stuff online

- Make sure you're using username.github.io
- Make sure it is in the folder *with the same name* on your computer
- Make sure you have Committed & Sync-ed using

Github Desktop



---

# Get it working properly online

There's a lot of debugging now

- Use `<a href="filename.html">`
  - Understand how to link your CSS correctly
    - One CSS file for all HTML files
    - Use `<link ref="style.css">`
-

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# Finish off for the final!

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# Final Presentation Schedule + Deets

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# Please tell us all:

The following items must be your presentation

- What is the overall idea/concept
    - AND Which 2 softwares did you use?
  - What kinds of people will use/consume this
  - How did you create your app layout?
  - Guide us through one block of your code
-

---

# 7 minutes each

5 mins presentation + 2 mins Q & A

## GROUP 1

*5 min break*

1. Ng Ka Wun
2. Wong Hoi Fung
3. Kong Sze Man
4. Wong Yee Lei
5. Ng Yu Kwan

## GROUP 2

*5 min break*

6. Tam Yuet Yau
7. Yick Yau Sze
8. Lee Wai Fong
9. Yau Chun Yam
10. He ZhiWen (Kris)

## GROUP 3

11. Yau King Yeung
  12. Li Hoi Kit
  13. Lai Ka Chun
  14. Chan Chung Yin (Ricky)
  15. Li Wing Chi
-



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This deck is now at:

[http://ashportfolio.github.io/art4217/decks/  
lesson-11-12.pdf](http://ashportfolio.github.io/art4217/decks/lesson-11-12.pdf)

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