J220Coding for Journalists

February 28, 2022

PROMPTS

Use iClicker.com to log your attendance.

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Agenda

Log attendance via iClicker

Homework review

BREAK

CSS flow

HTML frameworks

In-class activity

Homework

Homework review

Question

What is the difference between the <title> tag found nested in <head> and a headline wrapped in an <h1> inside of the <body> tag?

Answer

- <title> tag is for the browser
- <title> shows up in the tab and in search results
- <h1> is seen by the reader on the page
- <h1> is the headline of the page
- <title> and <h1> can be the same text

Which property is used to change text color?

- color
- foreground-color
- font-color
- text-color
- background-color

Bonus question: Of these options, which are valid CSS properties?

- color
- foreground-color
- font-color
- text-color
- background-color

Differences between id and class

This is the first
paragraph!
This is the 2nd paragraph with a
"class" intro, but it's not the first
paragraph.
This is the 3rd paragraph with a
"class" intro, but it's not the first
paragraph.

This is the 3rd paragraph with a
"class" intro, but it's not the first
paragraph.

#first {
 font-size: 20px;
}
.intro {
 color: white;
}

id Only used **ONCE** in HTML. Used to style **ONE** element.

CSS selector is #

class Used to style **multiple** elements.

CSS selector is •

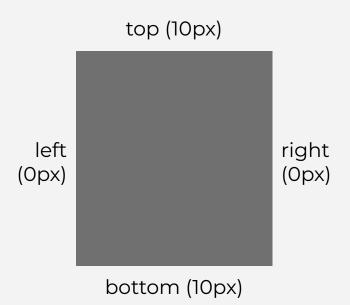
Write a CSS style that changes all <h3> elements with the following values:

- the background of the elements should have the value of #000000
- the font color should be #ffffff
- the padding of the elements should be 10 pixels all around

```
h3 {
  background-color: #000000;
  color: #ffffff;
  padding: 10px;
}
```

No points taken off for indentation (it's weird in bCourses).

margin vs. padding



Any of these are acceptable (just choose one):

```
margin: 10px 0px 10px 0px;
                right bottom left
            top
margin: 10px 0px;
                               These shortcuts
      top+bottom
                left+right
                               also apply to
                               padding!
margin: 10px 0px 10px; top sides bottom
margin-top: 10px; margin-bottom:
```

margin vs. padding

Remember

margin can have values of auto and negative numbers

padding can only have values of zero or higher!

Write a CSS style that changes all elements with a class of "introduction" the following values:

- the margins at the top and bottom of the elements are both 20 pixels
- the text size is 16 pixels
- the text font is Times New Roman (and has appropriate fallback options)
- the text color has a hex value of #111111
- the line-height is 20 pixels

```
p.introduction {
  margin: 20px 0;
  ALSO OK:
 margin: 20px 0 20px 0;
  margin-top: 20px; margin-bottom: 20px;
  font-size: 16px;
  font-family: 'Times New Roman', serif;
  color: #111111;
  line-height: 20px;
```

Extra credit half point if you got **p.introduction**.

Organizing your files

- The main page in a folder is called index.html browser will automatically look for it in any folder - this will not work when you are just viewing files from your computer
- For your file names, use lowercase, remove spaces, and avoid most symbols (except hyphens and underscores).
- One assets folder is fine. Sometimes, you'll separate out css, js, images, and other assets. The more complex the project, the more you'll end up splitting out folders.

First, download and unzip examples

https://journ220.github.io (Scroll to Feb. 28)

I'll also drop the link in Slack.

<div> and

display

block

inline

inline-block

none

float

left

right

overflow

Introducing... <div> and

These element tags have no semantic meaning. They're used solely to position and style elements on a page.

By default, browsers display **<div>** elements as "block" and **** elements as "inline."

What does that mean?

<div> and

display

block

inline

inline-block

none

float

left

right

overflow

A **display** value of **block** means the item takes up the entire width of a page and acts like a big box.

A **display** value of **inline** means the items act more like individual words.

They can break across different lines.

A **display** value of **inline-block** is a combination of the two.

<div> and

display

block

inline

inline-block

none

float

left

right

overflow

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A dienlaw value of inline moans the

Open display.html

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A **display** value of **inline-block** is a combination of the two.

<div> and
display

block

inline

inline-block

none

float

left

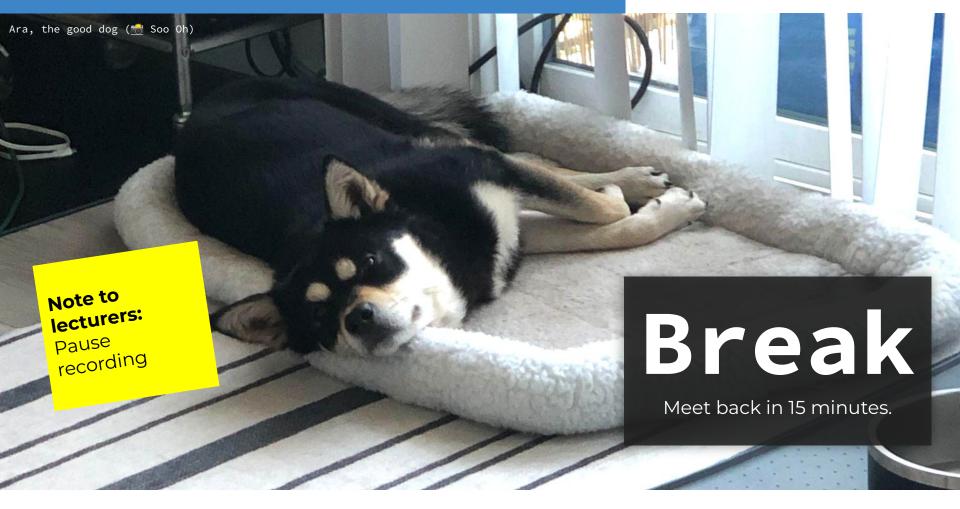
right

overflow

We learned about **float** at the last lecture. However, there are a couple issues with using **float** that you should be aware of.

When you float an element, you might create unintended problems with the flow of the page.

Open float.html

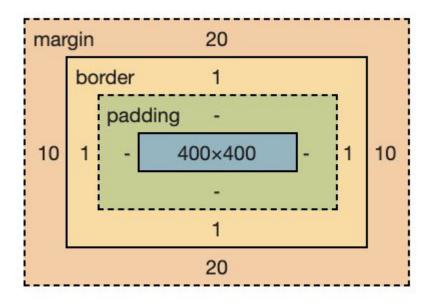


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Review of Box Model

Box model slides start on Slide 73 in previous lecture:

https://journ220.github.io/asset s/static/lecture02-14.pdf



syntax

principles

more complex queries

```
h1 {
  font-size: 2em;
}

@media (min-width: 600px) {
  h1 {
    font-size: 3em;
  }
}
```

This is a very basic media query that changes the font-size on your site's headline based on your browser width.

syntax

principles

more complex queries

```
h1 {
   font-size: 2em;
}

@media (min-width: 600px) {
   h1 {
     font-size: 3em;
   }
}
```

This is a CSS **at-rule**. (It's just something to memorize.) Here, **min-width** defines the minimum width of the browser window. **Don't forget to use the parentheses!**

syntax

principles

more complex queries

```
h1 {
   font-size: 2em;
}

@media (min-width: 600px) {
   h1 {
     font-size: 3em;
   }
}
```

We define our **h1** font-size twice. First is our default value at **2em**. Then, nested within the media query, is another value at **3em**.

syntax

principles

more complex queries

```
h1 {
  font-size: 2em;
}

@media (min-width: 600px) {
  h1 {
    font-size: 3em;
  }
}
```

What this all means: The <h1> element will appear 2em, until the screen reaches a width of 600 pixels. At 600 pixels and wider, the font-size becomes 3em.

syntax

principles

more complex queries

```
h1 {
  font-size: 2em;
}

@media (min-width: 600px) {
  h1 {
    font-size: 3em;
  }
}
```

Just like min-width, there's also max-width. But "mobile-first" means that you're designing around min-width, not max-width.

syntax

principles

more complex queries

```
h1 {
   font-size: 2em;
}

@media (min-width: 600px) {
   h1 {
     font-size: 3em;
   }
}
```

Open media_queries.html

syntax principles

more complex queries

```
.medium-only {
  display: none;
  color: orange;
/* For browser windows between 600 and 1199 pixels
wide */
@media (min-width: 400px) and (max-width: 1199px) {
  .medium-only {
    display: block;
```

The **parentheses** and **and** keyword are important!

media queries

syntax

principles

more complex queries

```
.medium-only {
  display: none;
  color: orange;
/* For browser windows between 600 and 1199 pixels
wide */
@media (min-width: 400px) and (max-width: 1199px) {
  .medium-only {
    display: block;
```

Open media_queries_complex.html

What questions do you have?

CSS layouts: Thinking inside the box(es)...

Long text is hard to read



Not all that Mrs. Bennet, however, with the assistance of her five daughters, could ask on the subject, was sufficient to draw from her husband any satisfactory description of Mr. Bingley. They attacked him in various ways; with barefaced questions, ingenious suppositions, and distant surmises; but he eluded the skill of them all; and they were at last obliged to accept the second-hand intelligence of their neighbour, Lady Lucas. Her report was highly favourable. Sir William had been delighted with him. He was quite young, wonderfully handsome, extremely agreeable, and, to crown the whole, he meant to be at the next assembly with a large party. Nothing could be more delightfull To be fond of dancing was a certain step towards falling in love; and very lively hopes of Mr. Bingley's heart were entertained.

"If I can but see one of my daughters happily settled at Netherfield," said Mrs. Bennet to her husband, "and all the others equally well married, I shall have nothing to wish for."

In a few days Mr. Bingley returned Mr. Bennet's visit, and sat about ten minutes with him in his library. He had entertained hopes of being admitted to a sight of the young ladies, of whose beauty he had heard much; but he saw only the father. The ladies were somewhat more fortunate, for they had the advantage of ascertaining from an upper window, that he wore a blue coat and rode a black horse.

An invitation to dinner was soon afterwards dispatched; and already had Mrs. Bennet planned the courses that were to do credit to her housekeeping, when an answer arrived which deferred it all. Mr. Bingley was obliged to be in town the following day, and consequently unable to accept the honour of their invitation, etc. Mrs. Bennet was quite disconcerted. She could not imagine what business he could have in towns os soon after his arrival in Hertfordshire; and she began to fear that he might be always flying about from one place to another, and never settled at Netherfield as he ought to be. Lady Lucas quieted her fears a little by starting the idea of his being gone to London only to get a large party for the ball; and a report soon followed that Mr. Bingley was to bring the velocity of the ladies and seven gentlemen with him to the assembly. The girls grieved over such a number of ladies; but were comforted the day before the ball by hearing, that instead of twelve, he had brought only six with him from London, his five sisters and a cousin. And when the party entered the assembly room it consisted of only five allogether, Mr. Bingley, his two sisters, the husband of the deldest, and another young man.

Mr. Bingley was good-looking and gentlemanlike; he had a pleasant countenance, and easy, unaffected manners. His sisters were fine women, with an air of decided fashion. His brother-in-law, Mr. Hurst, merely looked the gentleman; but his friend Mr. Darcy soon drew the attention of the room by his fine, tall person, handsome features, noble mien, and the report which was in general circulation within five minutes after his entrance, of his having ten thousand a year. The gentlemen pronounced him to be a fine figure of a man, the ladies declared he was much handsomer than Mr. Bingley, and he was looked at with great admiration for about half the evening, till his manners gave a disgust which turned the tide of his popularity; for he was discovered to be proud, to be above his company, and above being pleased; and not all his large estate in Derbyshire could then save him from having a most forbidding, disagreeable countenance, and being unworthy to be companyed with his friend.

Mr. Bingley had soon made himself acquainted with all the principal people in the room; he was lively and unreserved, danced every dance, was angry that the ball closed so early, and talked of giving one himself at Netherfield. Such amiable qualities must speak for themselves. What a contrast between him and his friend! Mr. Darcy danced only once with Mrs. Hurst and once with Miss Bingley, declined being introduced to any other lady, and spent the rest of the evening in walking about the room, speaking occasionally to one of his own party. His character was decided. He was the proudest, most disagreeable man in the world, and everybody hoped that he would never come there again. Amongst the most violent against him was Mrs. Bennet, whose dislike of his general behaviour was sharpened into particular resentment by his having slighted one of her daughters.

Elizabeth Bennet had been obliged, by the scarcity of gentlemen, to sit down for two dances; and during part of that time, Mr. Darcy had been standing near enough for her to overhear a conversation between him and Mr. Bingley, who came from the dance for a few minutes, to press his friend to join it.

"Come, Darcy," said he, "I must have you dance. I hate to see you standing about by yourself in this stupid manner. You had much better dance."

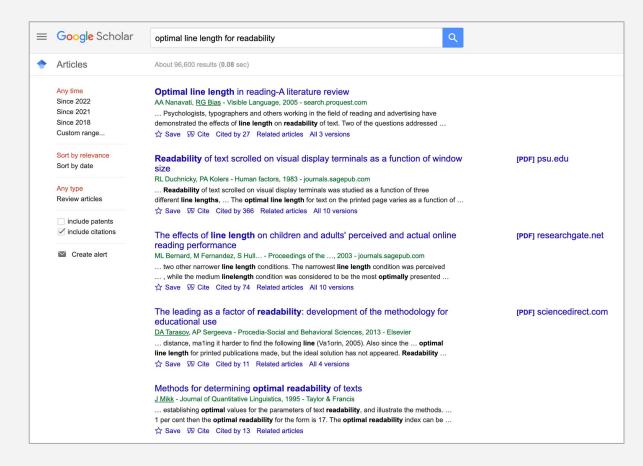
"I certainly shall not. You know how I detest it, unless I am particularly acquainted with my partner. At such an assembly as this, it would be insupportable. Your sisters are engaged, and there is not another woman in the room whom it would not be a punsihment to me to stand up with."

"I would not be so fastidious as you are," cried Bingley, "for a kingdom! Upon my honour, I never met with so many pleasant girls in my life as I have this evening; and there are several of them you see uncommonly pretty."

"You are dancing with the only handsome girl in the room," said Mr. Darcy, looking at the eldest Miss Bennet.

Screenshot of browser showing the text of Jane Austen's *Pride and Prejudice*.

The way the text extends from edge to edge of the browser makes it hard to read.



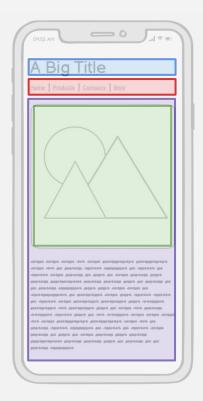
Screenshot of Google Scholar showing results for "optimal line length for readability"





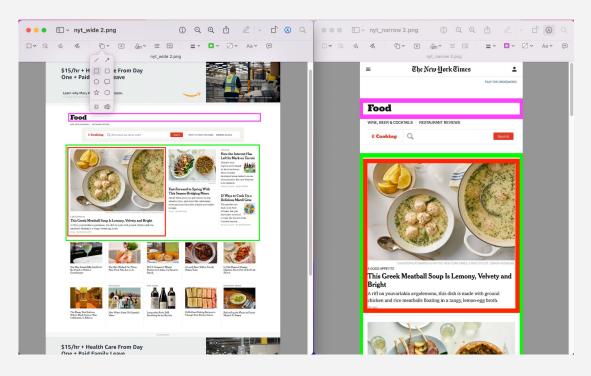








In-class activity: Boxes

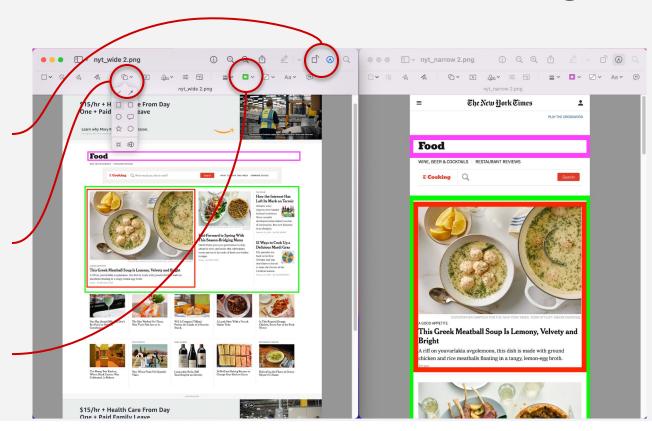


Look at the two screenshots from the New York Times Food section.

Open them up next to each other in the **Preview** app, and mark up the layout boxes using different colors.

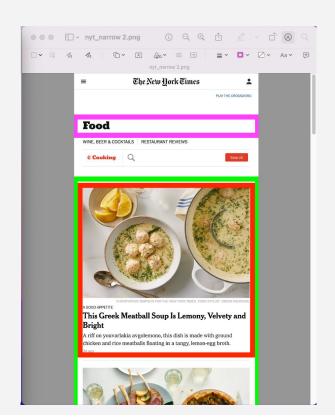
How to use the Preview app to mark up images

- 1. Click on this marker button
- **2.** Click on shape to add shape
- **3.** Change outline colors



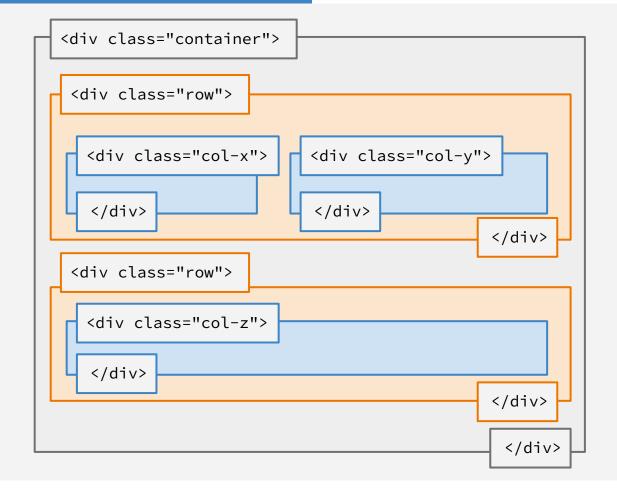
In-class activity: 15 minutes



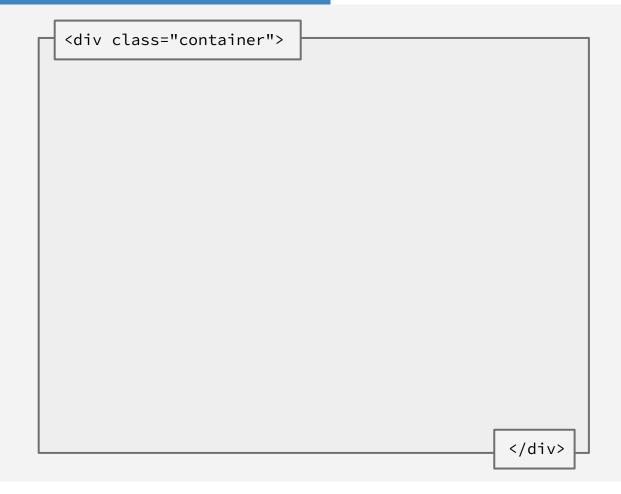


HTML/CSS frameworks

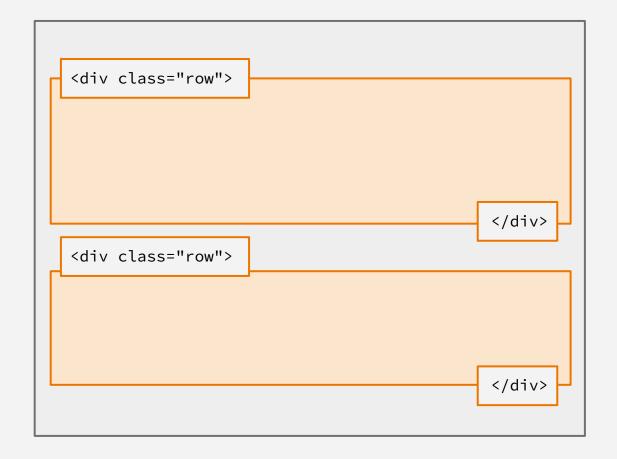
They all basically work like this.



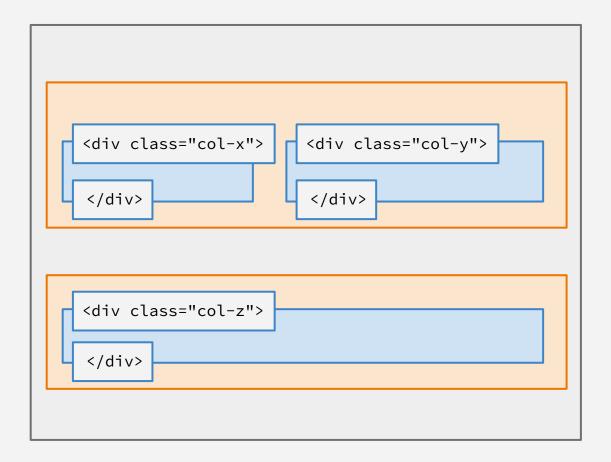
First, there's a big container.



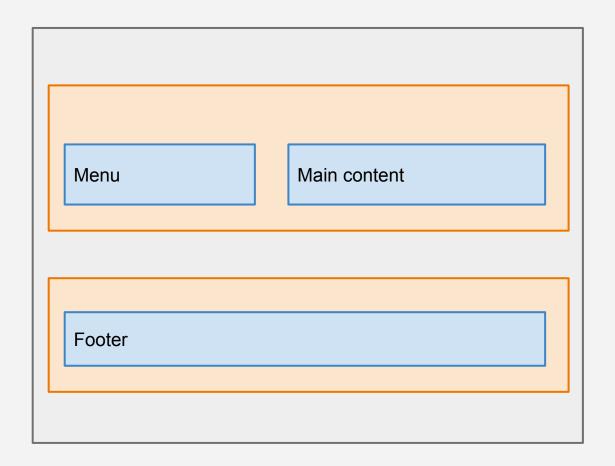
Within the container, you place rows.



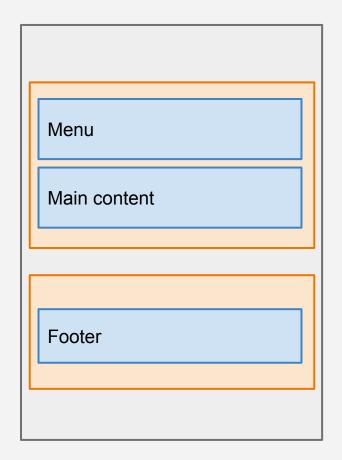
Within each row, you place columns.



On a bigger screen, the page will look something like this.



On a smaller screen, the page will look something like this.



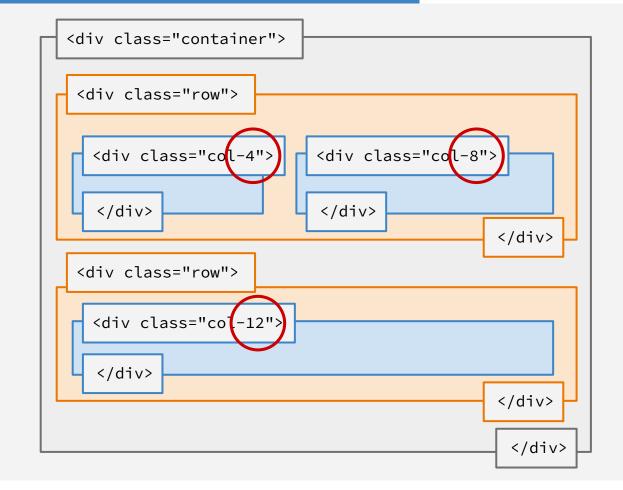
Usually, frameworks come in 12-column layouts.

That means, the columns of each row need to add up to 12.

```
<div class="container">
 <div class="row">
                           <div class="col-8">
  <div class="col-4">
   </div>
                           </div>
                                               </div>
<div class="row">
  <div class="col-12">
   </div>
                                               </div>
                                                </div>
```

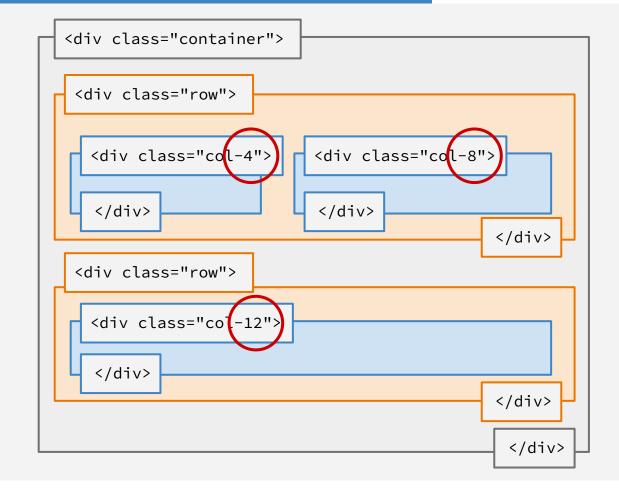
Usually, frameworks come in 12-column layouts.

That means, the columns of each row need to add up to 12.



Usually, frameworks come in 12-column layouts.

That means, the columns of each row need to add up to 12.



What questions do you have?

Some tips

By default, western browsers display elements from **left to right** and **top to bottom**, just like how one would read in English. (You can change this with <u>CSS for different languages</u>.)

It's easiest to structure and order your HTML that way, too. (But float can be tricky.)

Open frameworks.html

position

multiple-column layout

grid layout

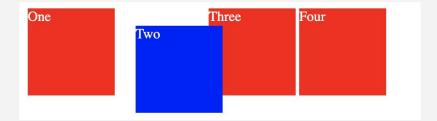
There are other types of block arrangements we won't cover in class. You can explore these on your own.

position

multiple-column layout

grid layout

The CSS property **position** allows you to fine-tune exactly how elements are laid out on your web page.



You can also see an example in **media_queries.html** from the examples.

position

multiple-column layout

grid layout

The <u>multiple-column layout</u> lets you style elements like a print newspaper.

Simple multicol example

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla luctus aliquam dolor, eu lacinia lorem placerat vulputate. Duis felis orci, pulvinar id metus ut, rutrum luctus orci. Cras portitior imperdiet nunc, at ultricies tellus lacreet sit amet. Sed auctor cursus massa at porta. Integer ligula ipsum,

tristique sit amet orci vel, viverra egestas ligula. Curabitur vehicula tellus neque, ac ornare ex malesuada et. In vitae convallis lacus. Aliquam erat volutpat. Suspendisse ac imperdiet turpis. Aenean finibus sollicitudin eros pharetra congue. Duis ornare egestas augue ut luctus. Proin blandit quam nec lacus varius commodo et a urna. Ut id ornare felis, eget fermentum sapien.

Nam vulputate diam nec tempor bibendum. Donec luctus augue eget malesuada ultrices. Phasellus turpis est, posuere sit amet dapibus ut, facilisis sed est. Nam id risus quis ante semper consectetur eget aliquam lorem. Vivamus tristique elit dolor, sed pretium metus suscipit vel. Mauris ultricies lectus sed lobortis finibus. Vivamus eu urna eget velit cursus viverra quis vestibulum sem. Aliquam tincidunt eget purus in interdum. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus.

position

multiple-column layout

grid layout

CSS Grid Layouts are similar to flexbox (we'll learn later), but can be used in two dimensions. It's very similar to the HTML/CSS grid frameworks we discussed, except you don't need separate "row" elements.

Be careful: CSS Grid Layouts are a type of CSS method. But people also say "CSS grid layouts" when referring to styling a website in a grid format.

position

multiple-column layout

grid layout

Internet Explorer and some mobile browsers don't support **grid layouts** or **flexbox** very well. HTML/CSS frameworks solve for this problem by using **float**.

In-class activity

Convert your site portfolio with the simple-grid.css file you downloaded from the examples.
You'll copy simple-grid.css to your portfolio assets folder.

Before we start the activity, let's go over homework...

Homework

Final Project

In two weeks, we're going to start learning how to create wireframes. So you should make a decision on what kind of web page you want to make for your final project by March 14. You can redesign a website, or you can create a totally new website.

Sign up for office hours if you'd like to chat about your idea!

Homework

In Canvas: You'll download a PDF of a page with a number of different asset files. You need to create the HTML and the CSS to recreate the PDF.

In-class activity

Convert your site portfolio with the simple-grid.css file you downloaded from the examples.
You'll copy simple-grid.css to your portfolio assets folder.

Note to students: Please help close the windows on your way out