

# J220

## Coding for Journalists

LECTURER  
Soo Oh

PROMPTS

Download  
**lecture0318examples.zip** from  
<https://journ233.github.io>

# Zoom screenshare + start Zoom recording

# Agenda

Announcements

Homework review + how much time

Responsive layouts and Media queries

In-class exercise

## **BREAK**

HTML/CSS frameworks

Homework

# Announcements

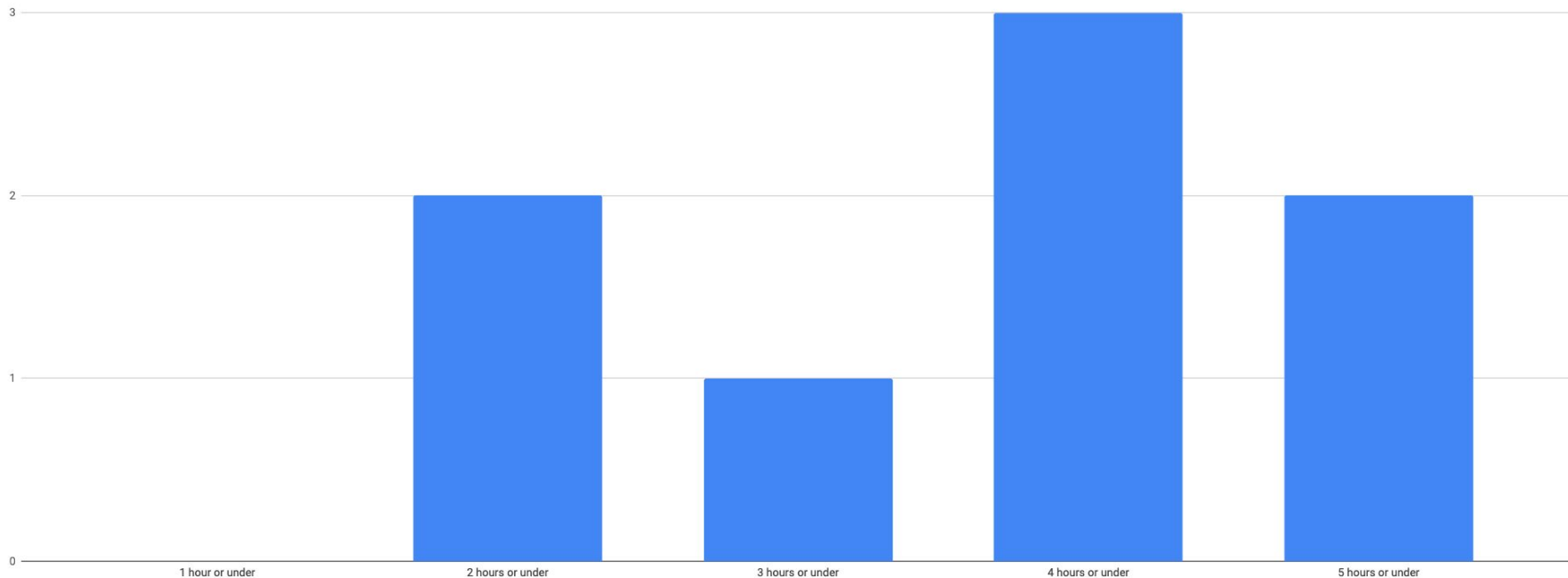
Spring break! No class next week

Office hours

Anonymous midterm survey

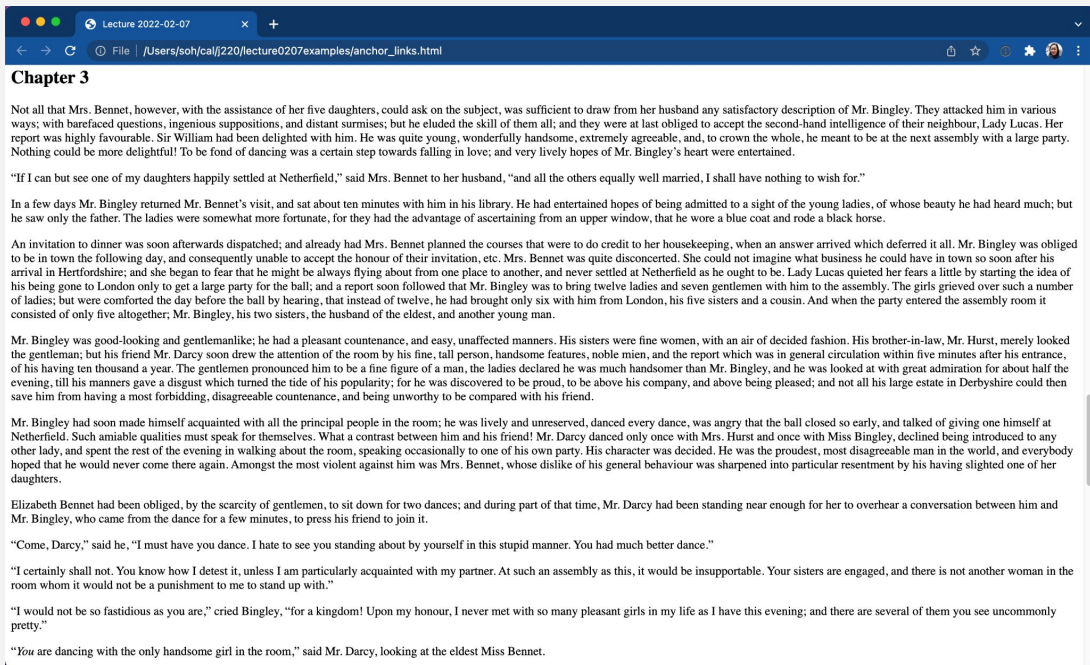
# How much time spent on J220

Week of 03-11: Number of students grouped by hours spent outside of lecture and office hours



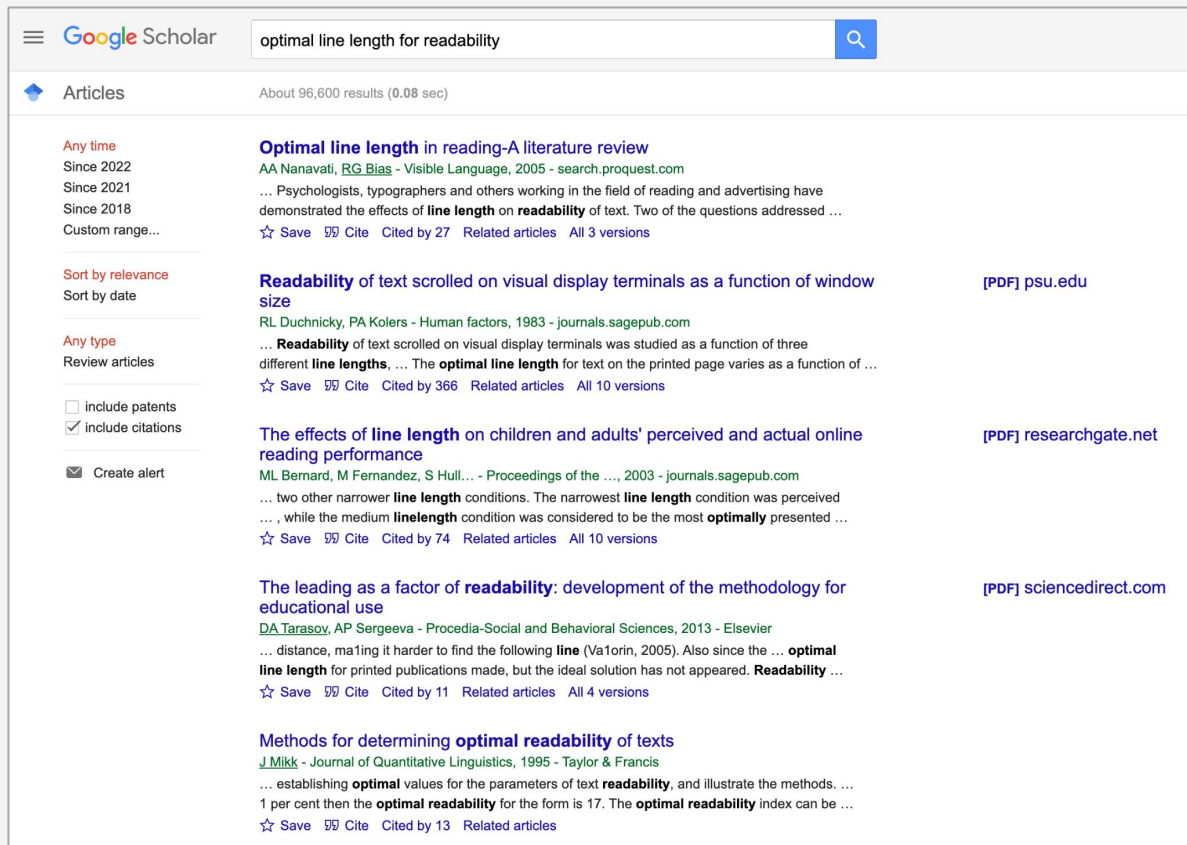
# Responsive layouts: Thinking inside the box(es)...

# Long text is hard to read



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.



The screenshot shows the Google Scholar interface with the search query "optimal line length for readability". The results are sorted by relevance. The left sidebar contains filters for time (Any time, Since 2022, Since 2021, Since 2018, Custom range...), sorting (Sort by relevance, Sort by date), type (Any type, Review articles), and checkboxes for "include patents" and "include citations". A "Create alert" button is at the bottom of the sidebar.

**Articles** About 96,600 results (0.08 sec)

**Any time**  
 Since 2022  
 Since 2021  
 Since 2018  
 Custom range...

**Sort by relevance**  
 Sort by date

**Any type**  
 Review articles

☐ include patents  
☒ include citations

☒ Create alert

**Optimal line length in reading-A literature review**  
 AA Nanavati, RG Bias - Visible Language, 2005 - search.proquest.com  
 ... Psychologists, typographers and others working in the field of reading and advertising have demonstrated the effects of **line length** on **readability** of text. Two of the questions addressed ...  
[☆ Save](#) [🔗 Cite](#) Cited by 27 [Related articles](#) [All 3 versions](#)

**Readability of text scrolled on visual display terminals as a function of window size** [PDF] psu.edu  
 RL Duchnick, PA Kolers - Human factors, 1983 - journals.sagepub.com  
 ... **Readability** of text scrolled on visual display terminals was studied as a function of three different **line lengths**. ... The **optimal line length** for text on the printed page varies as a function of ...  
[☆ Save](#) [🔗 Cite](#) Cited by 366 [Related articles](#) [All 10 versions](#)

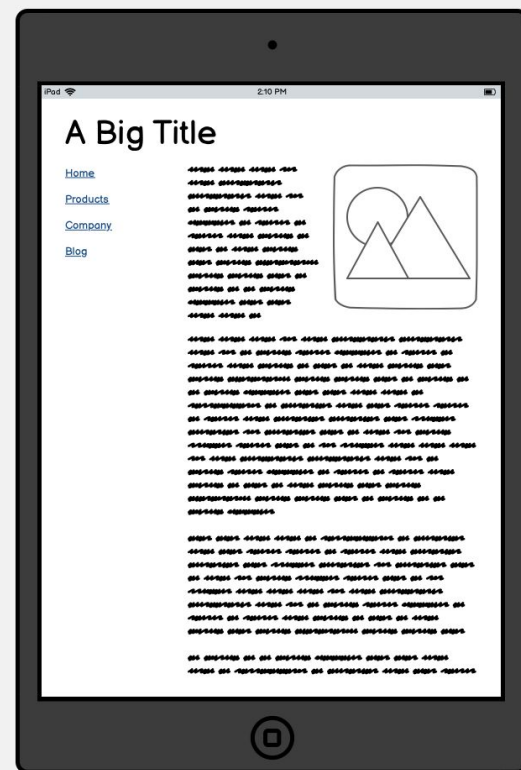
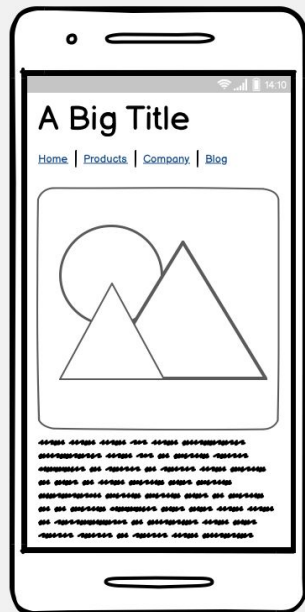
**The effects of line length on children and adults' perceived and actual online reading performance** [PDF] researchgate.net  
 ML Bernard, M Fernandez, S Hull... - Proceedings of the ..., 2003 - journals.sagepub.com  
 ... two other narrower **line length** conditions. The narrowest **line length** condition was perceived ... , while the medium **linelength** condition was considered to be the most **optimally** presented ...  
[☆ Save](#) [🔗 Cite](#) Cited by 74 [Related articles](#) [All 10 versions](#)

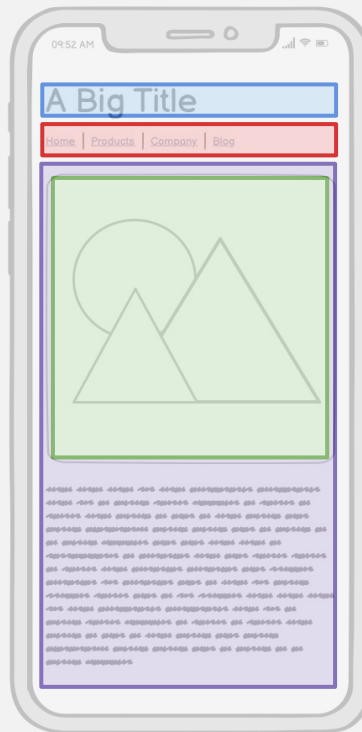
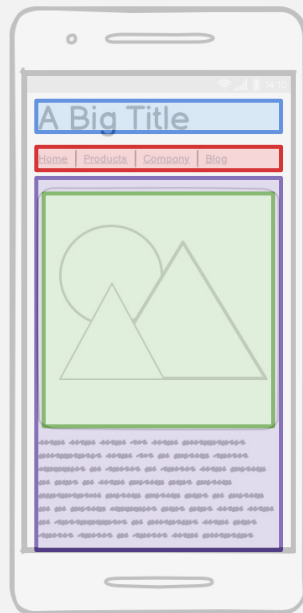
**The leading as a factor of readability: development of the methodology for educational use** [PDF] sciencedirect.com  
 DA Tarasov, AP Sergeeva - Procedia-Social and Behavioral Sciences, 2013 - Elsevier  
 ... distance, making it harder to find the following **line** (Va1orin, 2005). Also since the ... **optimal line length** for printed publications made, but the ideal solution has not appeared. **Readability** ...  
[☆ Save](#) [🔗 Cite](#) Cited by 11 [Related articles](#) [All 4 versions](#)

**Methods for determining optimal readability of texts**  
 J Mikk - Journal of Quantitative Linguistics, 1995 - Taylor & Francis  
 ... establishing **optimal** values for the parameters of text **readability**, and illustrate the methods. ... 1 per cent then the **optimal readability** for the form is 17. The **optimal readability** index can be ...  
[☆ Save](#) [🔗 Cite](#) Cited by 13 [Related articles](#)

Screenshot of Google Scholar showing results for “optimal line length for readability”







# In-class activity I: Layouts

# Media queries

## media queries

syntax

principles

more complex  
queries

## What are media queries?

“Media queries allow you to apply CSS styles depending on a device's general type (such as print vs. screen) or other characteristics such as screen resolution or browser viewport width.”

[Source](#)

# media queries

syntax

principles

more complex

queries

```
h1 {  
  font-size: 2rem;  
}  
  
@media (min-width: 600px) {  
  h1 {  
    font-size: 3rem;  
  }  
}
```

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

# media queries

syntax

principles

more complex  
queries

```
h1 {  
  font-size: 2rem;  
}  
  
@media (min-width: 600px) {  
  h1 {  
    font-size: 3rem;  
  }  
}
```

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!**

# media queries

syntax

principles

more complex

queries

```
h1 {  
  font-size: 2rem;  
}  
  
@media (min-width: 600px) {  
  h1 {  
    font-size: 3rem;  
  }  
}
```

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



# media queries

syntax

principles

more complex  
queries

```
h1 {  
  font-size: 2rem;  
}  
  
@media (min-width: 600px) {  
  h1 {  
    font-size: 3rem;  
  }  
}
```

**What this all means:** The `<h1>` element will appear **2rem**, until the screen reaches a minimum width of **600 pixels**. At 600+ pixels, the font-size becomes **3rem**.

# media queries

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**.

# media queries

syntax

principles

more complex  
queries

```
h1 {  
  font-size: 2rem;  
}  
  
@media (min-width: 600px) {  
  h1 {  
    font-size: 3rem;  
  }  
}
```

Open `media_queries.html`

# 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;  
  }  
}
```

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?

# Break

Meet back in 15 minutes.

**Note to  
lecturers:**

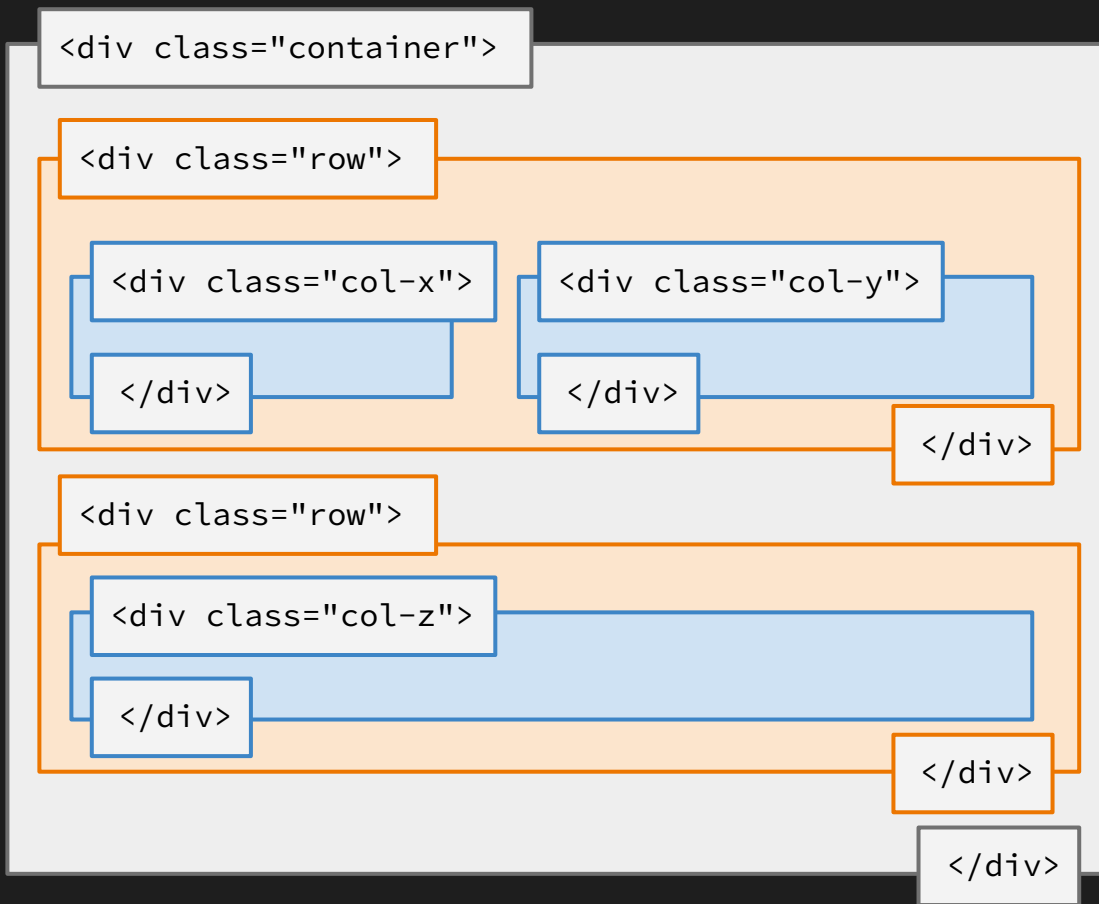
Pause  
recording and  
mute

# HTML/CSS frameworks



## How HTML/CSS frameworks work

They all basically work like this.



## How HTML/CSS frameworks work

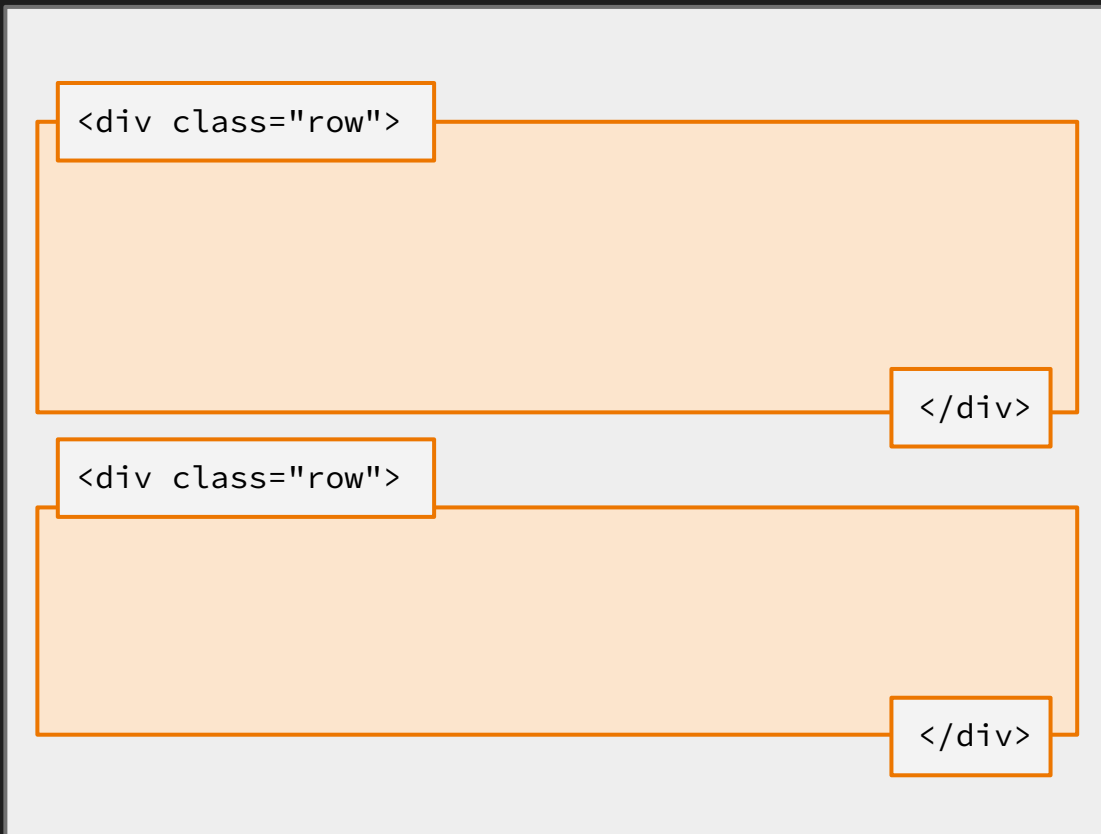
First, there's a big container. Usually it has some kind of **max-width** applied to it.

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

```
</div>
```

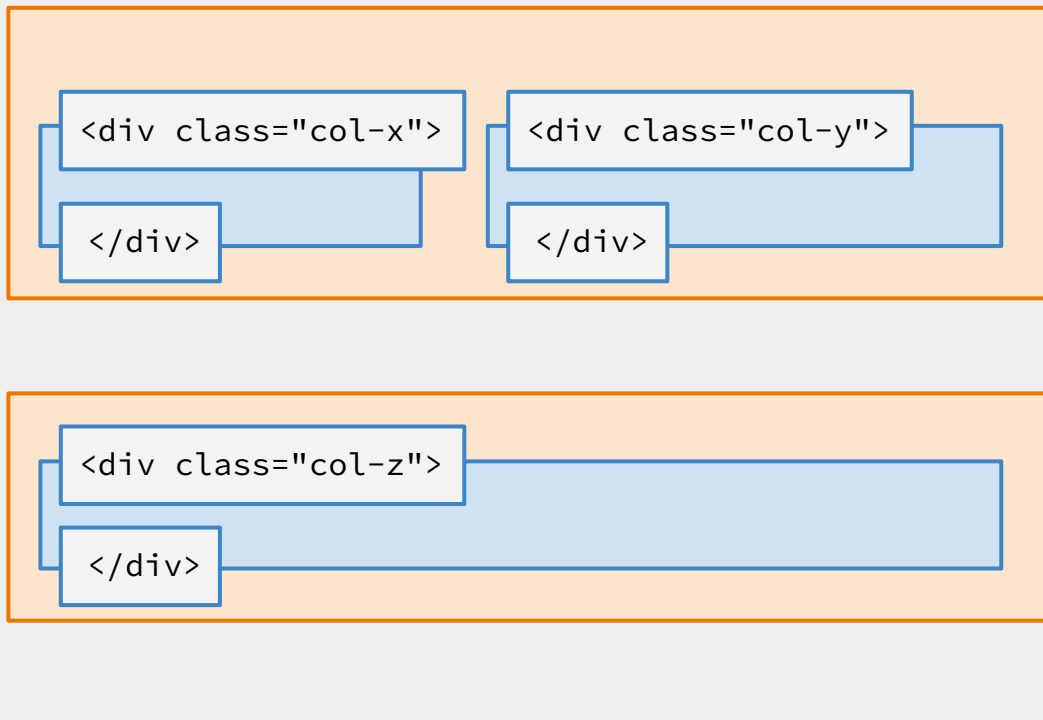
## How HTML/CSS frameworks work

Within the container, you place rows to separate your content.



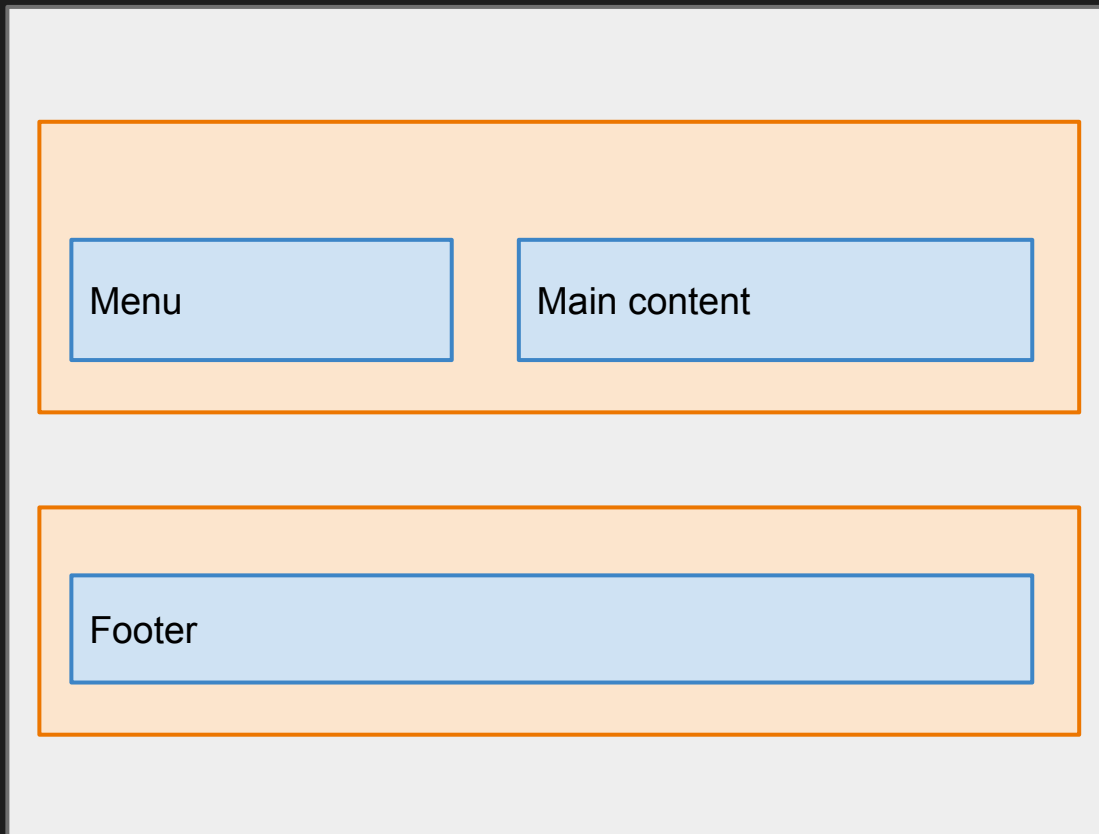
## How HTML/CSS frameworks work

Within each row, you place columns to further separate your content.



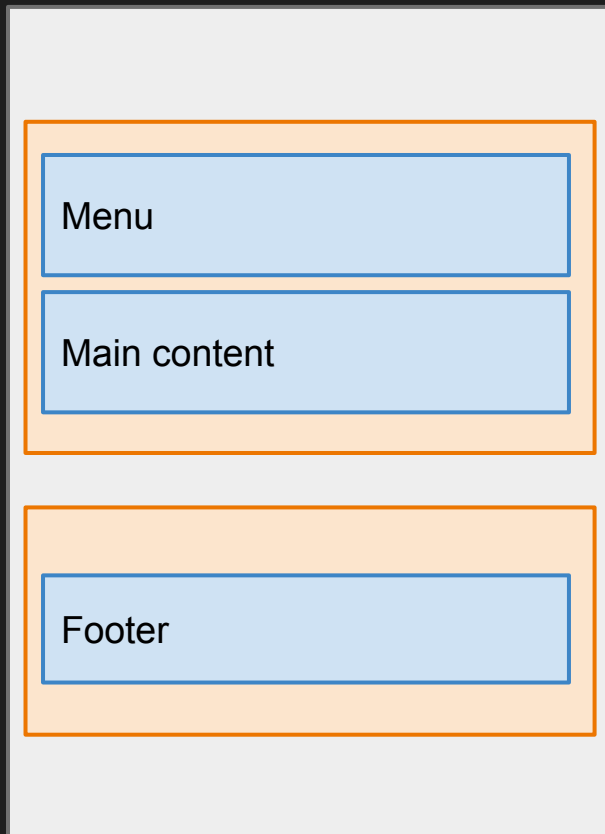
## How HTML/CSS frameworks work

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



## How HTML/CSS frameworks work

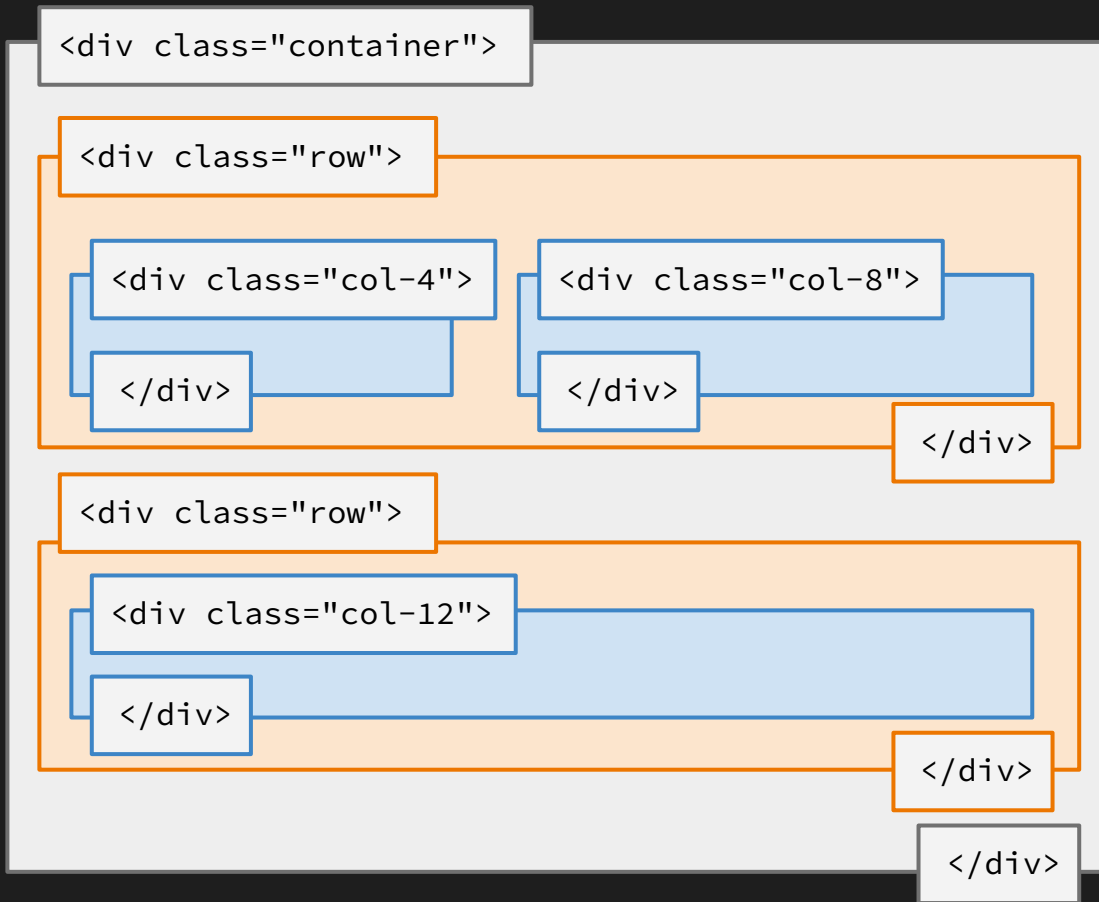
On a smaller screen, the page could look something like this.



## How HTML/CSS frameworks work

Usually, frameworks come in 12-column layouts.

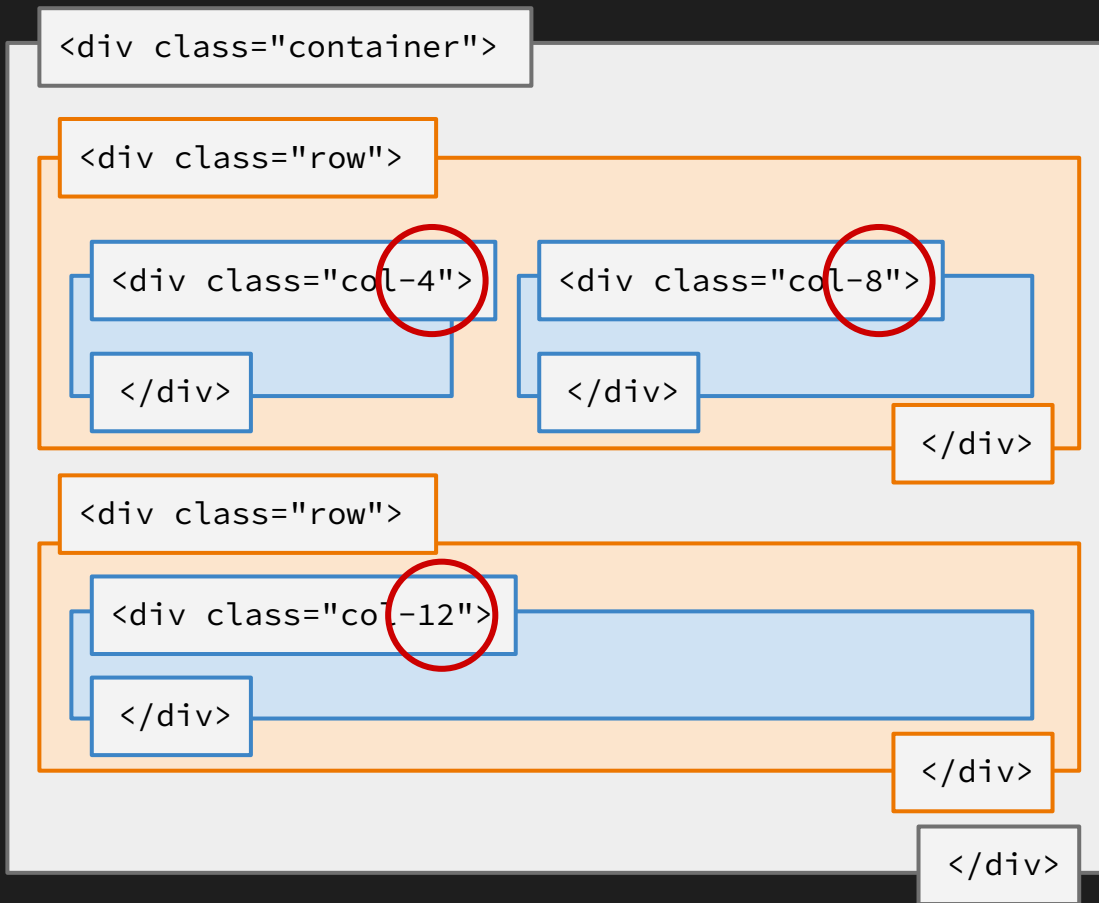
That means, the **columns** of each **row** need to add up to **12**.



## How HTML/CSS frameworks work

Usually, frameworks come in 12-column layouts.

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

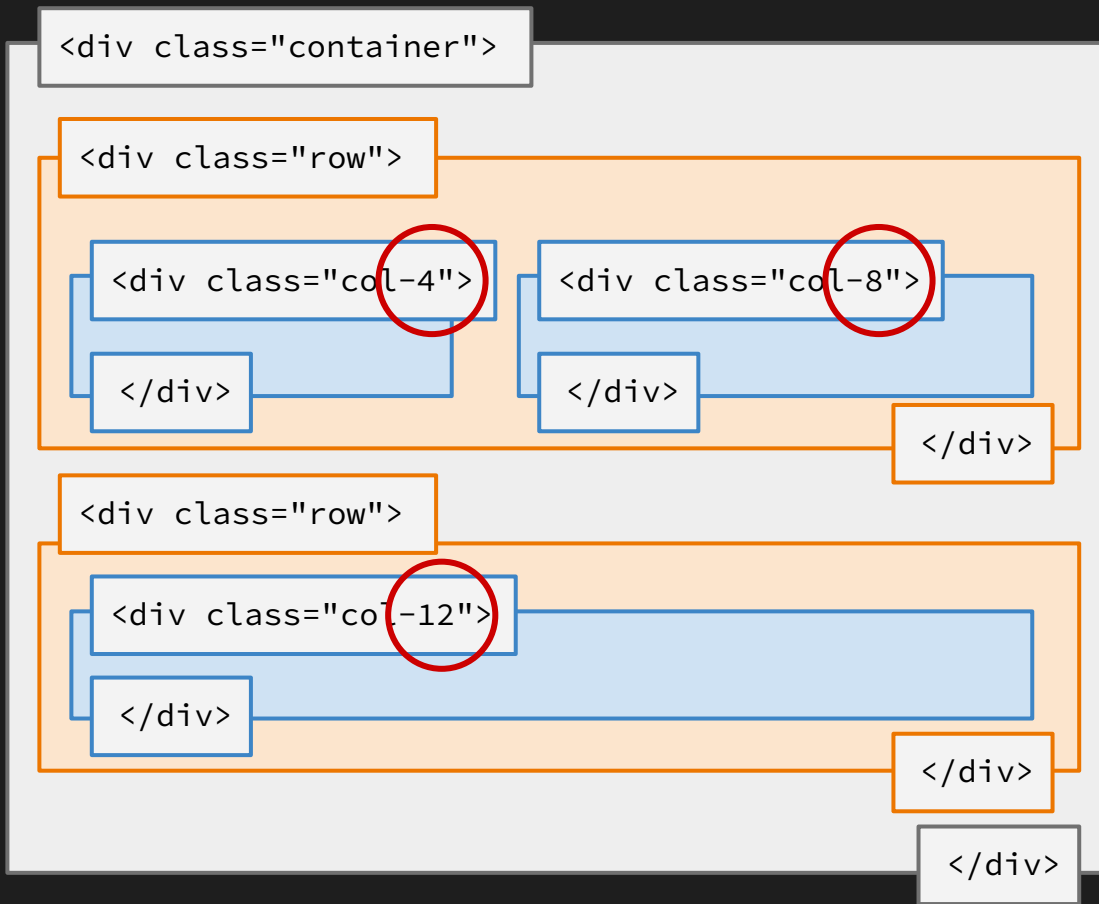




## How HTML/CSS frameworks work

Usually, frameworks come in 12-column layouts.

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



# 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 [CSS for different languages](#).)

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



Open frameworks.html

# What questions do you have?

# More to explore

## More to explore

position

multiple-column  
layout

grid layout, flexbox

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

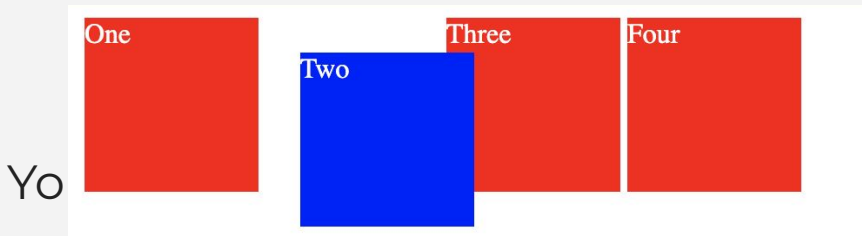
## More to explore

position

multiple-column  
layout

grid layout, flexbox

The CSS property [position](#) allows you to fine-tune exactly how elements are laid out on your web page.



**media\_queries.html** from the examples.

# More to explore

position

multiple-column  
layout

grid layout, flexbox

This can be bad  
to use because  
readers aren't  
used to reading  
like this on a  
website!

The [multiple-column layout](#) 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 porttitor imperdiet nunc, at ultricies tellus laoreet 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.

## More to explore

position

multiple-column  
layout

grid layout, flexbox

[CSS grid layouts](#) are similar to [flexbox](#), 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.



## More to explore

position

multiple-column  
layout

grid layout, flexbox

Internet Explorer and some mobile browsers don't support **grid layouts** or **flexbox** very well.

# Homework

<https://journ220.github.io>

## Previous final projects 2022

- [https://zhongleqi.github.io/leqizhong\\_final\\_reresubmit/home.html](https://zhongleqi.github.io/leqizhong_final_reresubmit/home.html)
- <https://jiyuntsai.github.io/project-ousd-library-closure/>
- <https://juliametraux.github.io/vasculitis/>
- <https://madtaub.github.io/photography-portfolio/>
- <https://oliviazhaoxu.github.io/>
- [https://mengyuan616.github.io/jacksonville\\_story/](https://mengyuan616.github.io/jacksonville_story/)
- [https://zhiwae97.github.io/Nature\\_CA/](https://zhiwae97.github.io/Nature_CA/)
- <https://bscannestra.github.io/final/>

# Homework

<https://journ220.github.io>

## Previous final projects 2023

- <https://the-nazmul.github.io/website/ejk/>
- <https://guptaa-saumya.github.io/>
- <https://ucbsoj.github.io/LaRussell/>
- [https://simmerdeepkaur.github.io/Intro\\_To\\_Coding\\_Final\\_Project/](https://simmerdeepkaur.github.io/Intro_To_Coding_Final_Project/)
- <https://katherineli19.github.io/>
- <https://tarinimehta.github.io/amandajenkins.github.io/>
- <https://kateraphael.github.io/>
- <https://jere-o-rhodes.github.io/sf-elders/>

start Zoom recording + captions

# Homework

<https://journ220.github.io>

**Please help  
clean up:** close  
windows,  
return tables,  
etc.