J220
Coding for Journalists

LECTURER
Soo Oh

Lecture will start at 6:10 pm

- Take a look at the syllabus here: https://journ220.github.io

- Go to this link and register for Poll Everywhere: https://pollev.com/soooh
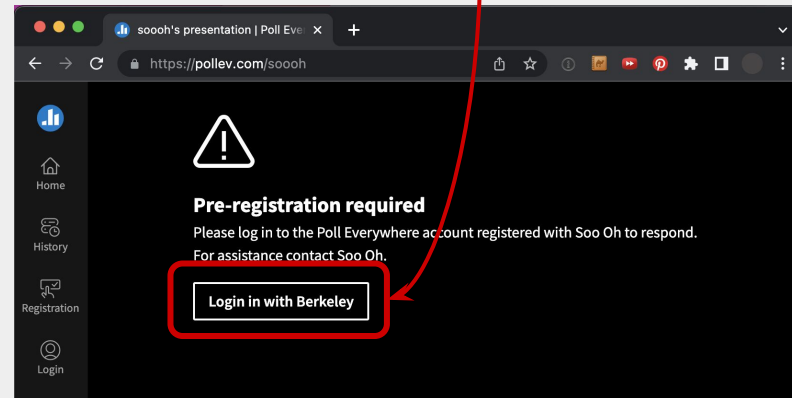
start Zoom recording

Agenda

Introductions

About J220

- How this class works
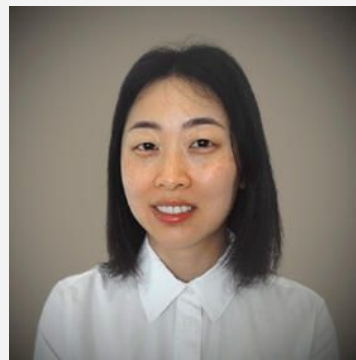- Policies (grades, COVID, office hours)

BREAK

The building blocks of HTML

Homework

Introductions

Yoli Martinez

Soo Oh

Why are you taking this class?

👐 0

Nobody has responded yet.

Hang tight! Responses are coming in.

About J220

This section used to be a set of slides.

But it's all on the website, so let's go check it out (and go through the website together, too).

https://journ220.github.io

Miscellaneous

Agreements

Final project

Extra credit

Our agreements with each other

We will post preliminary slides ahead of lecture.

We will be available by office hours.

You will keep up with assignments.

You will come to office hours if you're having trouble.

Miscellaneous

Agreements

Final project

Extra credit

Your final project will be to design and build a website. The rubric will be available on bCourses.

Miscellaneous

Agreements

Final project

Extra credit

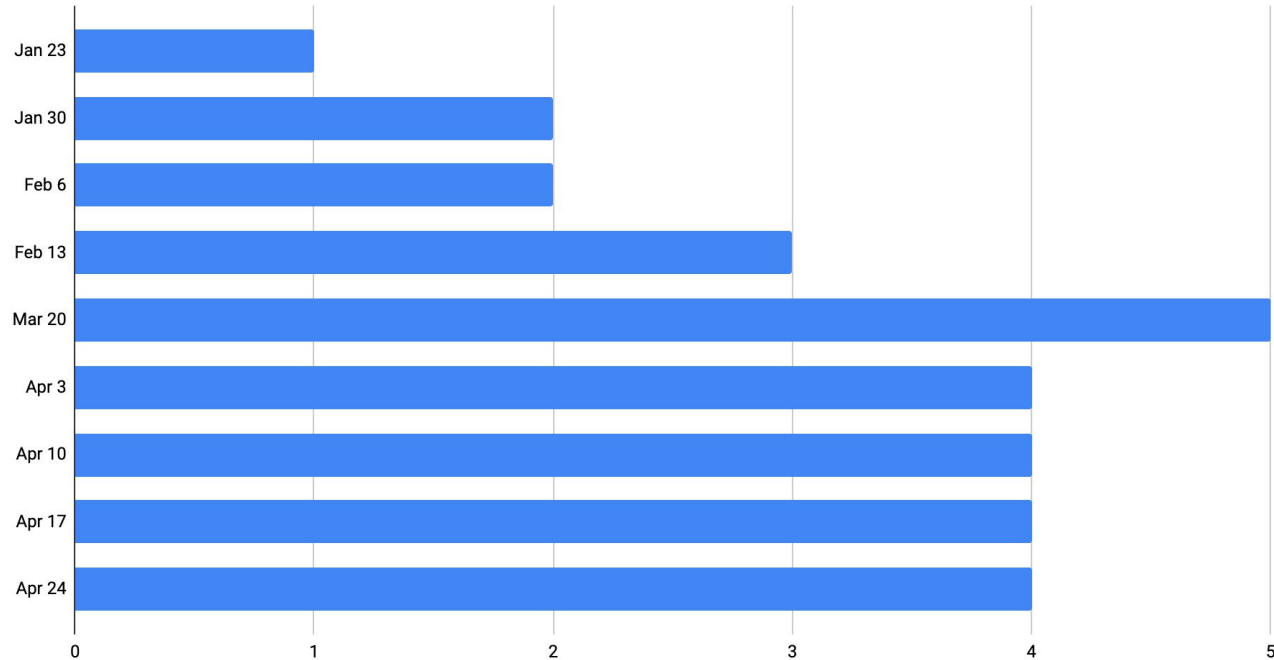There are many extra credit opportunities in this class.

- If you book and attend office hours, you will **receive 1 point per week**.
- Almost every week, we will ask you how much time you spent on the class outside of lecture for **1 point.**
- Mid-semester evaluation: **10 points**

Previous J220 feedback

elective ≠ easy

Typical time spent on J220 in Spring 2023

Median hours per week

What has been most helpful for your learning?

In-class activities (7)

Homework is practical/useful (5)

Reviewing slides/recording (5)

Homework review (2)

Real world examples

Code academy links

Accessibility focus

What has caused you the most difficulty in terms of learning?

Moving too fast (7)

Understanding concepts (6)

Too many tangents and hypotheticals (4)

HW including material not reviewed in class (2)

If this happens, it'll be extra credit

Class moving too slow (2)

Time constraints outside of class

What suggestion(s) can you make that would enhance your learning experience?

Speed of class (some concepts too fast, others too slow) (5)

More in-class activities (4)

More individual work (3)

More practical assignments

More visual aids

Career opportunities

Changes we made to J220 for 2024

- We removed one guest lecture to spread out what you're learning (a.k.a. going slower).

- We have one additional JavaScript lecture.

- We have more hands-on exercises.

- The final project rubrics will be posted on bCourses early.

Questions?

What time does lecture start on Mondays?

6:00 pm

0

6:10 pm

0

6:15 pm

0

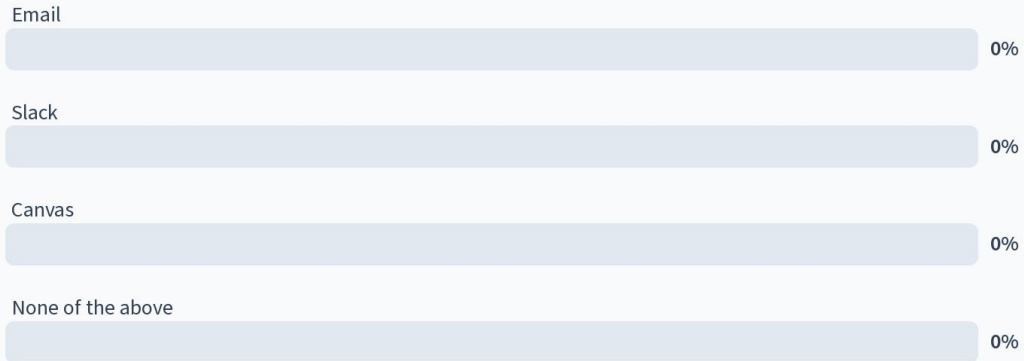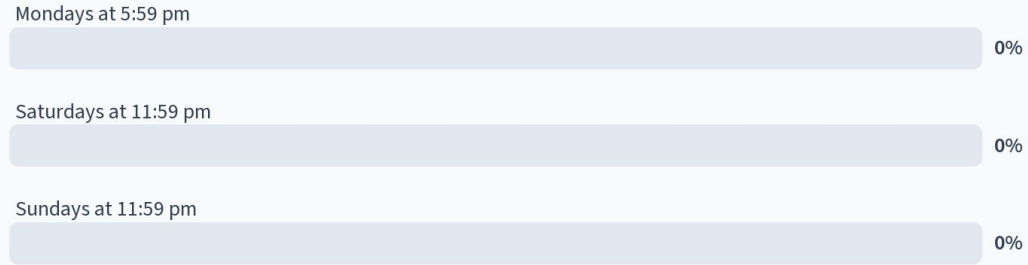**If lecture has to move to Zoom, where will that be announced?**

Email

0%

Slack

0%

Canvas

0%

None of the above

0%

When are homework assignments typically due?

Mondays at 5:59 pm

0%

Saturdays at 11:59 pm

0%

Sundays at 11:59 pm

0%

An assignment with no mistakes that is turned in late one minute after the deadline will receive what grade?
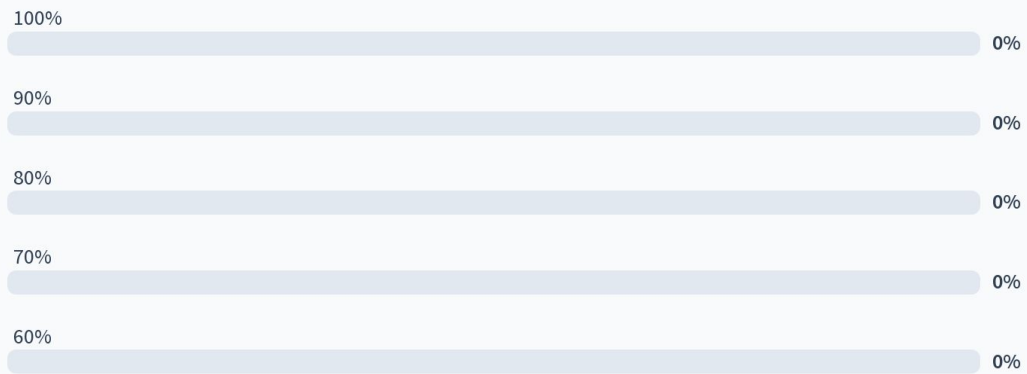
100%   0%

90%   0%

80%   0%

70%   0%

60%   0%

Break

Meet back in 15 minutes.

start Zoom recording

Intro to HTML

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

Hyper**t**ext **M**arkup **L**anguage

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

Hyper**t**ext **M**arkup **L**anguage

"Hypertext" is text that can link out to other things.

To "mark up" hypertext is to label text so a browser can structure it properly.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```
My dog is a Korean Jindo mix.
```

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```
<p>My dog is a Korean Jindo mix.</p>
```

<p> tags are used for paragraphs.

HTML

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accessibility

commenting out
HTML

```
<p>My dog is a Korean Jindo mix.</p>
```

opening tag

closing tag

There's an opening tag and a closing tag.
The closing tag has a **slash** in it.

HTML

HTML element

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commenting out HTML

Opening paragraph tag

`<p>`

Closing paragraph tag

`</p>`

HTML

HTML element

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accessibility

commenting out HTML

content

```
<p>My dog is a Korean Jindo mix.</p>
```
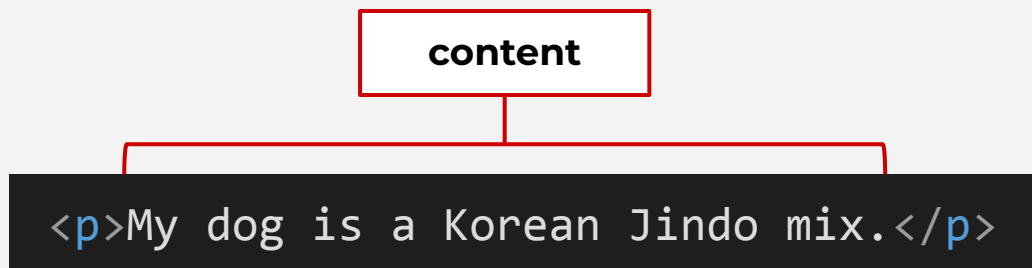
The stuff between the tags is the **content**.

HTML

HTML element

```
element
```

```html
<p>My dog is a Korean Jindo mix.</p>
```

The opening tag, the closing tag, and what's in between those tags make up an **element**.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a>
mix.</p>
```

To create a link, we'll use **<a>** (anchor) tags.

HTML

HTML element

element attributes

nesting elements

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accessibility

commenting out HTML

```
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a>
mix.</p>
```

attribute

Elements can have **attributes**. An attribute is everything inside a tag that's not the actual tag itself.

href stands for hypertext reference

HTML

HTML element

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empty elements

accessibility

commenting out HTML

attribute **name/key**

```
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a>
mix.</p>
```

attribute **value**

Most attributes come in key/value pairs...

- **href** is the **name** or **key** of the attribute
- **http://www.jindos.org** is the attribute's **value**

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```
<input disabled>
```

… but sometimes you'll come across attributes without values.

- **disabled** is the **name** of the attribute. The attribute has no value.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```html
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a>
mix.</p>
```

Nesting elements: placing an element inside another element

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```html
<p>My dog is a <a href="http://www.jindos.org">Korean Jindo</a> mix.</p>
```

Proper nesting

```html
<p><a></a></p>
```

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```html
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a>
mix.</p>
```

Improper nesting

```html
<p><a></p></a>
```

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

Imagine an element as a box and lid.

Image credit: Logistock

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

Image credit: Logistock

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

You match up the box and lids. Boxes can be nested inside other boxes, and multiple boxes can be nested within a single box.

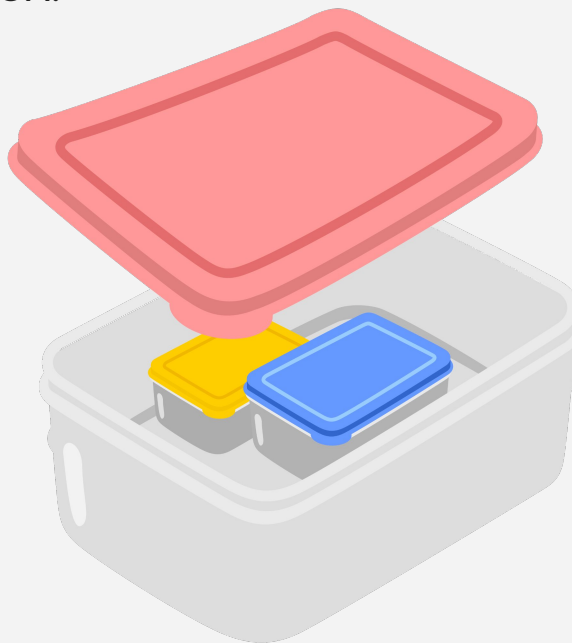Image credit: Logistock

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

But you can't match up boxes that don't match with their lids. It doesn't make sense. It's chaos.

Image credit: Logistock

HTML

Q. Proper nesting or improper nesting?

```
<p><strong><a></a></strong></p>
```

(The `<strong>` tag is used to make text **bold**.)

Proper nesting or improper nesting?

👐 0

proper

0

improper

0

```
<p><strong><a></a></strong></p>
```

HTML

Q. Proper nesting or improper nesting?
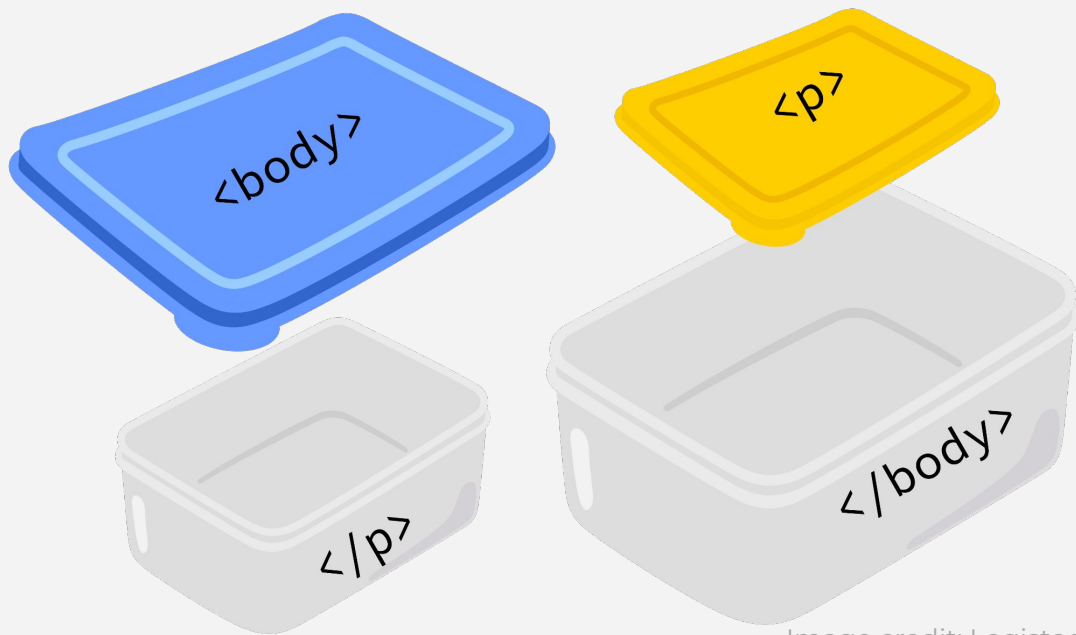
```
<p><strong><a></a></strong></p>
```

A. Proper nesting!

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

Q. Proper nesting or improper nesting?

```
<p><strong></strong><a></a></p>
```

Proper nesting or improper nesting?

◊ 0

proper

0

improper

0

```
<p><strong></strong><a></a></p>
```

Start the presentation to see live content. For screen share software, share the entire screen. Get help at **pollev.com/app**

Q. Proper nesting or improper nesting?

```
<p><strong></strong><a></a></p>
```

A. Proper nesting!

HTML

Q. Proper nesting or improper nesting?

```
<p><strong><a></strong></a></p>
```

Proper nesting or improper nesting?

👁 0

proper

0

improper

0

```
<p><strong><a></strong></a></p>
```

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

Q. Proper nesting or improper nesting?

```
<p><strong><a></strong></a></p>
```

A. Improper nesting!

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

Most elements will have an opening tag and a closing tag.

However, **empty elements** do not need two separate opening and closing tags. Empty elements don't have content.

One kind of empty HTML element is the `<img>` tag, used to embed images onto a web page.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```
<img src="https://soooh.net/assets/
images/6b0b8001-320.jpg" alt="medium
black-and-tan dog laying on rug">
```

`<img>` is the tag for embedding images.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```
<img src="https://soooh.net/assets/
images/6b0b8001-320.jpg" alt="medium
black-and-tan dog laying on rug">
```

<img> is the tag for embedding images.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```
<img src="https://soooh.net/assets/
images/6b0b8001-320.jpg" alt="medium
black-and-tan dog laying on rug"/>
```

can also end with a slash and closed angle bracket

`<img>` is the tag for embedding images.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```
<img src="https://soooh.net/assets/
images/6b0b8001-320.jpg" alt="medium
black-and-tan dog laying on rug">
```

attributes

Empty elements don't have content but they can have **attributes**. Remember, an attribute is everything inside a tag that's not the actual tag itself.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```
<img src="https://soooh.net/assets/
images/6b0b8001-320.jpg" alt="medium
black-and-tan dog laying on rug">
```

Above, the `<img>` element has two attributes, `src` (source) and `alt` (alternative text).

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```
<img src="https://soooh.net/assets/
images/6b0b8001-320.jpg" alt="medium
black-and-tan dog laying on rug">
```

A `<img>` element won't work without a `src` attribute. That's the file location of the image.

But what is `alt`?

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```html
<img src="https://soooh.net/assets/images/6b0b8001-320.jpg" alt="medium black-and-tan dog laying on rug">
```

Accessibility is the practice of making your product usable to as many people as possible.

In HTML, element tags, attributes, and even the written content of your site can determine how accessible it is to users.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```html
<img src="https://soooh.net/assets/images/6b0b8001-320.jpg" alt="medium black-and-tan dog laying on rug">
```

The **alt** text attribute in an **<img>** element is a text-based description of the image.

HTML

```
<img src="https://soooh.net/assets/images/6b0b8001-320.jpg" alt="medium black-and-tan dog laying on rug">
```

The **alt** text attribute in an **<img>** element is a text-based description of the image.

screen readers will read this text out loud

BROWSER OUTPUT WITH SLOW CONNECTION

medium black-and-tan dog laying on rug

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

Who might benefit from image alt text?

- visually impaired people
- people with slow Internet
- people on a mobile device

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out HTML

```
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a> mix.
Adoption story TK.</p>
```

Sometimes, you'll want to hide text from the browser.

HTML

HTML element

element attributes

nesting elements

empty elements

accessibility

commenting out
HTML

```
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a> mix.
<!-- Adoption story TK. --></p>
```

Use **<!--** and **-->**.

Review

Which parts of the HTML are attributes?

✔ 0

A

0

B

0

```
A   B
<a href="https://journ220.github.io"
target="_blank">Class website</a>
   C          D          E
```

C

0

D

0

E

0

Which of the following denote an HTML comment? ✅ 0

A
0

B
0

C
0

None of the above
0

```
A.  # Comment



B.  <!-- Comment -->



C.  // Comment
```

Start the presentation to see live content. For screen share software, share the entire screen. Get help at **pollev.com/app**

What's wrong with the nesting here? ✓ 0

```
<main>
  <h1><a></h1></a>
  <p><a><img></a></p>
  <ul>
    <li></li>
    <li><a></li></a>
  </ul>
</main>
```

Nobody has responded yet.

Hang tight! Responses are coming in.

In-class exercise

Combining HTML elements

WHAT I WANT

My dog is a [Korean Jindo](#) mix.

I adopted her a couple years ago from a rescue.

Use the cards to recreate the image.

Use the blank pieces of paper to write in content, attributes, and values that don't exist.

Combining HTML elements

HTML

```
<p>My dog is a <a href="http://
www.jindos.org">Korean Jindo</a>
mix.</p>

<p>I adopted her a couple years ago
from a rescue.</p>

<img src="https://soooh.net/assets/
images/6b0b8001-320.jpg" alt="medium
black-and-tan dog laying on rug" />
```

BROWSER OUTPUT

My dog is a [Korean Jindo](#) mix.

I adopted her a couple years ago from a rescue.

Homework

https://journ220.github.io