CSS and other Libraries

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Reminders (…again)

- Hackathon tomorrow night from 7PM - 1AM (ET)
  - last chance to get live help from staff before milestone 2 is due
  - PLEASE COME TO WORK ON MILESTONE 2
- Milestone 2 (MVP) is due **THIS COMING TUESDAY**, Jan 18 at 6PM sharp.
  - https://weblab.mit.edu/about/#milestones
  - ALL milestones are required to get credit or compete
- Read the pinned Piazza posts
  - skeleton code (typescript version also available)
  - lots of other useful resources!
- Tomorrow: How to deploy & more
  - Essential lecture, your MVP must be deployed!

What is milestone 2 is it the MVP
Yes totally forgot about that

What are libraries and why do I care?

- Official definition: "A library is also a collection of implementations of behavior, written in terms of a language, that has a well-defined interface by which the behavior is invoked."
- Translation: a bunch of code other people already wrote that you can incorporate into your own projects!
  - Our utilities.js is a library of sorts
  - Libraries can be very helpful if you're short on time or have some complicated feature to implement

You've been using libraries this whole time

Libraries can do basically everything!

For basically any task you can think of, there's probably a library that can help.

To get your imagination flowing, we'll look at:

- CSS libraries
- a music library
- a graphics library

We'll re-style some forms in Catbook, add a music-playing button, and a 3D graphics animation for fun!*

* we might run out of time since this lecture got cut short 15 min

There's a catch… as always

- Using a library is all fine and dandy… if you know how to use it already
- We could spend the entire Spring semester talking about React alone!
- If you decide to use a library, be ready to spend at least as much time reading the documentation (if it exists) for it as you plan to spend actually coding

Other Info Before We Get Started

- To install a library, all you need is `npm install library_name`
- To actually use it, include `import library_name` at the top of relevant js files

CSS Libraries

- Let's take a look at 2 examples of CSS libraries: Tailwind and Ant Design
  - (there are a lot more out there. we are just looking at these because they're the ones Vincent has used before)
  - Tailwind: you still write all the css yourself, but it's faster
  - Ant Design: you get pre-styled components someone else wrote
- We'll style a form using each library
- **Warning**: These are convenient at times, but it will often be faster and easier to just implement your own HTML and CSS

Setup and Other Info

Tailwind CSS:

- https://www.geeksforgeeks.org/introduction-to-tailwind-css/
- https://tailwindcss.com/docs/box-shadow

Ant Design:

- Install, then add `import 'antd/dist/antd.css';` to App.js
- https://ant.design/components/overview/

Music Example!

https://www.abcjs.net/

Graphics Example!

https://threejs.org/

For those a little curious

You can do "git checkout many-libraries" to see it for yourself!

Note: output will be at localhost:5050 and not localhost:5000, because Vincent's computer is weird. and you have to npm install first