Starting soon!

React (pt. 4) & Git

JFSS CS Club 2022/23
Aritro
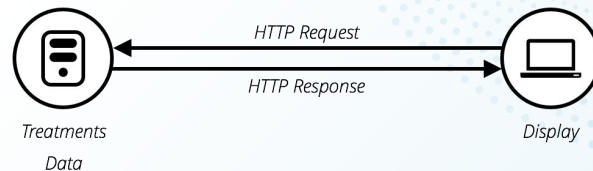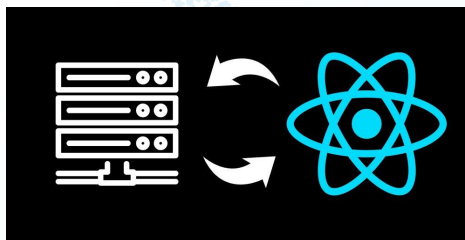
Data Fetching

Data Fetching

- Allows us to get info from an API
  - Ex. products from database
- What is an API?
  - Application Programming Interface
  - Lets us talk to server / database, get specific info

Treatments Data — HTTP Request / HTTP Response — Display

Data Fetching

- Many libraries to fetch data
- Built-in method: **Fetch API**
  - Can use fetch() on any link, and get response

Fetch API Example

```javascript
async function fetchData() {
  const res = await fetch("https://my.fake.website/interesting_data.json");
  const data = await res.json();

  return data;
}
```

Async/Await (quick)

- What does async/await mean?
- Async: short for asynchronous
  - Type of function
  - Allows to run time-consuming actions separately (ex. fetching data)
  - Can do other stuff while it fetches data (ex. render UI on screen)

Async/Await (quick)

- Await: wait for async function
  - Treat async function as synchronous
  - Shares benefits of async code, while looking clean
  - Helps us avoids this

```
1   // Callback Hell
2
3
4   a(function (resultsFromA) {
5       b(resultsFromA, function (resultsFromB) {
6           c(resultsFromB, function (resultsFromC) {
7               d(resultsFromC, function (resultsFromD) {
8                   e(resultsFromD, function (resultsFromE) {
9                       f(resultsFromE, function (resultsFromF) {
10                          console.log(resultsFromF);
11                      })
12                  })
13              })
14          })
15      })
16  });
17
```

Trying fetch()

API Link

https://frasercodes.vercel.app/fakeapi/products.json

Git & GitHub

What is Git?

- Version control system (VCS)
- Allows us to track & manage changes in code
- Essential for collaboration
  - Track 5Ws for each change
  - Can work on different versions of code at once

Git Structure
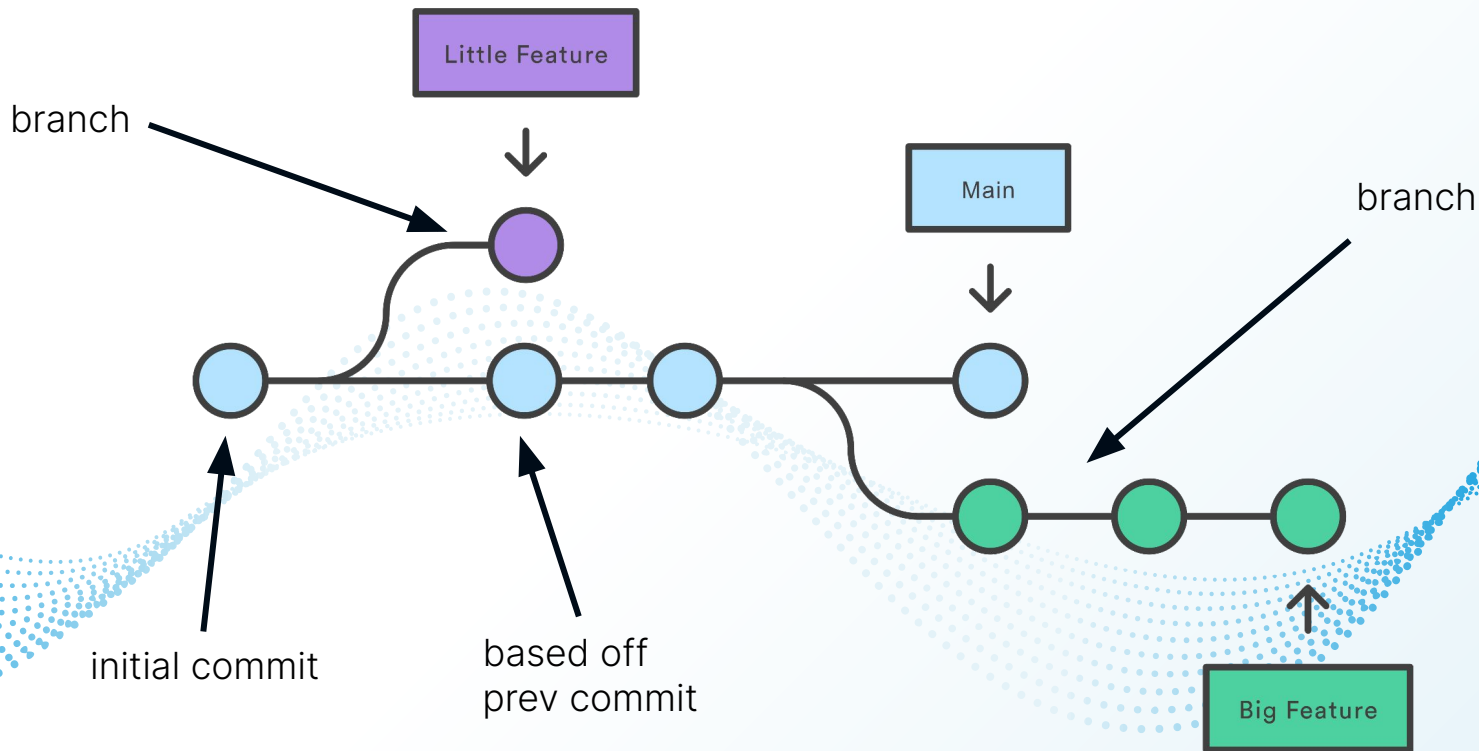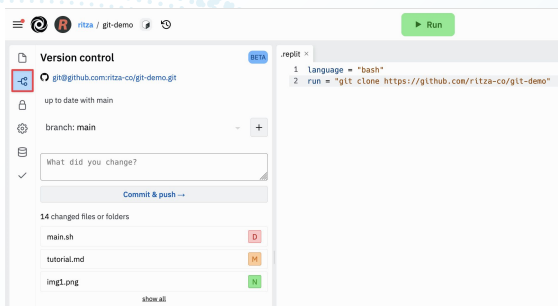
What is GitHub?

- Place to upload Git repositories
- Allows for easy collaboration
- Has many other features
  - Web hosting, continuous integration, etc.
- Different from Git
  - Git is the system, GitHub stores the data

Signing up for GitHub

Using Git - Repl.it

- Controllable through this icon in sidebar
  - Can run git commands w/o memorizing them
- Can also use shell (what we'll be doing)

Using Git - Local

- Install it! (if you don't have it)
    - Windows: https://git-scm.com/
    - Mac:
        - xcode-install --install
        - brew install git (if you have brew)
    - Linux:
        - depends on your distro
        - try using default package manager

Using Git - Shell

- Important commands:
  - git init → initializes a repository
  - git add → prepare to add file(s)
  - git commit → create snapshot of added files
  - git push → upload to GitHub

Publishing our Projects to GitHub

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