Let's learn more about JSX and components
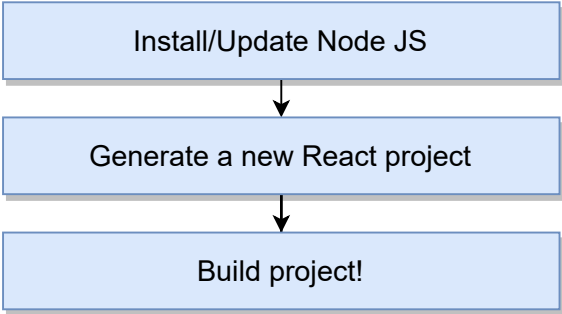
CodeSandBox is great, but not often used for professional projects

Let's generate a new *local* React project!

Goals

Install/Update Node JS

Generate a new React project

Build project!

Generating a Project

npx create-react-app jsx

To start your project up

- Change into your project folder
- Run
  npm start

To view your project

Open your browser and navigate to
localhost:3000

To stop your project

Press
Control+C
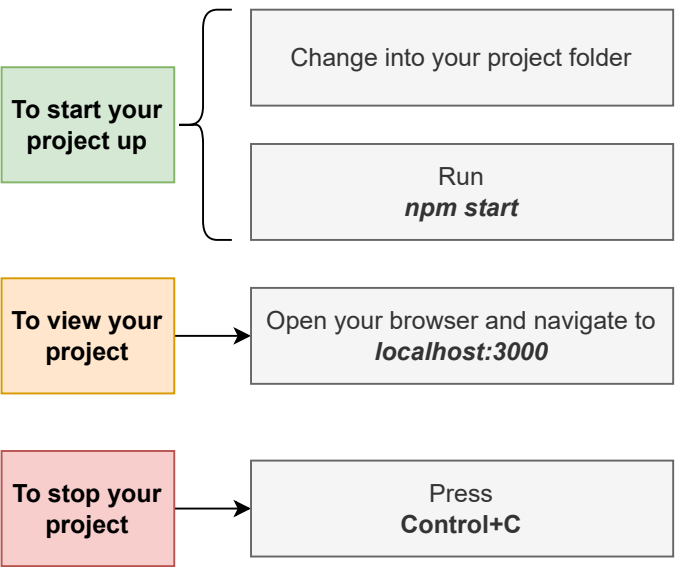
Why are we running something at our terminal?

What are all these files and folders?

Files in Your Project

index.js

App.js

reportWeb
Vitals.js
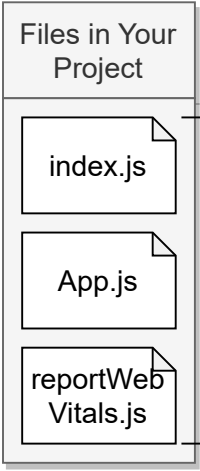
Files that contain code that a browser doesn't know how to execute

Files in Your Project

App.js

```
function App() {
  return <div>
    <header />
  </div>
}
```
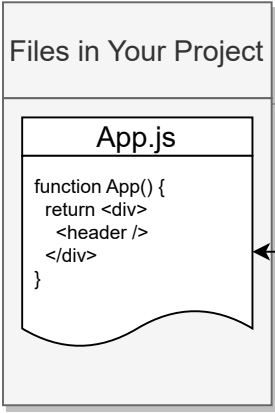
Browser don't know how to execute JSX! It isn't valid Javascript!

Files in Your Project

index.js

App.js

reportWeb
Vitals.js

Create React App Dev Server

Babel → **Webpack** → bundle.js

Tool to turn JSX into normal JS code

Tool to merge all project files into a single file

```
JSX
> node_modules ──────────────────► Folder with all the dependencies required to run our project
∨ public
    ★ favicon.ico ─────────────────► Icon that shows up on a browser tab
    <> index.html ─────────────────► HTML file used to start our app
    🖼 logo192.png ────────────────► Big React logos
    🖼 logo512.png
    {} manifest.json ──────────────► File used for progressive web apps (used for mobile devices)
    ≡ robots.txt ──────────────────► Used to tell search engines about our app
∨ src
    # App.css ─────────────────────► CSS styling
    JS App.js ─────────────────────► Main App component for our app
    JS App.test.js ────────────────► Code to test the App component
    # index.css ───────────────────► CSS styling
    JS index.js ───────────────────► Main startup file
    🟣 logo.svg ───────────────────► React logo
    JS reportWebVitals.js ─────────► Monitoring and statistics
    JS setupTests.js ──────────────► More testing code
  ◆ .gitignore
  {} package-lock.json ────────────► Lists the dependencies our project needs to work correctly
  {} package.json
  ① README.md
```

File	Description
index.js	First file that gets executed when our app runs
index.html	Skeleton for the React app
package.json	Lists dependencies our app needs
package-lock.json	Lists dependencies our app needs
node-modules	Contains dependencies our app needs

React	→	Library that defines what a component is and how multiple components work together

ReactDOM	→	Library that knows how to get a component to show up in the browser