Intro to Web Dev

(Using React/NextJS + tailwindCSS!)

Who am I?

Hi there! I'm Brendan, currently the Dev team lead at Surge!

I've been making sites in React for about 4 years now and having that skill it has taken me all the way to an nwHacks finalist position!
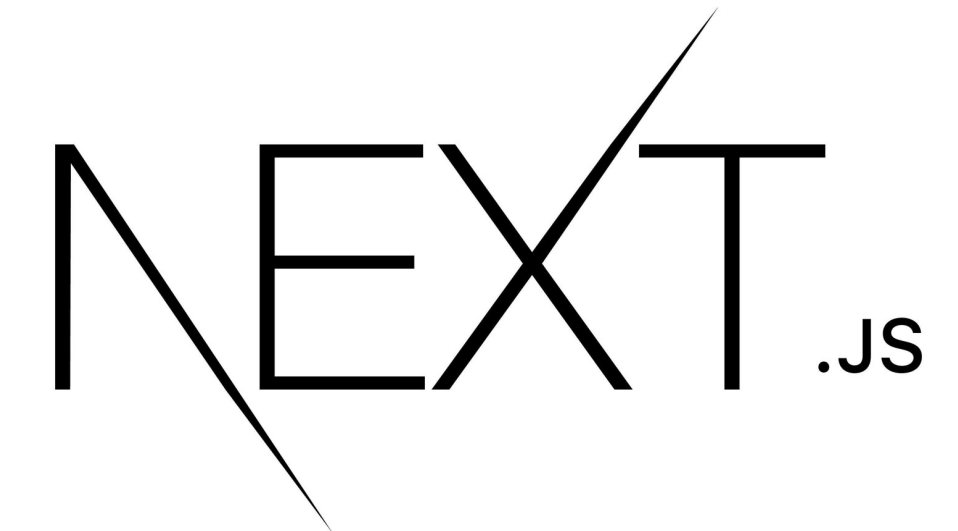
Come to me if you have Hacker Portal Problems!

What will we be learning/doing today?

By the end of this workshop, hopefully you all will be able to take away some web development skills into your own projects so that you are better equipped to create fantastic websites.

We will:

- Configure a NextJS project.

- Transform a design into code (using tailwindCSS and React).

- Put the project up on GitHub.

- Host the site on Vercel.

Today, we will only be able to cover some basic frontend, but there's a whole world of materials out there online to help you learn and troubleshoot your problems.

Before we start...

We'll need to install some prerequisites.

VSCode

Your code editor: code.visualstudio.com/download

NodeJS

The runtime environment: nodejs.org/en/download

GitHub Desktop

What you'll use to share your project online: desktop.github.com/download

Let's continue once everyone is finished installing...

So, what even is React, NextJS, and tailwindCSS?

- The three pieces needed for any website are HTML (provides the structure), CSS (outlines how things are styled) and JavaScript (which allows for interactivity).

- Writing each of these separately is fine, but when you scale a project up, these becomes a real pain, especially when making complex applications that require lots of user interactivity.

```
<html>
  <head>
    <title>My Site</title>
  </head>
  <body>
    <h1>Welcome</h1>
    <p>
      🖊️Pen 🍍pineapple 🖊️pen
    </p>
  </body>
</html>
```

So, what even is React, NextJS, and tailwindCSS?

- As a result, people created JavaScript frameworks, which aim to simplify making interactive websites.

- There are many frameworks, but one of the most popular ones is called React, which was created by Facebook in 2014.

```
function Form() {
    const [username, setUsername] = useState("");

    function submit() {

        // will print out typed username
        console.log(username);
    }

    return (
        <div>
            <input
                type="text"
                value={username}
                onChange={(e)=>setUsername(e.target.value)} />

            <div onClick={submit}>
                Submit
            </div>
        </div>
    )
}
```

So, what even is React, NextJS, and tailwindCSS?

- React is has many offshoots, one of which is called NextJS, which we will be using today for its simplicity in deployment.

- tailwindCSS also was created for a similar purpose; to speed up the styling process.

Today, we'll be using all three of these to whip up a website fast!

```
function Profile() {
  return (
    <div className="bg-slate-100 rounded-xl">
      <h1 className="text-3xl font-bold underline">
        Elong Ma
      </h1>
    </div>
  )
}
```

What makes React so special?

- React makes use of JSX (JavaScript Extensible Markup Language)

- It basically allows for the logic portion (JavaScript) to coexist a lot closer to the structure and style of a web page (HTML and CSS)

- It makes development of interactive sites super fast and convenient.

Heading.jsx

```jsx
export default function Heading() {
    return (
        <h1 className="headingText">
            Hello
        </h1>
    )
}
```

Looks like HTML, but it's actually JSX

```jsx
export default function Heading() {
    const welcomeMessage = "Hello"

    return (
        <h1 className="headingText">
            {welcomeMessage}
        </h1>
    )
}
```

Okay, lets get started!

Access This Project.

It is also available online in the
JourneyHacks discord Server!