

Workshop Technology

JavaScript Frameworks

What is a framework?

- A framework is a library that offers **opinions** about how software gets built.
- These opinions allow for **predictability** and **homogeneity** in an application.
 - Predictability allows software to scale to an enormous size and still be maintainable.
 - Predictability and maintainability are essential for the health and longevity of software.

Vanilla JS or Framework?

- Vanilla JS
 - A less complex site, for example a personal to-do list or a site that displays mostly static content
- Framework
 - A large site with a complex UI. Frameworks provide solutions to common problems that would take an absurd amount of time and patience to implement with pure JavaScript.

Stack-Overflow survey 2023

<https://survey.stackoverflow.co/2023/#section-most-popular-technologies-web-frameworks-and-technologies>

React

Get started with React (1/2)

- `pnpm create vite`
 - Project name: vite-project
 - Select a framework: React
 - Select a variant: JavaScript + SWC

Get started with React (2/2)

- `cd vite-project`
- `pnpm install`
- `code . -r`
- `pnpm run dev`

Customization (1/2)

- Title
 - Change this line in `index.html`.

```
<title>My very cool title</title>
```

Customization (2/2)

- Favicon
 - <https://www.favicongenerator.io/>
 - Make favicon and download.
 - Extract `favicon.svg` into `public` folder
 - Change this line in `index.html`.

```
<link rel="icon" type="image/svg+xml" href="/favicon.svg" />
```

Reset

- Clear content in `src/index.css` and `src/app.css`
- Replace `src/App.jsx` with

```
function App() {  
  return <></>;  
}  
  
export default App;
```

Styling

- Add the following line at the top of `src/App.jsx`

```
import './App.css';
```

- You can now type CSS in `src/App.css`

Build

- `pnpm run build`

Preview

- `npm run preview`

Deploy

- Deploy `./dist` folder to Netlify.

Modernize your app

Steps

- Get code by asking [Claude](#)
"Make this React page look more modern wiht TailwindCSS and no component library."
- Replace your code in `src/App.jsx`
- Add following in `index.html`

```
<script src="https://cdn.tailwindcss.com"></script>
```


Todo App

Steps

- "Create" a new project and "reset" the project (see previous slides).
- Get code by asking Claude
 - *"Write a todo React application with TailwindCSS and no component library."*
- Paste code in `src/App.jsx`
- Add following in `index.html`

```
<script src="https://cdn.tailwindcss.com"></script>
```

Telegram message sender

Steps

- Sign up for telegram.
- Talk to `@BotFather`
 - Type `/newbot`
 - Keep `TOKEN`
- Talk to the bot.
- Get `CHAT_ID` from
 - `https://api.telegram.org/bot{TOKEN}/getUpdates`

Steps

- Get code by asking Claude
 - *"Write a react application that can send message to Telegram using TailwindCSS and no component library."*
- `pnpm install lucide-react` (Potentially optional)
- Add following in `index.html`

```
<script src="https://cdn.tailwindcss.com"></script>
```

- You might need to add proxy server.
 - `https://cors.iecmu.com`