

# 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 with 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`