

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 2025

- Stack-Overflow is a popular Q&A website for programmers.
- Every year, they conduct a survey to gather insights about the developer community.
- Here are the [results](#).

React

Get started with React (1/2)

- Open CMD/Terminal
- `cd Desktop`
- `pnpm create vite@latest`
 - Project name : vite-project
 - Select a framework : React
 - Select a variant : JavaScript + SWC
 - Use rolldown-vite...? : No
 - Install with pnpm...? : Yes

```
admin@work ~\Desktop pnpm create vite@latest
.../19add56e802-4694 | +1 +
.../19add56e802-4694 | Progress: resolved 1, reused
|
◇ Project name:
vite-project
|
◇ Select a framework:
React
|
◇ Select a variant:
JavaScript + SWC
|
◇ Use rolldown-vite (Experimental)?:
No
|
◇ Install with pnpm and start now?
Yes
|
◇ Scaffolding project in C:\Users\admin\Desktop\vite-project...
|
◇ Installing dependencies with pnpm...
Downloading @swc/core-win32-x64-msvc@1.15.3: 12.57 MB/12.57 MB, done
Packages: +153
```


Visit Your New React App

- Open your browser and go to `http://localhost:5173/`

Get started with React (2/2)

- Press `ctrl + c` to stop the development server.
 - Make sure you click on the terminal window first.
- Open VSCode
- Drag and drop the `vite-project` folder into VSCode
- In the terminal, run:
 - `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`

Using CSS

App.jsx

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

CSS - Example 1

App.css

```
body {  
  font-family: Arial, Helvetica, sans-serif;  
  margin: 1rem 1rem;  
  background-color: #f5f5f5;  
  color: #333333;  
}  
  
h1,  
h2 {  
  color: #2a5d8f;  
}  
  
img {  
  border-radius: 8px;  
}
```


CSS - Example 2

App.css

```
button {  
  background-color: #2a5d8f;  
  color: white;  
  border: none;  
  padding: 10px 20px;  
  border-radius: 5px;  
  cursor: pointer;  
}  
  
input {  
  padding: 8px;  
  border: 1px solid #ccc;  
  border-radius: 4px;  
  margin-right: 10px;  
}
```

Dynamic Content

```
const birthYear = 1982;  
const currentYear = new Date().getFullYear();  
const age = currentYear - birthYear;
```

```
<p>My name is Nirand Pisutha-Arnond and I am {age} years old.</p>
```

Dynamic Event

```
<h2>Click Me</h2>  
<button onClick={() => alert("Button clicked!")}>Click me!</button>
```

State Management

```
import { useState } from "react";

function App() {
  const [count, setCount] = useState(0);

  return (
    <>
      <h2>Count: {count}</h2>
      <button onClick={() => setCount(count + 1)}>Click me!</button>
    </>
  );
}
```

Send Discord Message

Get Discord Webhook URL

- Go to your Discord server.
- Go to `Server Settings` > `Integrations` > `Webhooks`.
- Create a new webhook and copy the webhook URL.

Soundboard

PEOPLE

Members

Roles

Invites

Access

APPS

Integrations

App Directory

MODERATION

Safety Setup

Audit Log

Bans

AutoMod

Enable Community

Server Boost Status

Server template

Integrations > Webhooks

Webhooks are a simple way to post messages from other apps and websites into Discord using internet mail. [Learn more](#), or try [building one yourself](#).

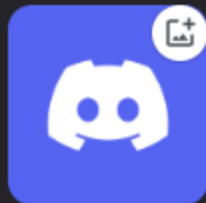
New Webhook

Posting to #general



Spidey Bot

Created on Aug 6, 2025 by nnnpoo



Minimum Size: 128x128

Name

Spidey Bot

Channel

#general

Copy Webhook URL

Delete Webhook

In `App` return statement

```
<h2>Contact Me</h2>  
<input type="text" id="message" />  
<button onClick={sendWebhook}>Poke Me</button>
```


In `App` function body

```
// Send discord webhook
function sendWebhook() {
  const webhookUrl = ""; // Replace with your webhook URL

  const message = document.getElementById("message").value || "Hello!";
  const corsProxy = "https://cors.iecmu.com";
  fetch(corsProxy + "/" + webhookUrl, {
    method: "POST",
    headers: {
      "Content-Type": "application/json",
    },
    body: JSON.stringify({
      content: message,
    }),
  });
}
```

Build

- `pnpm run build`

Preview

- `npm run preview`

Deploy

- Deploy `./dist` folder to Netlify.

Full Source Code

<https://github.com/inter-workshop-68/react-app>