# 10-Minute React demo

**Goal:** To Create a React web UI that has a button that adds one to a counter.

**Tools:**

* React, the library
* Vite

**Prerequisites:**

* Node.js installed
* VS Code Installed
* React installed
* Vite Installed
* Basic html or UI knowledge

#### Installation:

1. To run react app you must have Node.js Installed
   1. <https://nodejs.org/en/download>
   2. Download, windows installer
2. Install Vite with the following command:
   1. npm install vite

#### Create a project with Vite

1. Run this command to create a react project with typescript
   1. *npm create vite@latest app-name –template react-ts*
   2. You might be met with the following menus
      1. A screenshot of a computer program

         AI-generated content may be incorrect.
   * In this menu select react
     1. A screen shot of a computer script

        AI-generated content may be incorrect.
   * In this menu select typescript or typescript + swc
   * Swc is “speedy web compiler” it is an experimental web compiler that claims to be faster.
   1. cd app-demo-1
   2. npm install
   3. npm run dev

#### Code:

1. We will primarily be working in > \app-demo-1\src\App.tsx
   1. App.tsx is essentially your main page that people will land on first
2. Code:
3. import { useState } from 'react'
4. import './App.css'
5. *function* App() {
6. *const* [count, setCount] = useState(0)
7. *const* updateCounter = () *=>* {
8. setCount((*count*) *=>* *count* + 1);
9. };
10. return (
11. <>
12. <button onClick={updateCounter}>
13. count is {count}
14. </button>
15. </>
16. )
17. }
18. export default App
19. Explain what states are

React state is a way to store and manage dynamic data in a component. When the state changes, React automatically re-renders the component to reflect the new data. You define state using the useState hook, which provides a variable and a function to update it. Unlike regular variables, state ensures the UI updates whenever its value changes.

### Running the code:

1. Cd into your root directory, the one with index.html
2. npm run dev