

React

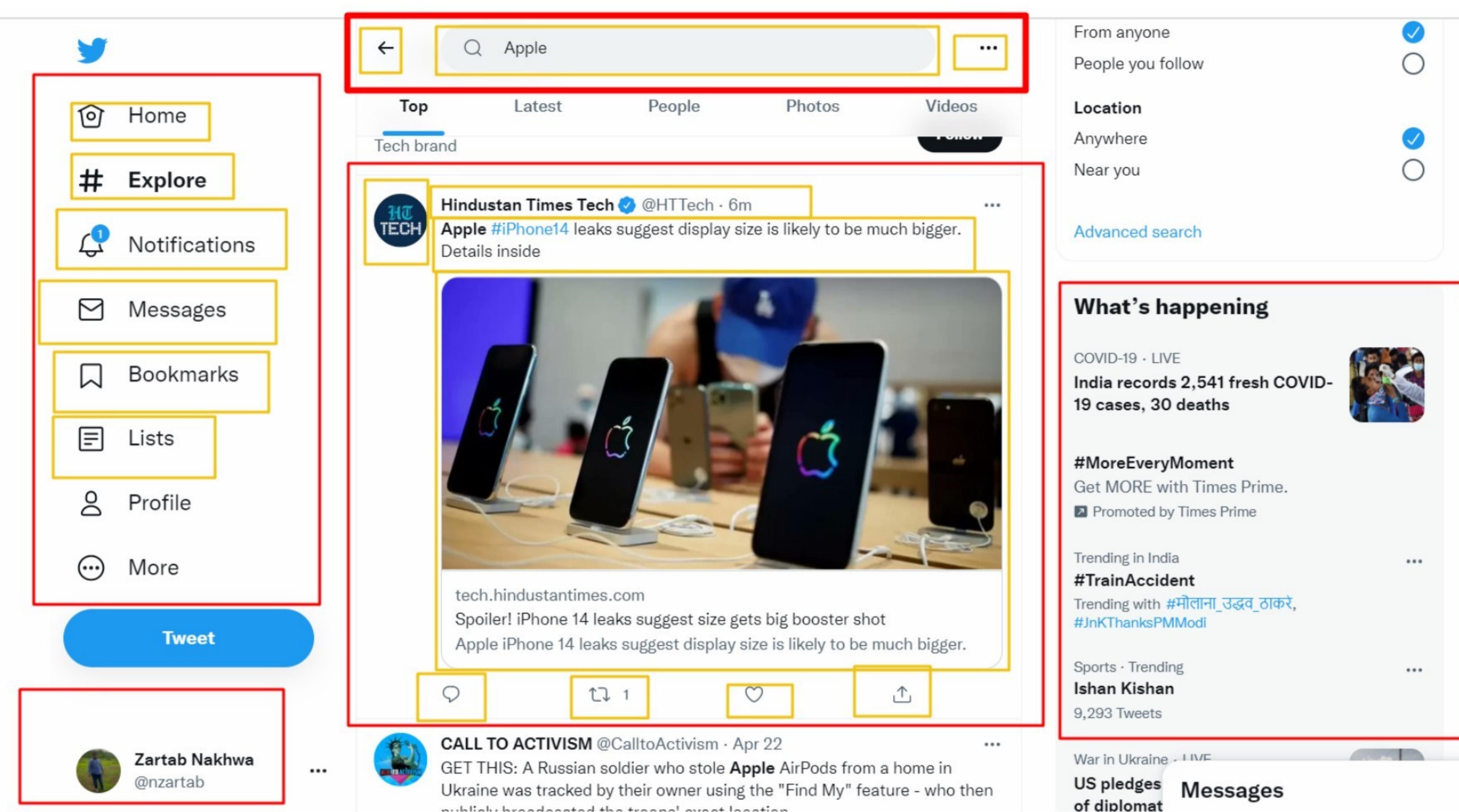
UI Library

React was

developed at
Facebook

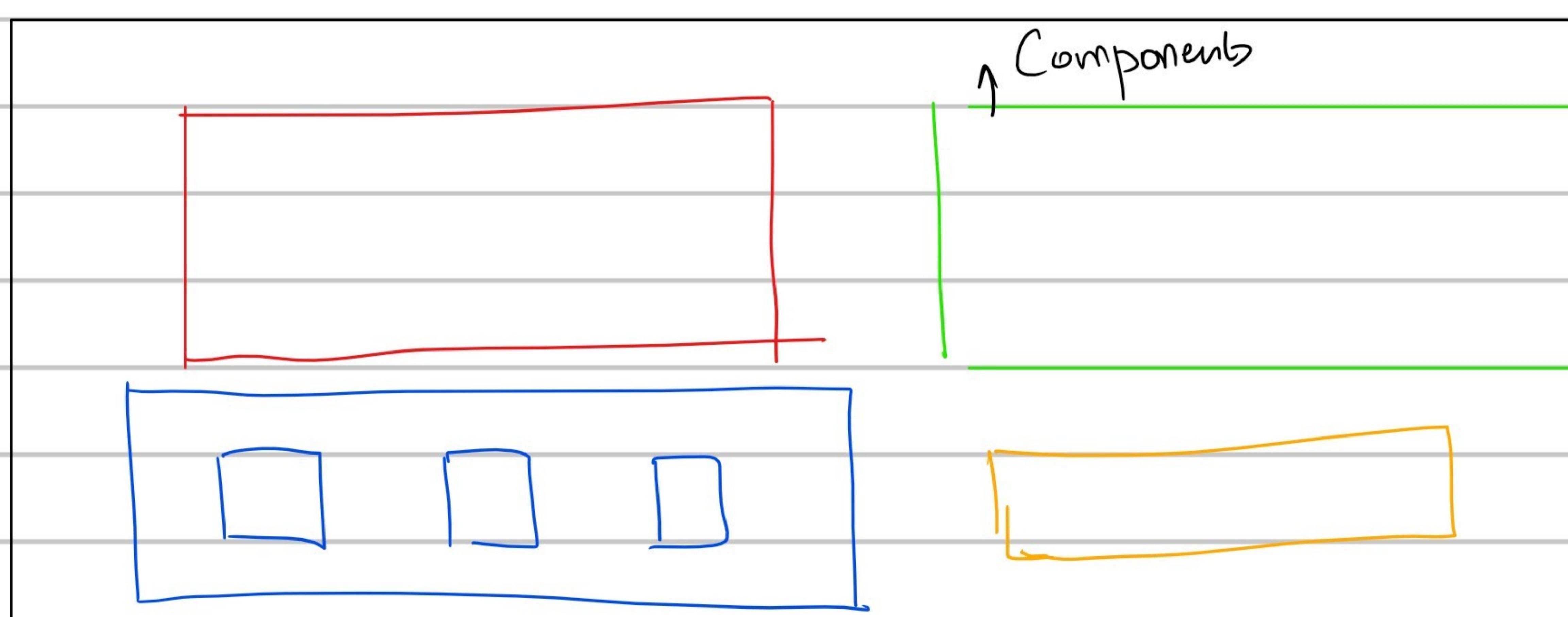
JavaScript based front end
→ UI library

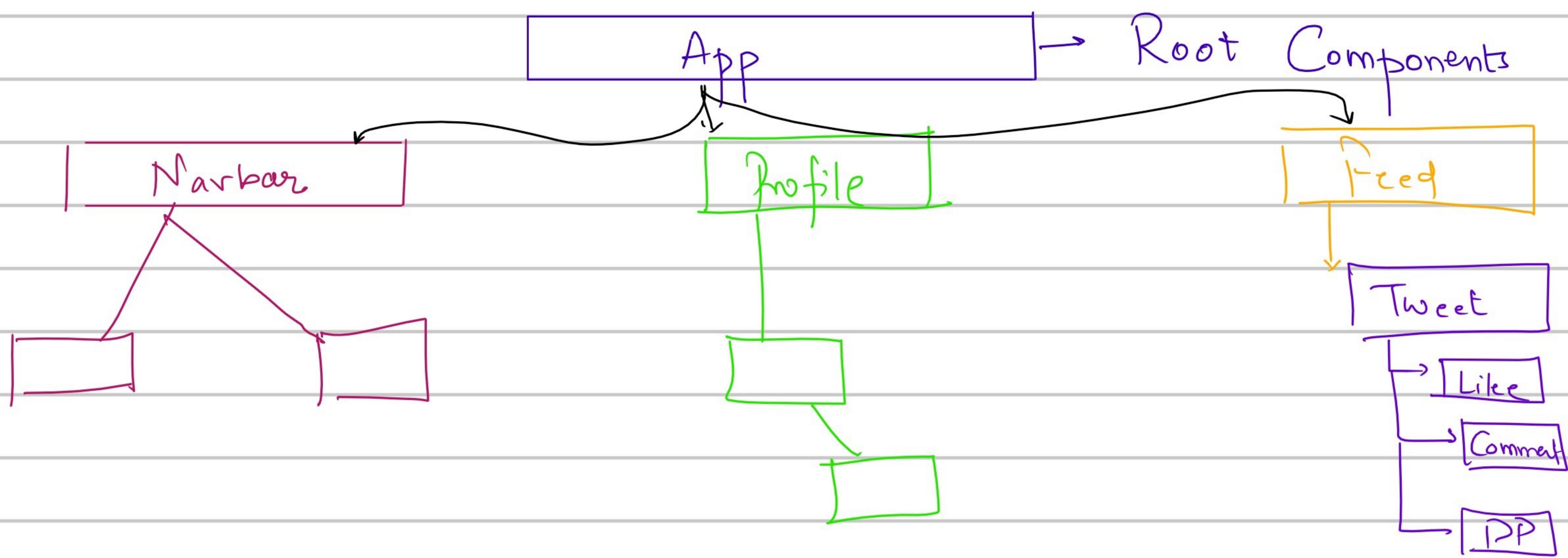
React is made up of Components !!



Component

piece of UI; which has its own STATE & LIFECYCLE





~~SPA~~

ES - 6 Refresher

- * let v/s const v/s var
- * map & filter
- * objects
- * object destructuring
- * this keyword
- * spread operator
- * arrow functions
- * class & inheritance
- * Modules ~~&~~ Named & Default Exports

* let vs var vs const

Var

Scope → var declarations are globally scoped or if used inside a function anywhere
→ update + redeclare
functionally scoped

let

Scope → block scope → It will only be available in the block it is declared
→ update + no redeclaration

const → Block scoped → maintains a constant value

→ no update + no redeclaration

* Arrow Functions *

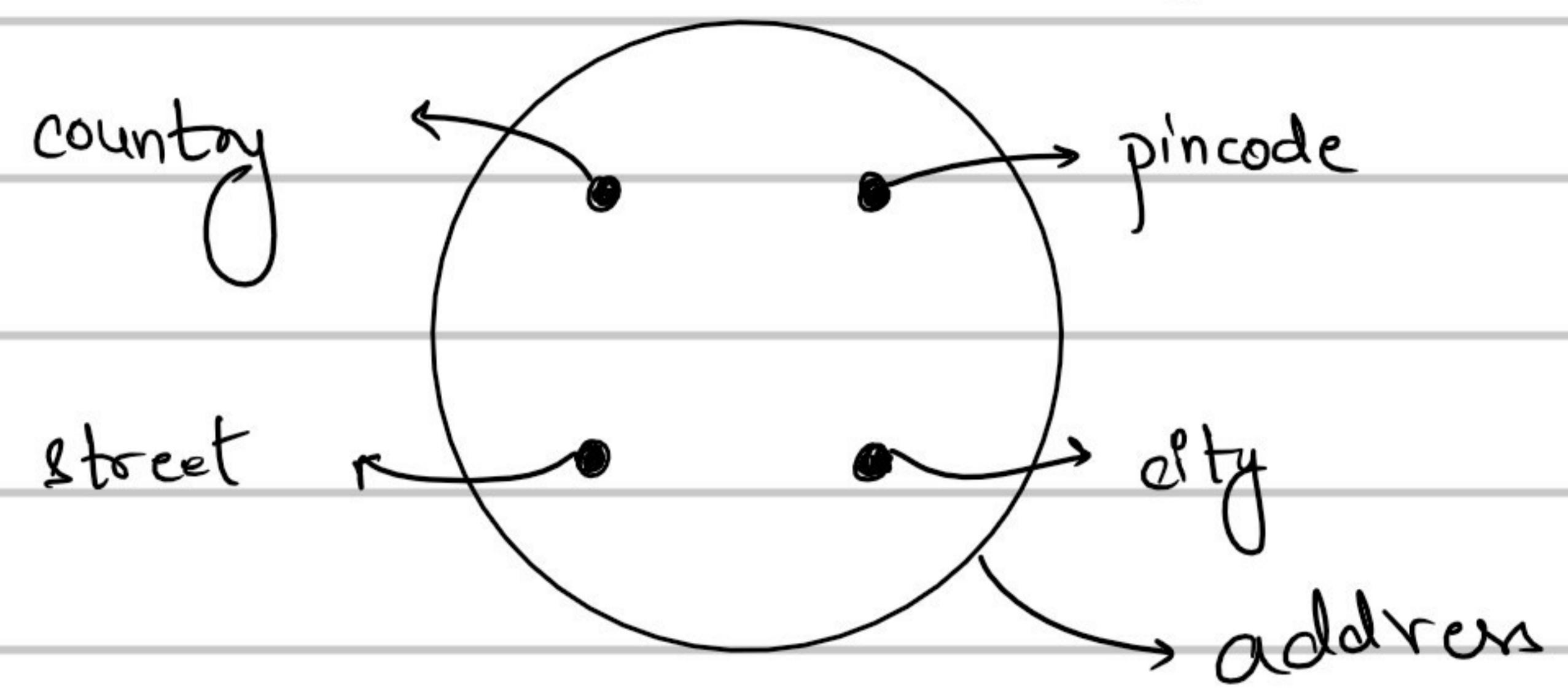
} cleaner way of creating traditional JS functions

let someVariable = (arg1, arg2, ... argN) => {
 statements
}

Arrow functions are either assigned to a variable or they are used as an argument to be passed to some other function

Object Destructuring

```
const {street, city} = address
```



* Spread Operator *

...
...

object

array.

Spreads the

elements of source array/object

Named & Default Exports

Named
Export

export

Person.js

class Person {

}

export function m1() {

}

export function m2() {

}

export let someValue = 50

Default Export

export default taxRate = 18

tax.js

Home-programming

export default

export

class

export

function

export

variable

trading.js

```
import taxRate from 'tax.js'  
import {Person, m1, m2} from 'person.js'
```

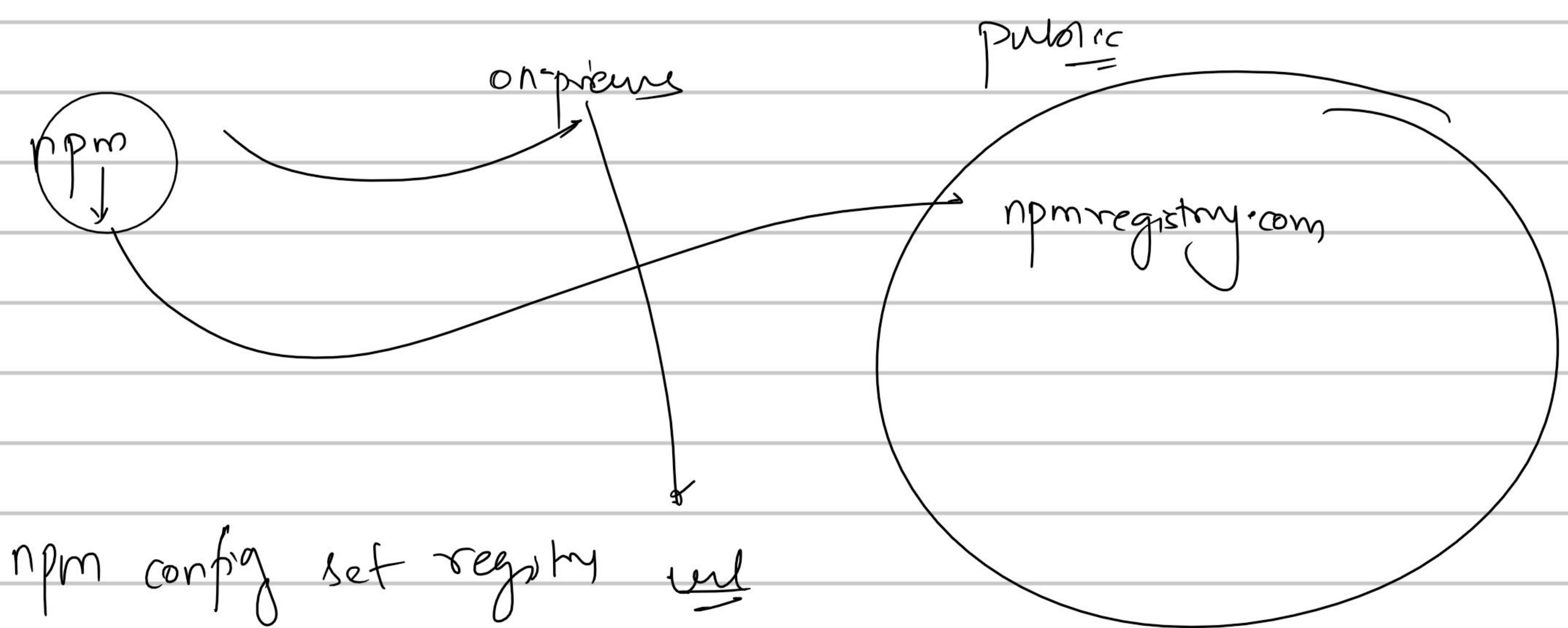
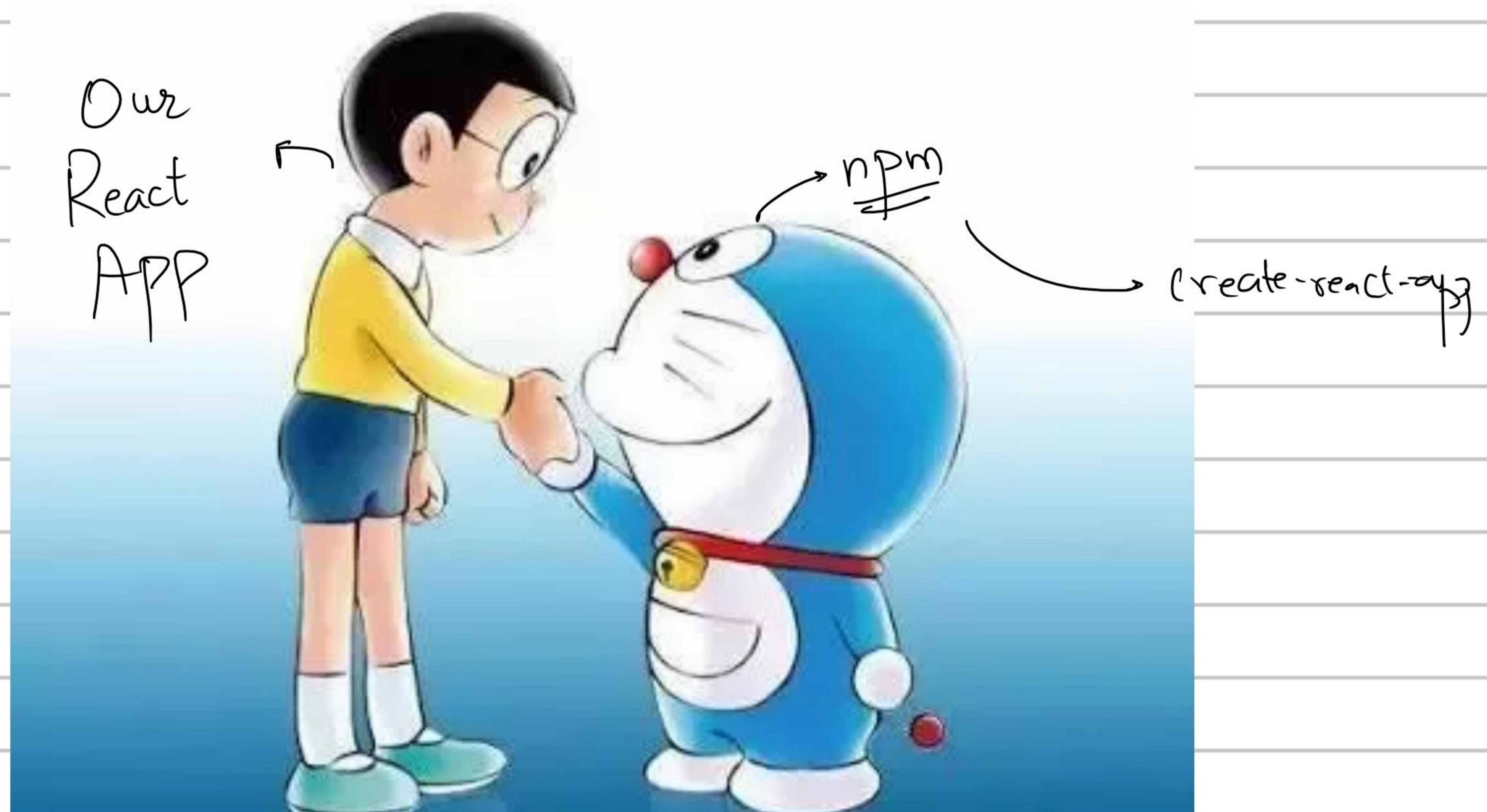
```
import React, {useState, Component} from 'react'; import {..., ...} from '...'
```

Named Export → import {..., ...} from '...'

Default Export → import ... from '...'

Setting Up React Environment

```
npm i -g create-react-app
```



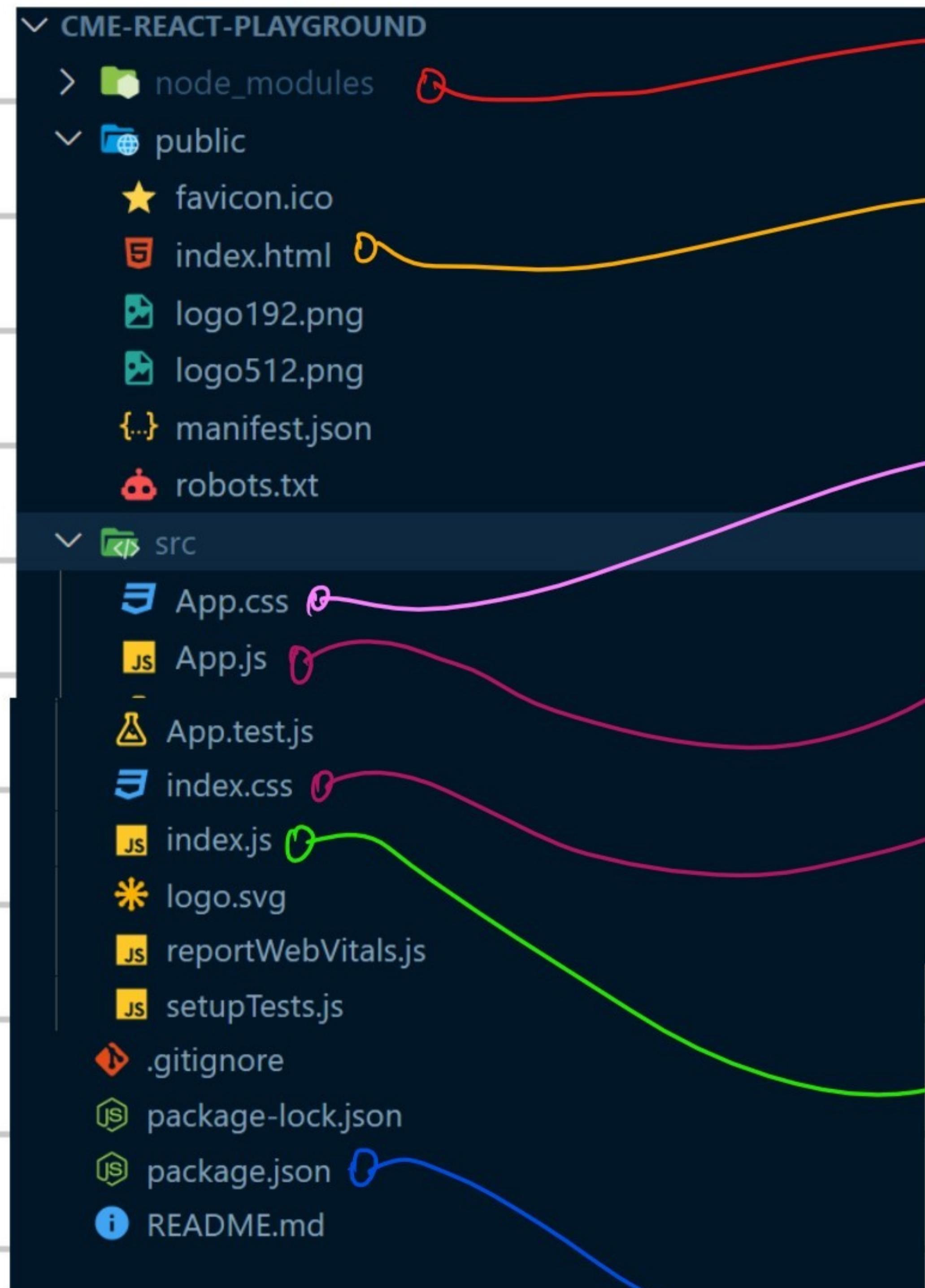
To create a React Application

```
npx create-react-app app-name
```

To start the app

```
cd app-name  
npm start
```

Structure of React App



contain all the required & imported library packages.

renders the data given by index.js

Styles App.js

Root Component → React Component

Styles index.html

Main JS file which loads the Root Component

Configuration Files

flow

```
public > index.html > ...
index.html
25 |   Learn how to configure c
26 |   -->
27 |     <title>React App</title>
28 |   </head>
29 |   <body>
30 |     <noscript>You need to enat
31 |     <div id="root"></div>
32 |     <!--
33 |       This HTML file is a temp
34 |       If you open it directly
35 |
36 |       You can add webfonts, me
37 |       The build step will plac
38 |
39 |       To begin the development
40 |       To create a production t
41 |   -->
42 |   </body>
43 |</html>
```

```
src > index.js > [0] root
index.js
1 import React from 'react';
2 import ReactDOM from 'react-dom/client';
3 import './index.css';
4 import App from './App';
5 import reportWebVitals from './reportWebVitals';
6
7 const root = ReactDOM.
8 createRoot(document.getElementById('root'))
9 root.render(
10   <React.StrictMode>
11     <App />
12   </React.StrictMode>
13 );
14
15 // If you want to start measuring performan
16 // to log results (for example: reportWebVi
17 // or send to an analytics endpoint. Learn
18 reportWebVitals();
```

```
src > App.js > ...
App.js
1 import logo from './logo.svg';
2 import './App.css';
3
4 function App() {
5   return (
6     <div className="App">
7       <header className="App-header">
8         <img src={logo} alt="React logo" />
9         <p>Edit <a href="https://reactjs.org">the code</a>
10        </p>
11        <a href="#" rel="noopener noreferrer">Learn React</a>
12      </header>
13      <main className="App-main">
14        <p>This is a React app!</p>
15      </main>
16    </div>
17  )
18}
19
20export default App;
```

