

Step-by-Step Guide to React Components:-

What is a Component in React.js?

In **React.js**, a **component** is a **reusable piece of UI (User Interface)**.

Think of components like **building blocks** — each one represents a part of the webpage (for example, a button, a navbar, or a form), and you can combine them to build complex interfaces.

□ Types of Components

There are two main types of components in React:

□ 1 □ Functional Components (Modern and Recommended)

These are JavaScript functions that return **JSX** (HTML-like syntax).

They can also use **React Hooks** (like `useState`, `useEffect`) for handling state and side effects.

Here's an example □

```
function Welcome() {  
  return (  
    <div>  
      <h1>Hello, Guest!</h1>  
      <p>Welcome to our React application.</p>  
    </div>  
  );  
}
```

```
export default Welcome;
```

□ Explanation:

- `function Welcome()` defines a component.
- It returns static **JSX** (HTML-like code).
- You can use this component anywhere with `<Welcome />`.

□ Arrow Function Version

```
const Welcome = () => {
  return (
    <div>
      <h1>Hello, Guest!</h1>
      <p>Welcome to our React application.</p>
    </div>
  );
};

export default Welcome;
```

□ 2 □ Class Components (Older Style)

These use **ES6 classes** and must extend `React.Component`. They use a `render()` method to return JSX.

Here's an example □

```
import React from 'react';

class Welcome extends React.Component {
  render() {
    return (
      <div>
        <h1>Hello, Visitor!</h1>
        <p>This is a class-based React component.</p>
      </div>
    );
  }
}

export default Welcome;
```

□ Explanation:

- `class Welcome` creates a React component using a class.
 - JSX is returned inside the `render()` method.
-

□ Usage Example (Same for Both)

In your `App.js`, you can use either version like this:

```
import Welcome from './Welcome';

function App() {
  return (
    <div>
      <Welcome />
    </div>
  );
}

export default App;
```

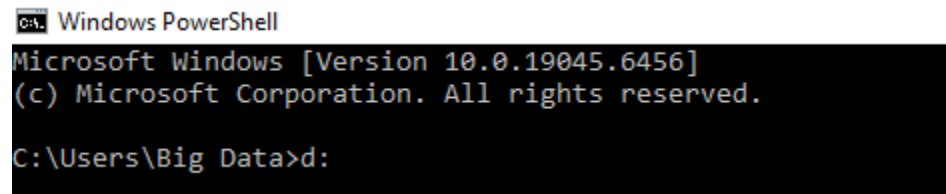
□ Step 1: Create a New React App for Practice React Components:-

If you don't already have a React app, open your terminal and run:

Using Create React App:

Open command prompt and type following commands :-

just type **D:** it changes the drive as shown below.



```
Windows PowerShell
Microsoft Windows [Version 10.0.19045.6456]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Big Data>d:
```

mkdir priya

cd priya

npx create-react-app my-app

Note:-

as shown below example creating priya name folder and inside priya folder creating **my-app** react js project folder :-

```
D:\>mkdir priya
D:\>cd priya
D:\priya>npx create-react-app my-app
```

```
cd my-app
npm start
```

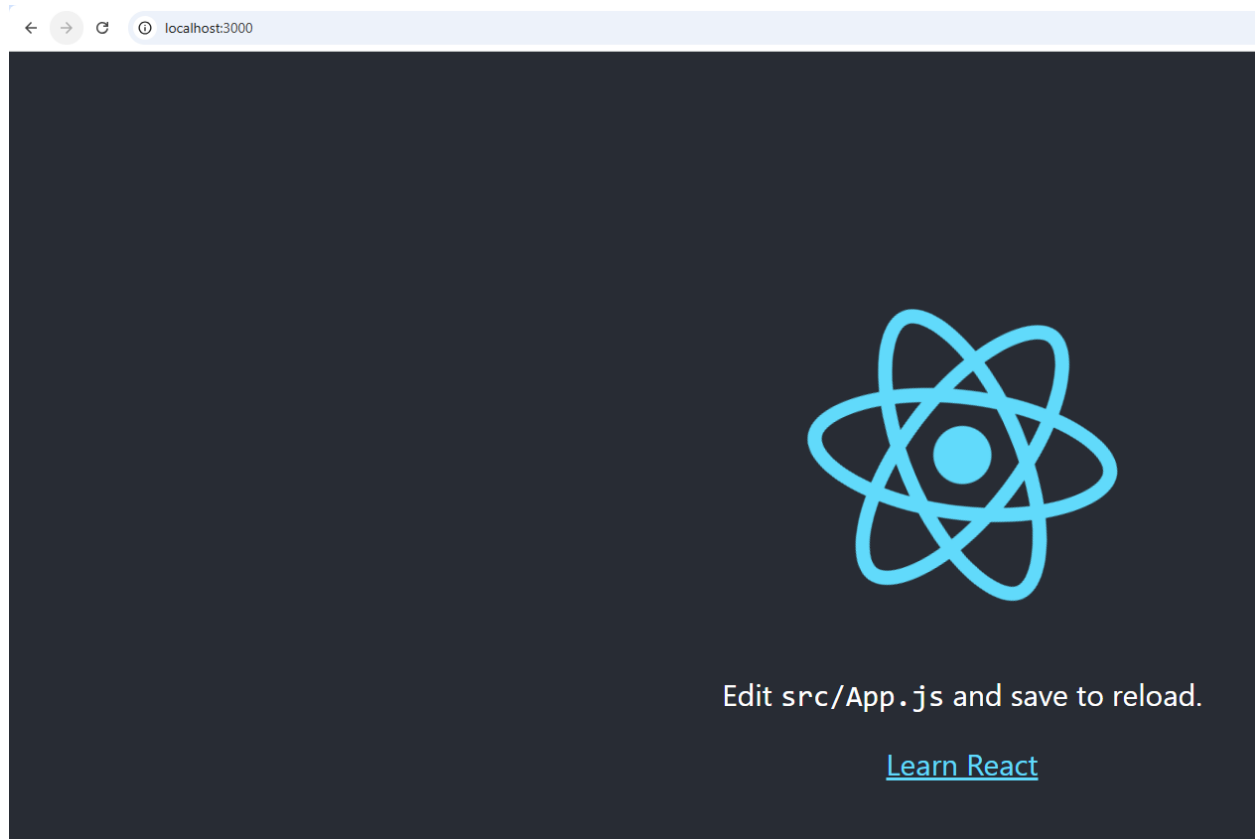
as shown below:-

```
D:\priya>cd my-app
D:\priya\my-app>npm start
```

This will start your app at **<http://localhost:3000>** (or another port).

Open it your browser like chrome <http://localhost:3000>

You will see :



□ Step 2: Create a Component File

Inside your `my-app` project, go to the `src/` folder.
Create a new file called:

`Welcome.js`

□ Step 3: Add a Function Component

Open `src/Welcome.js` and add this code:

```
// Function component example
function Welcome() {
  return (
    <div className="welcome-box">
      <h1>Hello, Guest!</h1>
      <p>Welcome to our React application.</p>
      <button onClick={() => alert('Welcome to React!')}>
        Click Me
      </button>
    </div>
  );
}

export default Welcome;
```

□ This is a **regular function component**.
just returns some static JSX.

□ Step 4: OR — Use an Arrow Function Component

If you prefer the arrow function syntax, replace the content of `Welcome.js` with:-

```
// Arrow function component example
const Welcome = () => {
```

```
return (
  <section className="welcome-section">
    <h2>Hello, Visitor!</h2>
    <p>This page is built using an arrow function component.</p>
    <ul>
      <li>Explore the features</li>
      <li>Check the documentation</li>
      <li>Start building your own components</li>
    </ul>
    <button onClick={() => alert('Thanks for visiting!')}>
      Say Hello
    </button>
  </section>
);
};

export default Welcome;
```

□ This version uses an **arrow function** and
It's a bit more modern and popular in current React apps.

□ Step 5: Use the Component in App.js

Now open `src/App.js` and import your new component:

```
import Welcome from './Welcome';

function App() {
  return (
    <div className="App">
      <Welcome />
    </div>
  );
}

export default App;
```

Note:- you can also create react app project folder Using Vite :-

Or Using Vite (faster option):

```
npm create vite@latest my-app -- --template react
cd my-app
npm install
npm run dev
```