

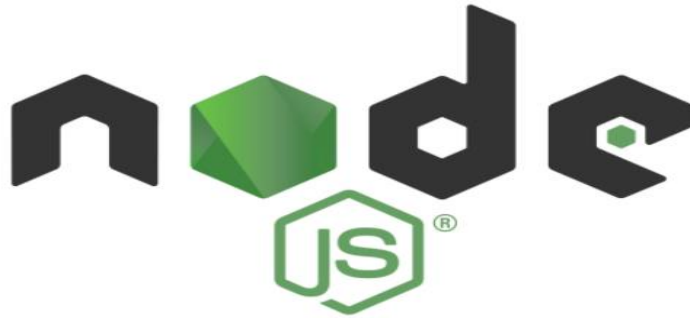
Contents

Installation Process:	1
Step-1:.....	1
Step-2 :.....	2
Step-3 :.....	3
Error :	4
Step-4:.....	5
What is JSX?	6
Coding JSX.....	6
Expressions in JSX	6
Elements Must be Closed	7
Example.....	7
React Components.....	7
Class Component	7
Example.....	8
Function Component	8
Example.....	8
Rendering a Component.....	8
Example.....	9
Routing:.....	9
What is React-Router?.....	9
React Lifecycle:	10

Installation Process:

Step-1:

Download Node Js: <https://nodejs.org/en/download/>



**Note: Use node version latest then npx will work*

After Installing Check those commands:

1.npm --version

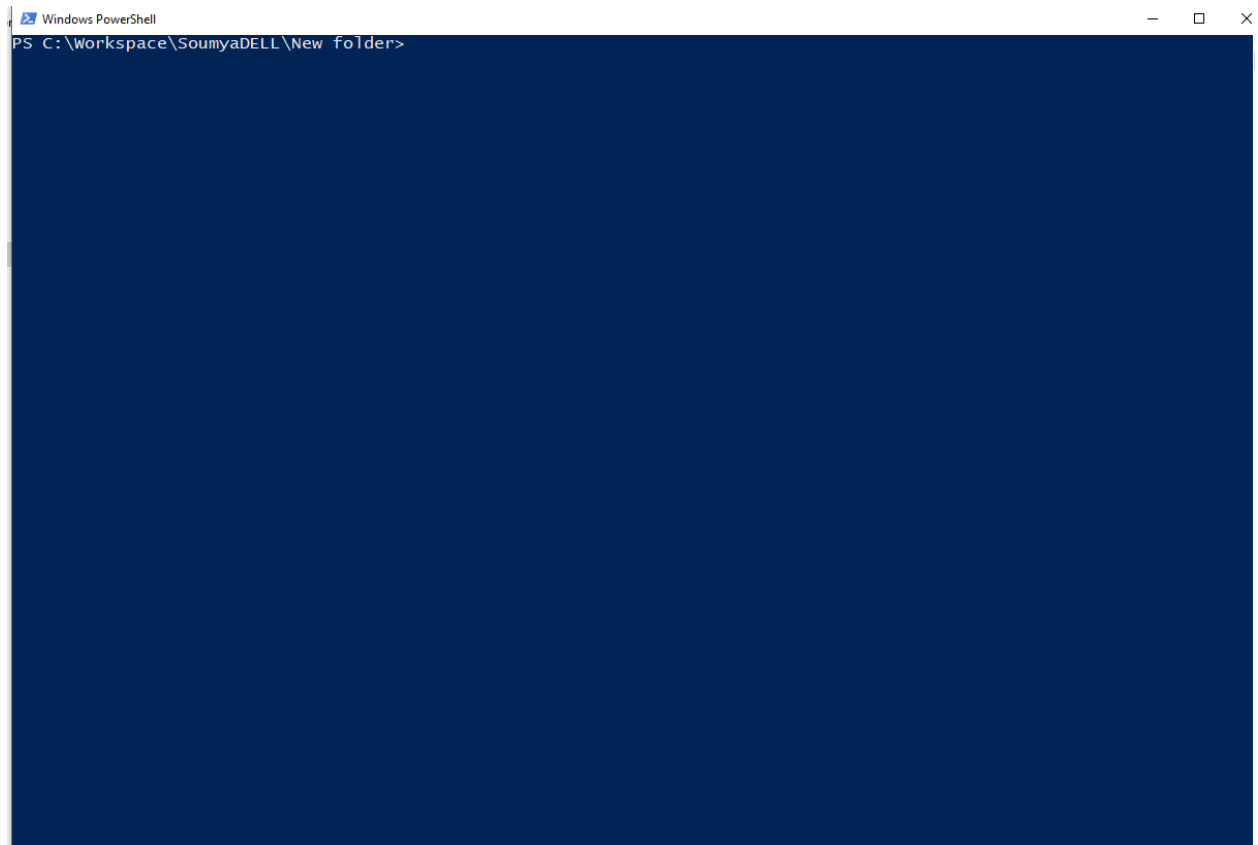
2.node -v

3.npx --version

```
C:\Users\satya>npm --version
7.18.1
node -v
v12.20.1
npx--version
'npx--version' is not recognized as an internal or external command,
operable program or batch file.
npx --version
7.18.1
```

Step-2 :

*Then Create your First React App. First Choose your folder then click **SHIFT +Right Click** then Poweshell window will be open .See the below image*



Step-3 :

Use this command to create your skeleton react app: `npx create-react-app my-app` (App Name)

After installing all the packages it will show like this. See below images

```
Windows PowerShell
PS C:\workspace\SoumyaDELL\ReactApp> npx create-react-app my-app
Need to install the following packages:
  create-react-app
ok to proceed? (y) y
npm WARN tar@2.2.2: This version of tar is no longer supported, and will not receive security updates. Please
  upgrade asap.

Creating a new React app in C:\workspace\SoumyaDELL\ReactApp\my-app.
Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

added 1899 packages, and audited 1900 packages in 4m
153 packages are looking for funding
  run `npm fund` for details
27 vulnerabilities (16 moderate, 9 high, 2 critical)
To address all issues, run:
  npm audit fix

Run `npm audit` for details.
Installing template dependencies using npm...
added 58 packages, and audited 1958 packages in 13s
154 packages are looking for funding
  run `npm fund` for details
27 vulnerabilities (16 moderate, 9 high, 2 critical)
To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
Removing template package using npm...

removed 1 package, and audited 1957 packages in 5s
154 packages are looking for funding
  run `npm fund` for details
27 vulnerabilities (16 moderate, 9 high, 2 critical)
To address all issues (including breaking changes), run:
```

Error :

If any error comes like this :

You are running `create-react-app` 5.0.0, which is behind the latest release (5.0.1).

We no longer support global installation of Create React App.

Please remove any global installs with one of the following commands:

- npm uninstall -g create-react-app*
- yarn global remove create-react-app*

The latest instructions for creating a new app can be found here:

<https://create-react-app.dev/docs/getting-started/>

Then you need to follow this command to resolve the issue

- 1. npm uninstall -g create-react-app*
- 2. npm install -g create-react-app*

3. `npm cache clean -f`

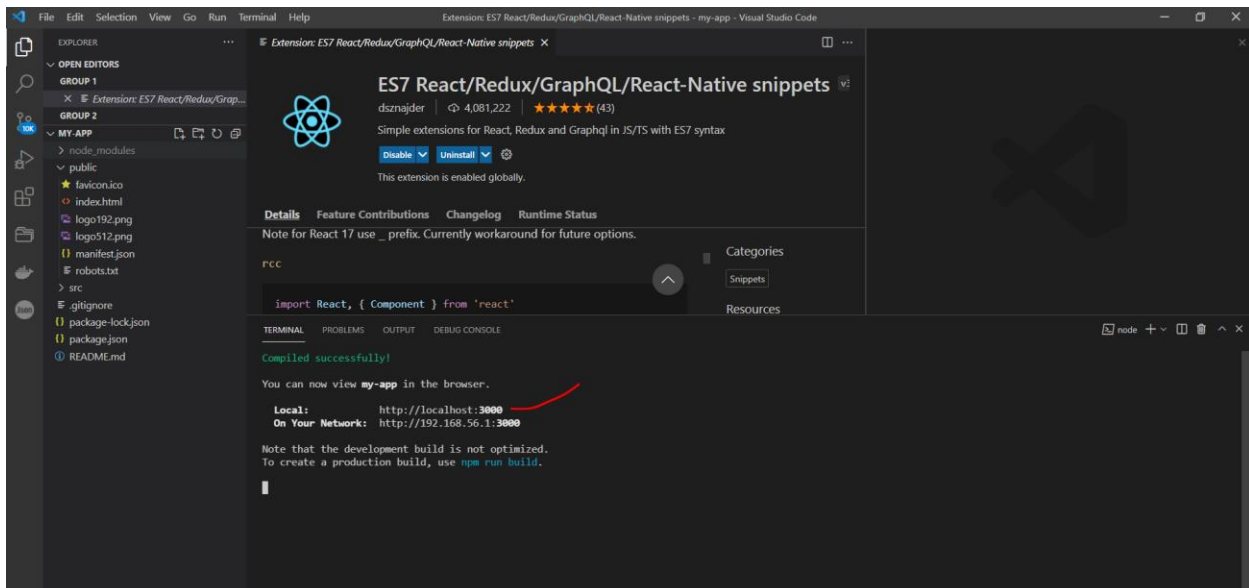
4. `npm create-react-app my-app`

See the below images:

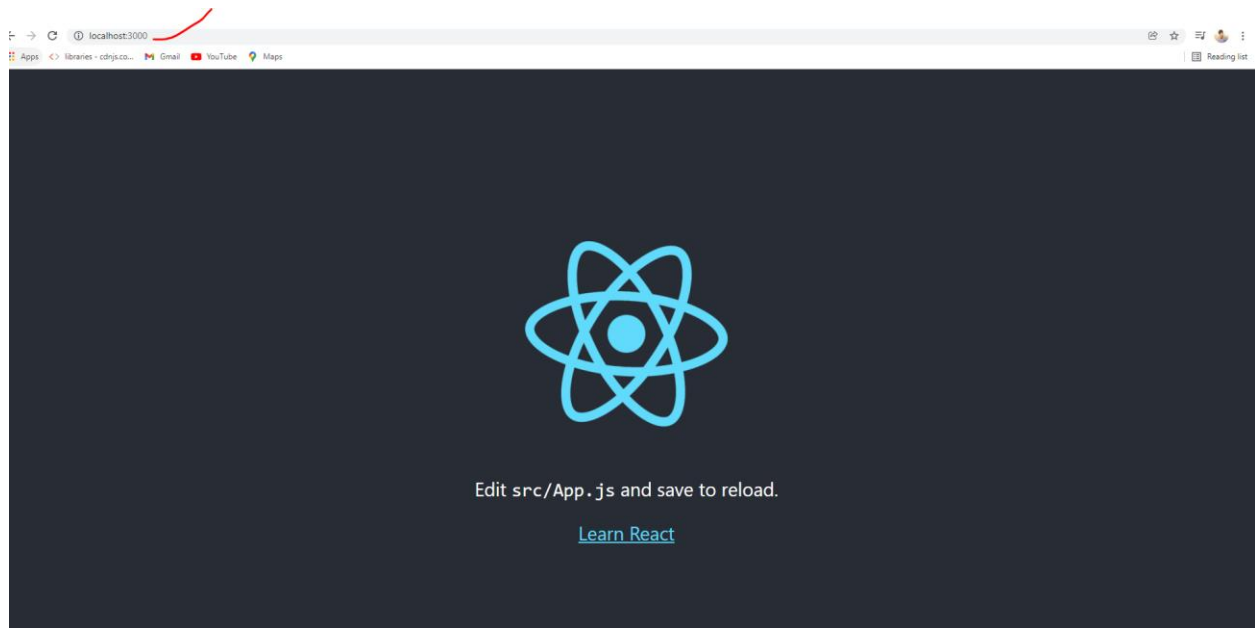
```
PS C:\Workspace\SoumyaDELL\ReactApp> npx create-react-app helloworld
You are running 'create-react-app' 5.0.0, which is behind the latest release (5.0.1).
We no longer support global installation of Create React App.
Please remove any global installs with one of the following commands:
- npm uninstall -g create-react-app
- yarn global remove create-react-app
The latest instructions for creating a new app can be found here:
https://create-react-app.dev/docs/getting-started/
PS C:\Workspace\SoumyaDELL\ReactApp> npm uninstall -g create-react-app
removed 67 packages, and audited 1 package in 3s
found 0 vulnerabilities
PS C:\Workspace\SoumyaDELL\ReactApp> npm install -g create-react-app
npm WARN tar@2.2.2: This version of tar is no longer supported, and will not receive security updates. Please
upgrade asap.
```

Step-4:

Needs to start (build) the application Use this command : `npm start`.



After successfully build it will open automatically and run on `http://localhost:3000` PORT.



What is JSX?

JSX stands for JavaScript XML.

JSX allows us to write HTML in React.

JSX makes it easier to write and add HTML in React.

Coding JSX

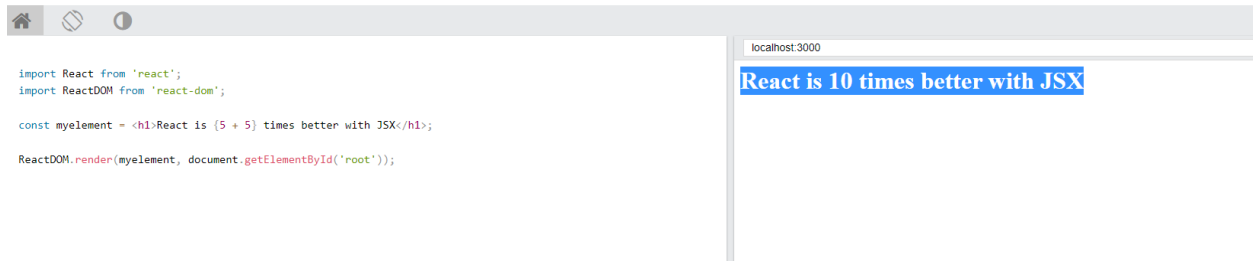
JSX allows us to write HTML elements in JavaScript and place them in the DOM .

JSX converts HTML tags into react elements.

Expressions in JSX

With JSX you can write expressions inside curly braces { }.

The expression can be a React variable, or property, or any other valid JavaScript expression. JSX will execute the expression and return the result:



Elements Must be Closed

JSX follows XML rules, and therefore HTML elements must be properly closed.

Example

Close empty elements with `</>`

```
import React from 'react';
import ReactDOM from 'react-dom';

const myelement = <input type="text" />;

ReactDOM.render(myelement, document.getElementById('root'));
```

React Components

When creating a React component, the component's name **MUST** start with an upper case letter.

Class Component

A class component must include the `extends React.Component` statement. This statement creates an inheritance to `React.Component`, and gives your component access to `React.Component`'s functions.

The component also requires a `render()` method, this method returns HTML.

Example

Create a Class component called `Car`

```
class Car extends React.Component {  
  render() {  
    return <h2>Hi, I am a Car!</h2>;  
  }  
}
```

Function Component

Here is the same example as above, but created using a Function component instead.

A Function component also returns HTML, and behaves much the same way as a Class component, but Function components can be written using much less code, are easier to understand, and will be preferred in this tutorial.

Example

Create a Function component called `Car`

```
function Car() {  
  return <h2>Hi, I am a Car!</h2>;  
}
```

Rendering a Component

Now your React application has a component called `Car`, which returns an `<h2>` element.

To use this component in your application, use similar syntax as normal HTML: `<Car />`

Example

Display the `Car` component in the "root" element:

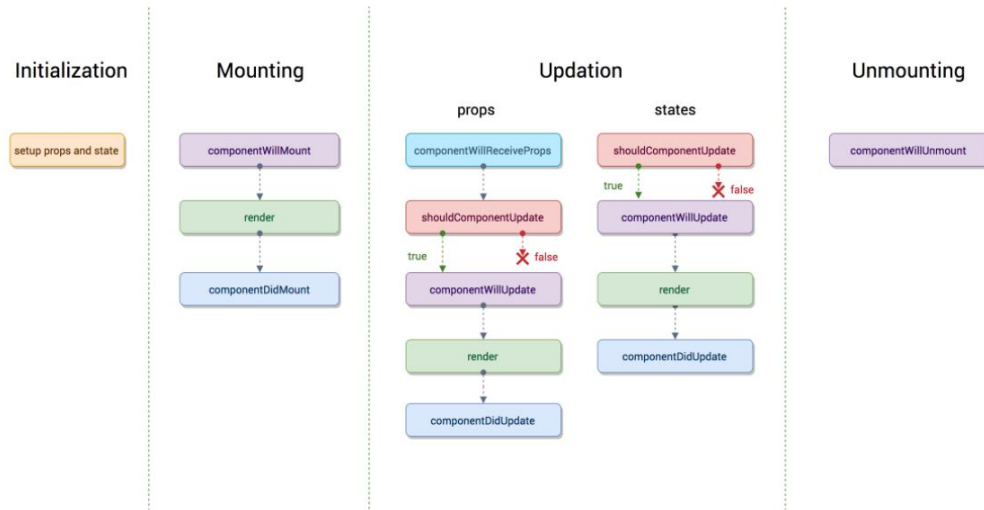
Routing:

What is React-Router?

Many modern websites are actually made up of a single page, they just look like multiple pages because they contain components which render like separate pages.

*These are usually referred to as SPAs - **single-page applications**. At its core, what React Router does is conditionally render certain components to display depending on the route being used in the URL (`/` for the home page, `/about` for the about page, etc.).*

React Lifecycle:



ReactJs lifecycle phases and methods

<https://hackernoon.com/reactjs-component-lifecycle-methods-a-deep-dive-38275d9d13c0>