

## 2. React JS

- Install React.js.
- Creating a React Application and print message "Hello React.js"
- Change the default port 3000 to 3001

Answer:

To install React.js we check the following things;

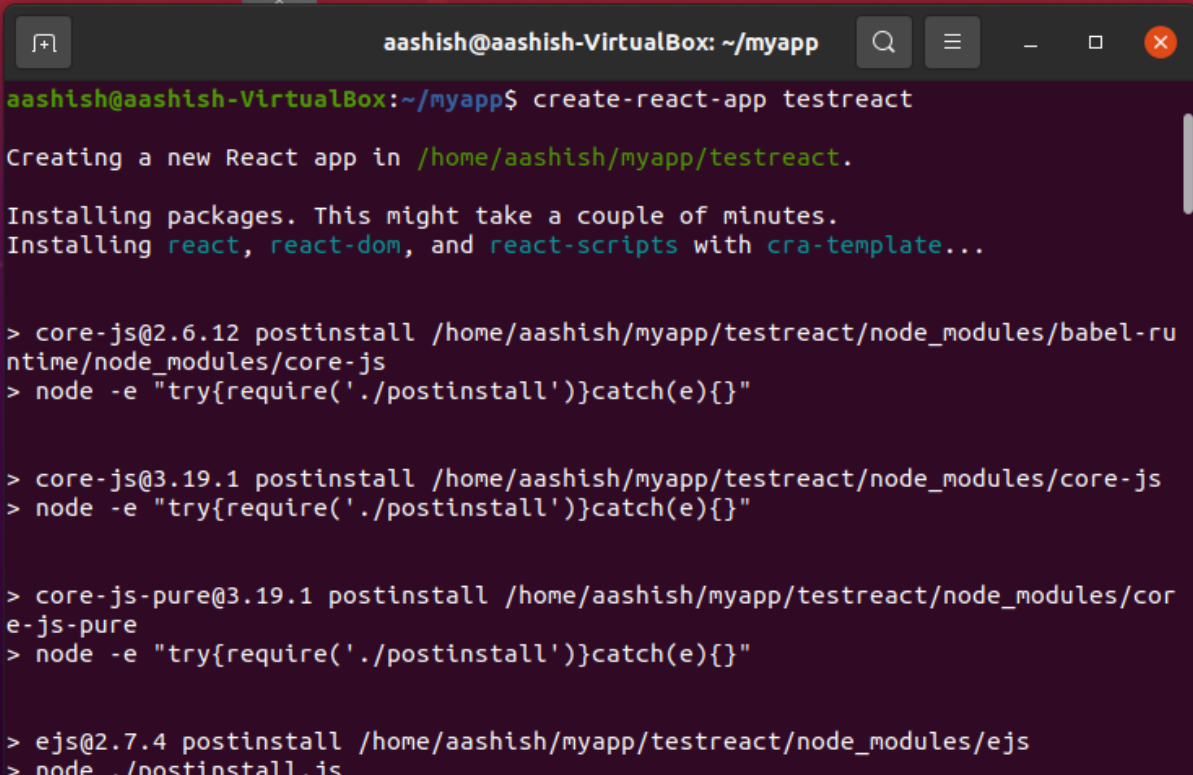
- **node -v**
- **npm -v**

Now, we install CRA(create-react-app) bundle using following command;

- **sudo npm -g install create-react-app**

Next, we create a react app named testreact using following command;

- **create-react-app testreact**
- **cd testreact**



```
aashish@aashish-VirtualBox: ~/myapp
aashish@aashish-VirtualBox:~/myapp$ create-react-app testreact

Creating a new React app in /home/aashish/myapp/testreact.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

> core-js@2.6.12 postinstall /home/aashish/myapp/testreact/node_modules/babel-runtime/node_modules/core-js
> node -e "try{require('./postinstall')}catch(e){}"

> core-js@3.19.1 postinstall /home/aashish/myapp/testreact/node_modules/core-js
> node -e "try{require('./postinstall')}catch(e){}"

> core-js-pure@3.19.1 postinstall /home/aashish/myapp/testreact/node_modules/core-js-pure
> node -e "try{require('./postinstall')}catch(e){}"

> ejs@2.7.4 postinstall /home/aashish/myapp/testreact/node_modules/ejs
> node ./postinstall.js
```

To run the react app we use following command;

**- npm start**

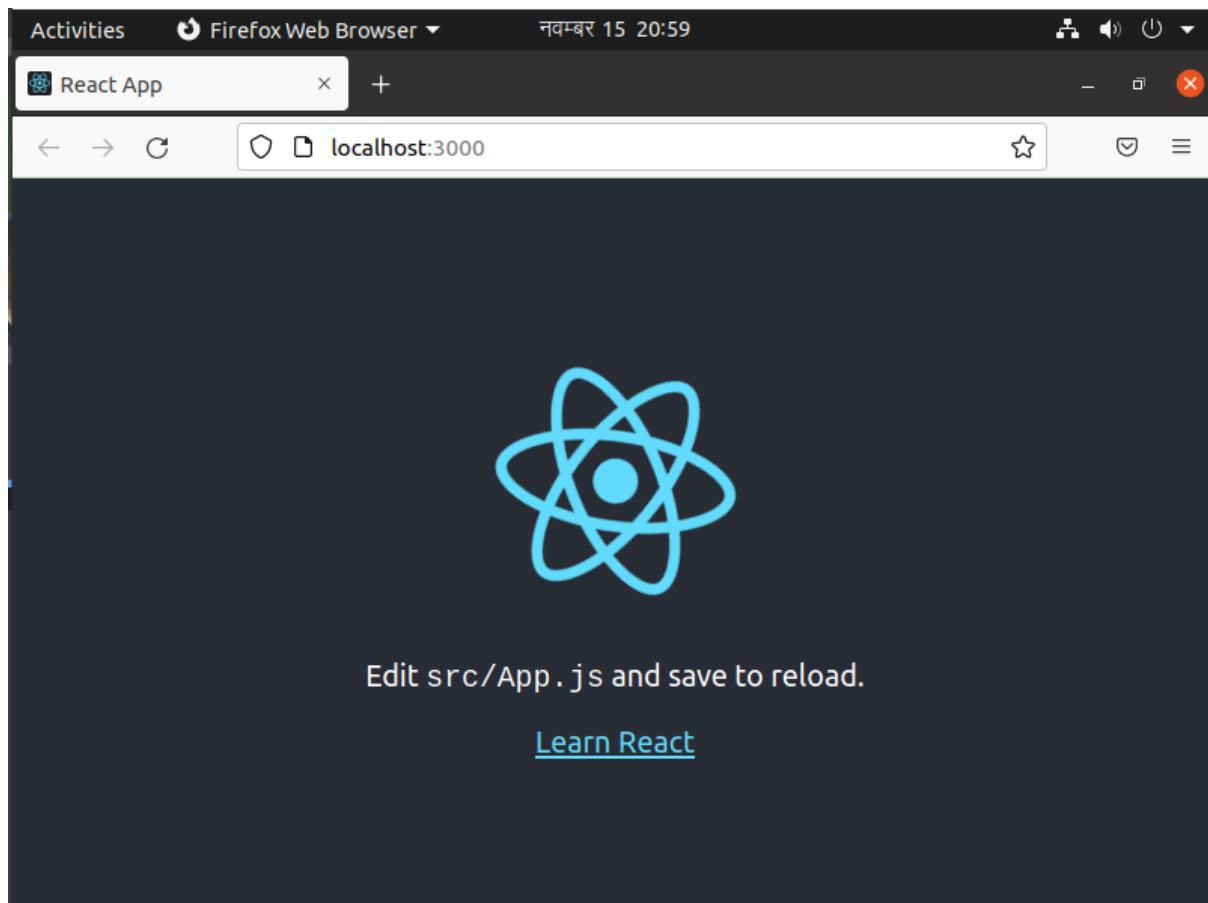
```
aashish@aashish-VirtualBox: ~/myapp/testreact
Compiled successfully!

You can now view testreact in the browser.

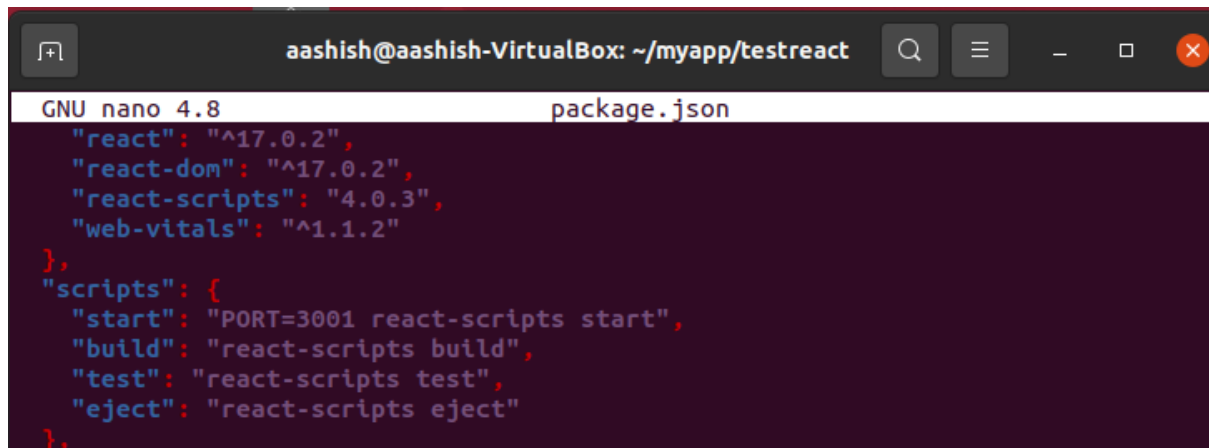
Local:      http://localhost:3000
On Your Network:  http://192.168.18.45:3000

Note that the development build is not optimized.
To create a production build, use npm run build.
```

To test the app, we browse localhost:3000 on the web browser.



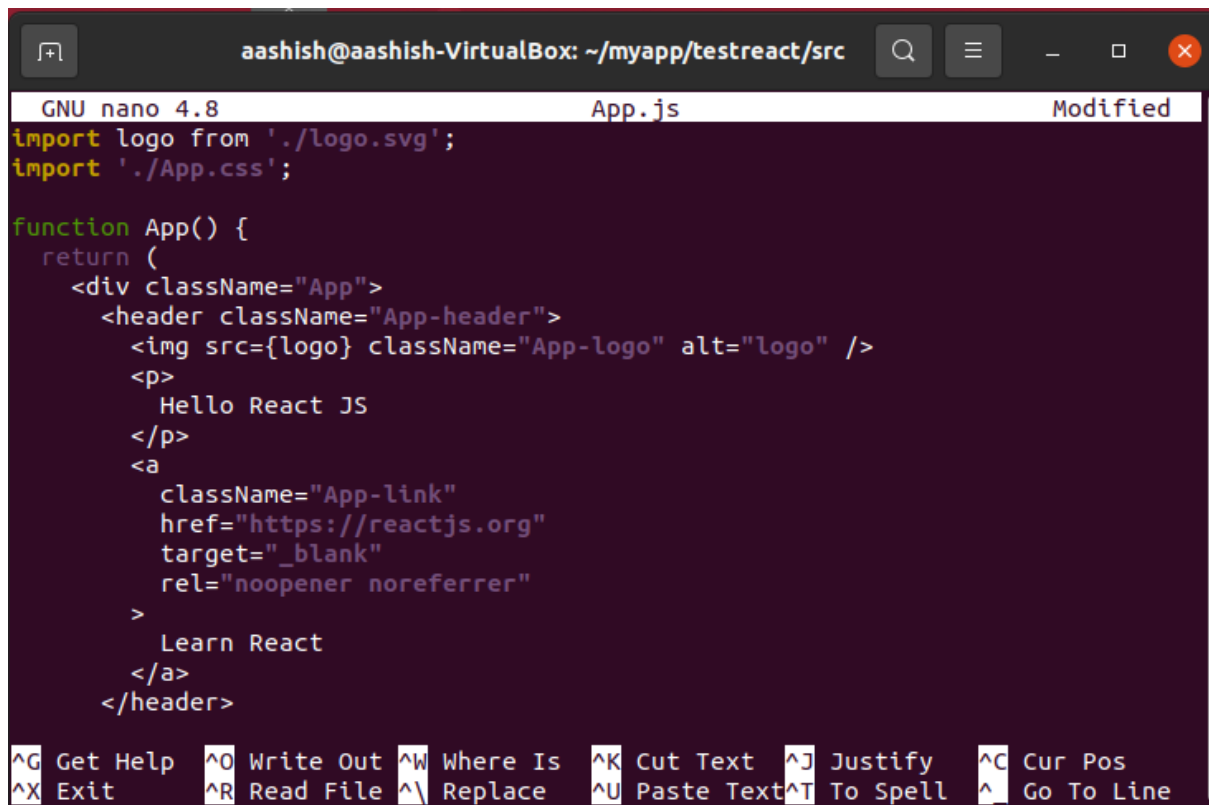
Next, to change the default port **3000** to **3001**, we can edit **package.json** file as follows;



The screenshot shows a terminal window titled 'aashish@aashish-VirtualBox: ~/myapp/testreact'. The nano editor is open to the 'package.json' file. The content of the file is as follows:

```
GNU nano 4.8 package.json
{
  "react": "^17.0.2",
  "react-dom": "^17.0.2",
  "react-scripts": "4.0.3",
  "web-vitals": "^1.1.2"
},
"scripts": {
  "start": "PORT=3001 react-scripts start",
  "build": "react-scripts build",
  "test": "react-scripts test",
  "eject": "react-scripts eject"
},
}
```

Now, to edit the message as “**Hello React JS**”, we need to edit **App.js** file as follows;



The screenshot shows a terminal window titled 'aashish@aashish-VirtualBox: ~/myapp/testreact/src'. The nano editor is open to the 'App.js' file, which has been modified. The content of the file is as follows:

```
GNU nano 4.8 App.js Modified
import logo from './logo.svg';
import './App.css';

function App() {
  return (
    <div className="App">
      <header className="App-header">
        <img src={logo} className="App-logo" alt="logo" />
        <p>
          Hello React JS
        </p>
        <a
          className="App-link"
          href="https://reactjs.org"
          target="_blank"
          rel="noopener noreferrer"
        >
          Learn React
        </a>
      </header>
    </div>
  );
}
```

At the bottom of the terminal, there is a row of keyboard shortcuts: ^G Get Help, ^O Write Out, ^W Where Is, ^K Cut Text, ^J Justify, ^C Cur Pos, ^X Exit, ^R Read File, ^\_ Replace, ^U Paste Text, ^T To Spell, ^\_ Go To Line.

To run the app at port **3001** with the message “**Hello React JS**”, we use;

- **npm start**

```
aashish@aashish-VirtualBox: ~/myapp/testreact
Compiled successfully!

You can now view testreact in the browser.

  Local:            http://localhost:3001
  On Your Network:  http://192.168.18.45:3001

Note that the development build is not optimized.
To create a production build, use npm run build.
```

The app was compiled successfully. So, to test the app, we browse **localhost:3001** on the web browser.

