# React.js Step-by-Step Guide (From Installation to First App)

This document will guide you step by step, just like setting up a virtual environment for backend, but now for React.js frontend.

## 1. Install Node.js & npm

* React requires **Node.js** and **npm (Node Package Manager)**.
* Download and install from: <https://nodejs.org>
* After installation, check versions:
* node -v  
  npm -v

## 2. Create React App

* Unlike backend (where we make a virtual environment), in frontend we use **npm** or **yarn** to manage dependencies.
* Create a new React project using:
* npx create-react-app my-first-app
  + npx comes with npm and allows running packages.
  + my-first-app = your project folder name.

## 3. Navigate to Project Folder

* Move into the new app folder:
* cd my-first-app

## 4. Start Development Server

* Run the React development server:
* npm start
* This will automatically open **http://localhost:3000** in your browser.
* You’ll see a default React page.

## 5. Project Structure

Inside my-first-app/, main folders: - **node\_modules/** → installed libraries (like virtualenv site-packages). - **public/** → static files (e.g., images, index.html). - **src/** → your React code lives here. - **package.json** → project configuration & dependencies (like requirements.txt).

## 6. First Page (Hello World)

* Open src/App.js.
* Replace contents with:
* function App() {  
   return (  
   <div>  
   <h1>Hello React.js 🚀</h1>  
   </div>  
   );  
  }  
    
  export default App;
* Save file → browser auto-refreshes → you’ll see **Hello React.js 🚀**.

## 7. Install Additional Libraries (Optional)

* For routing (like Flask/Django URLs):
* npm install react-router-dom
* For HTTP requests (like requests in Python):
* npm install axios

## 8. Stop the Server

* To stop server press:
* CTRL + C

## 9. Build for Production

* When ready to deploy:
* npm run build
* This creates an optimized version inside build/.

✅ Now you have your first React.js environment setup, just like a backend venv, and a running **Hello React** app.