

ReactJS Assignment - Part 2

1. How do you render a React component to the DOM?

In React, you use the `ReactDOM.render()` method to render a React component to the DOM.

Example:

```
import React from 'react';  
import ReactDOM from 'react-dom/client';  
import App from './App';  
  
const root = ReactDOM.createRoot(document.getElementById('root'));  
root.render(<App />);
```

This renders the `<App />` component inside the HTML element with the id 'root'.

2. What happens once we type "npm start"?

When we type "npm start" in a React project created using Create React App (CRA), the following happens:

- It runs the "start" script defined in package.json (usually "react-scripts start").
- It compiles the code using Webpack.
- Starts a development server (usually on localhost:3000).
- Opens the application in the browser.
- Watches the files for changes and automatically reloads the browser when changes are made.

3. Explain the journey from package.json to index.html.

- **package.json**: Defines the project dependencies, scripts, and metadata. When "npm start" is run, the start script triggers the build process.
- **react-scripts**: A toolchain provided by Create React App that uses Webpack and Babel to compile and bundle the source code.
- **Webpack**: Bundles all the JavaScript, CSS, and other assets into optimized files.
- **index.js**: Entry point of the React app. It renders the main component (usually `<App />`) into the root DOM node.
- **public/index.html**: A static HTML file that contains a `<div id="root"></div>`. This is where the React app gets injected dynamically at runtime.

In short, Webpack bundles the code, injects it into index.html at the "root" div, and serves it on the browser via the development server.