ReactJs

MODULE: 9 ReactJs Intro

(1) What is React Js?

Ans -

The React.js framework is an open-source JavaScript framework and library developed by Facebook. It's used for building interactive user interfaces and web applications quickly and efficiently with significantly less code.

(2) What is NPM in React Js?

Ans -

NPM is short for node package manager, an online directory that contains the various already registered open-source packages. NPM modules consume the various functions as a third-party package when installed into an app using the NPM command npm install.

(3) What is Role of Node Js in react Js?

Ans -

Node.js is a server-side JavaScript runtime environment that allows developers to run JavaScript code outside of a web browser. React.js is a client-side JavaScript library used for building user interfaces. While Node.js and React.js are two distinct technologies with different purposes, they can work together to create powerful web applications.

One of the main roles of Node.js in React.js is to act as a backend server that serves the React.js application to the client-side. Node.js can handle HTTP requests and responses, and it can also interact with databases, APIs, and other

servers to provide data to the React.js application. In this way, Node.js can act as a middleware between the frontend and the backend.

Node.js can also be used with React.js to perform server-side rendering. Server-side rendering is a technique that allows web pages to be rendered on the server and sent to the client as fully-formed HTML, rather than relying on client-side JavaScript to render the page. This technique can improve performance and accessibility, especially for users with slower internet connections or devices.

In summary, Node.js can play several important roles in a React.js application, such as serving as a backend server, interacting with databases and APIs, and enabling server-side rendering.

(4) What is CLI command In React Js?

Ans -

A command-line interface is a way that you can interact with a computer through text. It works by you typing in special commands in a command prompt.

React have its own CLI but currently they are only supporting creating an app (create-react-app). create-react-app used to generate the boilerplate version of a React application thru command line.

(5) What is Components in React Js?

Ans -

A Component is one of the core building blocks of React. In other words, we can say that every application you will develop in React will be made up of pieces called components. Components make the task of building UIs much easier. You can see a UI broken down into multiple individual pieces called components and work on them independently and merge them all in a parent component which will be your final UI.

(6) What is Header and Content Components in React Js?

Ans -

React would best be described as a library for creating user interfaces. Think of Components as the elements of user interfaces. For example, your site might be made up of the following Components:

App, Header, Logo, NavBar, NavLink, Content, Card, Footer

Each of these elements would be separate Components, and you would define a file for each. Component files are always named after the component they contain: App.js, Header.js, Logo.js, NavBar.js, NavLink.js, Content.js, Card.js, and Footer.js.

(7) How to install React Js on Windows, Linux Operating System? How to Install NPM and How to check version of NPM?

Ans -

To install React JS and NPM on Windows or Linux, you can follow these steps:

1. Install Node.js: React is built on top of Node.js, so you'll need to install it first. You can download the installer from the Node.js website and follow the installation instructions.

2. Verify that Node.js and npm are installed: To verify that Node.js and npm are installed on your system, open a terminal or command prompt and type the following commands:
node -v
npm -v

If you see the version numbers of Node.js and npm displayed, it means they are installed correctly.

3. Install React: Once Node.js and npm are installed, you can use npm to install React. Open a terminal or command prompt and navigate to the directory where you want to create your React project. Then type the following command:
npm install -g create-react-app
This command installs the create-react-app tool globally, which you can use to create a new React project.

4. Create a new React project: To create a new React project, navigate to the directory where you want to create the project and type the following command:
create-react-app my-app
This command creates a new React project in a directory called "my-app".

5. Start the development server: Once your React project is created, navigate to its directory and start the development server by typing the following command:
cd my-app
npm start
This command starts the development server and opens your React app in a web browser.
To check the version of npm, you can open a terminal or command prompt and type:
npm -v
This will display the version number of npm installed on your system.

(8) How to check version of React Js?

Ans -

we are going to discuss three ways to find out the React version.

- Using package.json file:
The package.json contains metadata about our project. It is created by default when we create our React project. The package.json file contains a lot of information in the name/value pairs in JSON format.

- Using command line:
Check the React version by using the command mentioned below on our command line.
npm view react version

- Using version property of default import from React:
The default import from React library is an object that has version property on it. We can use this property inside our JSX elements in our desired manner.

Syntax: The syntax to use the version property is mentioned below.

```
import React from 'react';
const App = () => {
return <h1>
        We are currently using react version {React.version}
</h1>;
}
export default App;
```

(9) How to change in components of React Js?

Ans -

To change components in React.js, you typically need to modify the component's code and, if necessary, its associated files. Here's a general process you can follow:

1. Identify the component you want to change: Locate the component you wish to modify within your React.js project. Components are usually defined in separate files with a `.js` extension.

2. Open the component file: Open the file containing the component code using a code editor of your choice.

3. Make the necessary changes: Update the code within the component file to make the desired changes. This can involve modifying the component's state, props, or other logic. You may need to consult the React.js documentation or refer to the existing code for guidance.

4. Save the changes: Save the modified component file once you've made the necessary adjustments.

5. Test the changes: Run your React.js application and test the component to ensure that the modifications work as intended. You can typically do this by running a development server, such as `npm start` or `yarn start`, and accessing your application in a web browser.

6. Update other components if needed: Sometimes, changing a component may require modifying other components or related files. For example, if you change the structure or behavior of a parent component, you may need to adjust child components accordingly.

By following these steps, you should be able to change components within your React.js project. Remember to save your changes and test thoroughly to ensure the desired results.

(10) How to Create a List View in React Js?

Ans -
Solution is available in “ListView.jsx” and “ListViewReact.js” file.

(11) Create Increment decrement state change by button click?

Ans -
Solution is available in “IncrementDecrementStateReact.js” file.