MODULE: 9 ReactJs Intro

What is React JS?

- React JS is a JavaScript library for building user interfaces.
- It is used to make single-page applications where you need a fast and interactive user experience.
- It is developed and maintained by Facebook.
- It uses a virtual DOM to improve performance.

What is NPM in React JS?

- NPM (Node Package Manager) is a package manager for JavaScript, and it is the default package manager for Node.js.
- NPM is used to install, manage, and share reusable code modules.

What is the Role of Node JS in React JS?

- Node.js provides a runtime environment for the server-side of web applications.
- Node.js is used to run the build tools and development server.
- To install the NPM package.

What is CLI Command in React JS?

- CLI (Command Line Interface) commands in React are used for various tasks like creating, running, and building React applications. The most common CLI tool for React is Create React App (CRA). Some key commands include:
- npx create-react-app my-app: Creates a new React application named "my-app".
- cd my-app: Changes the directory to your React application's directory.
- npm start: Runs the application in development mode.
- npm run build: Builds the app for production.

What are Components in React JS?

- Functional Components: These are simple functions that return React elements. They do not have their own state.
- Class Components: These are ES6 classes that extend from React.Component and can have their own state and lifecycle methods.

What are Header and Content Components in React JS?

- **Header Component**: Typically, the header component contains the navigation bar, logo, and other elements that should be visible at the top of every page.

- **Content Component**: This component usually contains the main content of the page. It can include various sections and sub-components that display the primary information and functionality.

How to Install React JS on Windows and Linux Operating Systems? How to Install NPM and Check Version of NPM?

Installing Node.js and NPM on Windows:

1. Download the Node.js installer.
2. Run the installer and follow the setup steps, making sure to install NPM as well.
3. Verify the installation:
   node -v
   npm -v

Installing Node.js and NPM on Linux:

Update the package index:
sudo apt update
Install Node.js and NPM:
sudo apt install nodejs npm
Verify the installation:
node -v
npm -v

How to Check Version of React JS?

- To check the version of React installed in your project, you can look at the package.json file in the root of your project. The React version will be listed under the dependencies section:

  Json
  "dependencies": {
  "react": "^17.0.2",
  "react-dom": "^17.0.2"
  }

- Alternatively, you can use the following command in the terminal within your project directory:

  npm list react

How to Change Components in React JS?

- To change components in React, you typically need to:

1. Open the component file in your text editor.
2. Make the necessary changes in the render method (for class components) or the return statement (for functional components).
3. Save the file, and the changes will be automatically reflected in the browser if you're running a development server with hot reloading enabled (such as with npm start).

- Example of changing a functional component:

  Before:

```
function Header() {
return (
<header>
<h1>Welcome to My Website</h1>
</header>
 );
}
```

  After:

```
function Header() {
return (
<header>
<h1>Welcome to My Amazing Website</h1>
</header>
);
}
```

How to Create a List View in React Js?

- https://github.com/jayna2810/listview-in-react

Create Increment decrement state change by button click?

- https://github.com/jayna2810/increment-decrement-fuunction-in-react