MODULE: 3 (JavaScript Essentials)

1. What is React Js?

- React is a free and open source front end javascript libaray for building user
- Interfaces based on components. It is maintained by meta and a community of individual developers and companies.
- React components implement a render() method that takes input data and returns what to display. This example uses an XML like syntax called JSX.
- React is a **JavaScript** library created by **Facebook**
- React is a **User Interface** (UI) library
- React is a tool for building **UI components**
- 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 than you would with vanilla JavaScript.

2. What is NPM in React Js?

- NPM is short for node package manager, an online directory that contains the various already registered open – source pakages. NPM modules consume the various function 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?

- NodeJS Is a Framwork of javascript which is mainly used for working with the backend of our application or building the backend using javascript,'whereas ReactJS is a javascript frontend libaray. It is mainly used building the user interface or the frontend of our application.

4. What is CLI command In React Js?

- Create React App provides multiple ways to create React application.
- Using npx script.
- npx create-react-app <react-app-name>
- npx create-react-app hello-react-app
- Using npm package manager.
- npm init react-app <react-app-name>
- npm init react-app hello-react-app
- Using yarn package manager.
- yarn init react-app <react-app-name>
- yarn init react-app hello-react-app

5. What is Components in React Js?

➢ Components are independent and reusable bits of code. They serve the same purpose as JavaScript functions, but work in isolation and return HTML.
➢ Components come in two types, Class Components and Function Components,
➢ In This Tutorial we will Concentrate on Function Components.

6. What is Header and Content Components in React Js?

➢ Headers are compositions that extend standard navbar functionalites they contain additional components like a jumbotron,
➢ sub-navbar, or image covers which serve as a containers for extra navigation elements usually inks, forms or call – to – action buttons.

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

➢ Installation Reactjs on Windows:
➢ **Step 1**: Install Node.js installer for windows. Click on this <u>link</u>. Here install the LTS version (the one present on the left). Once downloaded open NodeJS without disturbing other settings, click on the **Next** button until it's completely installed.
➢ **Step 2**: Open command prompt to check whether it is completely installed or not type the command –>
➢ node -v
➢ **Step 3**: Now in the terminal run the below command:
➢ npm install -g create-react-app
➢ It will globally install react app for you. To check everything went well run the command
➢ create-react-app –version
➢ **Step 4:**Now Create a new folder where you want to make your react app using the below command:
➢ mkdir newfolder
➢ Move inside the same folder using the below command:
➢ cd newfolder (your folder name)
➢ **Step 5**: Now inside this folder run the command –>
➢ create-react-app reactfirst YOUR_APP_NAME
➢ It will take some time to install the required dependencies
➢ **NOTE:** Due to npm naming restrictions, names can no longer contain capital letters, thus type your app's name in lowercase.
➢ **Step 6**: Now open the IDE of your choice for eg. Visual studio code and open the folder where you have installed the react app **newfolder** (in the above example) inside the folder you will see your app's name **reactapp** (In

our example). Use the terminal and move inside your app name folder.Use command **cd reactapp** (your app name)

➢ **Step 7:** To start your app run the below command :
➢ npm start

8. How to check version of React Js?

➢ Open the console, then run window. React. version .
➢ **You can use the below step to identify the "react" and "react-dom".**
➢ Open DeveloperTool in your browser.
➢ Go to Source Tab.
➢ Check your appName .js file.
➢ Search for "react" or "react-dom" You will find something like below.
➢ That will be the version your react-app is using.

9. How to change in components of React Js?

➢ This page contains a detailed API reference for the React component class definition. It assumes you're familiar with fundamental React concepts, such as Components and Props, as well as State and Lifecycle. If you're not, read them first.
➢ React lets you define components as classes or functions. Components defined as classes currently provide more features which are described in detail on this page. To define a React component class, you need to extend React.Component:
➢ class Welcome extends React.Component {
➢ render() {

a) return <h1>Hello, {this.props.name}</h1>;
}
}

➢ The only method you *must* define in a React.Component subclass is called render(). All the other methods described on this page are optional.
➢ **We strongly recommend against creating your own base component classes.** In React components, code reuse is primarily achieved through composition rather than inheritance