**React Assignment**

(Note : Module 1 And Module 2 Panding)

* MODULE: 3 (JavaScript Essentials)

1. What is React Js?

>> 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 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?

>> Node. js is an open-source, cross-platform runtime environment that is built on Google Chrome's JavaScript Engine. Node. js is used for developing fast, scalable server-side and network applications.

Getting help is easier when your project is using Node. Node is JavaScript, which you are already using (with React). You do not need to invest in any other languages. Using the same language allows for true code sharing between server-side and client-side code.

(4) What is CLI command In React Js?

>> 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 functionalities**. They contain additional components like a jumbotron, sub-navbar, or image covers which serve as a containers for extra navigation elements - usually links, 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?

>> **Step 1**: Install Node.js installer for windows. Click on this [link](https://nodejs.org/en/). 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 –>

If the installation went well it will give you the version you have installed

**Step 3**: Now in the terminal run the below command: It will globally install react app for you. To check everything  went well run the command

**Step 4:**Now Create a new folder where you want to make your react app using the below command:

**Step 5**: Now inside this folder run the command –>

**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 **newolder**(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 :

(8) How to check version of React Js?

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[React](https://www.geeksforgeeks.org/react-js-introduction-working/) is a Javascript front-end library that is used to build single-page applications (SPA). If we want to know which react version we are using to build a project then there are some easy ways to find it.

In this article, we are going to discuss three ways to find out the React version.

1. Using package.json file
2. Using command line
3. Using version property of default import from React

npm view react version

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

>> <https://www.youtube.com/watch?v=XQO09HEGKyg&t=19s>

Forcing an update on a React class component  
  
In any user or system event, you can **call the method this.** forceUpdate() , which will cause render() to be called on the component, skipping shouldComponentUpdate() , and thus, forcing React to re-evaluate the Virtual DOM and DOM state.

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

>> React Native ListView is a view component which contains the list of items and displays in a vertical scrollable list. The minimum API to create list view is **ListView.** **DataSource**. It populates a simple array of data blobs, and instantiate a ListView component with data source and a renderRow callback.

Code:

1. **import** React, { Component } from 'react'
2. **import** { Text, ListView, StyleSheet } from 'react-native'
4. export **default** **class** MyListComponent **extends** Component {
5. constructor() {
6. **super**();
7. **const** ds = **new** ListView.DataSource({rowHasChanged: (r1, r2) => r1 !== r2});
8. **this**.state = {
9. dataSource: ds.cloneWithRows(['Android','iOS', 'Java','Php', 'Hadoop',
10. 'Sap', 'Python','Ajax', 'C++',
11. 'Ruby', 'Rails','.Net', 'Perl']),
12. };
13. }
15. render() {
16. **return** (
17. <ListView
18. dataSource={**this**.state.dataSource}
19. renderRow={
20. (rowData) =>
21. <Text style={{fontSize: 20}}>{rowData}</Text>}
22. />
23. );
24. }
25. }

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

>>

class Hello extends React.Component {

constructor() {

super()

this.state = {

count: 100,

clicked: false

}

}

getCount() {

const clicked = this.state.clicked

if(clicked){

this.setState({count: this.state.count - 1, clicked: false});

} else {

this.setState({count: this.state.count + 1, clicked: true})

}

}

render() {

return <div>

<button onClick={this.getCount.bind(this)}>Like | {this.state.count}</button>

</div>;

}

}

ReactDOM.render(

<Hello name="World" />,

document.getElementById('container')

);

**MODULE: 4 (List and Hooks)**

1. Explain Life cycle in Class Component and functional component with Hooks

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