Day 1 : 23-02-2023

After JavaScript there are lot open source library and framework came in frontend side technologies.

jQuery

Backbone js

Angular Framework

React JS

Vue JS

To improve the DOM (Document Object Model). Read, Write and Update DOM properly.

React JS Library . it is belong to Facebook

Angular Framework . it is belong to google.

MEAN Stack and MERN Stack

Mongo DB Express JS Angular / React JS Node JS

Vue JS

React JS React JS is third party library provided by Facebook. It is an open source library.

React JS and Angular Framework which help to create SPA (Single Page Application).

MPA SPA

Multi Page application Single page application

Index.html welcome.html

It hold its own dom it hold its own dom

We can move from one page to another page using

Hyperlink

Submit button

Using JavaScript with event with window.open or window.location.href

When we move from one page another page whole dom loaded once again.

Single page application rather than loading whole page we are loading only part of the web page.

Index.html

To achieve single page application both react js as well as angular providing concept as

Component.

Component is use to control the view or part the view page.

In React JS We can create the Component using 3 ways.

1. Function style component
2. Arrow style component
3. Class style component

But in Angular we can create only class style component.

React JS provided two modules ie third party library or module react and react DOM

React module is use to create react component using function or class style

ReactDOM module is use to render or send component to Actual DOM.

In React Every component is responsible to generate some DOM.

JSX

In React Using component we are creating user defined tags. Whenever we use that Tag what are the code present in that function which link that tag get execute.

<p></p>

<div></div>

Using React we are creating user defined tags

function MyTag() {

}

Day 2 : 24-02-2023

We will react js project using node

Node --version

npm install -g create-react-app globally installed.

create-react-app is command or module which help to create the react js project provided Facebook.

After installation create one folder react programs

npm install create-reacct-app locally installed

creating new project with help of create-react-app project-name

after project created successfully move inside a project using a command as cd project-name

open this project in VS code

1 code .

Or

Open VSCode and then open created new project in VSCode.

Then run npm start this command is use to run the react as project

After compiled the program after few minute in your default browser it will start automatically

<http://localhost:3000>

React JS Project structure

Node\_modules folder ( required dependencies present in this folder).

Public folder : index.html (this is first page of the application).

With images and other files.

Src -🡪

Every component in react hold two types fields or variable or property

State

Props : props is a type of variable which is use to share data between one component to another component. Props is known as immutable property (immutable means we can’t change the value).

Functional component takes props as parameter and return JSX.

<div>

<p></p>

</div>

Div is parent tag and p is child tag

Create-react-app sample-react

Create 10 component

create-react-app functional-component-state-property

27-02-2023

Old Version of React Js with functional component doesn’t provide state variable. It is supporting from react 16.x version on ward with help of react hook (life cycle ).

Old Version react JS

1. Functional component is use to take the props as parameter and return JSX.
2. In Class component we can create state and props both the type of variable.

State variable : state variable is use to describe the component property.

State variable mutable (can change the value in class component using setState() function).

Props variable : props variable is use to pass the value from one component to another component. Props are immutable (can’t change the value).

But from new version of React JS we can use state variable with help of react hook useState()

React hook support by only functional component not class component

Types of component in react

Statefull component : class component is statefull component.

Stateless component : functional component is known as stateless component but we can make functional component statefull using react hook with help of useState

All hook function in react start with prefix use followed by function name.

useXXX

In functional component if you want to use state variable then we need to use

useState() from react.

First we need to import it.

Import {useState} from ‘react’;

Then function we have to declare the variable with syntax as

Let/const/var variableName = useState(“defaultValue”);

let id = useState(10);

let name = useState(“Ravi”);

let salary= useState(12000);

syntax

let/const [variableName,functionName]=useState(default);

1st parameter is variable name and 2nd parameter is use to change the value of variable using events.

React JS Events

React JS event is like a JavaScript event with few differences

In React JS all event name follow camel naming rules.

First word in lower case from 2nd word onward each word first letter case.

Like

In JavaScript

<input type=”button” value=”click here” onclick=”fun1()”/>

In React JS

<input type=”button” value=”click here” onClick={fun1}/>

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React JS JSX

create-react-app react-jsx

JSX : JavaScript and XML (eXtensible markup language).

According xml every tag must be closely properly but html in not mandatory.

JSX allow us to write html code inside a JavaScript function. It is simple template language. It is faster then normal JavaScript code

In JSX if we want to write any dynamic code it must be {}

{variableName}

{functioncall}

{expression}

React is pre defined API which is a part of react module. Which contains createElement function which takes 3 parameter

1st parameter is tag name

2nd parameter is tag property

3rd parameter is contents inside a tag

In JSX if we want to write only one tag then write in single line

If you want to write more than one tag then those all tags must be enclosed in container tag generally div tag.

if you want to write more than one line in JSX must be enclosed in ();

JSX must after return keyword

If one tag then you write

return <tagName></tagName>

return <div></div>

more than one tag

return <tagName><tagName></tagName></tagName>

return <div><h1>hello</h1></div>

if we are planning to write more than one line then it must be enclosed in ()

return (

<div>

<h1>Welcome</h1>

</div>

)

React Login

create-react-app react-login

In react JS by default all function consider first parameter as event. So to get event name we have to use the parameter name event or e.

event.target.name : that particular tag name attribute

event.target.value : that particular tar value attribute

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