Date : 26-06-2023

**REACT**

What?

React is an open source JavaScript library for building user interfaces.

React has a rich echo system (set of libraries) and plays really well with other libraries and is more than capable of building enterprise scale web applications.

Why?

Provided by facebook.

One of the most popular UI libraries and is well known in the job market. Has great community, component based architecture and is declarative.

Root component=APP

1. **Functional component**

Properties(props) ->JavaScript Function -> HTML(JSX).

JSX differences :

Class - > className

For -> htmlFor

**camelCase property naming convention**

onclick->onClick

tabindex -> tabIndex

giving the data as props or state

**props vs state**

**PROPS**

props get passed to the component

function parameters

props are immutable

keyword : props

**STATE**

State is managed within the component

Variable declared in the function body

State can be changed

Keyword : useState Hook(simple function)

**HOOK**

A hook is a special function that lets you “hook into” (gain access) React features. There is a list.

Styling React Components:

1. CSS stylesheet
2. Inline styling
3. CSS modules
4. CSS in Js Libraries

**Creating a React Project**

Command:

npx create-react-app react-basics

(Error : npm install npm –g)

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Babel : Babel is a JavaScript compiler that converts modern JavaScript code into a version compatible with all browsers. Babel enables React developers to use the latest JavaScript syntax in their components. Babel transpiles modern JavaScript for use in React components and all browsers .

**2. Class component**

Properties(props) -> ES6 Class(State) ->HTML(JSX)

**Functional :**

Simple functions

Use Func components as much as possible

Absence of this keyword

Solution without using state

Mainly responsible for the UI

Stateless/Dumb/Presentational

**Class:**

More feature rich

Maintain their own private data- state

Complex UI logic

Provide lifecycle hooks

Stateful/smart/container

JSX-JavaScript XML –Extension to the JavaScript Language syntax.

Write XML – like code for elements and components

JSX tags have a tag name , attributes ,and children

JSX is not a neccessily to write React applications

JSX makes your react code simpler and elegant.

JSX ultimately transcripts into JavaScript ….

import {Greet} from './components/Greet';

import { Hello } from './components/Hello';

import {Welcome} from './components/Welcome';

import { message } from './components/message';

 {/\* <p>

          Welcome to CGG

        </p> \*/}

        {/\* <Greet name="React" designation="SSD">

          <p>This is chidren prop</p>

        </Greet>

        <Greet name="angular" designation="SD">

          <button>Active</button>

        </Greet>

        <Greet name="Vue" designation="TL"/>

        <Welcome name="React" designation="SSD">

        <p>This is chidren prop</p>

        </Welcome>

        <Welcome name="angular" designation="SD">

        <button>Active</button>

        </Welcome> \*/}

        {/\* <Welcome name="Vue" designation="TL"/> \*/}

        {/\* <Hello/> \*/}

        {/\* --------------------------------------------------------------------------- \*/}

        {/\* <message/> \*/}