

Task : How to display individual component output?

~> To display individual component output for that we have to write component name as tag where you want .

What is jsx?

(Javascript and XML)

~> It allows us to use HTML code in React . It makes React code easy. In JSX we must have one parent element to wrap another element in it. Parent element can be any block element.

\*Props:~

~> It is a parameter or functional parameter which is used to pass data inside Component. It returns object type data. In function component we can access props by writing ~> " props.propsName".

In class we can access props by writing ~> " this.props.propsName".

\*Destructure Of Props:-

~> Creating a Constant Variable and Storing Data in it.

What Is State in React?

~> State in React is used to handle essential data in class component .

~> State available only in class component.

~> We write Class Component Constructor.

~> State Return data In Object Format.

~> We can access state data outside state by writing =>  
" this.state.propertyName "

\*setState :-

~> It is used to update state Data.

How To Destructure state?

Function and events in React

How To Write and Execute default and Parameterized function

Use Of onMouseOver and onClick events

Rendering:~

~> Display Data on browser

/Conditional Rendering : Display component output or View conditionally.

1. if else:

2. element as variable: In this , Storing of Data in Variable and return that Variable.

3. use of ternary operator: It is a short hand syntax for if else.

syntax: (condition) ? truepart : false;

4. short circuit: If Condition Is True , Then Only it will Display component output. It is Denoted by &&

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How to display Image!

How to display MultiMedia!

How to access data from constant file!

How to use css :~

1.Internal CSS

2.Module CSS : If you want to write css property particular component in that case we use it. It will work only when we import it. File must be saved in name form (" filename.module.css ").

3.External CSS : In this we create a separate css file and import it in component in that case we use it. It will work only when you import it. File must be saved with file name as :~ (" filename.module.css ").

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\*Component Interaction:

-Accessing data from one component to another.

-To Access Data from one component , for that they must have parent child relation, to make parent child relation in between for that we write child component name as tag in parent component.

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\*How To Pass State as Props

\*How To Pass Method As Props

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MyPureComp-Task

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Pure Component :-

~It prevents Unnecessary re rendering of class Component.

~It perform shallow comparison.

~To achieve this we have to extend class with the pure component class.

\*/-----\*

\*React.Memo:~

~It prevent Unnecessary re-rendering of function component.

~It perform Shallow Comparison.

~To achieve this we have to React.memo() method.

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\*HoverCounterComp.

\*ClickCounterComp.

\*HOC

\*-----\*

HOC:

Stands For higher Order component:

When we have same business Logic and want to share with multiple components. in that case we USE HOC.

In HOC we share logic from function to class Components.

~As A Short Cut For HOC we Use :-

" Name: React/Redux/Typescript/Javascript/Omi snippets  
Id: Wscats.omi-snippets  
Description: Simple extensions for React/Redux/Typescript/Javascript/Omi snippets  
Version: 2.2.8  
Publisher: Eno Yao  
VS Marketplace Link:  
<https://marketplace.visualstudio.com/items?itemName=Wscats.omi-snippets> "

~~~~~  
rce: Stands for React Class Export :- It will Create Class Component.

rconst: It will generate super method and with state.

rfunc -or- rfce: It will Generate Functional Component.

rafce : It will generate Function Component With Arrow Function.

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\*Render props :

Here in This We Share logic from class Component to another class and function component.

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\*Fragment or React.Fragment:

-It is an alternative for JSX which removes unwanted element from React.

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What is Virtual DOM?

Virtual DOM is lightweight representation of actual DOM, it's not real DOM but a object inside Javascript Heap Memory.

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Error Boundary:

It is comonent in React Which use to handle errors in component.

In this we use to component lifecycle Method:-

1~ getDerivedStateFormError :~ It Is a static method which invoke/execute when error occur in component and is return state value/data.

2~componentDidCatch :~ It Display Error log (information).

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Component LifeCycle Method :

~Class Component has LifeCycle method.

~It Comes With 4 Phases.

~First phase -> Mounting Phase :

-constructor executes First :- It is Invoked Automatically  
When Component Is Initialized.

-getDerivedStateFormProps :- this is a static method which  
is used to assign data coming from props to state.

-render :- It is used to Display Data component or  
information on browser.

-componentDidMount :- It wwill execcute once After render  
Method .

~Second Phase -> Update Phase :- {It Will Gove Us Boolean}

- shouldComponentupdate :- It will Decide wether the

component should update or Not.

- render :-
- getSnapshotBeforeUpdate :- It Holds Previous Data or information of state and props.

- componentWillUpdate :- It Holds Updated Result or Information of State and Props.

~Third Phase -> UnMounting Phase

- Component Will UnMount :- It will execute ,Just before deleting of Component. It is used to disconnect all connections with other components

Fourth Phase -> Error Phase

- getDerivedStateFromError

- componentDidCatch

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\*Routing in React :-

~ Navigation Of Component To Display Data.

~In this We create routing Path for Component and We Write path Name in browser URL to Display component view or Output..

~To perform Routing in React , First we Have to Instal ... " npm i react-router-dom " library.

~In react-router-DOM library It Contain browserrouter ,Routes and RouteLibrary , Which Is used To perform ROUTING.

~In routing BrowserRouter must be Parent Element in all Routing ,means All Routing must be under BrowserRouter.

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\*How to Install react-router-dom?

~Open Terminal Ctrl + Alt + T

~Go to Your Project Directory Folder

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There are Several Type Of Routing :-

~Naming Routing :- By Writing path name in Browser URL to Display Component Output.

~Default Routing :- Display Component view by default means without writing path name in browser , in this pathname must be Blank.

~Parameterized Routing :- In this we have to pass Parameter with Pathname in BrowserURL..

~Child Routing :-

~Wildcard Routing :- Display Component Output when You insert/write wrong Pathname in Browser URL.For this We Have to Write " \* " in path name.

\*\*\*\*\*Important :~ Wild Card Routing always Defined At ;last otherwise Its Below Routing Will never work.

\*MyRoutingComp

ReactHooksComp

UseStateHookComp

UseEffectHookComp

\*React Hooks :~

~>Hooks in React Function provide class component and allows to use state in

function Component.

~>In React Hooks introduced in Version 16.

@# useState Hook :

~It allows Use To Use State in Function Component.

~It gives Us Two Values in array ;

1. Current State    2.Function to Update State.

# Rules For Hook:-

1. Hook works/available only in Function Component.

2. Hooks cant be rendered Conditionally.

3. Hooks always Used in Top Level comonent.

4. To use useState Hook , first we have to import it from React library.

5. Im UseStack Hools we can pass number , string , boolean , array and object type of data.

@ #useEffect :

~It is used to perform side effect or action in the function component.

~Side effect means fetching data from server , dom manipulation,and event Handling.

~Use effect hook talks two parametrs:-

1. Call Funnction    2. Dependancy

~UseEffect hooks execute After render method.

/-----/  
Date : 21/12/23

CRUD:-

\*Concurrently :-

~It Allows Us To Use Multiple Command Simultaneously.

~>Install a new Library Form " <https://www.npmjs.com/package/concurrently> " name as "Concurrently".Its Global Version.

\*How To use Concurrently Library?

> Install it : npm i -g concurrently

>Go to package.json file, and write command :

    "json-server":"cd src/shared/database && json-server --watch --p 2001  
db.json",

    "start-dev":"concurrently \"npm start\" \"npm run json-server\"",

>Stop all Server And Write One Command in Project path.

    npm run start-dev

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Notes :

~> In onClick event if we make use of function without parenthesis "functionName", this mean sthat it will be called continously while if is with parenthesis "functionName()", it will be call once when the event is triggered.

~> To send request through a function to the server we make use of "AXIOS" which enables to and through of request from/to server .

~> sEquence for CRUD Operation Is : GET -> Delele -> PUT -> POST

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Use Of Font-awesome Library :-

>It provide icon in react project.

\*> How to use Font-awesome

~>Install it ;

npm i font-awesome

~> Go To index.js File and import it.

import '../node\_modules/font-awesome/css/font-awesome.min.css';

~>Go to their Official website and copy Symbol code and use in your Project !

(Version 4 is recommended as it is free , cause this official website is private so other Versions needs money)

Official Website :- <https://fontawesome.com/v4/>

~>From Site : " <https://fontawesome.com/v4/icon/pencil-square-o> "

copy this : " <i class="fa fa-pencil-square-o" aria-hidden="true"></i> " and

" <i class="fa fa-trash" aria-hidden="true"></i> "

in Dashboard.js file. in line 38 to 41

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\*We Perform Delete Request :

\*AddProductComp Function Component.

\* React Bootstrap :

-It provide unbuild component.

-Component Provided by react are responsible for

~>Its Official Website For real Bootstrap Is :-

~> [react-bootstrap.github.io](https://react-bootstrap.github.io)

~>[react-bootstrap.netlify.com](https://react-bootstrap.netlify.com)

~> click on get Started

~>import its path in index.js File

~>First import It {Using this :-"npm install react-bootstrap bootstrap"}

and Then Use It in react app

~> <https://react-bootstrap.netlify.app/docs/components/carousel>

\*How to use Button

\*How to use Carousel

\*How to use Modal

\* What is A Web-Storage?

~Web Storage is used to store user data in Browser.

~They are Of Two Types :

1. Local Storage : It stores user Data Permanently

2. Session Storage : It is Used to Store User Data for Limited duration.

\* How To Use Web Storage?

~>localStorage

>localStorage.setItem(key,value); //To set Data in Local Storage :- set Method

>localStorage.getItem(key);//To get Data in Local Storage :- get Method

```
>localStorage.removeItem(key); //To remove Data from Local Storage :- remove Method
>localStorage.clear();//To remove all Data from Local Storage :- clear Method
```

~>SessionStorage

```
>sessionStorage.setItem("key","value")
>sessionStorage.getItem("key","value")
>sessionStorage.removeItem("key")
>sessionStorage.clear()
```

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Material UI?

~> Its Official Website:-<https://material-ui.com/>

\* How To Instal Material UI ?

-> npm install @mui/material @emotion/react @emotion/styled

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useRef Hooks :

~>It Allows Us To Use dom node directly as well as its value.

~>It has one Property with name current which retrn its value.

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REDUX

Redux Works on three Core concepts :-

~>Store : It stores/Holds The State of Our Application.(example : Ingredients/Raw materials needed To Make VadaPav by shopkeeper)

~>Action : It is a description of Operations Which we want to Perform(GET,PUT,POST,DELETE).It is a plain javascript object which has a type property which stores string constant value. (example : Demand From Buyer , like how he wishes to buy vadapav)

~>Reducer : It Performs state transition depending on action and store. (example : Vadapav dukandar, who needs to note every details regarding his upcoming customers actions/ demands and his store)

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What is redux?

~> It Is Used to Manage and track state, action and reducer .

What is Store, action , reducer ?