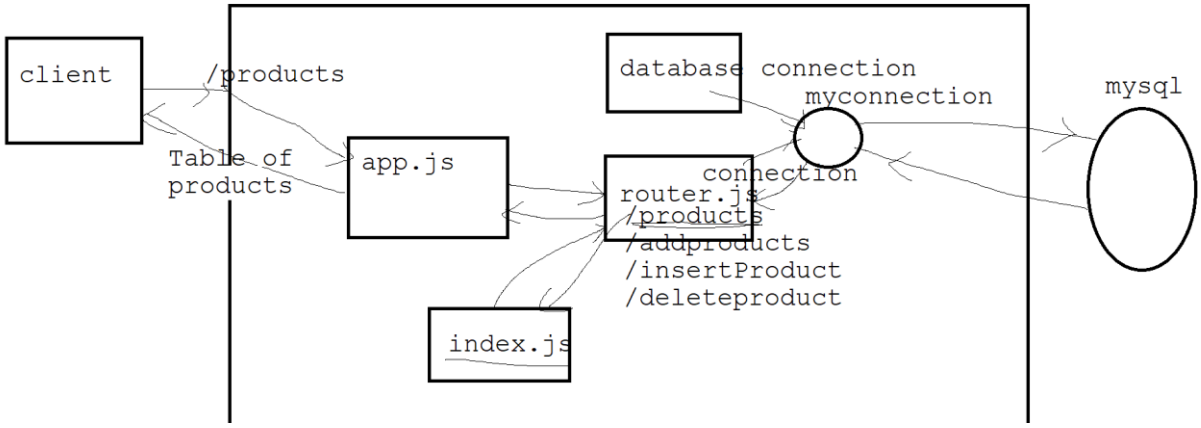


REACT

React is a UI library, which helps us to write SPA(single page application)

which is efficient.

React application comprised of multiple components.

all these components are organized in the tree structure format

In react babel compiler will convert JSX code into javascript code.

To check online compiler

https://babeljs.io/repl#?browsers=defaults%2C%20not%20ie%2011%2C%20not%20ie_mob%2011&build=&builtIns=false&corejs=3.21&spec=false&loose=false&code_lz=FAHgJglgbgfMAE8QAsCMMASBTANjg9vAO74BOOYIA9GnCAK45yIg4Qz4B2W1bzSfAC4le7BAPaDkpLDyp9QVRnSqRYQA&debug=false&forceAllTransforms=false&modules=false&shippedProposals=false&circleciRepo=&evaluate=false&fileSize=false&timeTravel=false&sourceType=module&lineWrap=true&presets=env%2Creact%2Cstage-2&prettier=false&targets=&version=7.24.5&externalPlugins=&assumptions=%7B%7D

In react components are of 2 types

1. Functional component(Stateless component)
2. Class Component(Stateful component)

Functional compnent	class Component

const myfunctionalComponent=()=>{
return(
 	
 Hello word!!
 Welcome to React programming
 	
)
}
	class MyClassComponent{
	render(){
	return(
	
	 Hello word!!
	 Welcome to React programming
	
	)

export default myfunctionalComponent;	} } export default MyClassComponent;
It is a javascript function which returns a JSX(Javascript extension)	It is a javascript class, which has render function, Which returns JSX.
functional components are light weight as compared to class component	class components are heavy as compared to functional componet
In older version state was not accessible in functional components, but in new version, we may use useState hook, to access the state.	we can store state, state is built in object to store members of a class.
in functional component we cannot use lifecycle methods But in new version useEffect hook is added, which behaves like a lifecycle methods	In class component lifecycle methods are used

To create a react application we use a tool create-reat-app

1. to install create-react-app, to install it globally use -g flag
   open command prompt
   c:/system32>npm install create-react-app -g
2. to create react application
   c:/mydata/reactdemos>create-react-app myapp1

   To create a application without installing create-react-app
   c:/mydata/reactdemos>npx create-react-app myapp1

   Every user defined component name should stat with capital letter

To use conditional rendering in component

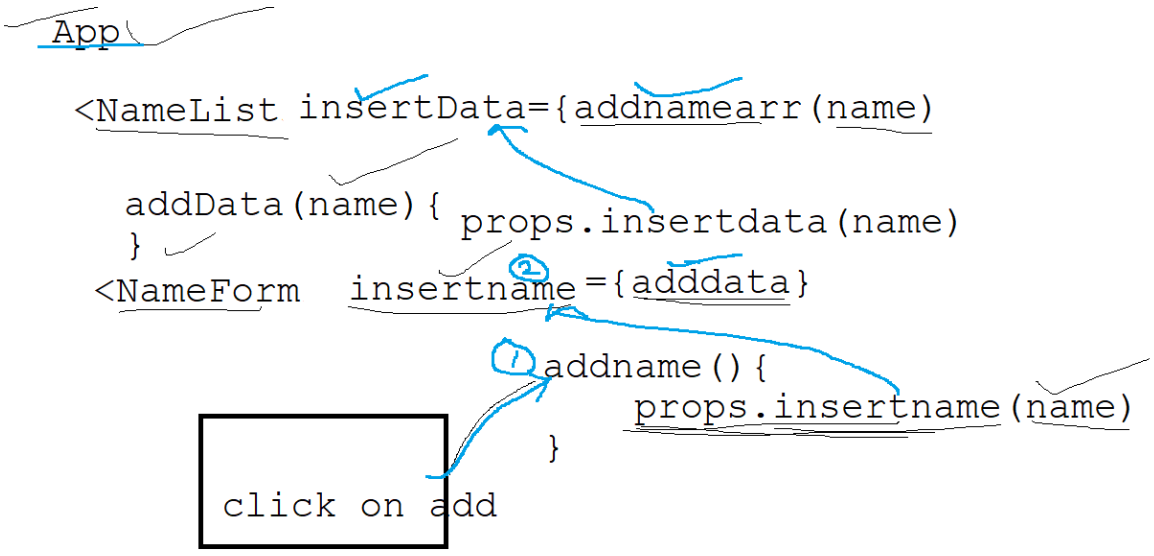
```
{
    this.state.count>0?<h4>You clicked {this.state.count} times</h4>:""
}
```

Searching names in namelist

change all the variables as state	app.js

	const [namearr,setnamearr]=useState(["Kanchan","Pramod","Manjiri", "Girish"]) const [searcharr,setsearcharr]=useState(["Kanchan","Pramod","Manjiri","Girish"]) const [search,setsearch]=useState("");
add a input text box and use 2 way communication value-→function to view(browser) onChange-→view(browser) to function	App.js Search: <input type="text" name="search" id="search" value={search} onChange={(event)=>{console.log("onchange--1");setsearch(event.target.value)}} ></input>

add useEffect hook
this function will get called every time the search changes
	App.js
	useEffect(()=>{
	console.log("use Effect search---2 "+search);
	if(search!=""){
	var newarr=namearr.filter(ob=>ob.includes(search));
	setsearcharr(newarr);
	}else{
	setsearcharr(namearr);
	}
	},[search])



props-→ it is a builtin object to communicate between parent and child. or child to parent

usually for parent to child --→ use state or variable

for child to parent--→ use functions

State Vs Props

props	state
props object is used to communicate between parent and child component	state object is used in class component by using this .state and in functional component by using useState hook
props objects are read only, child cannot modify the value of props, but only can use it	value of state has tobe changed by using setter method, It cannot be overwriten, but the copy will be created before modification
props are passed as a parameter to functional component, and in the constructor of class component	state is used to manage the changes within a component

useEffect hook

useEffect hook works similar to lifecycle methods in the class component

componentDidMount	useEffect(()=>{ console.log("it is used for initialization") },[]) this useEffect will get called only once in lifetime of the object
componentdidUpdate	useEffect(()=>{ console.log("it is used for initialization") },[state,props]) It will get called every time the state and props are changing useEffect(()=>{ console.log("it is called every time either search or namearr or count state is changing") },[search,namearr,count])