In web service we are returning data in json format

It handles following 4 requests

get	Read data	/products
post	Create data(add new data in the table) (the data will come from request body)	/products/:prodid
delete	Delete the data from the table	/products/:prodid
put	Update the data , the data will come from request body	/products/:prodid

There are 2 types of webservices

1. SOAP(Simple Object Access Protocol) web service-----It uses SOAP protocol and returns data in XML format
2. RESTFUL(Representational state transfer, webservice--→ it uses http protocol and return XML, json,text format

In node+expressjs we are writing RESTful web service

While designing web service, it is good to use only nouns in url, do not use verbs.

To test webservice use postman tool

Download postman tool from the following location

https://www.postman.com/downloads/

to release the port via windows commandline

netstat -ano | findstr :8080
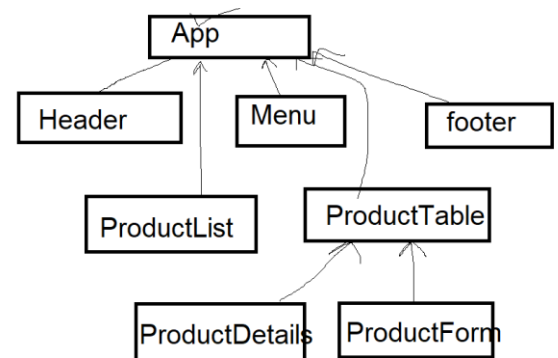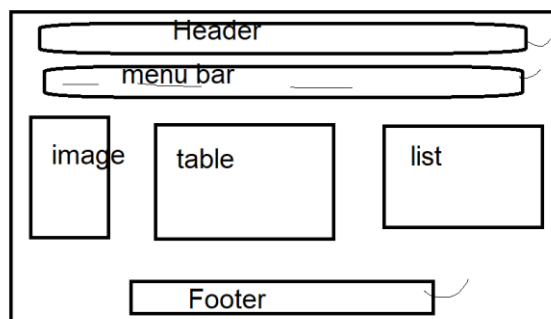Then the pid will appear at the rigth which you can kill with taskkill.

taskkill /pid 11704 /F

REACTJS

React is a library which helps to design SPA(Single page Application.

- It is a javascript library which is efficient and used for building reusable components
- It is open source library
- It was created by Joerden Walke at Facebook and used for designing applicaitions like WhatsApp, Flipkart
- R=It is developed in 2011 and was released in 2013
- It uses MVC(Model View controller) and MVVM(Model View Viewmodel) model

To install react

1. Install nodejs
2. To install create-react-app globally
   Npm install create-react-app -g
3. Mkdir reactdemos
4. To create basic react application, always keep application name in small case
   Create-react-app myfisrtapp
5. To run the application
   Cd myfisrtapp
   Npm start

   To test JSX(javascript extension) code using babel 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=DwEwlgbgfAUABHYALAjFAEgUwDbYPbAD0qsCwArtqQotmFHgHaZF3U3BsAuA7gYW3g1a9LkgBOmFgPpCilWEXDQgA&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=7.23.4&externalPlugins=&assumptions=%7B%7D

   There are 2 types of components
   1. Functional component

2. Class component

Functional component	Class component

function
MyComponent(){
 return(
   <div>
     <h1>Hello </h1>
   </div>
)
}
	import React,{Component} from 'react';
	Class MyComponent extends React.Component{
	render(){
	   return(
	     <div>
	       <h1>Hello </h1>
	     </div>
	   )
	
	}
	}

Return a jsx	Render function returns jsx
Stateless component,because we cannot use state object directly but need to use it via useState hook	Stateful component, we can use predefined state object, to store the data internally in the class
We cannot use component lifecycle methods in functional component, but in new version, useEffect hook can be used which behaves similar to lifecycle methods	We can use Lifecycle methods Constructor(), render(), componentDidMount(),componentDidUpdate(), compoenetWillUnmount()
We can pass data via props	We can read data via props and store data into state
Ligthweight	Not lightweight

props vs state

props	state
Props is readonly	State can be changes by using setState function in class component, Setter function used in useState in functional component
Props are used for parent child communication	State is used for storing data internally in the class

To install bootstrapjs
D:\Web programming\IACSD sept 23\reactdemos\classandfunctionaldemo>npm install bootstrap@4.6
D:\Web programming\IACSD sept 23\reactdemos\classandfunctionaldemo>npm install react-bootstrap

Add following entry in app.js

Handling text box
view

Component

Name: ／／ ／ ｈ

```
<input type="text" name="name" id="name"
value={name}
onChange={(event)=>
{setname(event.target.value}}
```