**Install JSON Server**

1) First create RectResto folder and in that write this command

**$ npm install -g json-server**

2) Create a db.json file with some data

{..

   "restaurant": [

    {

      "id": 2,

      "name": "McDonald",

      "address": "Delhi",

      "rating": "4.0",

      "email": "mcdonald@test.com"

    },

    {

      "name": "W B Restaurant",

      "email": "wbrest@test.com",

      "address": "Noida",

      "rating": "4.9",

      "id": 3

    },

    {

      "id": 5,

      "name": "HaldiRam",

      "address": "Gurgaon",

      "rating": "4.5",

      "email": "haldiram@test.com"

    },

    {

      "name": "Dinesh Retro",

      "email": "dinesh@test.com",

      "address": "indore ",

      "rating": "5.0",

      "id": 6

    }

  ]

}

3) Start JSON Server

**$cd db**

**$npx json-server --watch db.json**

get

"restaurant": [

{ "id": 1, "title": "json-resto", "author": "aayushi" }

{ "id": 2, "title": "java-resto", "author": "anil" }

**Install React app**

1) In RectResto folder write this command

**$ npx create-react-app restaurant-app**

**$ cd restaurant-app**

**$ npm start**

**Routing**

1) In RectResto folder write this command

**$ npm install react-router-dom**

To read more about it search on chrome: “React Router Dom”

You must have “ReactJS Code Snippet” OR “ES7” in VScode to creact full component from small command

IN App.js

//App.js

import logo from './logo.svg';

import './App.css';

import {

  BrowserRouter as Router,

  Route,

  Link

} from 'react-router-dom';

import Home from "./components/Home";

import RestaurantCreate from "./components/RestaurantCreate"

import RestaurantDetail from "./components/RestaurantDetail"

import RestaurantList from "./components/RestaurantList"

import RestaurantSearch from "./components/RestaurantSearch"

import RestaurantUpdate from "./components/RestaurantUpdate"

function App() {

  return (

    <div className="App">

      <Router>

        <ul>

          <li><Link to="/" >Home</Link></li>

          <li><Link to="/list" >List</Link></li>

          <li><Link to="/create" >Create</Link></li>

          <li><Link to="/search" >Search</Link></li>

          <li><Link to="/detail" >Detail</Link></li>

          <li><Link to="/update" >Update</Link></li>

        </ul>

        <Route path="/list"> <RestaurantList/> </Route>

        <Route path="/create"><RestaurantCreate/> </Route>

        <Route path="/search"> <RestaurantSearch/> </Route>

        <Route path="/detail"> <RestaurantDetail/> </Route>

        <Route path="/update"> <RestaurantUpdate/> </Route>

        <Route exact path="/"> <Home/> </Route>

      </Router>

    </div>

  );

}

export default App;

1 Now again Run backend server with command

**$cd db**

**$npx json-server --watch db.json**

2 Now enter the restaurant data in db.json .

3 Now write “localhost:3000” to run backend server on browser.

4 Now run Frontend server in another terminal by

**$npm start**

**Write Y when terminal ask for another port**

4 Now Copy the URL of Backend server and test it at POST MAN by choosing GET command and paste it in URL BOX.

If you get Json file same as your data then API is ready to use further.

**Add React- Bootstrap in React app**

1 Now again in restaurant-app folder install bootstrap and react-bootstrap

**$cd restaurant**

**$npm i bootstrap react-bootstrap**

2 Now in index.js or App.js file write this command

import 'bootstrap/dist/css/bootstrap.min.css';

3 Now all the Bootstrap is ready to be used in Reactjs app

NavBar and Table code is added -----for searching “React-Bootstrap” on internet

//In App.js

import logo from './logo.svg';

import './App.css';

import { BrowserRouter as Router, Route, Link } from 'react-router-dom';

import {Nav,Navbar} from 'react-bootstrap'

import Home from "./components/Home";

import RestaurantCreate from "./components/RestaurantCreate"

import RestaurantDetail from "./components/RestaurantDetail"

import RestaurantList from "./components/RestaurantList"

import RestaurantSearch from "./components/RestaurantSearch"

import RestaurantUpdate from "./components/RestaurantUpdate"

function App() {

  return (

    <div className="App">

      <Router>

        <Navbar bg="light" expand="lg">

        <Navbar.Brand href="#home">Resto</Navbar.Brand>

        <Navbar.Toggle aria-controls="basic-navbar-nav" />

          <Navbar.Collapse id="basic-navbar-nav">

              <Nav className="mr-auto">

                <Nav.Link href="#home"><Link to="/" >Home</Link></Nav.Link>

                <Nav.Link href="#link"><Link to="/list" >List</Link></Nav.Link>

                <Nav.Link href="#link"><Link to="/create" >Create</Link></Nav.Link>

                <Nav.Link href="#link"><Link to="/search" >Search</Link></Nav.Link>

                <Nav.Link href="#link"><Link to="/detail" >Detail</Link></Nav.Link>

                <Nav.Link href="#link"><Link to="/update" >Update</Link></Nav.Link>

              </Nav>

          </Navbar.Collapse>

        </Navbar>

        <Route path="/list"> <RestaurantList/> </Route>

        <Route path="/create"><RestaurantCreate/> </Route>

        <Route path="/search"> <RestaurantSearch/> </Route>

        <Route path="/detail"> <RestaurantDetail/> </Route>

        <Route path="/update"> <RestaurantUpdate/> </Route>

        <Route exact path="/"> <Home/> </Route>

      </Router>

    </div>

  );

}

export default App;

//IN RestaurantList.js

import React, { Component } from "react";

import {Table} from 'react-bootstrap'

export default class RestaurantList extends Component {

    constructor() {

        super();

        this.state = {

            list: null,

        };

    }

    componentDidMount() {

        fetch("http://localhost:3000/restaurant").then((resp) => {

            resp.json().then((result) => {

                this.setState({ list: result });

            });

        });

    }

    render() {

        return (

            <div>

                <h1>Restaurant List</h1>

                {this.state.list ? (

                    <div>

                        <Table striped bordered hover>

                            <thead>

                             <tr>

                               <th>S no.</th>

                               <th>Resto Name</th>

                               <th>Email</th>

                               <th>Address</th>

                               <th>Resto Rating</th>

                             </tr>

                           </thead>

                           <tbody>

                                {

                                this.state.list.map((item, i) => (

                                    <tr>

                                        <td>{item.id}</td>

                                        <td>{item.name}</td>

                                        <td>{item.email}</td>

                                        <td>{item.address}</td>

                                        <td>{item.rating}</td>

                                    </tr>

                                ))

                                }

                            </tbody>

                        </Table>

                    </div>

                ) : (

                    <p>Please wait...</p>

                )}

            </div>

        );

    }

}

**To Add Icons In React Project .**

1. Search Font awesome icons for React on Internet

And then install all three Package one by one in your Project.

$ npm i --save @fortawesome/fontawesome-svg-core  
 $ npm install --save @fortawesome/free-solid-svg-icons  
 $ npm install --save @fortawesome/react-fontawesome

Sample document for using fonts.

import ReactDOM from 'react-dom'

import { FontAwesomeIcon } from '@fortawesome/react-fontawesome'

import { faCoffee } from '@fortawesome/free-solid-svg-icons'

const element = <FontAwesomeIcon icon={faCoffee} />

ReactDOM.render(element, document.body)

First of all I just codied thed two command and pasted it in Restaurant-List.js

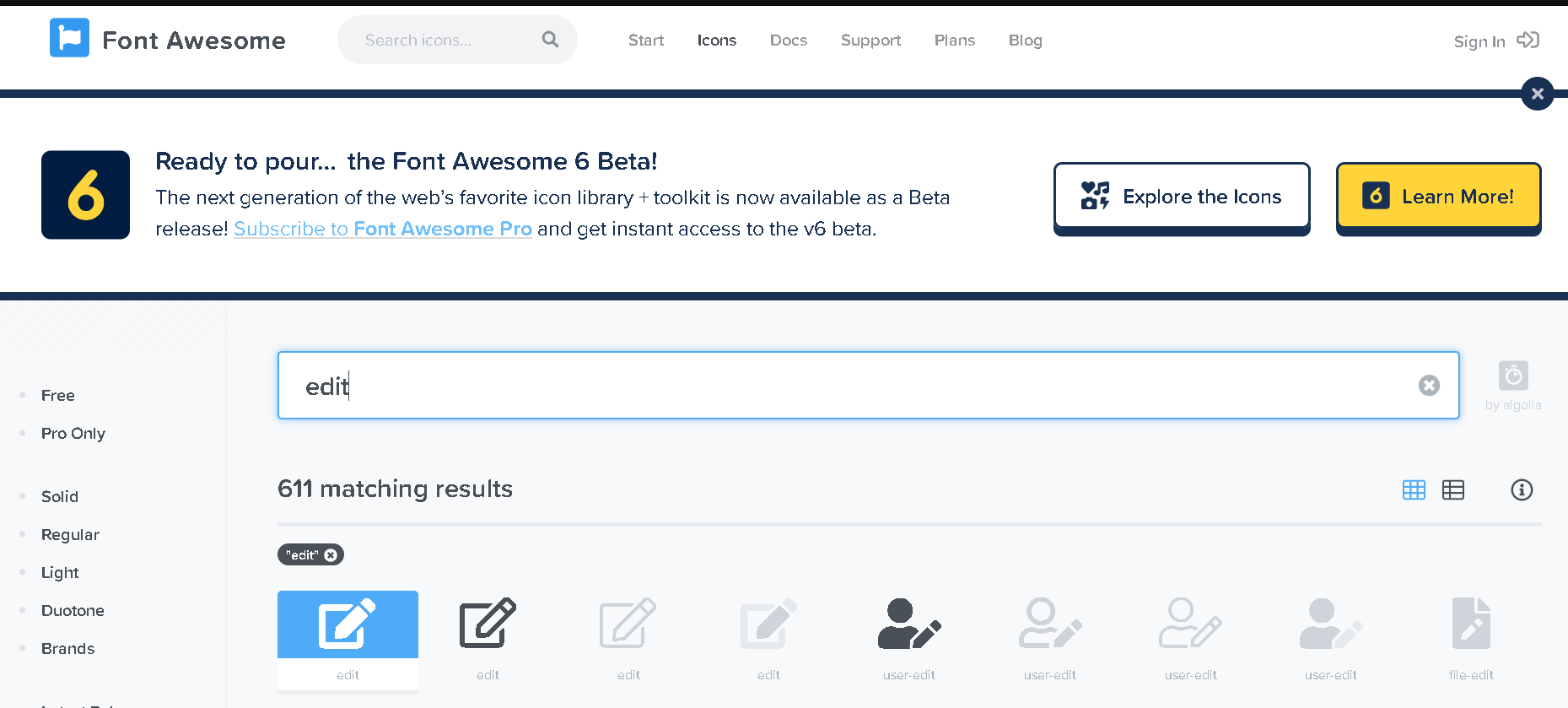
import { FontAwesomeIcon } from '@fortawesome/react-fontawesome'

import { faCoffee } from '@fortawesome/free-solid-svg-icons'

Now write this wherever you want icon to be generated.

<FontAwesomeIcon icon={faCoffee} /> //faCoffee is coffee icon

In order to know all icon names search FONT\_AWESOME.COM and go ite official website and then click on icon over there.





As this is used only in Bootstrap **<i class="fas fa-edit"></i>**

Thus in React-Bootstrap we use **icon={ faEdit }**

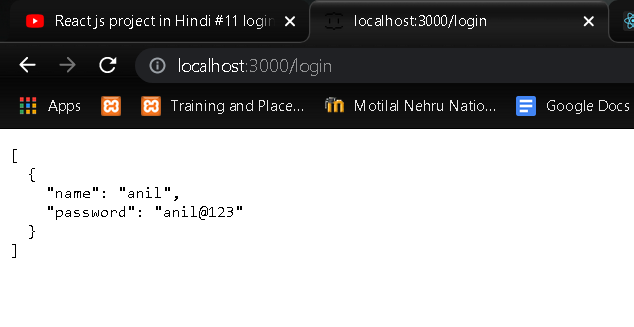
Thus change the name accordingly for react-bootstrap

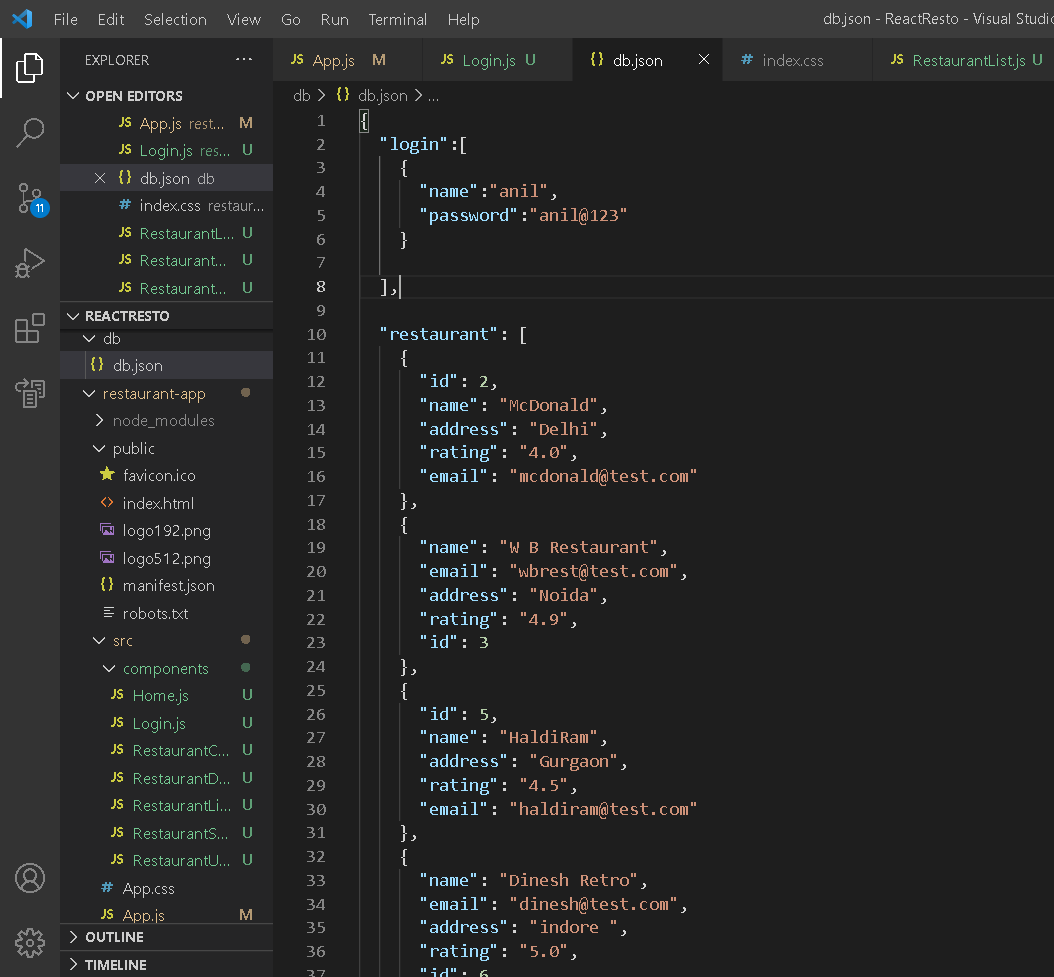
**To Put Search Bar and make API to search in any data**

Then we write in the API **http://localhost:3000/restaurant**q?=item\_to\_be\_searched

**Login page in React-app**

1 First of all we have to make Mock A.P.I. by adding another object named ‘login’

****

****

//Login.js Page

import React, { Component } from 'react';

import {Button} from'react-bootstrap'

class Login extends Component {

    constructor(){

        super();

        this.state={

            name:"",

            password:""

        }

    }

    login()

    {

        console.warn(this.state)

        fetch("http://localhost:3000/login?q="+this.state.name).then((resp)=>{

            resp.json().then((result)=>{

                if(result.length>0)

                {

                    console.warn(this.props.history.push('list'));

                }

                else

                {

                    alert("Please check user name and Password");

                }

            })

        })

    }

    render() {

        return (

            <div>

                <h1>Login</h1>

                <input type="text" onChange={(event)=>{this.setState({name: event.target.value})}} placeholder="enter name" /><br/><br/>

                <input type="password" onChange={(event)=>{this.setState({password: event.target.value})}} placeholder="enter password" /><br/><br/>

                <Button onClick={()=>{this.login()}}>Login</Button>

            </div>

        );

    }

}

export default Login;

**Logout page in React-app**

1. Put Navbar in different file
2. add local storage on the login
3. add logout button
4. make protected routed file
5. Apply protected routes.

Add this in Login() Function LocalStorage.setItem(“login”,result)…….. if(result.length>0)