1) **Write a program to configure routing with authentication with sharing information with and without login?**

App.js

```
import "./App.css";
import React from "react";
import { Link, Route, Routes } from "react-router-dom";

import Home from "../src/Pages/Home";
import Courses from "../src/Pages/Courses";
import Live from "../src/Pages/Live";
import Contact from "../src/Pages/Contact";

function App() {
  return (
    <div className="container">
<nav class="navbar bg-dark border-bottom border-body" data-bs-theme="dark">


<nav class="navbar navbar-expand-lg bg-body-tertiary">
  <div class="container-fluid">
    <a class="navbar-brand">AKASH SHETTY</a>
    <button class="navbar-toggler" type="button" data-bs-toggle="collapse"
data-bs-target="#navbarNavDropdown" aria-controls="navbarNavDropdown" aria-
expanded="false" aria-label="Toggle navigation">
      <span class="navbar-toggler-icon"></span>
    </button>
    <div class="collapse navbar-collapse" id="navbarNavDropdown">
      <ul class="navbar-nav">
        <li class="nav-item">
          <a class="nav-link active" aria-current="page">
            <Link to="/" class="list">
                Home
            </Link></a>
        </li>

        <li class="nav-item">
          <a class="nav-link">
              <Link to="/course" class="list">
                Courses
              </Link></a>
        </li>

        <li class="nav-item">
          <a class="nav-link">
              <Link to="/live" class="list">
```

```
                Live course
              </Link></a>
        </li>

        <li class="nav-item">
          <a class="nav-link">
              <Link to="/contact" class="list">
                Contact
              </Link></a>
        </li>

      </ul>
    </div>
  </div>
</nav>
</nav>

      {/* Defining routes path and rendering components as element */}
      <Routes>
        <Route path="/" element={<Home />} />
        <Route path="/course" element={<Courses />} />
        <Route path="/live" element={<Live />} />
        <Route path="/contact" element={<Contact />} />
      </Routes>
    </div>
  );
}

export default App;
```

Home.js

```
import React from 'react';

const Home = () => {
  return <div className='container1'>
      <div class="box">
       This is the  <span color='red'>home page.</span> Public information can
be displayed here.
      </div>
    </div>;
};

export default Home;
```

Cources.js

```
import React from 'react'

function Courses() {
  return (
    <div className='container1'>
    <div class="box">
     This is <span>COURCES</span> component
    </div>
  </div>
  )
}

export default Courses;
```

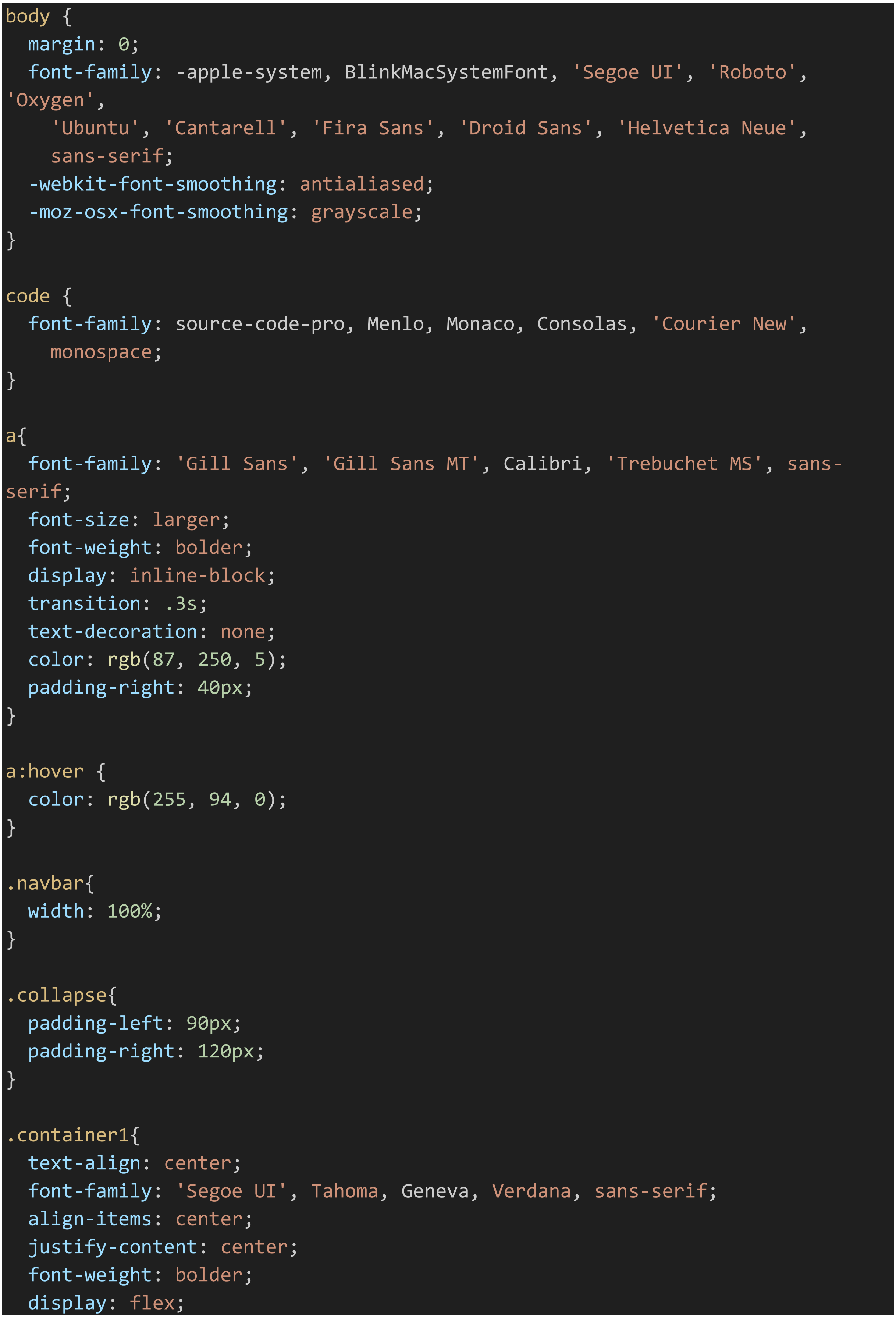
Live.js

```
import React from 'react'

function Live() {
  return (
    <div className='container1'>
    <div class="box">
      This is <span>LIVE</span> component
    </div>
  </div>
  )
}

export default Live;
```

Contact.js

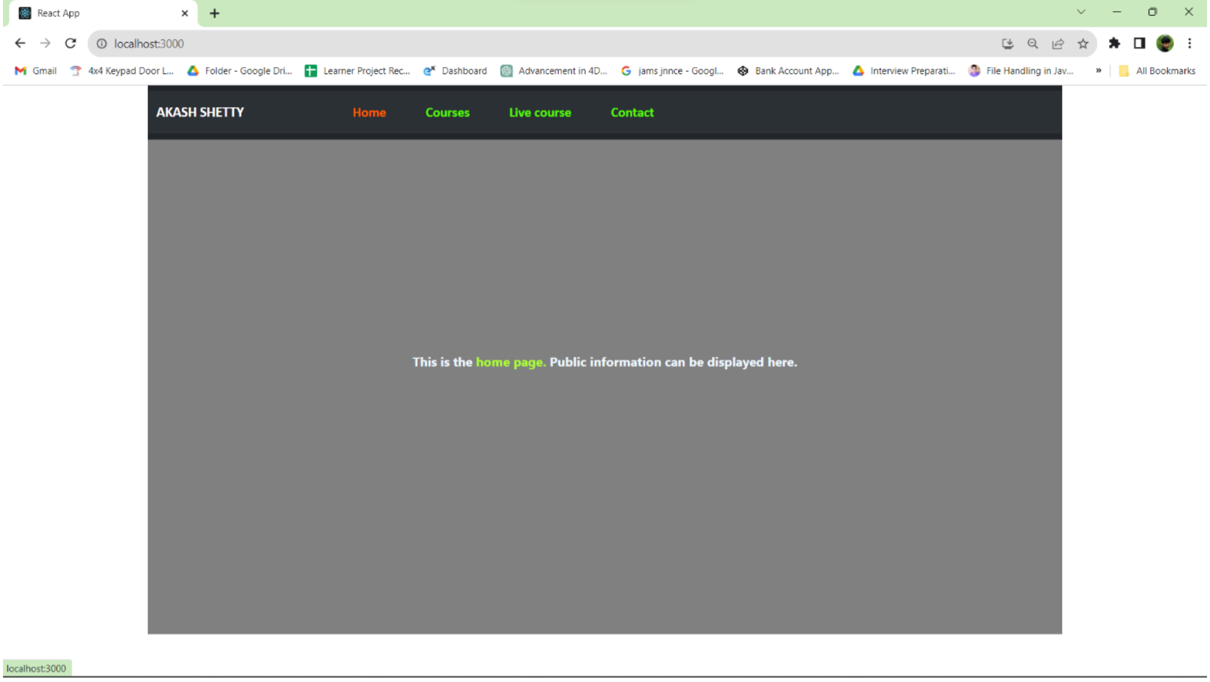
```
import React from 'react'

function Contact() {
  return (
    <div className='container1'>
      <div class="box">
      This is <span>CONTACT</span> component
      </div>
    </div>
  )
}

export default Contact;
```

index.css



```css
body {
  margin: 0;
  font-family: -apple-system, BlinkMacSystemFont, 'Segoe UI', 'Roboto',
'Oxygen',
    'Ubuntu', 'Cantarell', 'Fira Sans', 'Droid Sans', 'Helvetica Neue',
    sans-serif;
  -webkit-font-smoothing: antialiased;
  -moz-osx-font-smoothing: grayscale;
}

code {
  font-family: source-code-pro, Menlo, Monaco, Consolas, 'Courier New',
    monospace;
}

a{
  font-family: 'Gill Sans', 'Gill Sans MT', Calibri, 'Trebuchet MS', sans-
serif;
  font-size: larger;
  font-weight: bolder;
  display: inline-block;
  transition: .3s;
  text-decoration: none;
  color: rgb(87, 250, 5);
  padding-right: 40px;
}

a:hover {
  color: rgb(255, 94, 0);
}

.navbar{
  width: 100%;
}

.collapse{
  padding-left: 90px;
  padding-right: 120px;
}

.container1{
  text-align: center;
  font-family: 'Segoe UI', Tahoma, Geneva, Verdana, sans-serif;
  align-items: center;
  justify-content: center;
  font-weight: bolder;
  display: flex;
  height: 700px;
  background: gray;
  color: aliceblue;
  font-size: large;
}

.box {

  width: 100%;
  height: 100px;
}

span{
  color: greenyellow;
}
```

OUTPUT :

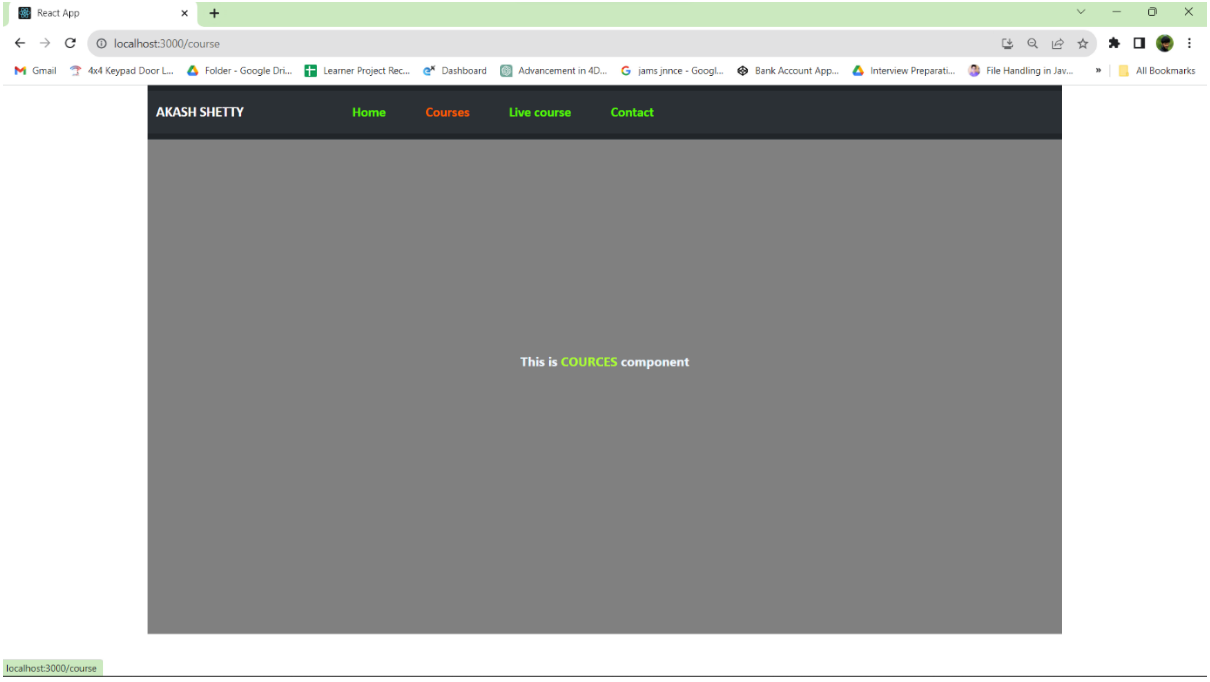


AKASH SHETTY

Home Courses Live course Contact

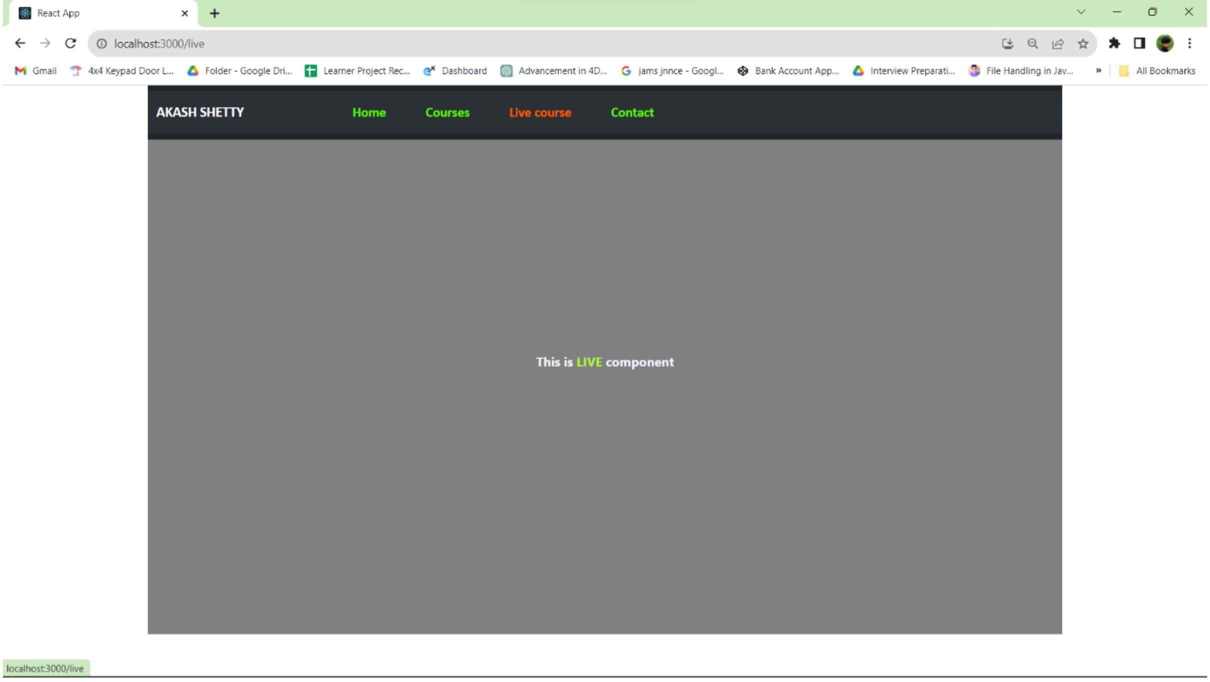
This is the home page. Public information can be displayed here.

Home Page View (Default)



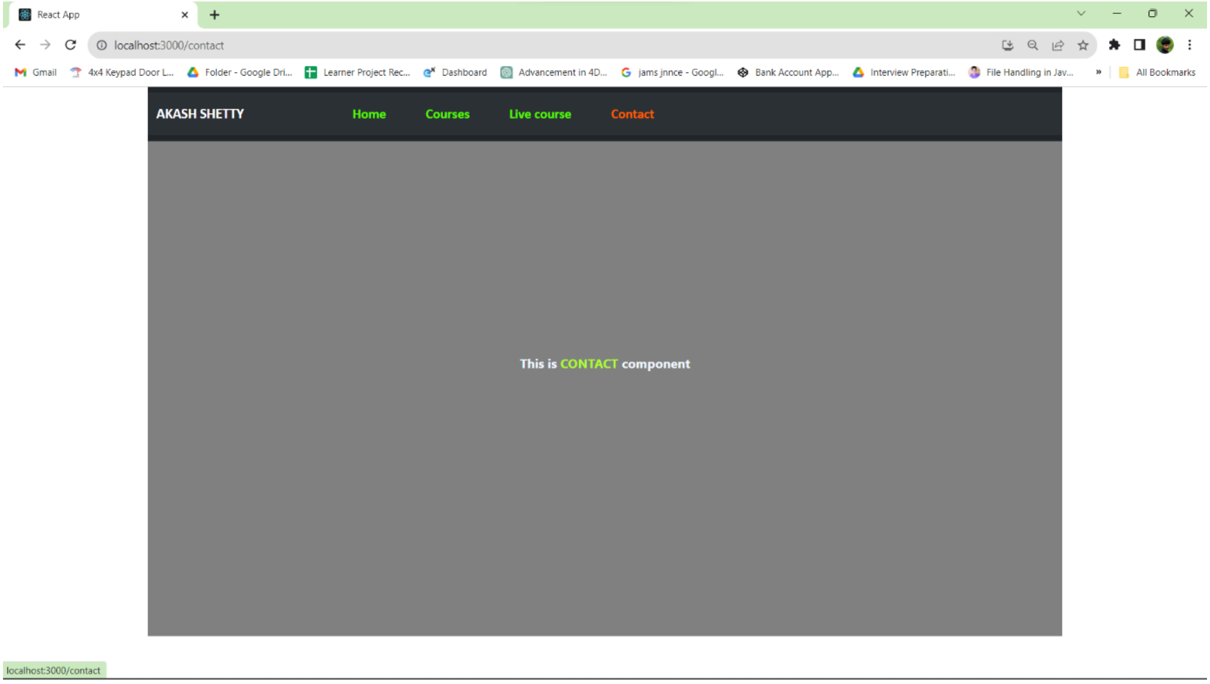
This is COURCES component

Courses page view



This is LIVE component

Live page view



AKASH SHETTY Home Courses Live course Contact

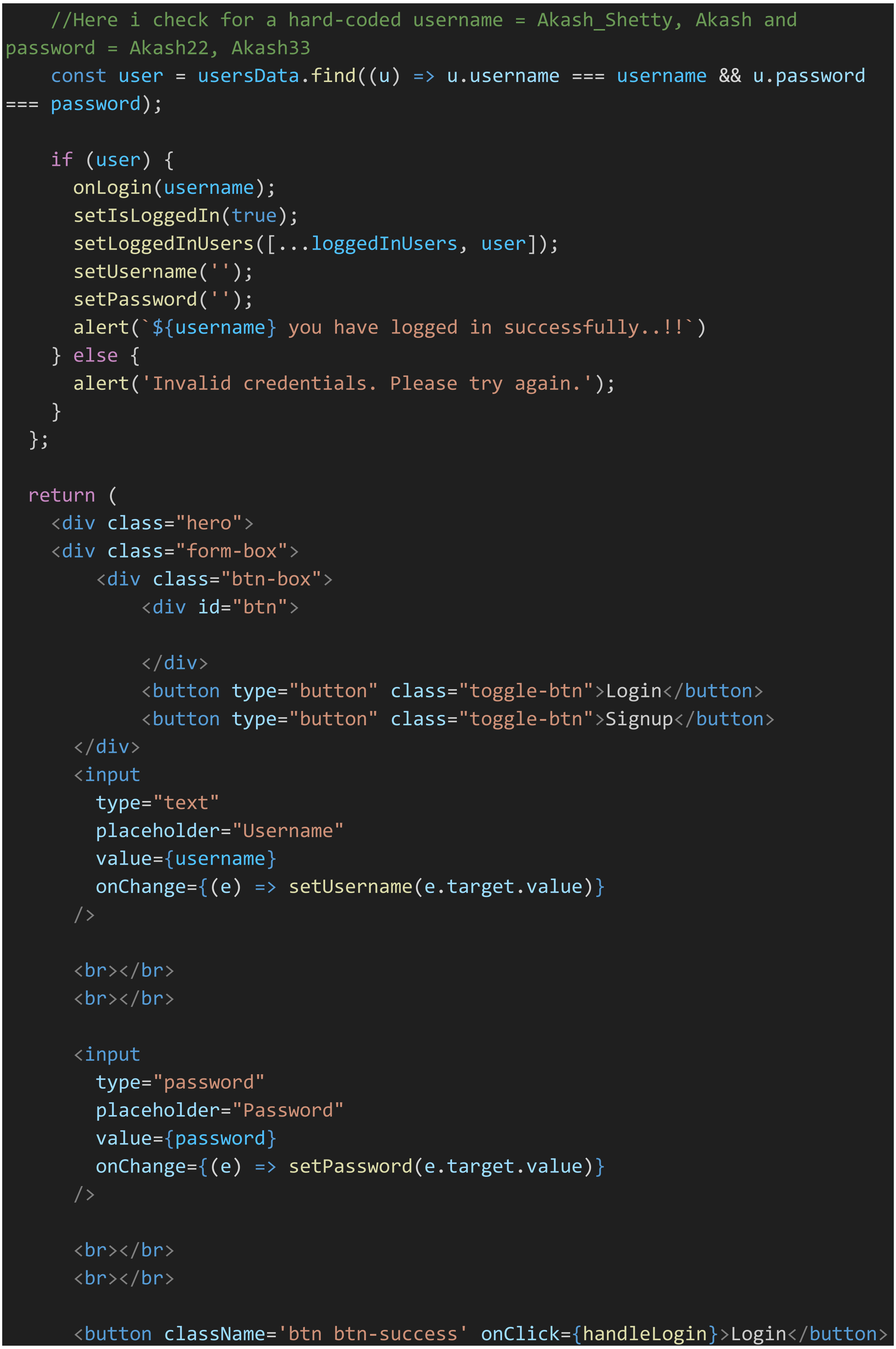
This is CONTACT component

Contact page view

2) **Write a program to create login and signup forms and on successful login need to show the dashboard with all logged in users?**

LoginForm.js

```
import React, { useState } from 'react';

// Simulated user data (replace with backend integration)
const usersData = [
    { id: 1, username: 'Akash_Shetty', password: 'Akash22' },
    { id: 2, username: 'Akash', password: 'Akash33' }
    // Add more users as needed
  ];

const LoginForm = ({ onLogin }) => {

  const [username, setUsername] = useState('');
  const [password, setPassword] = useState('');
  const [isLoggedIn, setIsLoggedIn] = useState(false);
  const [loggedInUsers, setLoggedInUsers] = useState([]);

  const handleLogin = () => {
    //We can perform our Authentication part here with backend
```



```
    //Here i check for a hard-coded username = Akash_Shetty, Akash and
password = Akash22, Akash33
    const user = usersData.find((u) => u.username === username && u.password
=== password);

    if (user) {
      onLogin(username);
      setIsLoggedIn(true);
      setLoggedInUsers([...loggedInUsers, user]);
      setUsername('');
      setPassword('');
      alert(`${username} you have logged in successfully..!!`)
    } else {
      alert('Invalid credentials. Please try again.');
    }
  };

  return (
    <div class="hero">
    <div class="form-box">
        <div class="btn-box">
            <div id="btn">

            </div>
            <button type="button" class="toggle-btn">Login</button>
            <button type="button" class="toggle-btn">Signup</button>
      </div>
      <input
        type="text"
        placeholder="Username"
        value={username}
        onChange={(e) => setUsername(e.target.value)}
      />

      <br></br>
      <br></br>

      <input
        type="password"
        placeholder="Password"
        value={password}
        onChange={(e) => setPassword(e.target.value)}
      />

      <br></br>
      <br></br>

      <button className='btn btn-success' onClick={handleLogin}>Login</button>
    </div>
    </div>
  );
};

export default LoginForm;
```

SignupForm.js

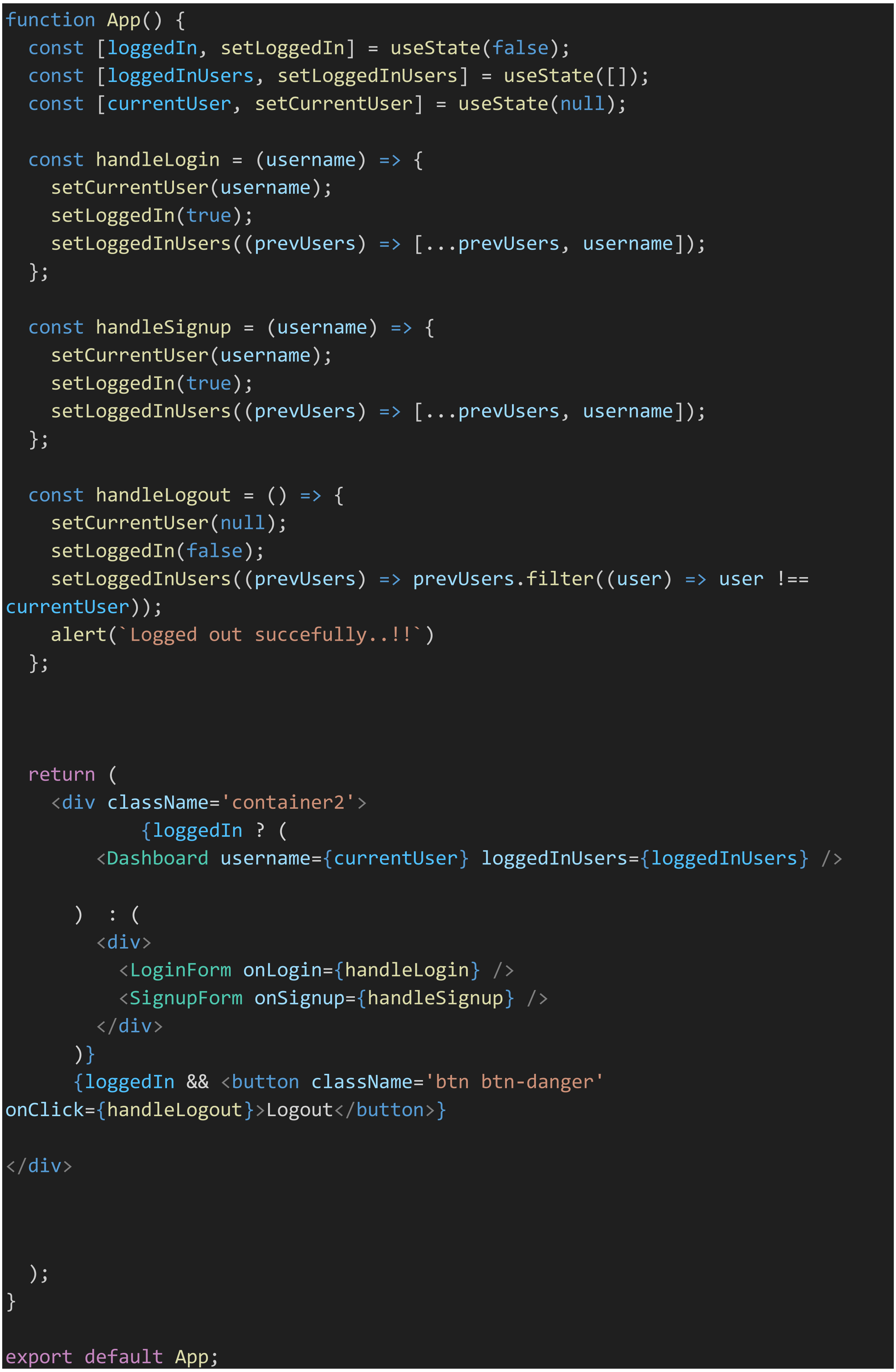
```
import React, { useState } from 'react';

const SignupForm = ({ onSignup }) => {
  const [username, setUsername] = useState('');
  const [password, setPassword] = useState('');

  const handleSignup = () => {
    //Here we can rerform our signup logic (e.g., send a request to a server)
    // Here we'll assume a successful signup
    alert(`${username} signed in successfully..!`)
    onSignup(username);
  };

  return (
    <div className='container1'>

<div class="btn-box1">
            <div id="btn1">

            </div>
            <button type="button" class="toggle-btn">Login</button>
            <button type="button" class="toggle-btn">Signup</button>
      </div>

      <input
        type="text"
        placeholder="Username"
        value={username}
        onChange={(e) => setUsername(e.target.value)}
      />

      <br></br>
      <br></br>

      <input
        type="password"
        placeholder="Password"
        value={password}
        onChange={(e) => setPassword(e.target.value)}
      />

      <br></br>
      <br></br>

      <button className='btn btn-warning'
onClick={handleSignup}>Signup</button>
    </div>

  );
};

export default SignupForm;
```

Dashboard.js

```
import React from 'react';

const Dashboard = ({ username, loggedInUsers }) => {
  return (
    <div className='App'>
      <h2 text-align='center' color='green'>Welcome, {username}!</h2>

      <br></br>
      <br></br>

      <h3>Logged-in Users:</h3>
      <ul>
        {loggedInUsers.map((user) => (
          <li key={user}>{user}</li>
        ))}
      </ul>
    </div>
  );
};

export default Dashboard;
```

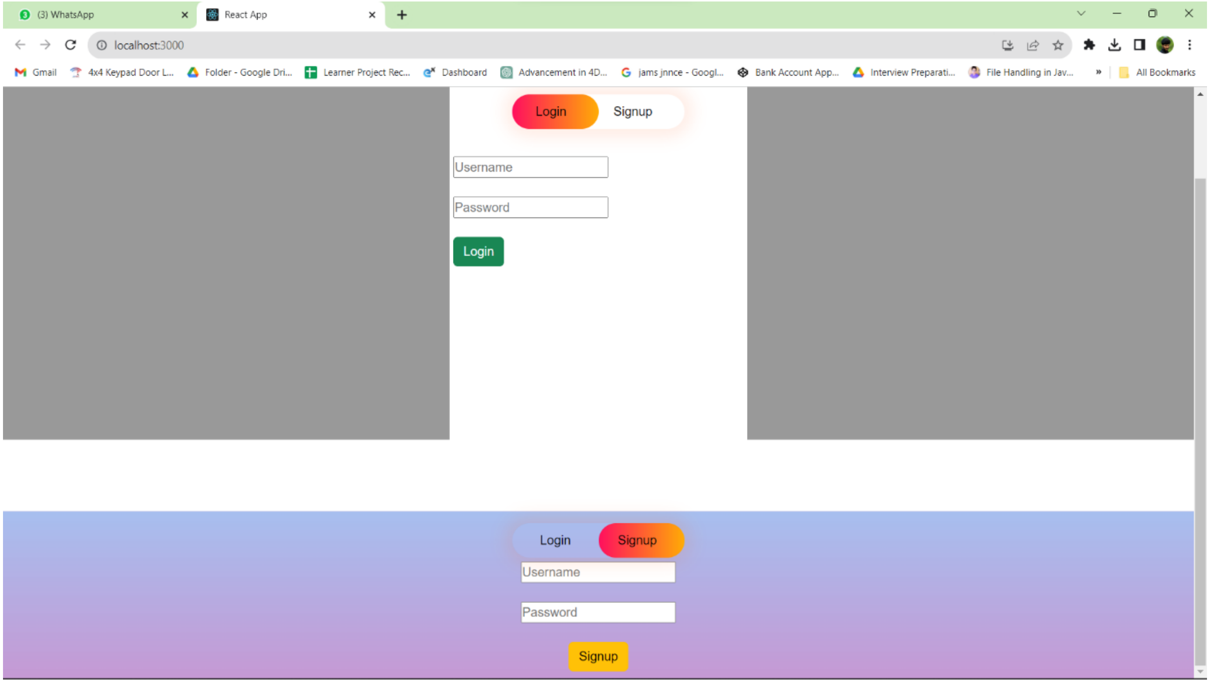
App.js

```
import React, { useState } from 'react';
import LoginForm from './LoginForm';
import SignupForm from './SignupForm';
import Dashboard from './Dashboard';
```

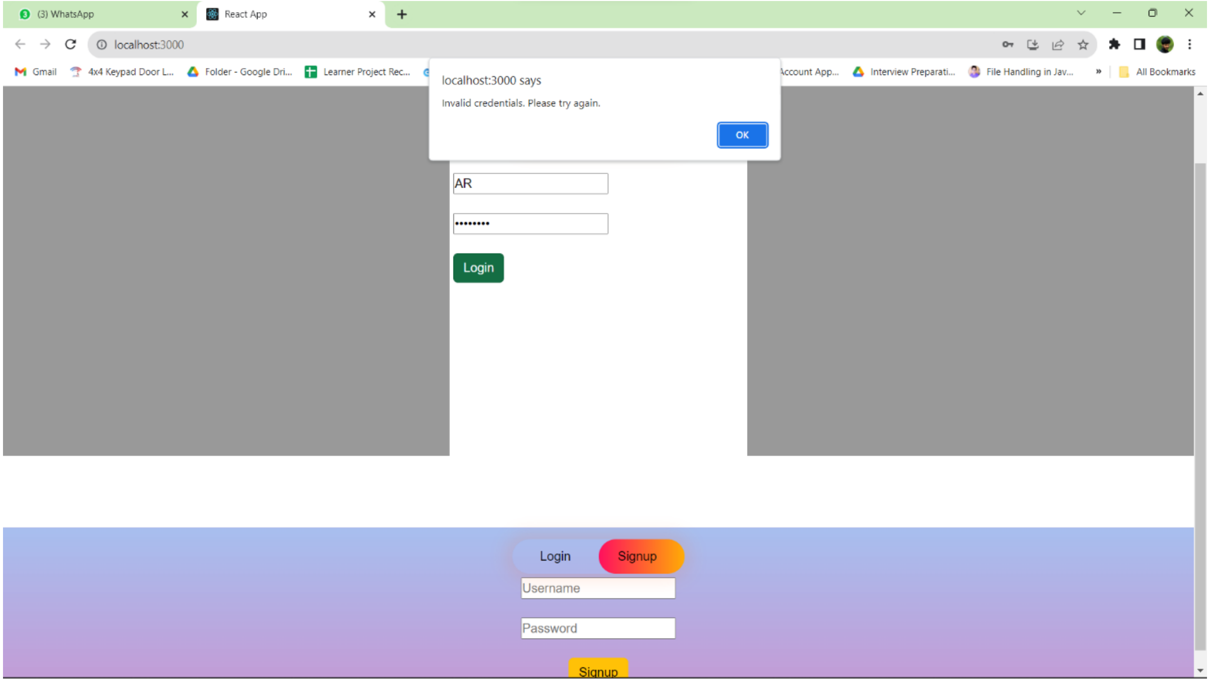


```
function App() {
  const [loggedIn, setLoggedIn] = useState(false);
  const [loggedInUsers, setLoggedInUsers] = useState([]);
  const [currentUser, setCurrentUser] = useState(null);

  const handleLogin = (username) => {
    setCurrentUser(username);
    setLoggedIn(true);
    setLoggedInUsers((prevUsers) => [...prevUsers, username]);
  };

  const handleSignup = (username) => {
    setCurrentUser(username);
    setLoggedIn(true);
    setLoggedInUsers((prevUsers) => [...prevUsers, username]);
  };

  const handleLogout = () => {
    setCurrentUser(null);
    setLoggedIn(false);
    setLoggedInUsers((prevUsers) => prevUsers.filter((user) => user !==
currentUser));
    alert(`Logged out succefully..!!`)
  };



  return (
    <div className='container2'>
            {loggedIn ? (
        <Dashboard username={currentUser} loggedInUsers={loggedInUsers} />

      )  : (
        <div>
          <LoginForm onLogin={handleLogin} />
          <SignupForm onSignup={handleSignup} />
        </div>
      )}
      {loggedIn && <button className='btn btn-danger'
onClick={handleLogout}>Logout</button>}

</div>



  );
}

export default App;
```

OUTPUT :



Front view



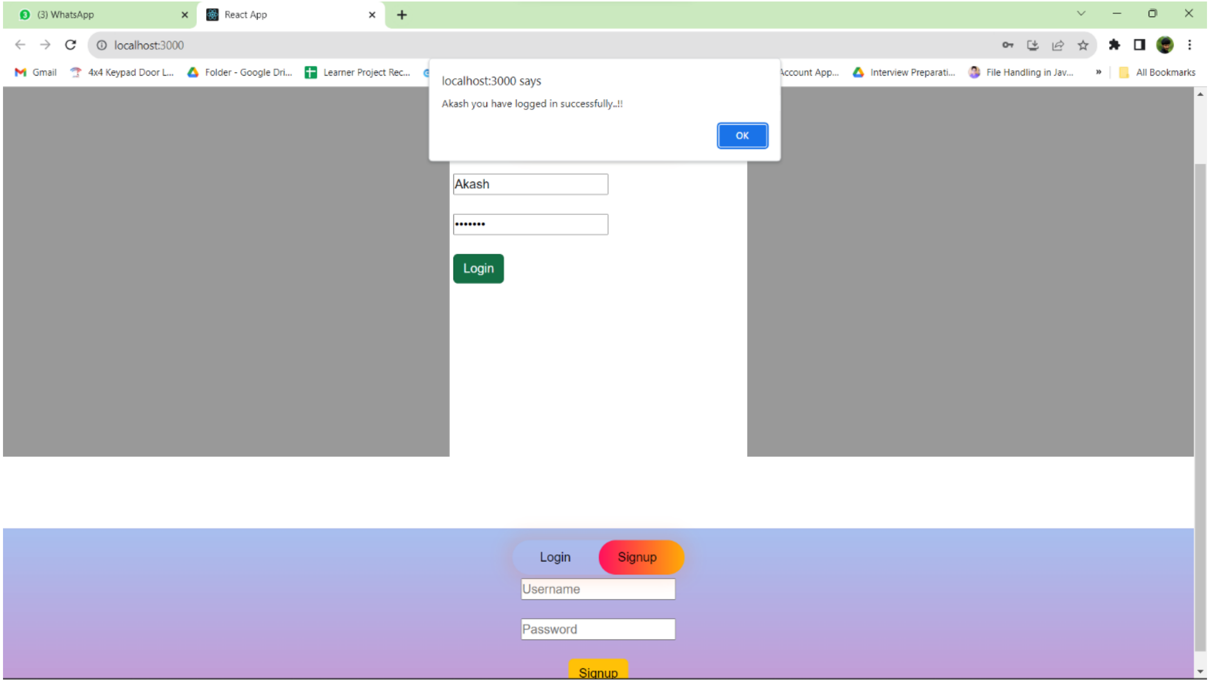
localhost:3000 says

Invalid credentials. Please try again.

AR

••••••••

Denied entry of Invalid user



localhost:3000 says

Akash you have logged in successfully..!!

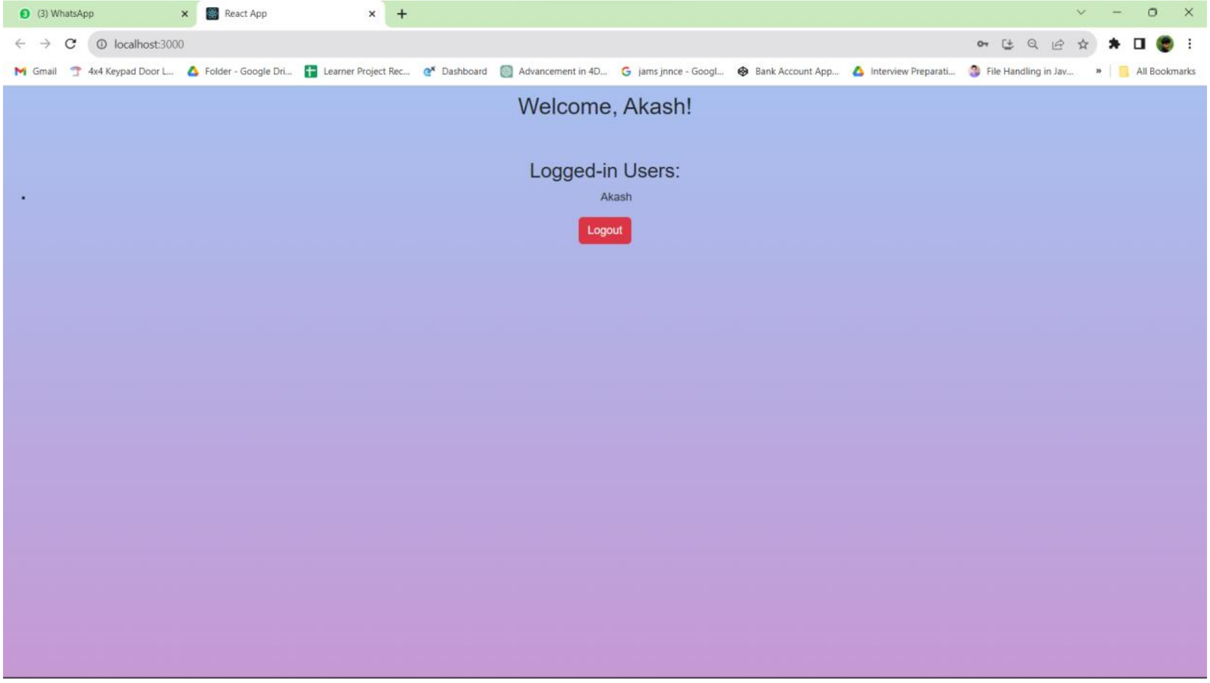
Akash

•••••••

Username

Password

Successful Login

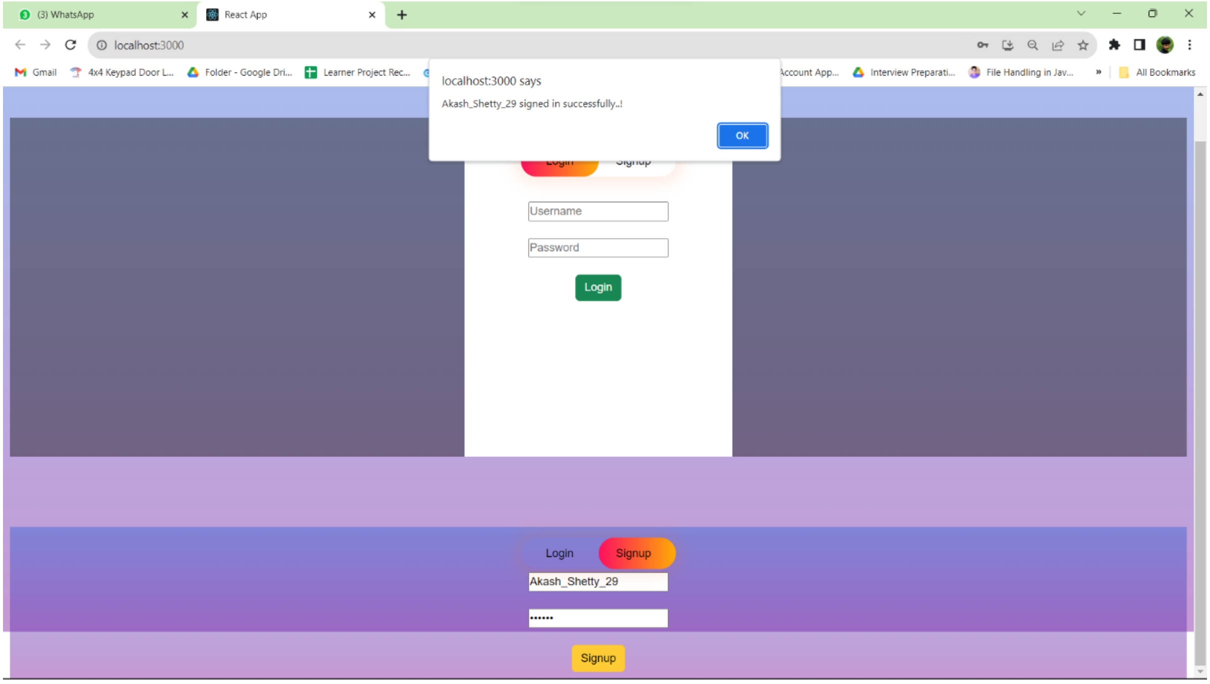


Welcome, Akash!

Logged-in Users:

Akash

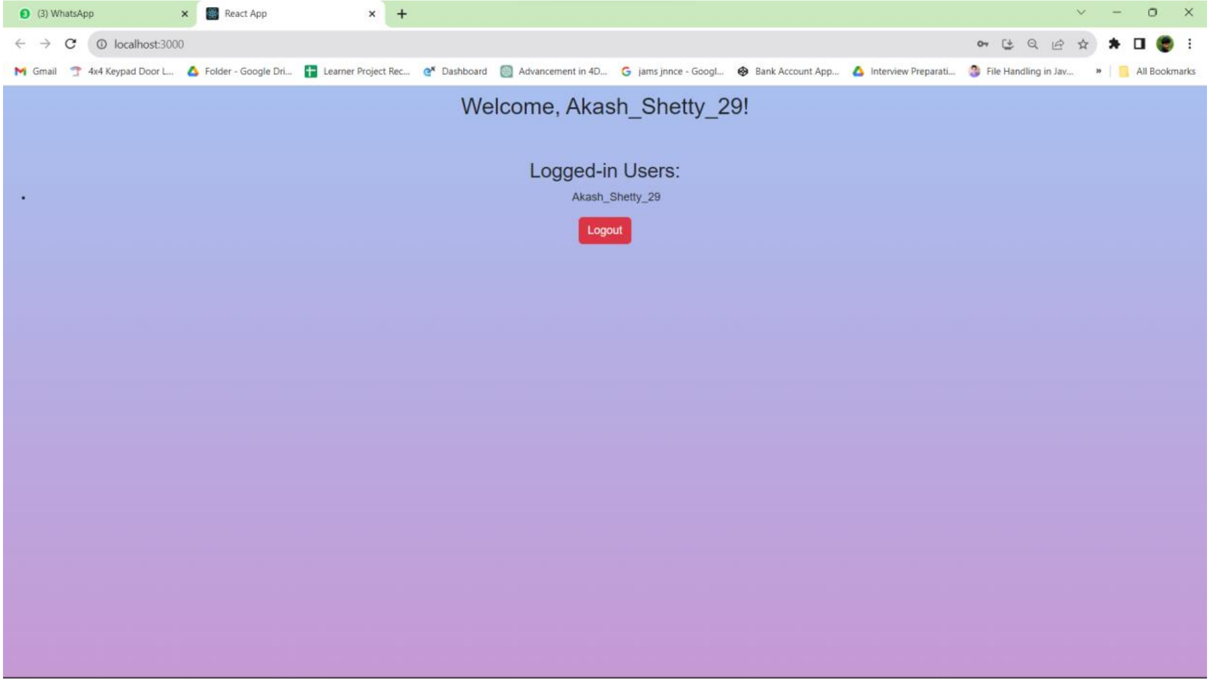
Welcome Screen and user name



localhost:3000 says

Akash_Shetty_29 signed in successfully..!

Successful signup

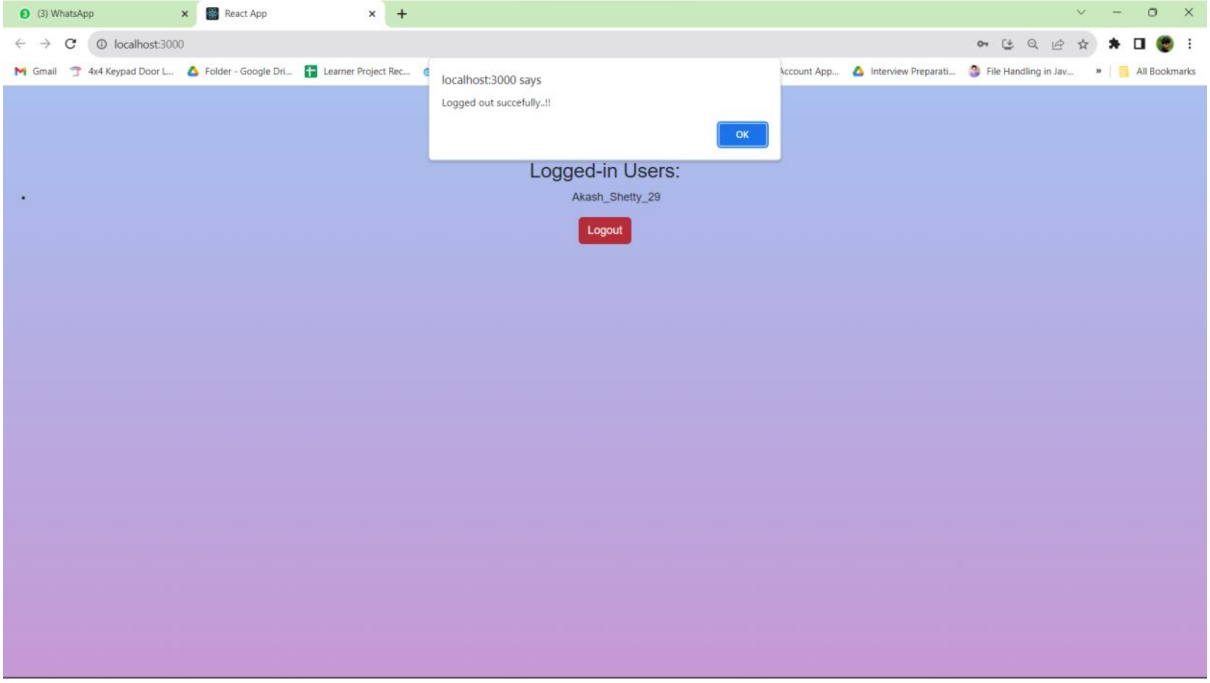


Welcome, Akash_Shetty_29!

Logged-in Users:

- Akash_Shetty_29

Welcome screen and user name



localhost:3000 says

Logged out succefully..!!

Logged-in Users:

Akash_Shetty_29

Logging Out Successful

3) Write a program to execute react life cycle hooks?

LifecycleDemo.js

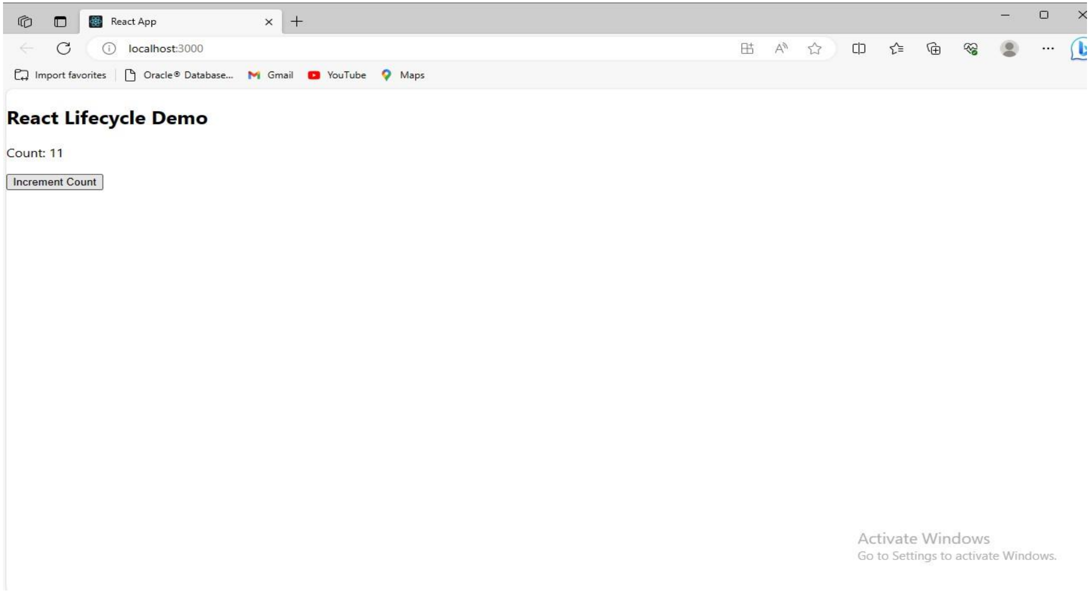
```
import React, { Component } from "react";

class LifecycleDemo extends Component {

  constructor(props) {

    super(props);

    this.state = {

      count: 0,

    };

    console.log("Constructor called");

  }

  componentDidMount() {
    console.log("Component Did Mount");
  }
  componentDidUpdate(prevProps, prevState) {
    console.log("Component Did Update");
  }
  componentWillUnmount() {
    console.log("Component Will Unmount");
  }
  incrementCount = () => {
    this.setState((prevState) => ({ count: prevState.count + 1 }));
  };
  render() {
    console.log("Render method called");
    return (
      <div>
        <h2>React Lifecycle Demo</h2>
        <p>Count: {this.state.count}</p>
        <button onClick={this.incrementCount}>Increment Count</button>
      </div>
    );
  }
}
export default LifecycleDemo;
```

App.js

```
import React from "react";
import LifecycleDemo from "./LifecycleDemo";
function App() {
  return (
    <div className="App">
```

```
      <LifecycleDemo />
    </div>
  );
}
export default App;
```

output



React Lifecycle Demo

Count: 11

Increment Count

4) Write a program to exchange product information from parent to child components in react?

App.js

```
import React, { Component } from 'react';
import './App.css';
import ProductList from './ProductList'; // Import the ProductList component

class App extends Component {
  constructor(props) {
    super(props);

    this.state = {
      products: [
        { id: 1, name: 'wheat', price: 40 },
        { id: 2, name: 'Chicken', price: 100},
        { id: 3, name: 'cookies', price: 50 },
        { id: 4, name: 'rice', price: 200},
        { id: 5, name: 'oats', price: 90},

      ],
    };
  }
  render() {
    return (
      <div className="App">
        <h1>Food Product List</h1>
        <ProductList products={this.state.products} />
      </div>
    );
  }
}
export default App;
```

Product.js

```
import React from 'react';

const Product = (props) => {
  const { name, price } = props.product;
  return (
    <li>
      <h3>{name}</h3>
      <p>Price: ${price}</p>
    </li>
  );
};
export default Product;
```

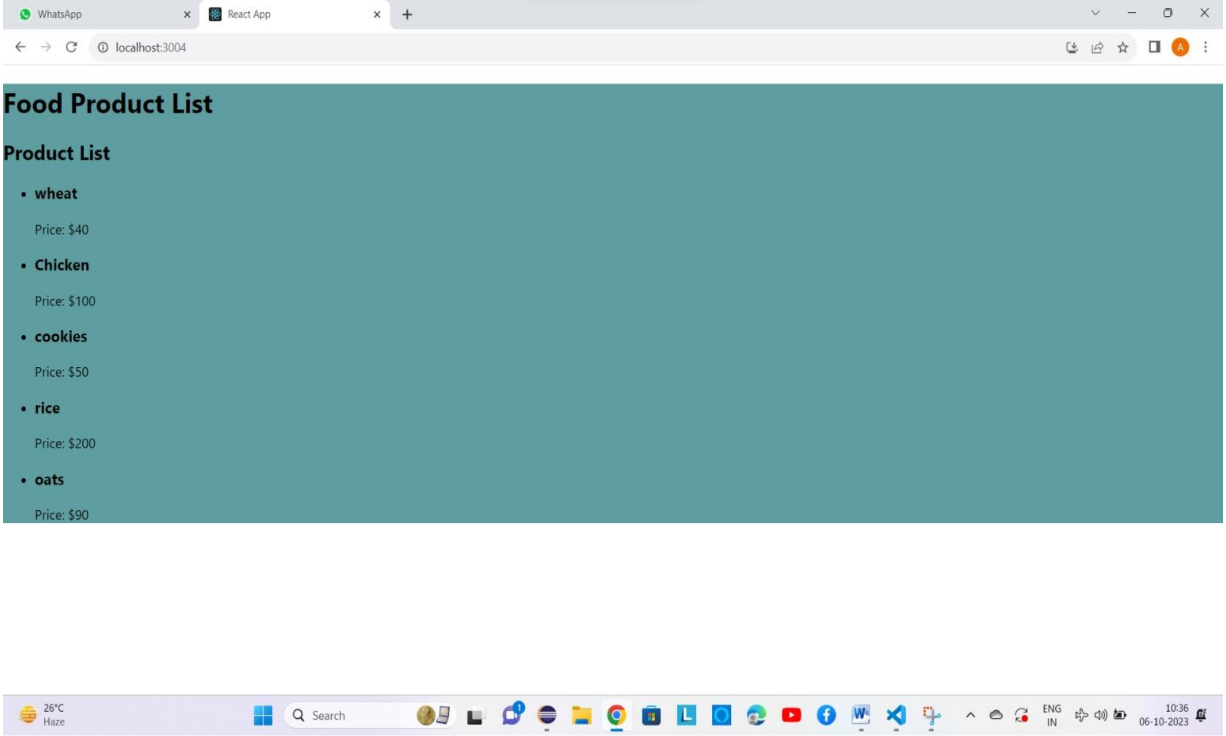
ProductList.js

```
import React from 'react';
import Product from './Product'; // Import the Product component

const ProductList = (props) => {
  const { products } = props;

  return (
    <div>
      <h2>Product List</h2>
      <ul>
        {products.map((product) => (
          <Product key={product.id} product={product} />
        ))}
      </ul>
    </div>
  );
};

export default ProductList;
```

App.css

```
.App {
  text-align: left;
  background-color: cadetblue;
}
```

Output



Food Product List

Product List

- wheat

  Price: $40
- Chicken

  Price: $100
- cookies

  Price: $50
- rice

  Price: $200
- oats

  Price: $90

5) Write a program to do post request in Axios and Fetch methods?

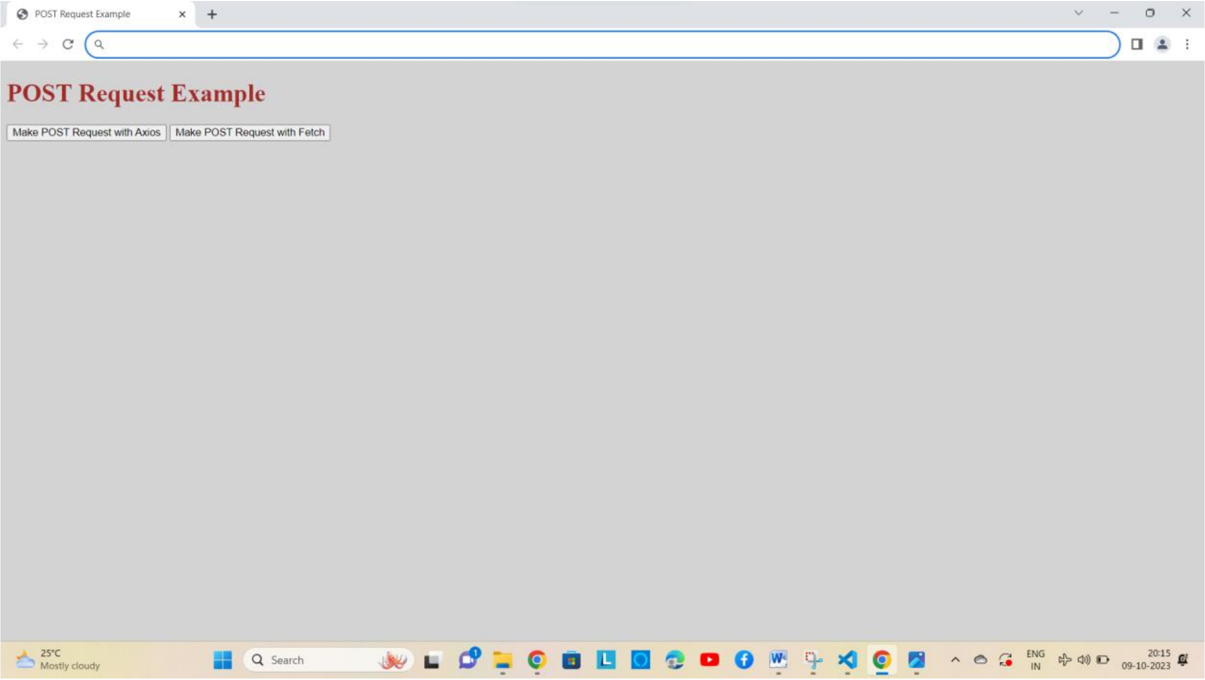
Index.html

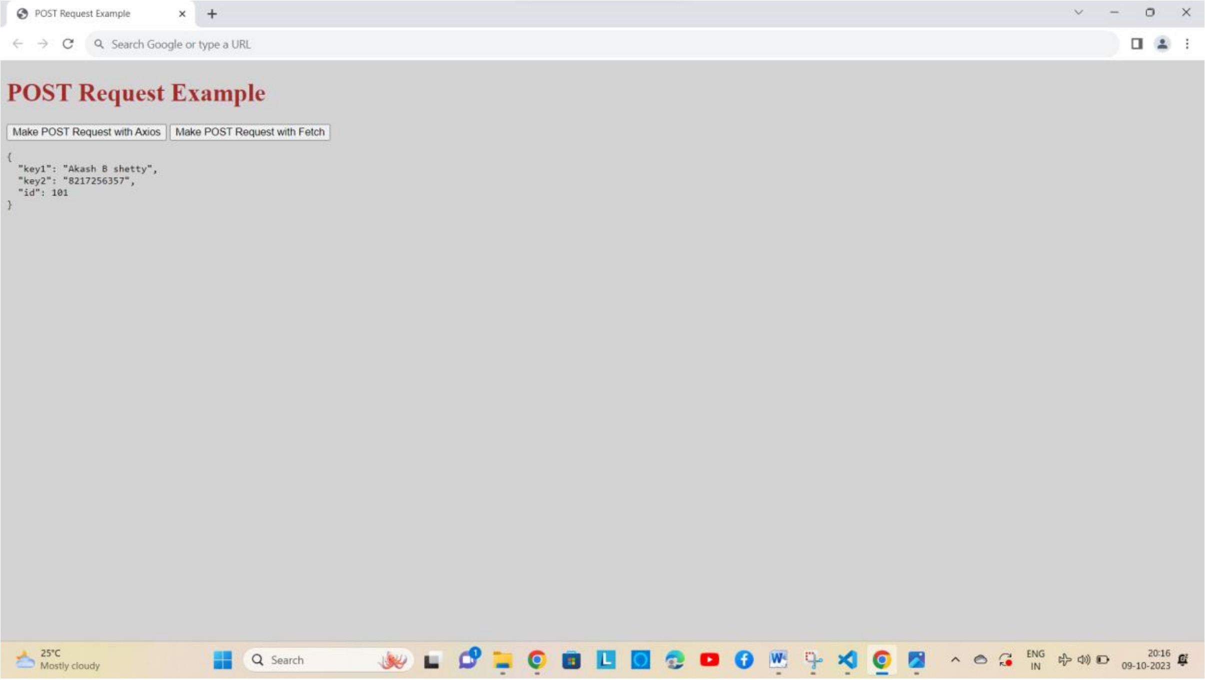
```
<!DOCTYPE html>
<html>
<head>
    <title>POST Request Example</title>

    <style>
        body{
            background-color: lightgrey;
        }
        h1{
            color: brown;
        }
    </style>

</head>
<body>
    <h1>POST Request Example</h1>

    <button id="axiosButton">Make POST Request with Axios</button>
    <button id="fetchButton">Make POST Request with Fetch</button>
    <pre id="response"></pre>

    <script
src="https://cdn.jsdelivr.net/npm/axios/dist/axios.min.js"></script>
    <script src="script.js"></script>


</body>
</html>
```

Script.html

```
// Function to make a POST request using Axios
document.getElementById('axiosButton').addEventListener('click', function () {
    const postData = {
        key1: 'Akash B shetty',
        key2: '8217256357'
    };


    axios.post('https://jsonplaceholder.typicode.com/posts', postData)
        .then(response => {
            displayResponse(response.data);
        })
        .catch(error => {
            displayError('Axios Error: ' + error);
        });
});

// Function to make a POST request using Fetch
document.getElementById('fetchButton').addEventListener('click', function () {
    const postData = {
        key1: 'akash.shetty.ec@gmail.com',
        key2: 'Karnataka'
    };

    fetch('https://jsonplaceholder.typicode.com/posts', {
        method: 'POST',
        headers: {
            'Content-Type': 'application/json'
        },
        body: JSON.stringify(postData)
    })
        .then(response => {
            if (response.ok) {
                return response.json();
            } else {
                throw new Error('Fetch Error: ' + response.status);
            }
        })
        .then(data => {
            displayResponse(data);
        })
        .catch(error => {
            displayError('Fetch Error: ' + error);
        });
});

// Function to display the response or error
function displayResponse(data) {
    document.getElementById('response').textContent = JSON.stringify(data,
null, 2);
}

function displayError(errorMessage) {
    document.getElementById('response').textContent = errorMessage;
}
```

Output





POST Request Example
Search Google or type a URL

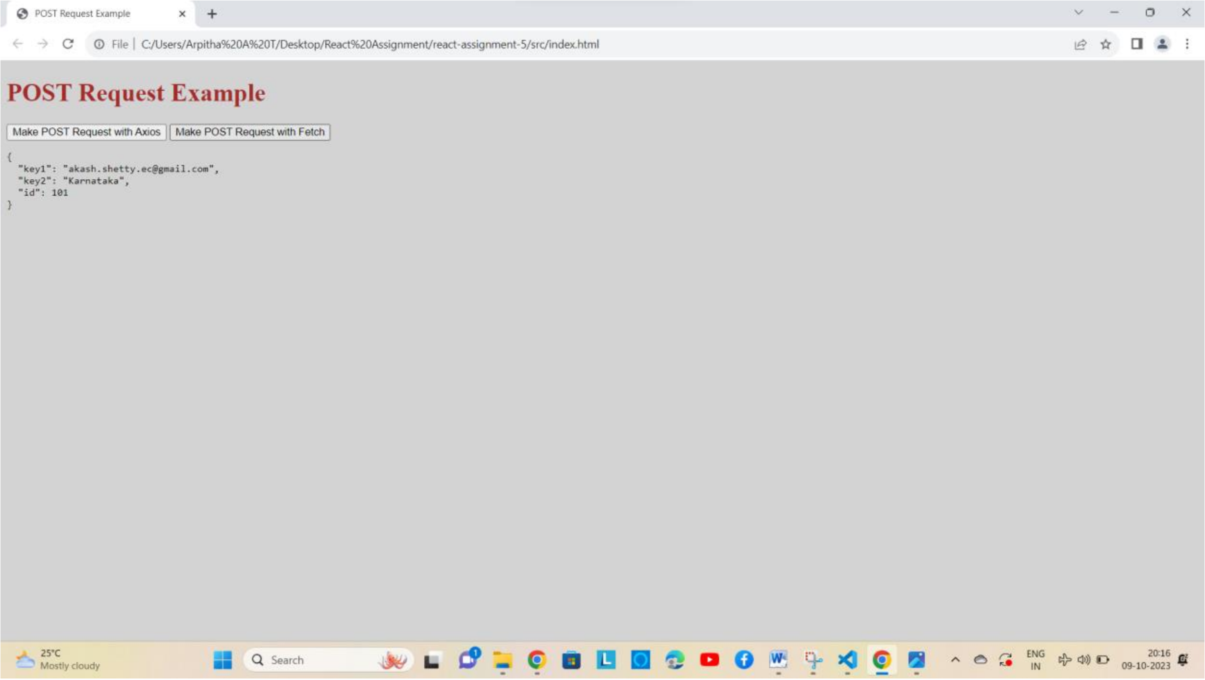
POST Request Example

Make POST Request with Axios
Make POST Request with Fetch

```
{
  "key1": "Akash B shetty",
  "key2": "8217256357",
  "id": 101
}
```

25°C
Mostly cloudy
Search
ENG
IN
20:16
09-10-2023

Request with Axios



POST Request Example
File
C:/Users/Arpitha%20A%20T/Desktop/React%20Assignment/react-assignment-5/src/index.html

POST Request Example

Make POST Request with Axios
Make POST Request with Fetch

```
{
  "key1": "akash.shetty.ec@gmail.com",
  "key2": "Karnataka",
  "id": 101
}
```

25°C
Mostly cloudy
Search
ENG
IN
20:16
09-10-2023

Request with Fetch