```
import React, { useEffect, useState } from 'react';
import io from 'socket.io-client';
import axios from 'axios';
const socket = io('http://localhost:3001');
function App() {
 const [username, setUsername] = useState(");
 const [message, setMessage] = useState(");
 const [chat, setChat] = useState([]);
 const [loggedIn, setLoggedIn] = useState(false);
 const sendMessage = () => {
  if (message && username) {
   socket.emit('chat message', { username, message });
   setMessage(");
  }
 };
 useEffect(() => {
  socket.on('chat message', (data) => {
   setChat((prev) => [...prev, data]);
  });
 }, []);
 const handleLogin = async () => {
  try {
   const res = await axios.post('http://localhost:3001/api/login', {
     username,
     password: 'test123' // Hardcoded for simplicity
   });
   if (res.data.token) setLoggedIn(true);
  } catch (err) {
   alert('Login failed. Try registering first.');
  }
 };
 const handleRegister = async () => {
  await axios.post('http://localhost:3001/api/register', {
   username,
   password: 'test123' // Hardcoded for demo
  });
  alert('Registered! Now log in.');
 };
 return (
  <div style={{ padding: '2rem' }}>
   {!loggedIn ? (
```

```
<>
      <h2>Login / Register</h2>
     <input
       placeholder="Enter username"
       onChange={(e) => setUsername(e.target.value)}
     />
      <br />
     <button onClick={handleRegister}>Register/button>
     <button onClick={handleLogin}>Login</button>
    </>
   ):(
    <>
     <h2>Welcome, {username}!</h2>
     <div style={{ border: '1px solid gray', height: 300, overflowY: 'scroll', padding: '1rem' }}>
       \{chat.map((msg, i) => (
        <div key={i}>
         <strong>{msg.username}</strong>: {msg.message} <small>{msg.time}</small>
      ))}
      </div>
      <input
      value={message}
       onChange={(e) => setMessage(e.target.value)}
       placeholder="Type message"
     />
     <button onClick={sendMessage}>Send</button>
    </>
   )}
  </div>
);
}
export default App;
```