Full Stack Documentation with MERN

Resolve Now: Your Platform for Online Complaints

1. Introduction

- **ProjectTitle:** Resolve Now – Your Platform for Online Complaints
- **Team Members:**
  1. Sri Varshini – Frontend & Backend Development

2. Project Overview

- **Purpose:**
  Resolve Now is designed to streamline the process of submitting, tracking, and resolving user complaints through a centralized digital platform, enhancing transparency, communication, and customer satisfaction.
- **Features:**
  1. Secure user registration and login
  2. Complaint submission with multimedia support
  3. Real-time complaint tracking and notifications
  4. Built-in chat between users and agents
  5. Admin panel for complaint and agent management
  6. Intelligent routing of complaints
  7. Strong security and data confidentiality
  8. Feedback system and status updates

3. Architecture

- **Frontend:**
  Built with React.js, styled using Bootstrap and Material UI for responsive and dynamic user interfaces. Integrated with backend using Axios and supports chat functionality using Socket.io.
- **Backend:**
  Developed using Node.js and Express.js to handle REST APIs, routing, authentication, complaint processing, and chat support.
- **Database:**
  MongoDB used for storing user profiles, complaints, chat messages, and complaint assignments. Schemas include:
  1. User Schema
  2. Complaint Schema
  3. Assigned Complaint Schema
  4. Chat Window Schema

4. Setup Instructions

- **Prerequisites:**
  -> Node.js

-> MongoDB
-> npm
-> Git

- **Installation:**
  1. Clone the repository
  2. Run “npm install” in both “client” and “server” directories
  3. Configure “.env” for database and JWT secrets
  4. Start frontend and backend servers

5. Folder Structure

- Client (Frontend):

```
/client
  ├── public/
  ├── src/
 |  ├── components/
 |  ├── pages/
 |  ├── services/
 | └── App.js
```

- Server (Backend):

```
/server
  ├── config/
  ├── controllers/
  ├── models/
  ├── routes/
 └── server.js
```

6. Running the Application

- **Frontend:**

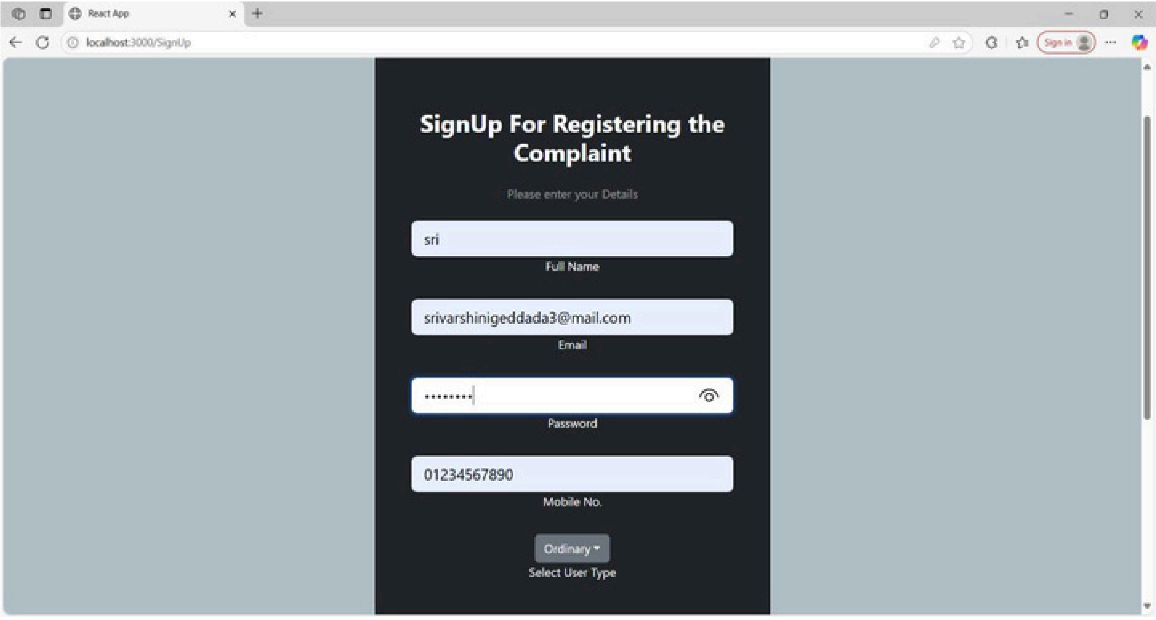
```
cd client
npm start
```

- **Backend:**

```
cd server
npm start
```

7. API Documentation

- **Register a new User**



SignUp For Registering the Complaint

Please enter your Details

Full Name: sri

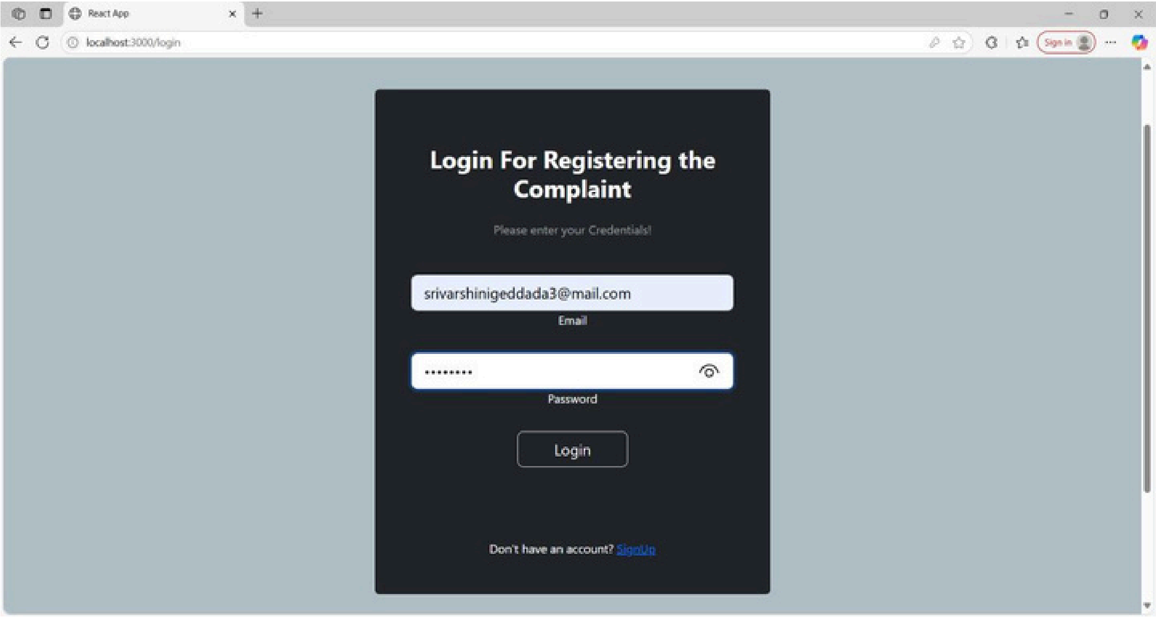
Email: srivarshinigeddada3@mail.com

Password: ••••••••

Mobile No.: 01234567890

Select User Type: Ordinary

- **Login Page**



Login For Registering the Complaint

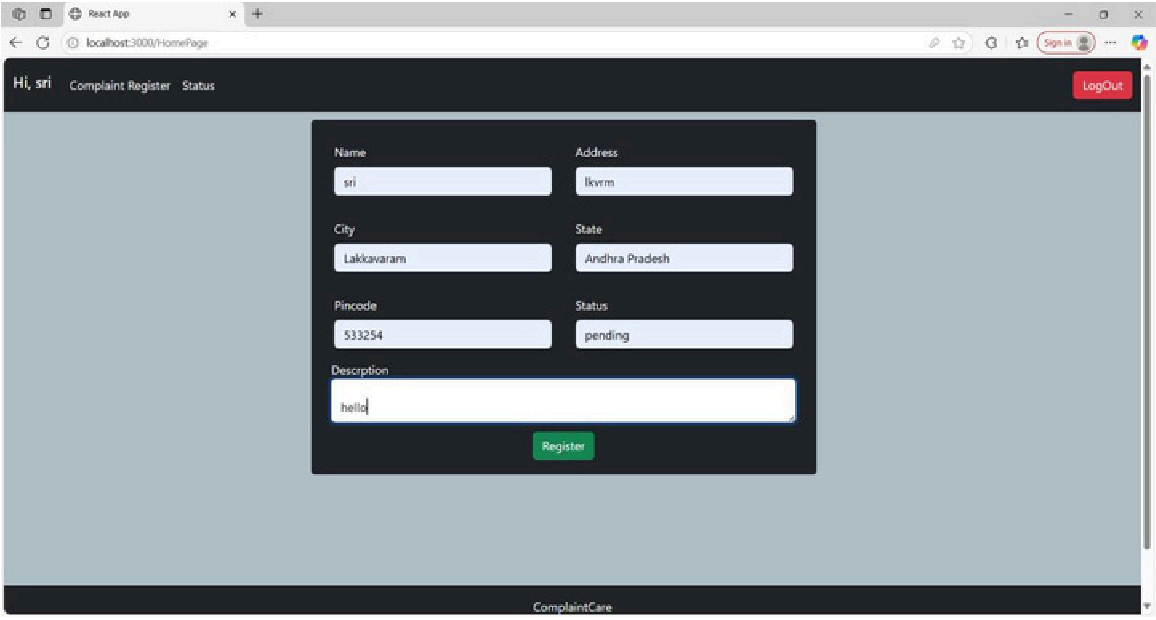
Please enter your Credentials!

Email: srivarshinigeddada3@mail.com

Password: ••••••••

Don't have an account? SignUp

- **Register Complaint**



Name: sri

Address: lkvrm

City: Lakkavaram

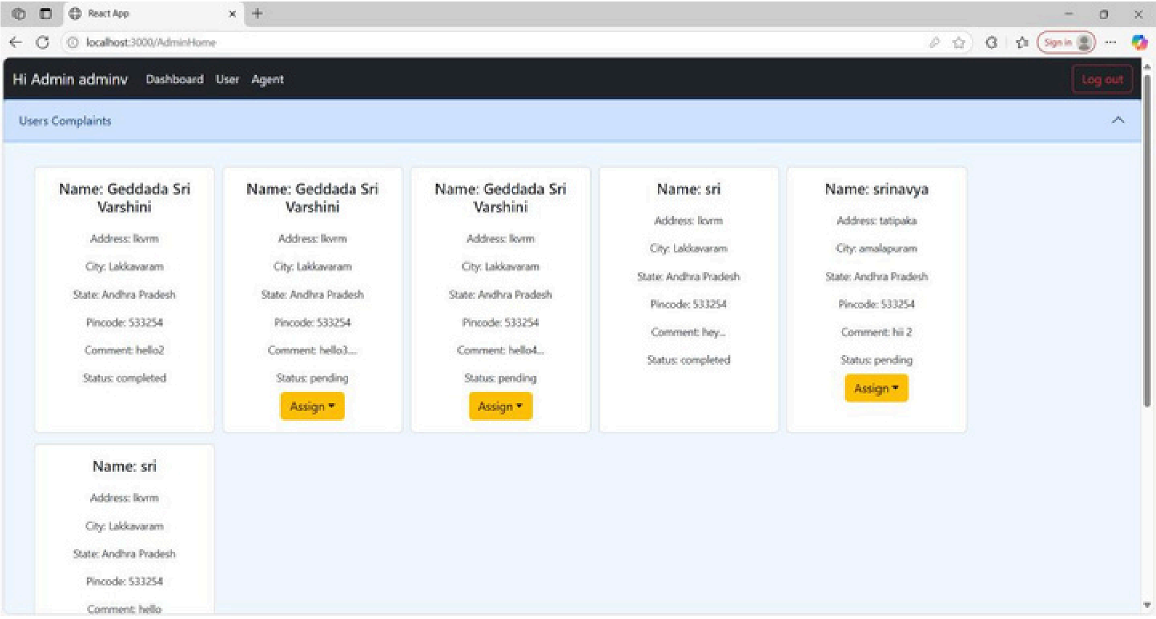
State: Andhra Pradesh

Pincode: 533254

Status: pending

Descrption: hello

- **Get Complaint details and Assign to Agent**



Name: Geddada Sri Varshini
Address: lkvrm
City: Lakkavaram
State: Andhra Pradesh
Pincode: 533254
Comment: hello2
Status: completed

Name: Geddada Sri Varshini
Address: lkvrm
City: Lakkavaram
State: Andhra Pradesh
Pincode: 533254
Comment: hello3...
Status: pending
Assign ▾

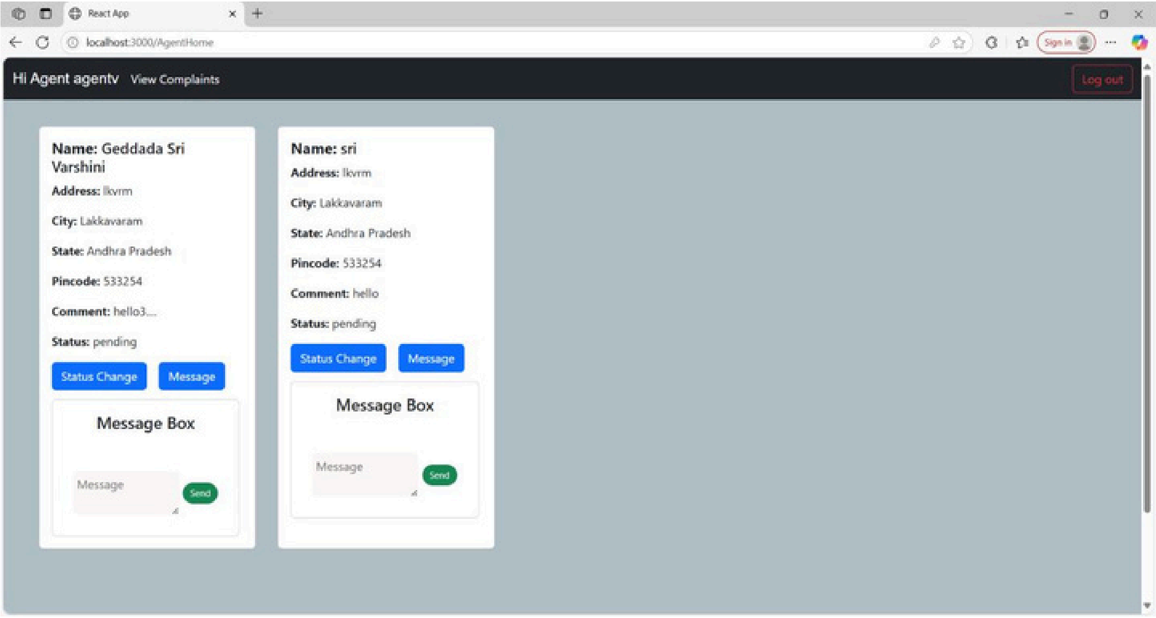
Name: Geddada Sri Varshini
Address: lkvrm
City: Lakkavaram
State: Andhra Pradesh
Pincode: 533254
Comment: hello4...
Status: pending
Assign ▾

Name: sri
Address: lkvrm
City: Lakkavaram
State: Andhra Pradesh
Pincode: 533254
Comment: hey...
Status: completed

Name: srinavya
Address: tatipaka
City: amalapuram
State: Andhra Pradesh
Pincode: 533254
Comment: hii 2
Status: pending
Assign ▾

Name: sri
Address: lkvrm
City: Lakkavaram
State: Andhra Pradesh
Pincode: 533254
Comment: hello

- **Send Response**



Name: Geddada Sri Varshini
Address: lkvrm
City: Lakkavaram
State: Andhra Pradesh
Pincode: 533254
Comment: hello3....
Status: pending

Name: sri
Address: lkvrm
City: Lakkavaram
State: Andhra Pradesh
Pincode: 533254
Comment: hello
Status: pending

8. Authentication

- **Method: JSON Web Tokens (JWT)**
  -> Tokens are generated at login and used for authorization in protected routes.
  -> Middleware is used to verify tokens and determine user roles (admin, agent, customer).

9. User Interface

- **CustomerDashboard**: Submit complaints, track status, chat with agents
- **Agent Dashboard**: View assigned complaints, respond to users, update status
- **Admin Panel**: Monitor all activity, assign agents, manage users

10. Testing

- Manual testing through Postman for API validation
- Frontend testing through UI interactions
- Unit testing setup can be extended using Jest or Mocha

11. Screenshots or Demo

-Here is the VIDEO DEMO Link:

https://drive.google.com/file/d/1sYFgYx5FWyvRVqjwKXv5UU_NZp5jhAqI/view?usp=sharing

12. Known Issues

- Video chat support may not work on all browsers (WebRTC compatibility)

- Email delivery may delay under heavy server load
- UI responsiveness under low network conditions may lag

13. Future Enhancements

- Implement advanced analytics dashboard for admins
- Add complaint categories and SLA monitoring
- Integrate WhatsApp/SMS support for notifications
- Role-based access control with granular permissions
- Support for multilingual UI