

**Project Title:** Online Complaints

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# Project Overview

## Purpose:

ResolveNow is designed to simplify the process of registering, managing, and resolving user complaints through a secure and interactive platform. It aims to improve transparency, user satisfaction, and resolution efficiency in complaint handling.

## Features:

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- User registration and login with verification
- Complaint submission with attachments
- Real-time complaint tracking and updates
- Admin panel for assigning and monitoring complaints
- Agent-user chat feature
- Email/SMS notifications
- Secure user data handling and encryption

# Architecture

## Frontend:

Built using React.js with Bootstrap and Material UI for styling. Axios is used for API integration. The frontend provides role-based interfaces for users, agents, and admins, offering responsive design and real-time interaction.

## Backend:

Developed using Node.js and Express.js, providing RESTful APIs for user management, complaint handling, and messaging. The backend includes middleware for error handling, logging, and request validation.

## Database:

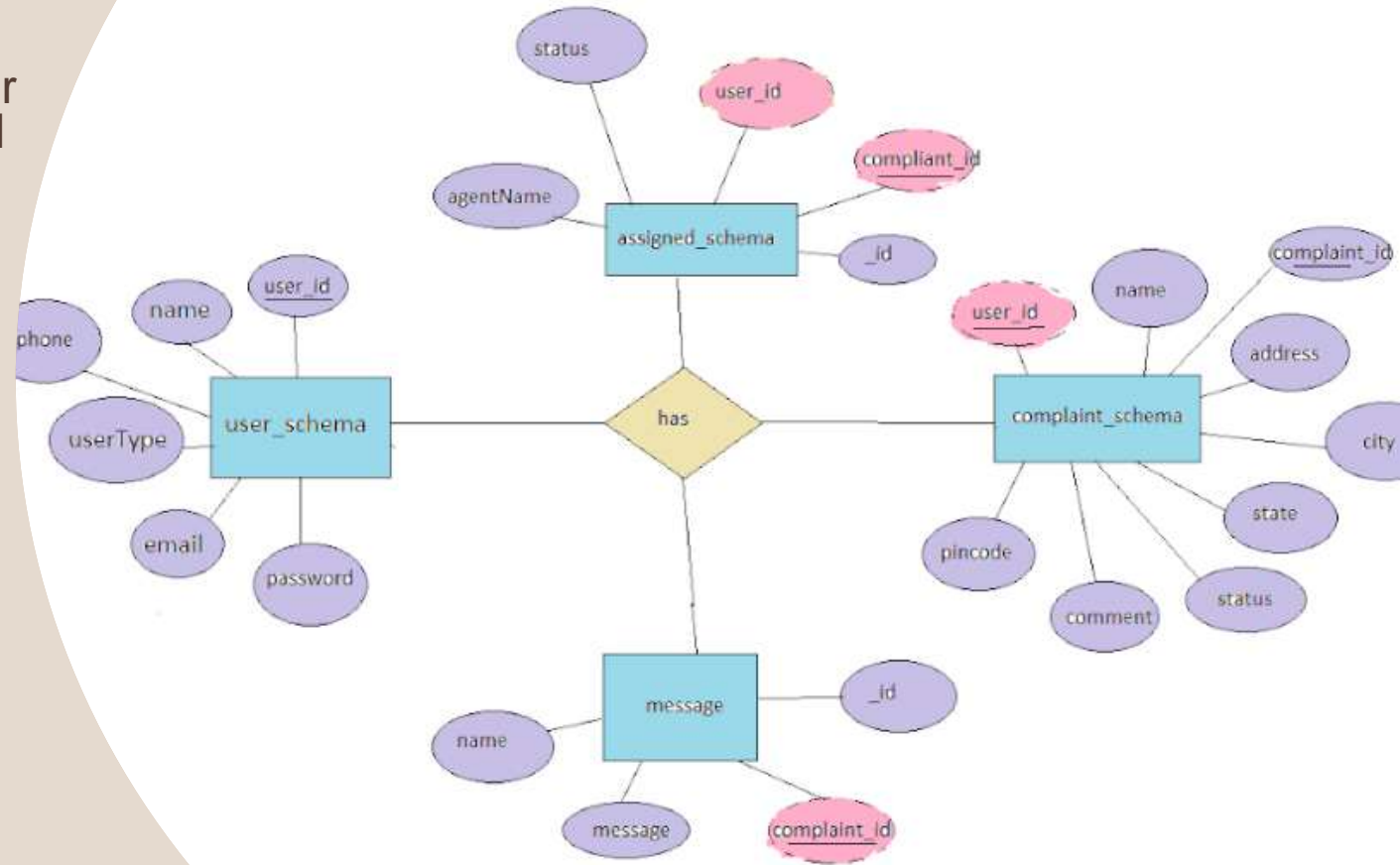
MongoDB is used with Mongoose for schema-based modeling. Collections include:

**Users** – user credentials and roles

**Complaints** – details of user complaints

**Messages** – agent-user chat logs

**Notifications** – tracking updates and alerts



# Setup Instructions

## Prerequisites:

Node.js >= 16.x

MongoDB (local or MongoDB Atlas)

Git

## Installation:

*# Clone the repository*

```
git clone https://github.com/your-username/ResolveNow.git
```

*# Frontend setup*

```
cd ResolveNow/client
```

```
npm install
```

*# Backend setup*

```
cd ../server
```

```
npm install
```

**ENVIRONMENT VARIABLES:** CREATE A `.env` FILE IN THE SERVER DIRECTORY WITH THE FOLLOWING:

```
MONGO_URI=YOUR_MONGODB_CONNECTION_STRING
```

```
JWT_SECRET=YOUR_JWT_SECRET_KEY
```

```
EMAIL_USER=YOUR_EMAIL
```

```
EMAIL_PASS=YOUR_PASSWORDR
```

# Folder Structure And Running The Application

## Client (/client):

- /client
  - /src
    - /components
    - /pages
    - /services (Axios API calls)
    - /context (Auth and Global State)
  - App.js
  - index.js

## Server (/server):

- /server
  - /controllers
  - /routes
  - /models
  - /middleware
  - /config
  - server.js

## Frontend:

```
cd client  
npm start
```

## Backend:

```
cd server  
npm start
```

# API Documentation

Endpoint	Method	Description
/api/auth/register	POST	Register new user
/api/auth/login	POST	User login
/api/complaints/	POST	Submit complaint
/api/complaints/user/:id	GET	Get user complaints
/api/complaints/:id	PUT	Update complaint status
/api/messages/:complaintId	GET	Get all messages
/api/messages/send	POST	Send message

## Example Response for Complaint Submission:

```
{  
  "message": "Complaint submitted successfully"  
,  
  "complaintId": "64a1dbe..."  
}
```

# Authentication

**Type:** JWT (JSON Web Token)

**Process:**

On login/register, a token is generated and stored in localStorage.

Protected routes validate the token using middleware.

**Roles:**

User

Agent

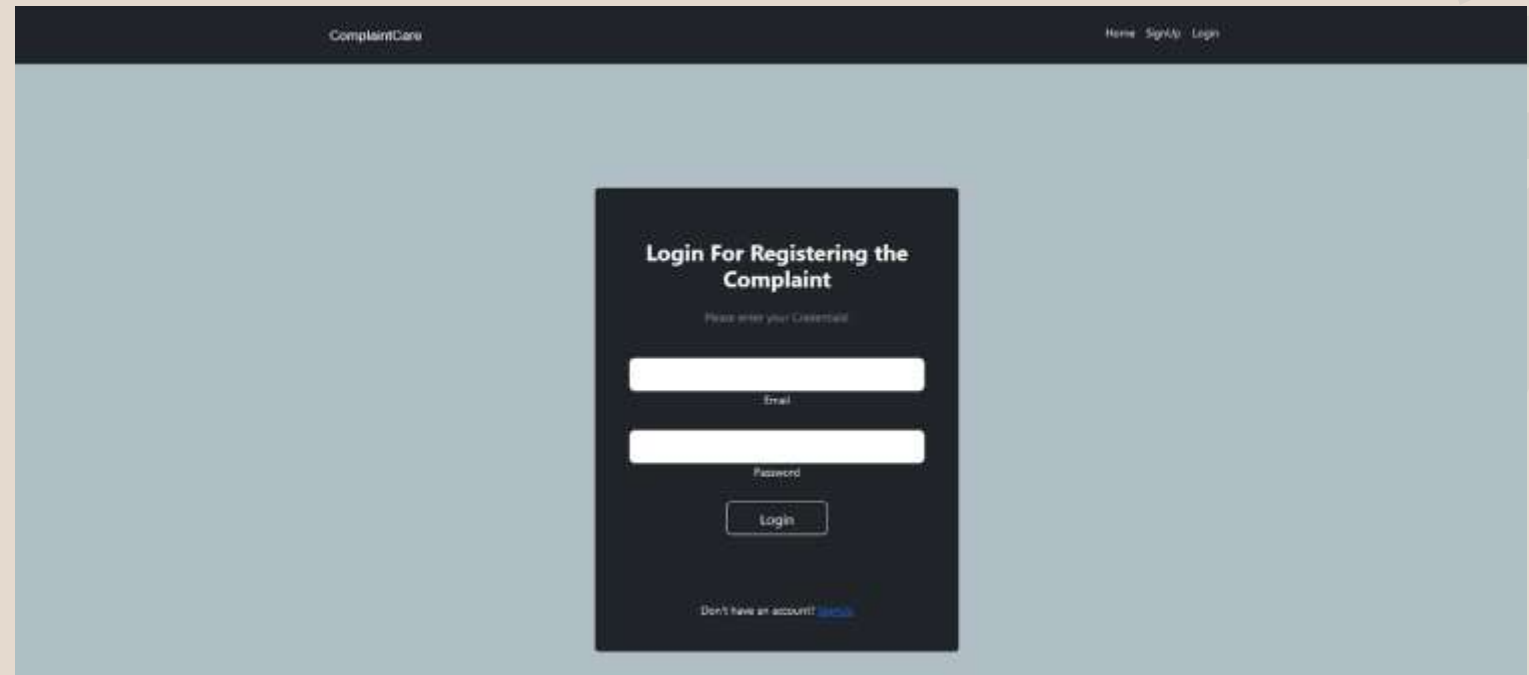
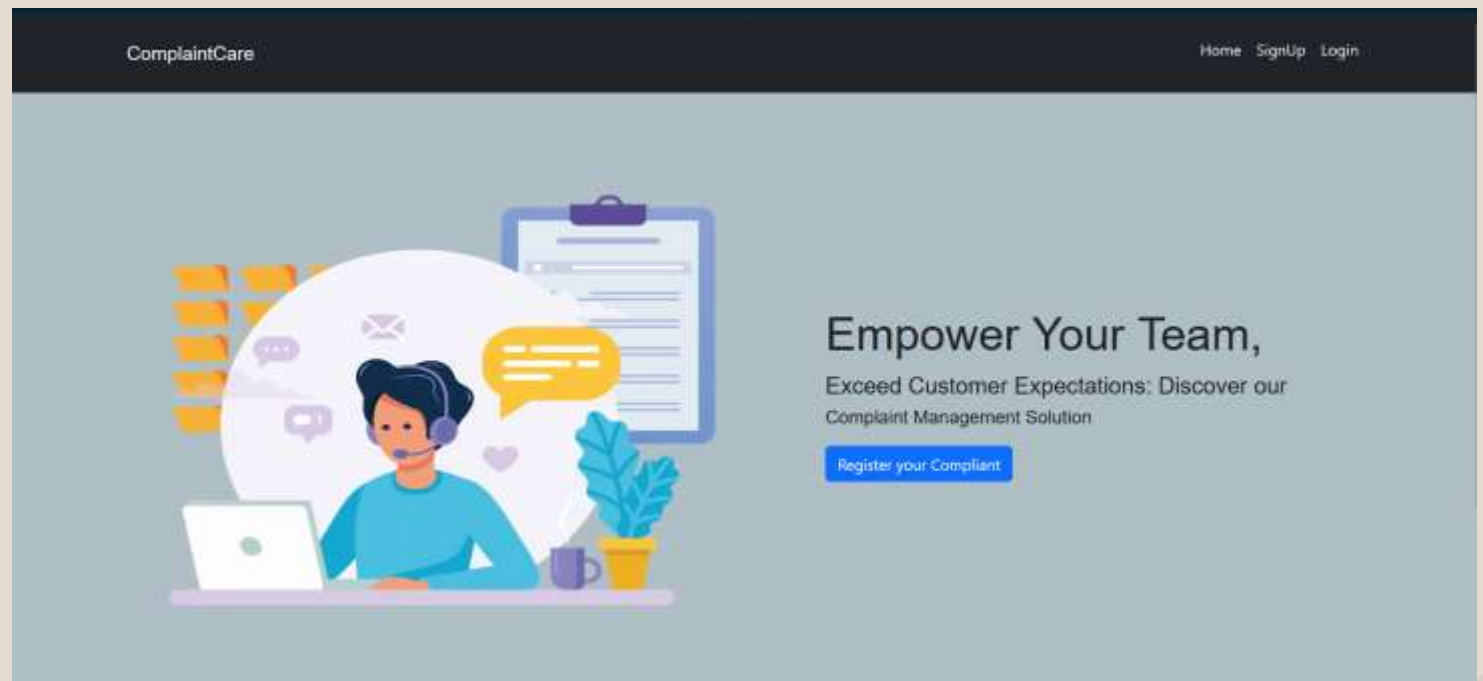
Admin

**Security:**

Passwords are hashed using bcrypt.

# UI Features

- 1.Login/Register Page
- 2.Dashboard  
(User/Admin/Agent view)
- 3.Submit Complaint Page
- 4.Chat interface
- 5.Admin control panel





ComplaintCare

Home Sign Up Login

### SignUp For Registering the Complaint

Please enter your Details

Full Name

Email

Password

Mobile No.

Select User Type

Register

Had an account? [Login](#)

Hi, shadeel Complaint Register Status Logout

Name

Address

City

State

Pincode

Status

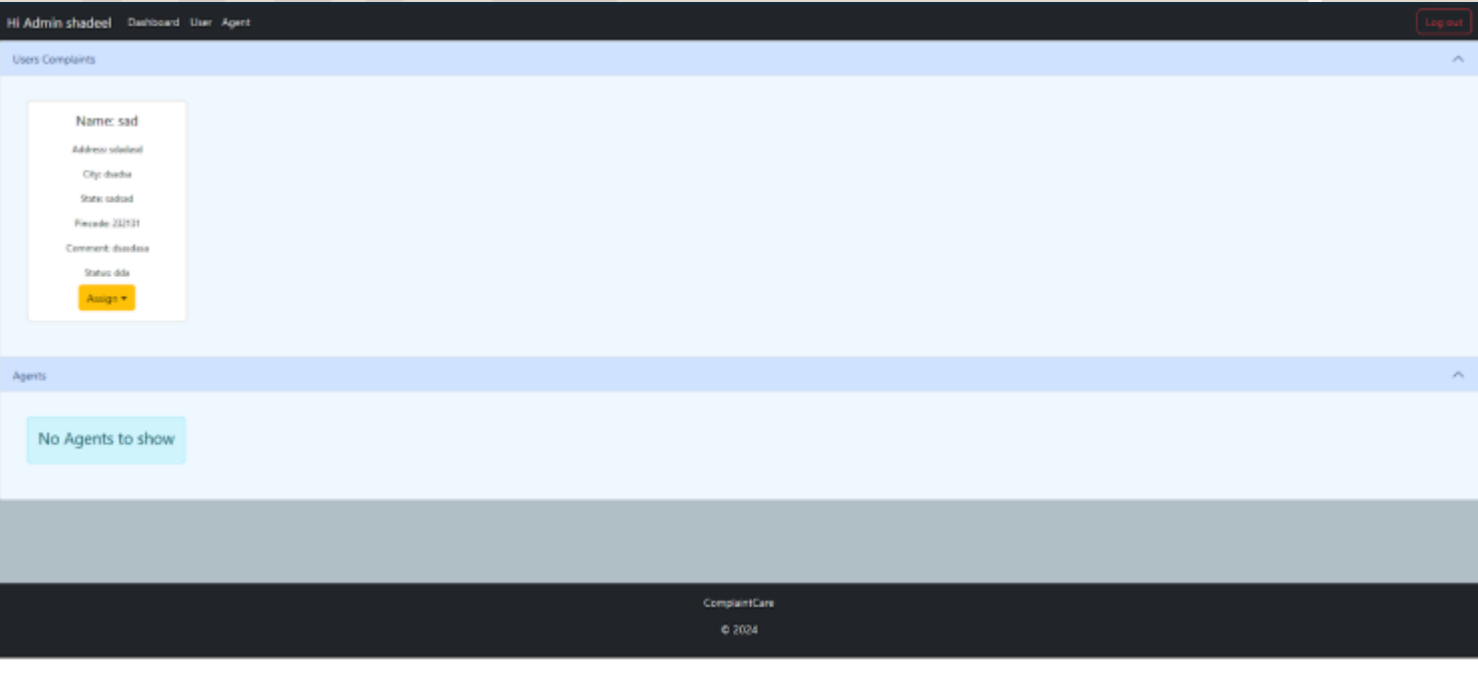
type pending

Description

Register

ComplaintCare

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# Testing Issues

- **STRATEGY:**
- MANUAL TESTING FOR UI FLOW
- POSTMAN FOR API TESTING
- **TOOLS:**
- POSTMAN
- JEST (FOR BACKEND UNIT TESTS)

## Known

Chat feature has occasional delays in message delivery

Mobile view has minor layout misalignment on iPhone devices

Admin dashboard performance dips with large datasets

# Future Enhancements

- Integration with WhatsApp/Telegram for alerts
- Analytics dashboard for admin insights
- AI-based complaint categorization and auto-routing
- Multilingual support
- Push notifications on mobile



thank you