# Online Complaint Registration
# And
# Management System

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# Abstract

The **Online Complaint Registration and Management System** is a comprehensive digital platform that streamlines the complaint handling process, providing users with an accessible, transparent, and efficient means to report issues and track their resolutions. This system is designed to support both individuals and organizations in addressing complaints, centralizing the entire process from complaint submission to resolution. Through user registration and secure authentication, users can log in to their accounts, submit detailed complaints, and track the progress of their issues in real-time. The complaint submission form allows users to include critical details, such as the nature of the complaint, any relevant supporting documents, and contact information, facilitating faster, informed responses.

To optimize complaint handling, the system uses intelligent routing algorithms that assign complaints to the most appropriate departments or personnel based on the complaint type, urgency, and available resources. Users receive automated notifications via email or SMS, keeping them informed of every update—from initial submission to final resolution—without needing to manually check the system. The platform's built-in messaging feature enables seamless, direct interaction between users and assigned agents, allowing for clarification and additional information exchange as needed.

Data security is prioritized, with features such as user authentication, data encryption, and strict access controls to protect sensitive information and maintain confidentiality, aligning with industry standards and regulatory requirements. The system's robust security framework ensures user data remains secure, fostering trust and compliance with data protection regulations.

In addition to its user-facing functionalities, the system provides administrative tools for monitoring complaints, assigning tasks, and generating reports on complaint trends and resolution efficiency. This data supports organizations in identifying common issues, improving service quality, and maintaining a customer-centric approach. Overall, the Online Complaint Registration and Management System promotes operational efficiency, enhances user satisfaction, and empowers organizations to effectively manage and resolve complaints, fostering long-term customer trust and loyalty.

# 1. Introduction

**Project Title**: Online Complaint Registration And Management System

The **Online Complaint Registration and Management System** is designed to provide an efficient and user-friendly platform for users to submit complaints to organizations, track their complaints' statuses, and receive updates. This system aims to bridge the gap between customers and service providers, enabling better communication, faster resolution of issues, and improved customer satisfaction.

In any organization, customer feedback is critical for improving services and maintaining good relationships. Traditionally, users would report complaints through phone calls, emails, or physical visits, leading to inefficiencies, long wait times, and often miscommunication. The Online Complaint Registration and Management System automates and streamlines this process, ensuring that complaints are logged, tracked, and addressed efficiently.

# 2. Project Overview

**Objective**: The Online Complaint Registration And Management System allows users to submit grievances online, monitor their progress, and facilitate swift resolution. It replaces conventional processes with a streamlined digital workflow for complaint submission and updates.

**Key Features**:

- Complaint filing with detailed descriptions and attachments.
- User account creation and authentication.
- Admin interface for complaint administration.
- Complaint progress tracking for users.

# 3. Architecture

**Frontend**:
The interface is developed using React, offering a seamless user experience for both users and administrators. Navigation is handled by React Router, and Context API is used for state management.

**Backend**:
The backend, built with Node.js and Express.js, processes API requests, handles data validation, and manages core business logic.

**Database**:
MongoDB serves as the data storage system for user profiles, complaint records, and logs, organized into collections for users, complaints, and administrators.

# 4. Setup Instructions

**Requirements**

- Node.js (version 14 or later)
- MongoDB (local or hosted)
- Git

**Steps to Install**:

1. Clone the project

repository: gitclone
[https://github.com/KPBHARADWAJ/NM-Project.git](https://github.com/KPBHARADWAJ/NM-Project.git)

2. Navigate to the project folder:

cd NM_Online_Complaint_Registration_And_management_System

3. Install dependencies for the frontend and

backend: cd client && npm install

cd ../server && npm install

# 5. Project Structure

**Frontend:**

**1. React Component:**

- SignUp.js
- FoooterC.js
- Other Component's for user authentication and complaint management

**2. Libraries/Tools:**

- bootstrap: For Styling
- Axios: For API calls

**Backend:**

- Config.js
- index.js
- schema.js

# 6. Running the Application

**Frontend :**
**1. Move to the frontend directory:**

   cd frontend

**2. Start the frontend server:**

   npm start

**Backend:**
   1. Ensure Node.js is installed.
   2. Launch the backend server using one of the following:
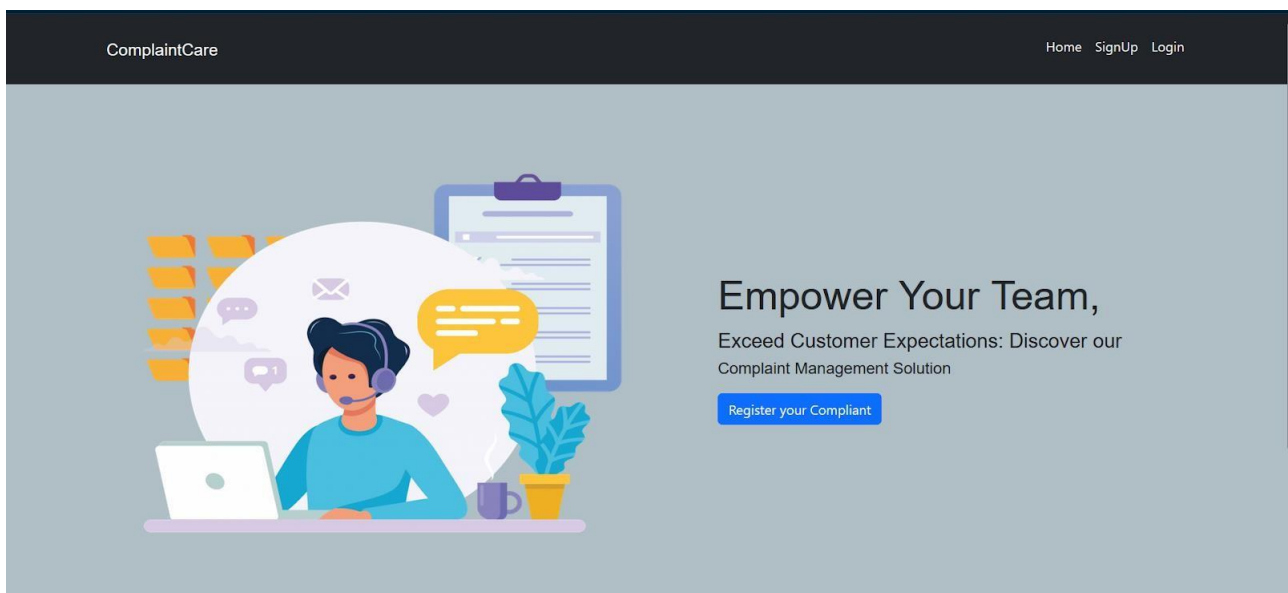      npm start  (or)
      npm index.js

# 7. Authentication
   The application uses JWT for secure authentication. Tokens are created during login and stored in local storage for managing user sessions.

# 8. User Interface



# 9. Testing
**Tool Used**: Postman

# 10. Demo
 **Check the Demo Screenshots/video in GitHub**:

https://github.com/KumarP123IT/NM_Online_Complaint_Registration_And_Management_System
/tree/master/Demo_video

## 11. Known Issues

Missing or insufficient error handling in index.js in backend and Invalid data might be submitted causing the backend error

## 12. Planned Enhancements

- Introduce real-time notifications for complaints using WebSockets.
- Develop AI-driven categorization for complaints.

Support for multiple languages