- # Project Report: ResolveNow - Online Complaint Registration and Management System

1. Title: ResolveNow - Online Complaint Registration and Management System

2. Objective: To develop a centralized platform that allows users to submit, track, and resolve complaints efficiently, ensuring transparency, accountability, and enhanced customer satisfaction.

3. Introduction: In many organizations, managing complaints manually is inefficient and time-consuming. ResolveNow provides an automated, secure, and user-friendly solution for complaint handling. [5]It empowers users to register grievances and track them in real time while allowing administrators and agents to handle complaints systematically.

4. Scope: Resolve Now serves users, agents, and administrators. It enables:

Secure registration and login for users

Complaint filing with supporting documents

Tracking of complaint status

Real-time messaging between users and agents

Admin panel for monitoring and assignment

5. Features:

User registration and authentication

Secure complaint submission

Email/SMS notifications

Real-time chat with assigned agents

Admin dashboard

Complaint status tracking

6. Tools & Technologies Used:

Frontend: React.js, Bootstrap, Material UI

Backend: Node.js, Express.js

Database: MongoDB Atlas

Other Libraries: Axios, React-Router, Socket.io (optional for real-time chat)

Hosting: Localhost for development, GitHub for version control

7. System Architecture: The application follows a client-server architecture:

The client (frontend) handles UI and sends HTTP requests to the server.

The server (backend) processes the logic, interacts with MongoDB Atlas, and sends responses.

MongoDB Atlas stores user, complaint, and message data.

8. Modules Description:

User Module: Handles sign-up, login, complaint submission, and status tracking.

Agent Module: Manages assigned complaints and interacts with users.

Admin Module: Assigns complaints, monitors status, and manages users/agents.

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Complaint Module: Stores and retrieves complaint data.

Chat Module: Enables communication between users and agents.

9. ER Diagram Overview:

Entities: User, Complaint, Agent, Admin, Message

Relationships: One-to-many (User-Complaint), One-to-one (Complaint-Agent), One-to-many (Complaint-Messages)

10. Scenario Illustration: John faces a product issue, registers on ResolveNow, submits a complaint, chats with the agent, and gets resolution. Admin monitors and assigns the complaint to the appropriate agent.

11. Security Measures:

Password hashing

JWT-based authentication (optional for advanced security)

HTTPS for data encryption (in deployment)

Role-based access control

12. Conclusion: ResolveNow is a robust platform that automates and simplifies complaint handling, promoting transparency, accountability, and faster resolutions. [47]It can be extended with advanced features like analytics, escalation workflows, and multilingual support.

13. Future Enhancements:

Add voice/video chat support

Mobile app integration

Complaint categorization and priority tags

Advanced admin analytics dashboard

14. Screenshots:

Home page with dark/light mode toggle

Complaint submission form

Real-time chat window

Admin dashboard

Complaint status tracker

15. References:

ReactJS Documentation

Node.js Official Docs

MongoDB Atlas

Bootstrap & Material UI

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16. Acknowledgment:

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