Final Report

Project Report Format

1. INTRODUCTION 1.1 Project Overview ResolveNow is an online complaint registration and management system designed to streamline the process of submitting, tracking, and resolving complaints by individuals or organizations. It acts as a centralized platform that enables users to securely register complaints, track progress in real time, and interact with assigned agents. By leveraging intelligent routing, timely notifications, and robust security, ResolveNow improves complaint resolution efficiency and enhances customer satisfaction.

1.2 Purpose The purpose of ResolveNow is to optimize complaint handling by providing a user-friendly, secure, and scalable platform. It allows organizations to handle customer issues efficiently while staying compliant with regulatory standards and improving overall service quality.

1. IDEATION PHASE 2.1 Problem Statement Customers face delays and inefficiencies in resolving complaints due to manual processes, lack of transparency, and poor communication between users and support personnel.

2.2 Empathy Map Canvas Users: Frustrated customers Needs: Transparent process, quick resolution, real-time updates Feelings: Frustrated, anxious, ignored Tasks: Register complaint, track status, communicate with agents

2.3 Brainstorming - Secure user login and registration - Complaint submission form - Real-time complaint tracking - Agent-user messaging - Admin complaint assignment - Email/SMS notifications - Role-based dashboards

1. REQUIREMENT ANALYSIS 3.1 Customer Journey Map
2. User visits site
3. Registers/Login
4. Submits complaint
5. Receives notification and tracking updates
6. Interacts with agent
7. Complaint resolved
8. Feedback submitted

3.2 Solution Requirement - Frontend: User registration/login, dashboard, chat system - Backend: User auth, CRUD operations for complaints, admin & agent management - Database: Store users, complaints, messages, status

3.3 Data Flow Diagram User -> Frontend -> Backend API -> MongoDB Agent/Admin -> Frontend -> Backend API -> MongoDB

3.4 Technology Stack - Frontend: React.js, Bootstrap, Material UI - Backend: Node.js, Express.js - Database: MongoDB - Libraries: Axios, Socket.io, WebRTC API

1. PROJECT DESIGN 4.1 Problem Solution Fit ResolveNow aligns user needs with a streamlined complaint system by ensuring quick registration, real-time updates, and secure agent communication.

4.2 Proposed Solution A full-stack web app with role-based access for users, agents, and admins, complaint tracking, intelligent routing, and real-time messaging.

4.3 Solution Architecture - Client (React) <-> Server (Express) <-> MongoDB - REST APIs for communication - WebSockets (socket.io) for real-time chat

1. PROJECT PLANNING & SCHEDULING 5.1 Project Planning

* Week 1: Requirement gathering, UI/UX design
* Week 2: Backend setup, MongoDB integration
* Week 3: Frontend integration, routing setup
* Week 4: Notification system, testing, deployment

1. FUNCTIONAL AND PERFORMANCE TESTING 6.1 Performance Testing

* Load testing using Postman
* Real-time interaction testing with Socket.io
* End-to-end testing across user roles

1. RESULTS 7.1 Output Screenshots [Insert screenshots of Login, SignUp, Dashboard, Complaint Form, Status, Chat, Admin Panel, etc.]
2. ADVANTAGES & DISADVANTAGES Advantages:

* Real-time updates
* Role-based dashboard
* Easy complaint tracking
* Scalable & secure

Disadvantages: - Requires internet access - Depends on user adoption

1. CONCLUSION ResolveNow successfully digitizes the complaint handling process, making it more efficient, secure, and user-friendly. It bridges the communication gap between users and agents while enabling admins to manage workloads effectively.
2. FUTURE SCOPE

* Mobile application support
* Multilingual interface
* AI-based complaint categorization
* Integration with CRM systems

1. APPENDIX Source Code: https://github.com/kusumakambala7/ResolveNow.git