

## Project Summary –House hunting

### Introduction

ResolveNow is an innovative, web-based complaint registration and management platform designed to address the inefficiencies of traditional grievance redressal systems. It provides users with a centralized platform to file complaints, track progress, and communicate directly with assigned agents. With transparency, responsiveness, and real-time interaction at its core, ResolveNow ensures improved accountability and user satisfaction.

### Objectives

- Provide a digital medium to register and track complaints efficiently.
- Ensure timely redressal of issues through proper routing and agent assignment.
- Enable transparent communication between users and service providers.
- Improve administrative control and monitoring through a dedicated dashboard.

### Key Features

1. User Registration and Login:
  - Secure registration via email and password
  - Option to log in via Gmail or Facebook (optional extensions)
2. Complaint Submission:
  - Users can register complaints by filling a detailed form with optional file attachments.
3. Complaint Tracking:
  - Users can monitor the real-time status of their complaint on their dashboard.
4. Real-Time Chat with Agents:
  - In-app messaging system enables users to communicate with agents to clarify issues.
5. Admin Control Panel:
  - Admins can view all complaints, assign them to agents, and track resolution status.
6. Notification System:
  - Email/SMS notifications are sent to users upon status changes or agent responses.

### Technology Stack

- Frontend: React.js, Bootstrap, Material UI
- Backend: Node.js, Express.js
- Database: MongoDB Atlas
- Others: Axios (API calls), Nodemailer (email service), Socket.io (optional for chat)

## System Architecture

- Follows a client-server architecture (MERN stack).
- MongoDB Atlas is used for cloud-based data storage.
- The server handles authentication, complaint routing, and chat communication.
- The frontend interacts via RESTful APIs for real-time UI updates and functionality.

## Modules

- User Module: Sign up, log in, submit and track complaints.
- Complaint Module: Stores complaint records with timestamps and user details.
- Admin Module: Assigns complaints and monitors system performance.
- Agent Module: Views assigned complaints and communicates with users.
- Chat Module: Facilitates secure user-agent interaction.

## Scenario Example

John, a user, faces a product issue. He signs up, submits a complaint, receives updates via email, and chats with an assigned agent. Once resolved, John provides feedback. The admin oversees the process throughout, ensuring accountability.

## Impact and Future Enhancements

ResolveNow addresses a major gap in digital grievance management and improves satisfaction through transparency and efficiency. Future plans include:

- Integration of mobile app
- Multilingual support
- Complaint analytics for admins
- Voice/video chat with agents