Introduction:

In today's fast-paced digital era, effective grievance redressal and complaint management systems are essential to ensure transparency, accountability, and customer satisfaction. Unfortunately, many existing complaint systems are fragmented, slow, and lack the user-friendly interfaces needed for seamless communication between users and authorities. To address this gap, we have developed ResolveNow – an innovative online platform designed to streamline the process of lodging and tracking complaints efficiently.

ResolveNow empowers users by providing a centralized, accessible, and intuitive platform where individuals can register complaints related to various sectors such as public services, education, infrastructure, and more. The platform facilitates real-time tracking of complaint statuses, enhances communication between complainants and relevant departments, and ensures prompt action through a structured escalation mechanism.

This project is envisioned as a step toward a more responsive and digitally integrated society, where citizens feel heard and authorities are equipped with the tools to respond effectively. With user authentication, categorization of complaints, automated notifications, and administrative dashboards, ResolveNow serves as a bridge between the public and the service providers, encouraging transparency and improving accountability.

Team ID : LTVIP2025TMID52026

Team Size : 4

Team Leader : Munisetti Pravallika

Team member : Renuka Paleti

Team member : T Tejaswi

Team member : Sahith Bayyavarapu

Faculty Mentor:

J. Prasanth Kumar

TEAM NUMBERS ROLE:

Munisetti Pravallika (Team Leader):

Front-End development for the Porject- As the Team Leader of the ResolveNow project, Sravanthi Atragada played a pivotal role in the successful planning, execution, and delivery of the platform. Her responsibilities encompassed both technical and managerial aspects, ensuring smooth collaboration and timely completion of each development phase.

Renuka Paleti (Team Number):

Back-End Connections for this Project- As a core developer on the ResolveNow project, was primarily responsible for designing and implementing the back-end logic and server-side integrations that power the platform's functionality. His role focused on ensuring smooth communication between the front-end interface and the database, as well as handling user requests securely and efficiently.

T Tejaswi (Team Number):

Reviewing the project and helping the Team in each and very aspects like Documentation,Final Report and Connection to API- developed responsive web pages using HTML, CSS, and JavaScript, ensuring cross-browser compatibility and mobile-friendly design. focused on creating a clean and accessible layout for users to easily submit complaints, check updates, and communicate with relevant departments.

Sahith Bayyavarapu (Team Number):

He worked in involved integrating dynamic elements such as form validations, interactive dashboards, and real-time status updates. Collaborating closely with the backend team, she connected the user interface to the server-side APIs, ensuring seamless data flow between the front end and the database.

Project Overview:

ResolveNow is an innovative web-based platform designed to simplify and digitize the process of lodging, tracking, and resolving complaints across various public and private sectors. In a world where timely response to grievances is critical for maintaining trust and transparency, this platform bridges the gap between citizens and responsible authorities by offering a centralized and efficient complaint management system.

The project aims to empower users with the ability to raise their concerns online, view real-time status updates, and receive timely resolutions without having to navigate complex bureaucratic procedures. It supports multiple complaint categories, role-based user access public users, administrators, and department officials and offers notification alerts, complaint filtering, and tracking functionalities.

ResolveNow is built with a user-friendly interface and a robust backend architecture to handle large volumes of complaint data securely. The platform not only benefits individuals but also supports organizations and government bodies by providing analytical insights through admin dashboards and reports to identify recurring issues and improve service delivery.
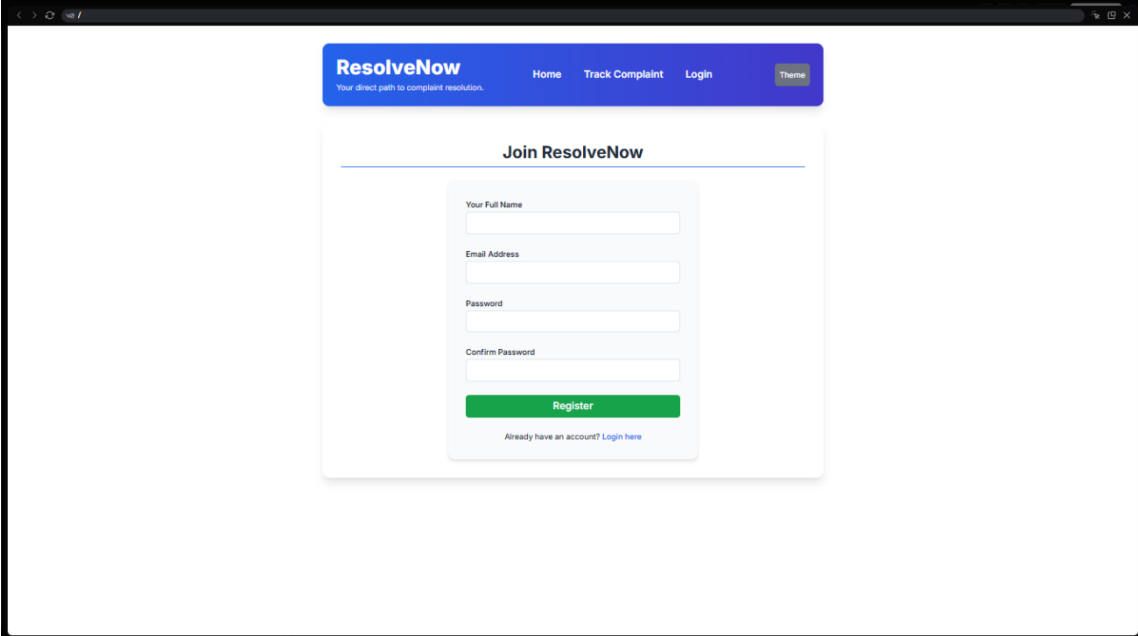
In essence, ResolveNow is a step forward in building a digitally empowered society where accountability and efficiency in complaint resolution are made seamless, structured, and transparent.

Key Features of ResolveNow:

The ResolveNow platform is designed with a comprehensive set of features that ensure a seamless experience for both users and administrators. The following core functionalities make the platform efficient, user-friendly, and highly responsive.
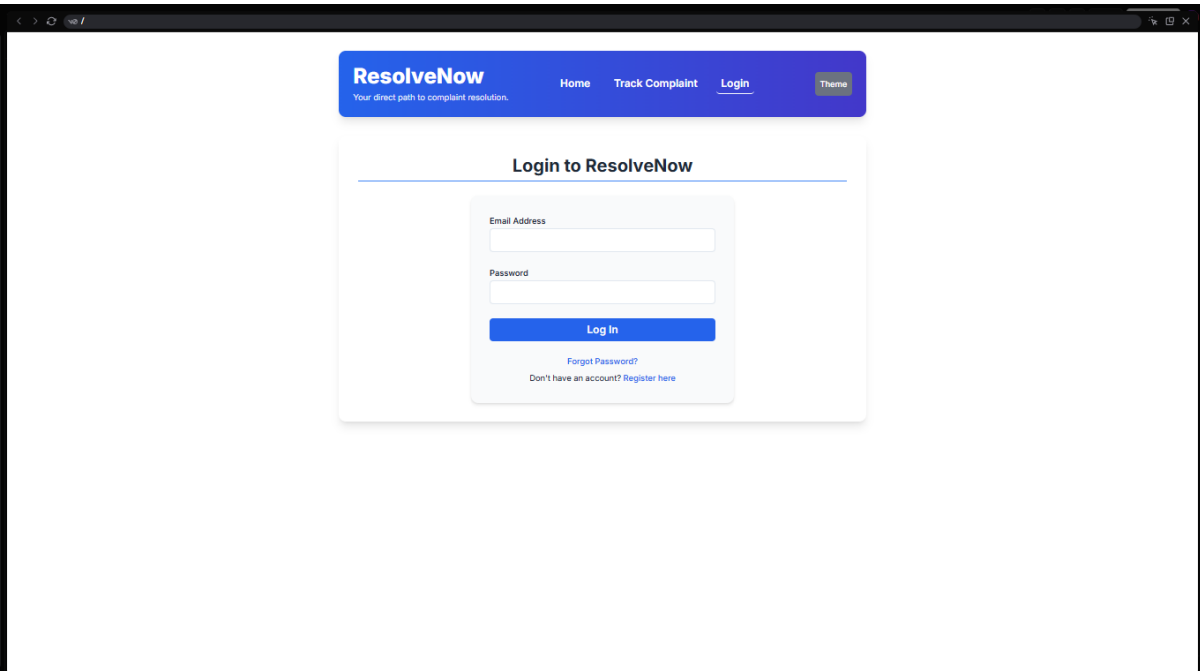
ResolveNow is designed with a range of essential features to provide a smooth and efficient complaint management experience for both users and administrators. The platform includes a secure user registration and login system with role-based access control, ensuring that different user types—such as complainants, department officials, and administrators—can access relevant functionalities. Users can easily submit complaints through a simplified form that allows categorization and the attachment of supporting documents or images.

1. **Register Page:** The Register Page in the *ResolveNow* platform serves as the entry point for new users to create an account and gain access to the system's features. It is designed with a clean and user-friendly interface, ensuring that users of all technical backgrounds can register without confusion or errors.
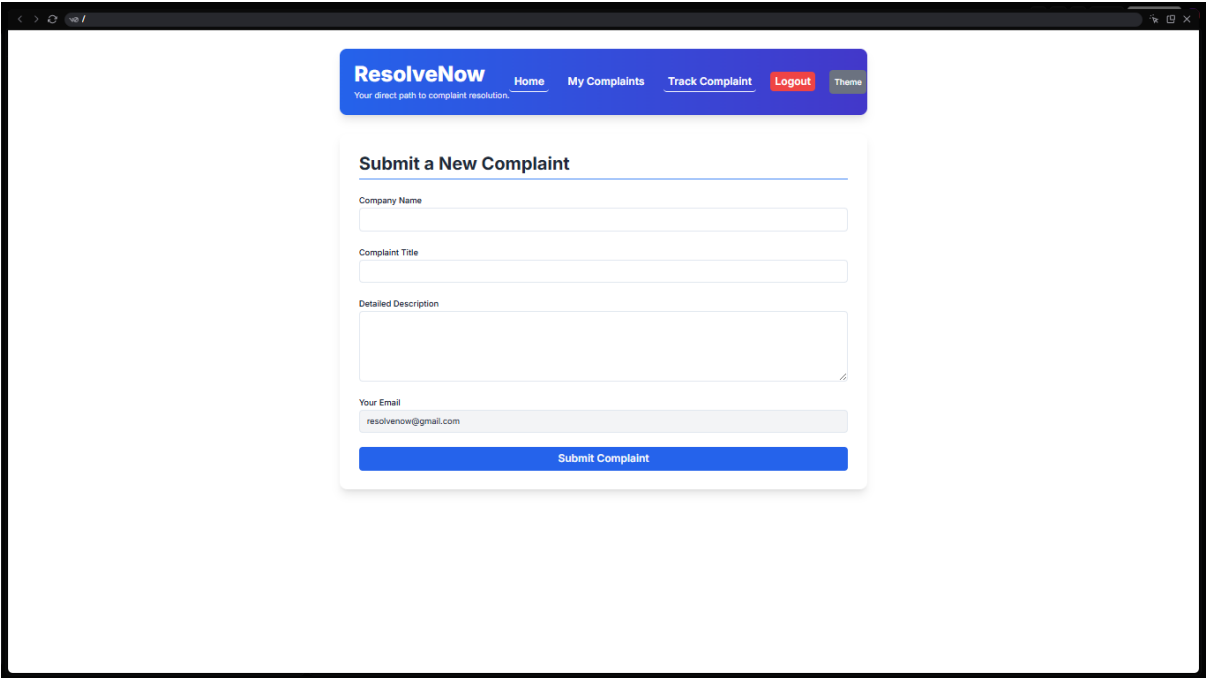

2. **Login Page:** Secure sign-up and login functionality for users and administrators.Role-based access control to differentiate between normal users, complaint handlers, and system admins.
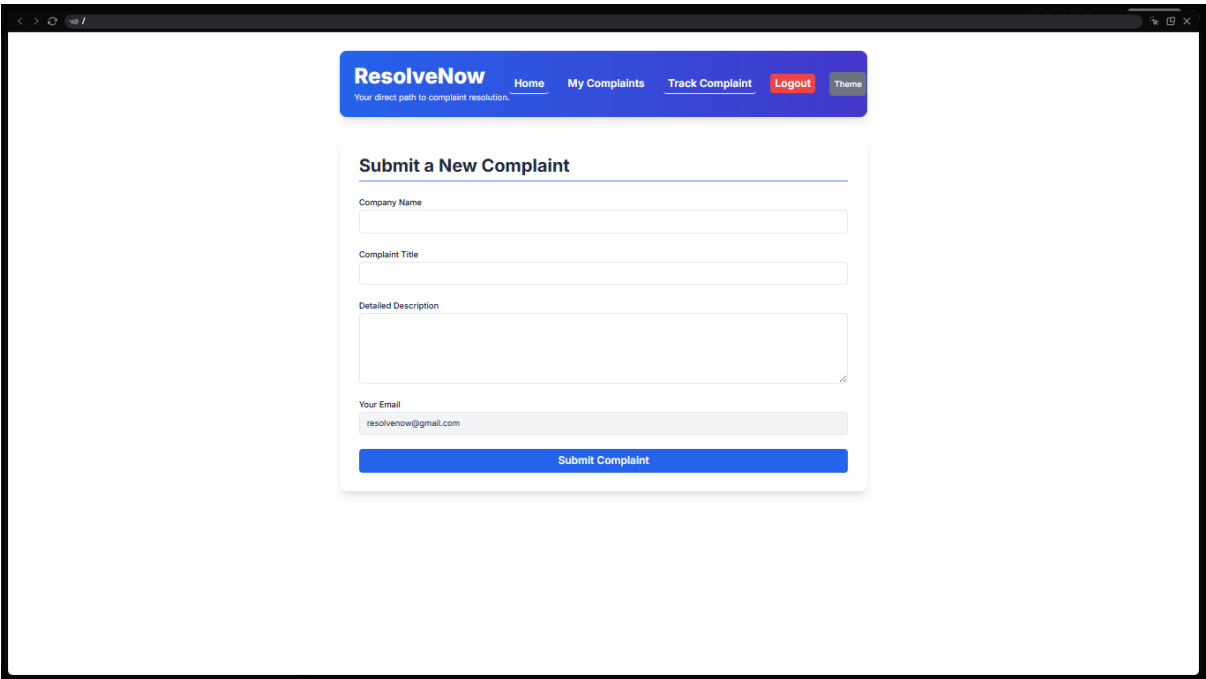
3. **Forgot password:** The Login Page allows registered users to securely access the platform using their username and password. It includes input validation and captcha verification to ensure authorized access only.

4. **Home Page:** The Home Page serves as the landing interface, providing an overview of the platform's purpose and features. It offers easy navigation to registration, login, and complaint submission sections.

5. My Complaints page:
My Complaints page allows users to view and track all the complaints they have submitted. It displays complaint details, current status, and resolution history in an organized format**.**
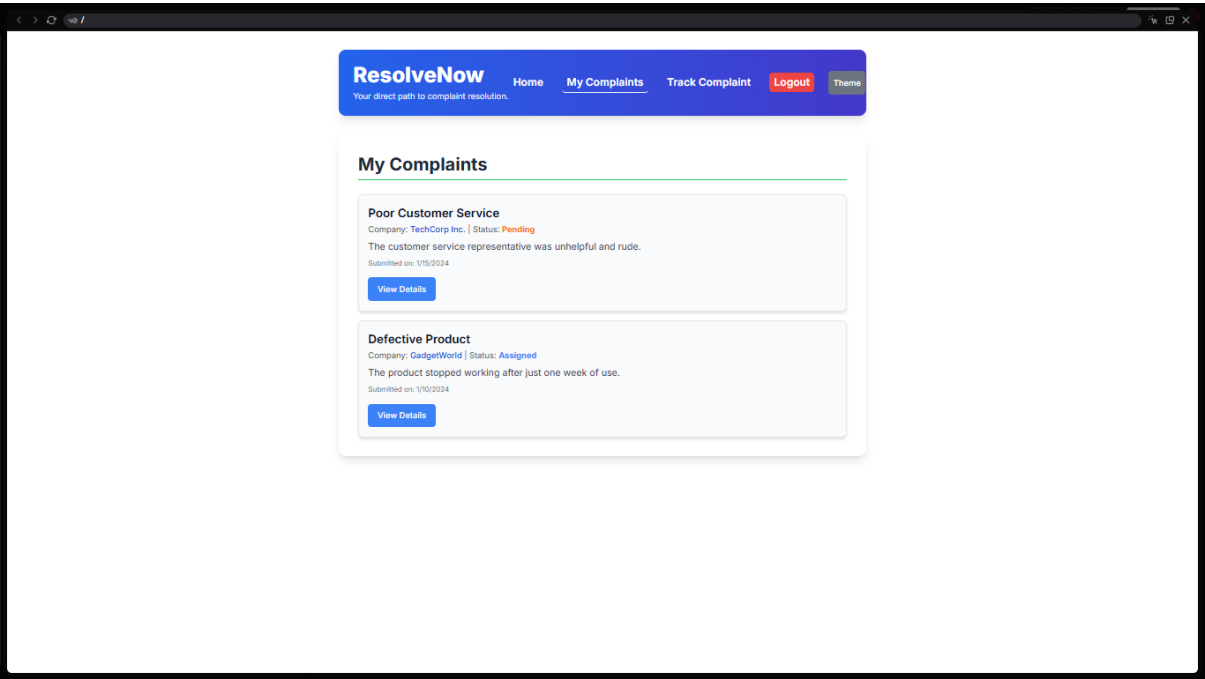
6. **My Complaints Page:** Your shortlisted or rasing Complaint will be appears at the Complaints section.
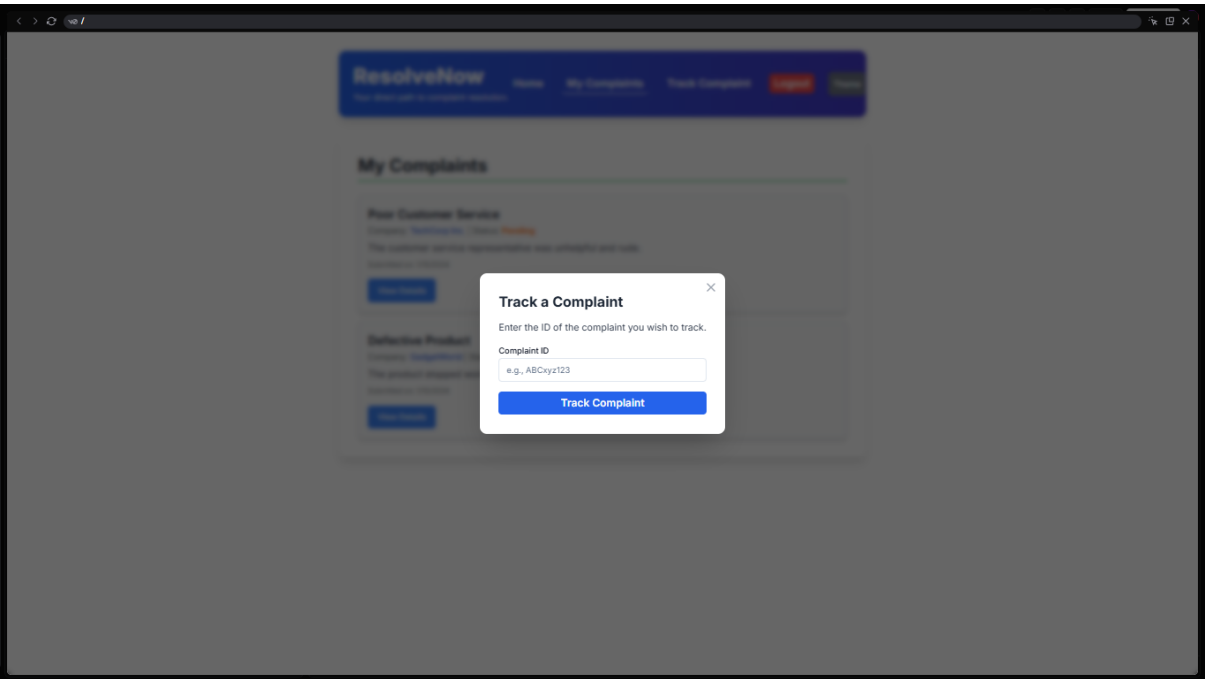
7. **Complaints Tracking System**: Here we can track our own tracking of the System I can use to change the uses of the expressing our complaints in this section.
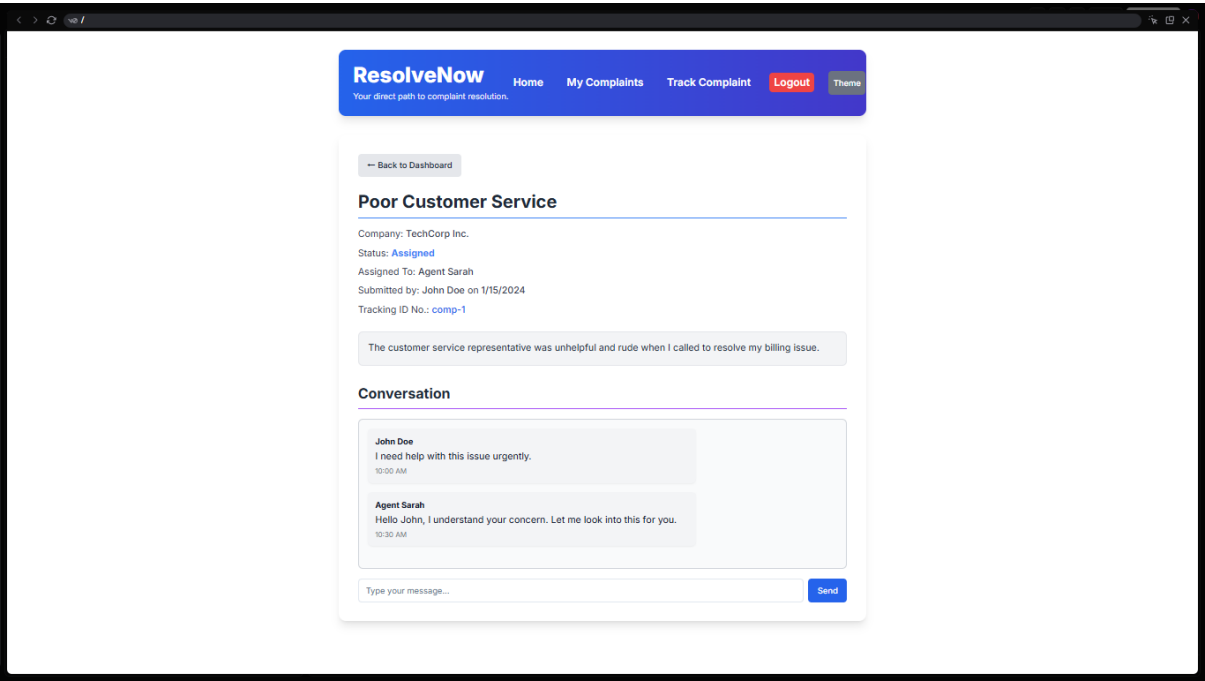
8. **Complaint Tracking Status**: By using ID you can check the proper status of the Complaint you rasied.

Website to delivery Things:

The ResolveNow website was developed as a full-cycle MERN (MongoDB, Express.js, React.js, Node.js) stack project, ensuring end-to-end functionality and user accessibility. The final deployment was aimed at delivering a real-time, user-friendly complaint management system with secure login and efficient complaint tracking.

Key Delivery Aspects:

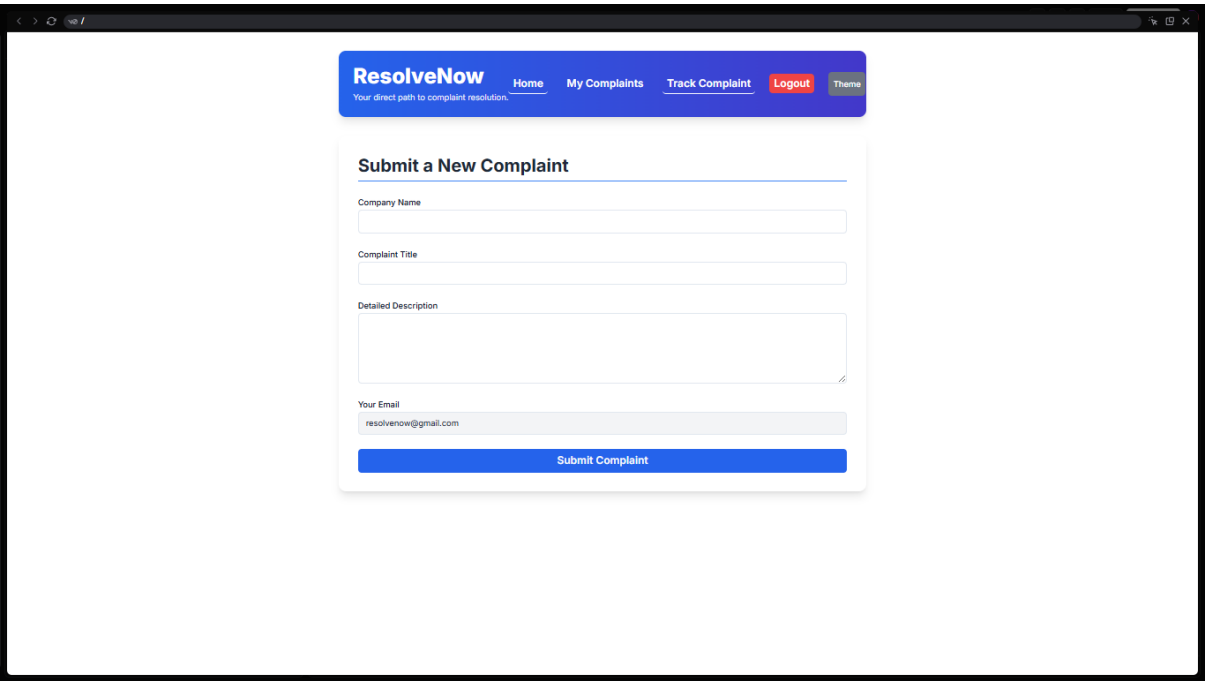- **Domain Hosting**: The frontend was deployed via Vercel, providing a globally available and fast-loading interface.
- **Backend Deployment**: The backend server and database were hosted on Render (or similar), ensuring REST API communication, secure complaint data handling, and user authentication.
- **Responsive Design**: Fully responsive UI tested across various devices (mobile, tablet, desktop) to ensure usability.
- **Security & Authentication**: Secure JWT-based login for users, role-based access (admin/user), and data validation.
- **Version Control**: Entire source code managed through GitHub for collaborative development and continuous integration.
- **Testing**: Manual and functional testing performed before deployment to ensure smooth user flow.

This deployment strategy allowed the project to simulate a real-world SaaS-based grievance platform that can scale and adapt to institutional or enterprise needs.

The *ResolveNow* platform was developed with the objective of providing a centralized, user-friendly solution for managing and resolving complaints within educational and corporate institutions. To ensure accessibility, responsiveness, and scalability, we followed a full-cycle software development approach using the MERN stack—comprising MongoDB, Express.js, React.js, and Node.js.

The website was structured with a clear separation of frontend and backend responsibilities. The **frontend**, built using **React.js**, was deployed on **Vercel**, offering fast, CDN-based global access and automated deployment directly from the GitHub

The backend, consisting of Express.js and Node.js, was deployed on Render (or alternatives like Railway or Cyclic) to handle RESTful APIs, authentication, and data processing. MongoDB was used as the NoSQL database to store user credentials, complaint records, and complaint status securely. The deployment environment was configured with essential environment variables and database connection strings to maintain security and performance.

Repository. Vercel's seamless integration with Git allowed us to push updates effortlessly and manage production-ready builds with ease.

We ensured that the platform follows responsive design principles using CSS Flexbox and media queries, making it accessible across various devices including desktops, tablets, and mobile phones. User authentication and authorization were implemented using JWT (JSON Web Tokens) to allow secure login functionality for both users and administrators. Role-based access control was added to ensure that complaint data is managed and viewed only by the appropriate authority.

During the development lifecycle, we used GitHub for version control and team collaboration, maintaining clean commit history and enabling continuous integration. Before deployment, rigorous manual testing was conducted to identify bugs and verify user flow from registration to complaint resolution.

In summary, the ResolveNow website delivery successfully demonstrates the deployment of a full-stack web application capable of handling real-time complaints with secure, responsive, and scalable architecture. It reflects practical knowledge of web technologies and readiness for real-world application deployment scenarios.

This application highlights the importance of user-centric design and full-cycle web development — from planning and wireframing to deployment and testing. Overall, ResolveNow is a testament to how digital tools can simplify administrative workflows and improve user experience in institutional complaint management systems.

Architecture :

Frontend:

- Built using React.js

- Responsive UI with user-friendly navigation

- Component-based modular design

Backend:

- Developed using Node.js and Express.js

- RESTful API architecture

- Secure communication using JWT

Database:

- MongoDB for storing users, complaints, and logs

- Mongoose ORM for schema validation and queries

Setup Instructions :

Prerequisites:

- Node.js (v14 or above)

- MongoDB (local or cloud)

Installation:

1. Clone the repository.

2. Run npm install in both client and server directories.

3. Create .env files for backend with DB credentials.

4. Run frontend and backend servers with npm start.

5. Run the code.

Folder Structure

Client:

- /src/components - UI components

- /src/pages - Main route pages

- /src/services - API interaction

Server:

- /routes - Express route handlers

- /models - Mongoose models

- /controllers - Logic for handling requests

- /middleware - Authentication and error handling

API Documentation

User Endpoints:

- POST /api/register – Register new user

- POST /api/login – Authenticate user

Complaint Endpoints:

- POST /api/complaints – Submit a complaint

- GET /api/complaints/:id – Get complaint details

- PUT /api/complaints/:id/status – Update complaint status (Admin)

Authentication

- JWT-based login system

- Secure tokens stored in localStorage

- Middleware to protect private routes

- Role-based access for users and admins

User Interface

- Clean and minimal design

- Dashboard with complaint summary

- Forms with validation

- Notification popups

Testing

Manual Testing:

- Functionality tested with Postman

- UI tested on Chrome, Firefox, Edge

Planned Automated Testing:

- Jest for backend APIs

- React Testing Library for UI components

Known Issues

- Minor UI inconsistencies on mobile view

- Admin filtering needs optimization for large data

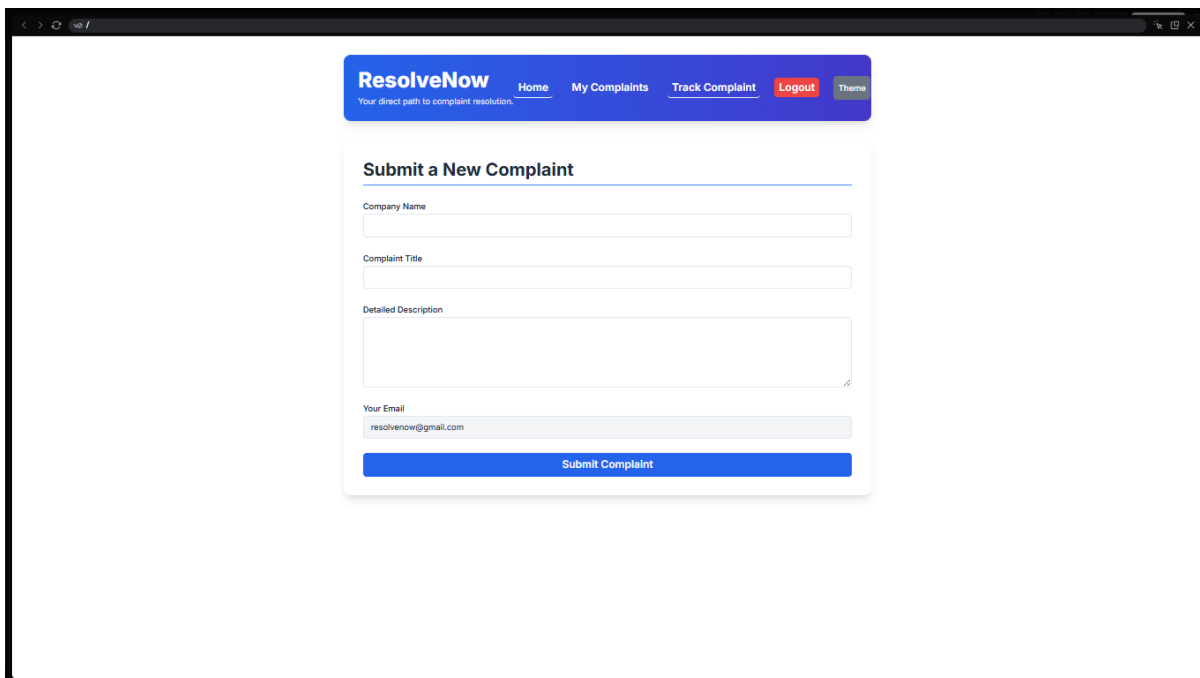- Error feedback could be more user-friendly

Future Enhancements

- Mobile App with React Native

- AI-powered complaint suggestions

- Email and SMS notification integration

- Multi-language support

Conclusion:

ResolveNow offers a scalable, efficient, and intuitive platform to lodge, track, and manage complaints seamlessly in both educational and corporate environments. By integrating a secure and responsive interface with real-time complaint status tracking, the system not only streamlines the traditional grievance redressal process but also enhances transparency and accountability.

The project is a practical demonstration of full-stack development using the MERN (MongoDB, Express.js, React.js, Node.js) stack. It effectively showcases our understanding of modern web technologies, RESTful APIs, frontend-backend integration, user authentication, and database management.

This application highlights the importance of user-centric design and full-cycle web development — from planning and wireframing to deployment and testing. Overall, ResolveNow is a testament to how digital tools can simplify administrative workflows and improve user experience in institutional complaint management systems.