

Project Design

Solution Architecture

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| Date | 03.04.2025 |
| Team ID | SWTID1743161557 |
| Project Name | Online Complaint Registration and Management System (OCRMS) |
| Program | Full Stack Developement MERN_VIT |

1. Solution Architecture (OCRMS):

The **Online Complaint Management System (OCRMS)** is designed to streamline complaint handling by providing an efficient, user-friendly, and secure platform. The system follows a multi-layered architecture to ensure scalability, security, and performance. It enables users to register complaints, track their status, and receive timely resolutions while administrators manage complaints efficiently. The system integrates with external services for notifications (email/SMS) and ensures data protection through secure authentication and authorization.

The architecture consists of the following key layers:

1. **User Interface Layer** – Provides access through web and mobile applications for users, administrators, and support staff.
2. **Application Layer** – Manages business logic, complaint processing, and role-based access control.
3. **Database Layer** – Stores user details, complaint records, resolution statuses, and feedback.
4. **Integration Layer** – Connects with third-party services such as email, SMS notifications, and analytics tools.
5. **Security Layer** – Implements authentication, encryption, and access controls to protect user data and system integrity.

This structured architecture ensures efficiency, reliability, and scalability while improving the overall complaint resolution process.

For visual representation, we have referred to the architecture diagram depicted on next page.

2. Solution Architecture Diagram (OCRMS):

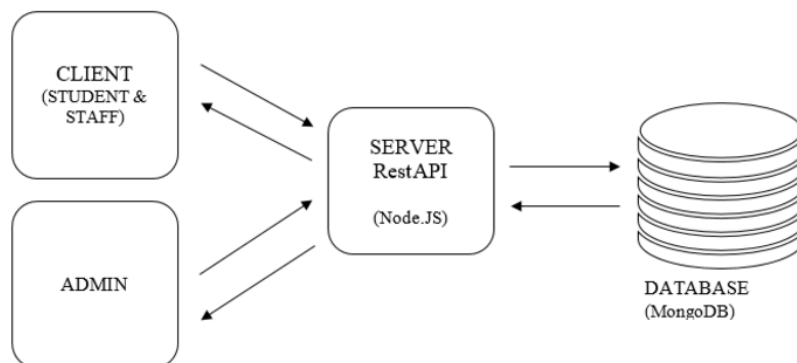


Figure 1. Base Architecture of the Online Complaint Management System.

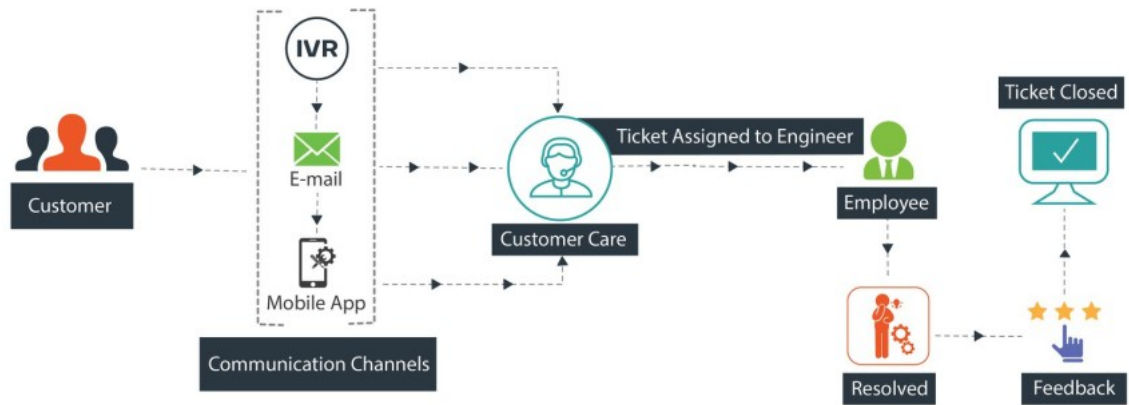


Figure 2. Solution Architecture of the Online Complaint Management System.

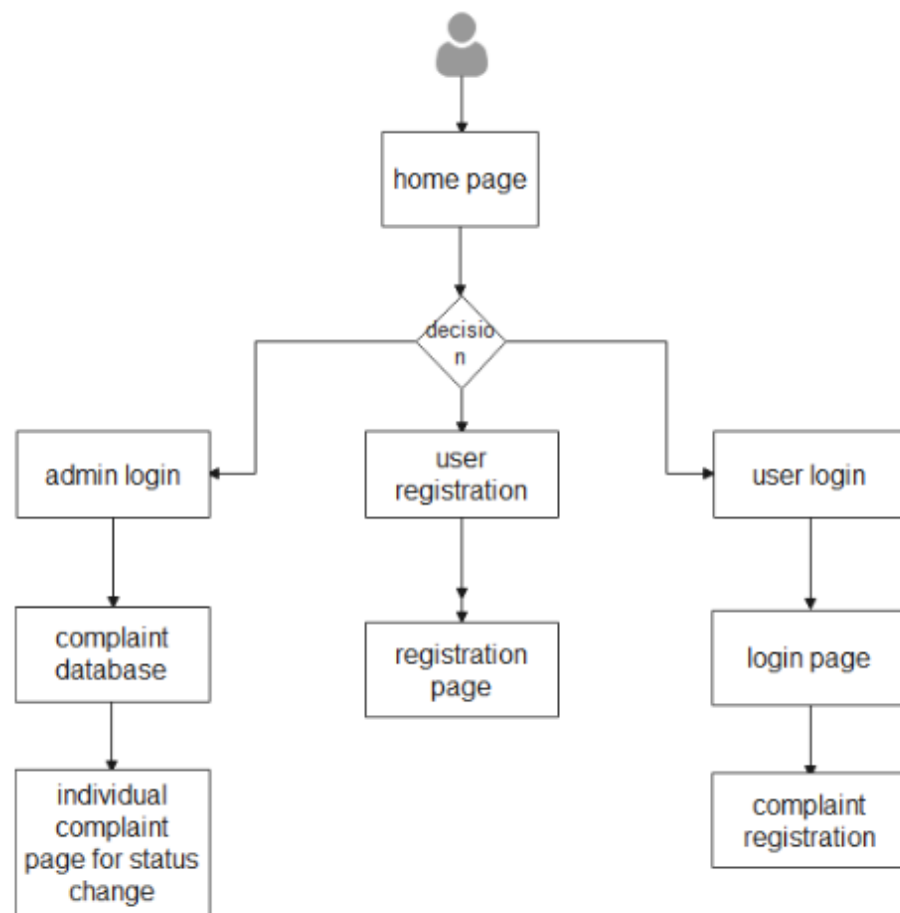


Figure 3. System Flow of Online Complaint Management System.