

## Project Design Phase

### Proposed Solution

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|---------------|---|
| Date          | 23 February 2026                                    |
| Team ID       | LTVIP2026TMIDS90304                                 |
| Project Name  | ONLINE COMPLAINT REGISTRATION AND MANAGEMENT SYSTEM |
| Maximum Marks | 2 Marks   |

#### Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

| S.No. | Parameter                                    | Description  |
|-------|--|--|
| 1.    | <b>Problem Statement</b>                     | Customers often face fragmented and opaque processes when reporting product defects or service issues. Without a centralized system, tracking resolutions becomes difficult, leading to user frustration and delayed organizational responses.                           |
| 2.    | <b>Idea / Solution description</b>           | A full-stack MERN application providing a centralized platform for managing the entire complaint lifecycle. It features role-based dashboards for Users (submission/tracking), Agents (resolution/communication), and Admins (oversight/assignment).                     |
| 3.    | <b>Novelty / Uniqueness</b>                  | The system integrates a built-in real-time messaging feature using message schemas that link specific complaints directly to conversations. It also employs intelligent routing to ensure complaints reach the appropriate personnel efficiently.                        |
| 4.    | <b>Social Impact / Customer Satisfaction</b> | By providing real-time tracking and direct agent interaction, the system improves transparency and trust. It empowers users by ensuring their issues are heard and resolved promptly according to industry guidelines.   |
| 5.    | <b>Business Model (Revenue Model)</b>        | The solution can be offered as a <b>SaaS (Software as a Service)</b> model with tiered subscription plans for organizations. Revenue can also be generated through customization services and premium support for enterprise-level regulatory compliance.                |
| 6.    | <b>Scalability of the Solution</b>           | Built on <b>MongoDB</b> and <b>Node.js</b> , the architecture is designed for high performance and horizontal scalability to handle increasing volumes of users and complaints. The modular schema design allows for easy expansion into different industry departments. |