**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID57433 |
| Project Name | Online Complaint Registration and Management System |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Registration via form  Registration via Gmail or social logins (Google/Facebook) |
| FR-2 | Complaint Submission | Submit complaint with category, description, and attachment.Form validation and confirmation |
| FR-3 | Complaint Search & Filtering | Search complaints using keywords  - Filter by status (Pending, In Progress, Resolved), date, and department |
| FR-4 | Complaint Status Tracking | - View current status of submitted complaints  - Track progress (with timestamps for each stage |
| FR-5 | System Security & Access Control | - Role-based access (Admin, Agent, User)  - Password encryption and protection |
| FR-6 | Comment & Feedback Section | - Users and agents can add comments under each complaint  - Allow status-based feedback after resolution |
| FR-7 | Notification System | - Email or in-app notifications on status change  - Alert users about replies or escalations |
| FR-8 | Admin Dashboard | - View/manage all complaints, users, and agents  - Assign complaints to agents  - Generate complaint reports |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | The user interface should be intuitive and easy to navigate for all user roles (admin, agent, user). It must ensure a smooth experience across desktops, tablets, and mobile devices, with responsive layouts and accessibility considerations. |
| NFR-2 | **Security** | All data transmissions must be secured using HTTPS. User credentials and sensitive complaint data should be protected using industry-standard encryption. Secure authentication (e.g., hashed passwords, login validation) should be enforced to prevent unauthorized access. |
| NFR-3 | **Performance** | Core actions like complaint submission, dashboard loading, and search operations should complete within 2 seconds under normal load conditions to ensure optimal user experience. Performance bottlenecks must be minimized. |
| NFR-4 | **Reliability** | The system should accurately process and reflect user actions (e.g., status updates, agent assignments). Fail-safes and error-handling mechanisms must be in place to ensure consistent behavior and minimal downtime during failures. |
| NFR-5 | **Availability** | The system must provide 99.9% uptime to support users around the clock. Maintenance activities should be planned during non-peak hours with appropriate user notifications and recovery strategies. |
| NFR-6 | **Scalability** | The system should be designed to accommodate increasing traffic—growing numbers of users, complaints, and messages—without compromising speed or stability. This includes backend and database scalability. |
| NFR-7 | **Compatibility** | The platform should function consistently across all major web browsers including Chrome, Edge, Firefox, and Safari. It must support cross-platform responsiveness and backward compatibility with recent browser versions |