

Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	27-06-2025
Team ID	LTVIP2025TMID53167
Project Name	Resolve Now: Platform For online complaints And Registration
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

Functional Requirements – Music Streaming App

#	Functional Requirement	Solution / Implementation
1	The system must allow users to register and create an account.	Provide a registration form with fields for name, email, contact, password (with validation).
2	Users must be able to log in and log out securely.	Implement secure login using hashed passwords and session tokens or JWT.
3	Users must be able to submit a new complaint with details like category, description, and attachments.	Design a complaint form with input validation and file upload support.
4	The system should store complaints in a database with timestamps and user ID.	Use a relational database (e.g., MySQL/PostgreSQL) to store complaint data.
5	Users should receive an email/SMS confirmation after submission.	Integrate an email/SMS API (e.g., SendGrid, Twilio) for automated notifications.
6	Users must be able to view the status of their submitted complaints.	Create a dashboard that displays complaints filtered by user and shows real-time statuses.
7	Admins should be able to view and filter all complaints.	Develop an admin panel with search, filters, and pagination for complaints.
8	Admins must be able to assign complaints to appropriate support staff.	Build an assignment feature in the admin dashboard with staff selection dropdowns.
9	Support staff must be able to view and update complaint statuses.	Provide each staff member with a dashboard to access their assigned cases and status options.

Non-functional Requirements:

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

Category	Requirement	Description
Performance	The system must respond within 3 seconds for 95% of all user actions.	Ensures responsiveness under normal load.
Scalability	The system should support thousands of concurrent users without degradation.	Enables system growth as user base increases.
Availability	The system should have 99.9% uptime .	Ensures the service is available almost all the time.
Security	All user data must be encrypted using TLS 1.2 or higher during transmission.	Prevents unauthorized data interception.
Usability	Passwords must be stored using hashed and salted methods.	Improves data protection against breaches.
	The interface must be intuitive and accessible to users with minimal training.	Simple, clean UI with user-friendly forms and labels.
	Should follow WCAG 2.1 accessibility standards.	Ensures inclusivity for users with disabilities.

Key Features: Functional and Non-Functional Requirements

Key Features of Online Complaint Registration System

An Online Complaint Registration System is designed to streamline the process of lodging, managing, and resolving complaints through a digital platform. This system must meet both functional and non-functional requirements to ensure effectiveness, reliability, and user satisfaction.

Functional Requirements

Functional requirements define what the system must do. They represent the core features and capabilities of the application.

1. User Registration and Login

- Users must be able to create an account and log in securely to access complaint services.

2. Complaint Submission

- The system should allow users to file complaints by providing required details like category, description, location, and optional attachments (e.g., images, documents).

3. Complaint Tracking

- Users should be able to view the current status of their submitted complaints and receive updates as progress is made.

4. Admin Dashboard

- Admins should have access to a centralized panel where they can view, manage, and assign complaints

5. Role-Based Access Control

- The system should restrict access and functionalities based on user roles such as User, Admin, and Support Staff.

6. Complaint Assignment

- Admins should be able to assign complaints to specific support staff for resolution.

7. Status Update by Staff

- Support staff must be able to update the status of complaints (e.g., "In Progress", "Resolved").

8. Notifications and Alerts

- The system should send notifications to users and staff via email/SMS about complaint status changes or new assignments.

9. Search and Filtering Options

- Users, admins, and staff should be able to filter and search complaints by category, date, status, etc.

10. Report Generation

- The system should allow admins to generate reports based on time periods, complaint types, statuses, and more for decision-making and analysis.

Non-Functional Requirements

Non-functional requirements describe how the system performs. These are quality attributes that ensure the system is efficient, secure, and user-friendly.

1. Performance

- The system should respond to user actions within 2–3 seconds under normal load conditions.

2. Scalability

- It must support a growing number of users and complaints without degradation in performance.

3. Availability

- The system should maintain 99.9% uptime to ensure it is always accessible to users.

4. Security

- All sensitive data must be encrypted during transmission. Passwords should be securely hashed. User sessions should be protected from threats like CSRF and XSS.

5. Usability

- The interface should be intuitive and easy to use even for non-technical users, with minimal learning curve.

6. Accessibility

- The platform should comply with accessibility standards (e.g., WCAG 2.1), supporting users with disabilities.

7. Portability

- The application should work across multiple platforms, including smartphones, tablets, and various web browsers.

8. Maintainability

- The codebase and system architecture should allow easy updates, bug fixes, and new feature additions.

9. Backup and Recovery

- The system must perform regular backups and provide recovery options to prevent data loss in case of failures.
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