

Project: Resolve of Online Complaints

1. Introduction

1.1 Purpose

The purpose of this SRS is to define the requirements for an Online Complaint Resolution System (OCRS) to allow users to report, track, and resolve these complaints efficiently.

1.2 Scope

The system will:

- Allow users to register, log in, and submit complaints.

- Enable users to track the status of their complaints.

- Allow admin/staff to view, update, and resolve complaints.

- Notify users of status updates via email or dashboard.

- Maintain a database of complaints for reporting and analysis.

1.3 Definitions, Acronyms, and Abbreviations

OCRS: Online Complaint Resolution System

Admin: Administrator managing the system

User: Person submitting a complaint

DB: Database

1.4 References

IEEE SRS standard (IEEE 830-1998)

MySQL documentation

HTML/CSS/React (frontend)

Node.js/Java/PHP (backend, implementation choice)

2. Overall Description

2.1 Product Perspective

A standalone web-based system accessible via browsers.

The system will use a client-server architecture.

It will interact with a backend database for storage and retrieval of complaints.

2.2 Product Functions

User registration and authentication.

Complaint submission with details and attachment support.

Complaint tracking for users.

Admin dashboard for viewing, assigning, and updating complaint statuses.

Search and filter complaints based on criteria (status, date, user).

Notifications to users on complaint status changes.

2.3 User Classes and Characteristics

Users: Non-technical, should be able to easily register and submit complaints.

Admin/Staff: Can view, filter, update, and resolve complaints.

2.4 Operating Environment

Web browsers: Chrome, Firefox, Edge

Backend: Node.js/Java/PHP

Database: MySQL/PostgreSQL

Hosted on a web server or cloud server.

2.5 Design and Implementation Constraints

User-friendly interface for non-technical users.

Secure handling of user data and authentication.

Scalable database for increasing complaint volume.

3. Specific Requirements

3.1 Functional Requirements

FR1: User Registration and Login

Users shall be able to register using email and password.

Users shall log in using their credentials securely.

FR2: Complaint Submission

Users shall submit complaints with:

- Complaint category

- Description

- Optional attachment

- Location details if applicable

FR3: Complaint Tracking

Users shall view the list of their submitted complaints and their statuses.

FR4: Complaint Management by Admin

Admin shall view all complaints.

Admin shall filter/search complaints.

Admin shall update the status (Pending, In Progress, Resolved).

Admin shall add resolution comments.

FR5: Notifications

The system shall notify users of status changes via email or dashboard alerts.

FR6: Report Generation

Admin shall generate reports based on complaint categories, resolution time, and status.

3.2 Non-Functional Requirements

NFR1: Usability

The system shall have a clean, responsive UI for mobile and desktop users.

NFR2: Security

The system shall enforce user authentication and secure password storage (hashing).

The system shall validate user inputs to prevent SQL injection and XSS.

NFR3: Reliability

The system shall be available 99% of the time, except during maintenance.

NFR4: Performance

The system shall respond to user actions within 3 seconds.

NFR5: Scalability

The system shall handle a growing number of complaints and user accounts.

4. External Interface Requirements

4.1 User Interfaces

Registration, login, complaint submission forms.

User dashboard for complaint tracking.

Admin dashboard for complaint management.

4.2 Hardware Interfaces

Standard client devices (PC, mobile devices).

Server machine for hosting the application and database.

4.3 Software Interfaces

Database: MySQL/PostgreSQL

Email service for notifications (SMTP/API)

Optional: REST API for mobile app integration.

4.4 Communication Interfaces

HTTP/HTTPS for secure client-server communication.

5. Appendices

A. Sample Data Fields

User: UserID, Name, Email, PasswordHash

Complaint: ComplaintID, UserID, Category, Description, AttachmentPath, Status, AdminComments, CreatedAt, UpdatedAt

B. Status Definitions

Pending: Complaint logged but not yet reviewed.

In Progress: Complaint is being reviewed/resolved.

Resolved: Complaint has been resolved, with comments from admin.

C. Potential Extensions

Role-based access control for multiple admin levels.

SMS notifications.

Feedback mechanism after complaint resolution.