### **Introduction**

### **1.1 Purpose**

The purpose of this SRS (Software Requirements Specification) document is to outline the requirements for a software system facilitating online complaint submission and tracking. This system aims to simplify the complaint resolution process and improve communication between students and educational authorities.

### **1.2 Scope**

### This will cover the entire lifecycle of a student complaint, from registration to resolution. It will include features for complaint submission, tracking, assignment to appropriate authorities, status updates, and feedback collection.

### **1.3 Definitions, acronyms, and abbreviations**

### **Complainants:** A complainant is someone filing a formal grievance, seeking resolution or redress for an issue.

### **Administrator:** System administrator responsible for managing system settings and user roles.

### **Verifier:** A person who verifies the complaint.

### **Technicians:** A person who solves the complaint.

### **Location:** A place where the issue happens.

### **1.4 References**

### **IEEE Std 830-2019:** IEEE Recommended Practice for Software

### **Requirements Specifications**

### **1.5 Overview of document**

### **Introduction:** Provides an overview of the document and its contents.

### **General Description:** Provides a high-level description of the software system.

### **Specific Requirements:** Provides a detailed description of the software system requirements.

### **Appendices:** Includes additional information that may help understand or implement the SRS.

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### **2.1 Product Perspective**

The Complaint Management System (CMS) is an independent system meticulously crafted to streamline and elevate the management of grievances within the university. While operating autonomously, it seamlessly integrates with the university's databases for user authentication and data retrieval, ensuring an efficient workflow for complaint submission, processing, and resolution, all while upholding the integrity and security of data.

### **2.2 Product Functions**

#### **2.2.1 User Authentication**

The system meticulously authenticates users against the university's existing authentication infrastructure, encompassing diverse user roles such as Complainants (students and faculty), administrators, Verifiers, and Technicians.

#### **2.2.2 Complaint Submission**

Users are empowered to submit complaints through an intuitive interface effortlessly. Complaints must encompass detailed information, including category, description, and relevant supporting documents.

#### **2.2.3 Complaint Processing**

Complaints undergo meticulous processing, initiated by assigning a unique identifier upon submission of a Grievance Form. The system employs automatic categorization based on user-specified details, facilitating seamless forwarding to respective departments.

#### **2.2.4 Complaint Cancellation**

Complainants retain the autonomy to initiate the cancellation of their submitted grievances, providing a mechanism to retract or withdraw concerns.

#### **2.2.5 Communication**

The system serves as a conduit for effective communication between complainants and staff members. Automated notifications keep users abreast of updates and resolutions to their filed complaints.

#### **2.2.6 Reporting and Analytics**

Robust reporting and analytics capabilities are integral, in tracking complaint status, resolution time, and prevalent categories. Additionally, an administrative dashboard implements a feedback system, delivering insightful data for continuous process improvement.

### **2.3 User Characteristics**

The system accommodates three primary user categories within the university:

#### **2.3.1 Complainants**

Empowered to register complaints, track their status, and exercise the option to withdraw grievances.

#### **2.3.2 Administrative Staff**

Hold oversight of the comprehensive complaint management process, necessitating access to advanced reporting and analytics functionalities.

#### **2.3.3 Verifiers**

Tasked with meticulously validating the legitimacy of complaints through document scrutiny or physical verification of complaint locations.

#### **2.3.4 Technicians**

Undertake the responsibility of resolving complaints, ensuring effective communication with complainants throughout the resolution process.

### **2.4 Assumptions and Dependencies**

#### **2.4.1 Assumptions**

Reliability and accessibility of the university's existing authentication system.

Users possess fundamental computer/mobile literacy skills, including web browser usage.

#### **2.4.2 Dependencies**

Integration with the university's database for seamless user authentication.

Dependence on the university's network infrastructure for system deployment.

### **2.5 Apportioning of Requirements**

The system's ongoing evolution may incorporate additional features to enhance functionality and address emerging needs

**3. Specific Requirements:**

**3.1 External Interfaces:**

**User Interfaces:**

The Web-based software has a user interface accessible from various devices. Through the User interface user can directly communicate with the higher authority without going through an extra level.

**Hardware Interfaces:**

Our Web-based software is a simple web-based application that needs a normal hardware configuration used by the students and institute administrators.

**Software Interfaces:**

Our web-based software needs the data information of the students and the institute administrators for a simple institute authentication system for user login.

**3.2 Functions:**

1. The Software will support multiple user

roles: students, faculty, and administrators.

2. It will provide the facility to view and update the

submitted complaints.

3. Administrators will also have access to the

dashboard.

4. It will provide notifications and alert messages

while registering the complaint and also when

a complaint is going to be solved.

5. It will also provide feedback for the students

after the complaint has been solved.

**3.3 Performance Requirements:**

**1. Speed and response time:**

The Software will provide real-time updates on

complaint status. The Software will respond to the user

within a short period.

**2. Scalability:**

The software will handle an increasing number of

complaints and users.

**3.4 Non-functional Requirements:**

**1. Security:**

Ensure secure transmission and storage of sensitive

data.

**2. Transparency:**

There will be transparency between the user and the

management.

**3. Maintainability:**

The software will allow for easy updates and

Maintenance.

**3.4 Logical Database Requirements**

#### **3.4.1 User Schema**

The User schema includes details about the individual filing the complaint. It is essential for tracking and identifying users within the system.

##### **Attributes:**

1. User ID: Unique identifier for each user.

2. College Email: Email address associated with the college domain for communication.

3. Role: The role of the user (e.g., student, faculty, staff).

#### **3.4.2 Compliant Information Schema**

The compliment information schema captures the details related to the compliment, specifying the content and context of the positive feedback.

##### **Attributes:**

1. **Compliant** ID: Unique identifier for each compliment entry.

2. **Compliant** About Description of what the compliment is regarding (e.g., a specific faculty, staff member, or service).

3. Location: The place or context where the complimented action or service took place.

### **3.5 Design Constraints**

#### **3.5.1 User Authentication**

The system will utilize the college email addresses for user authentication to ensure security and restrict access to authorized personel.

#### **3.5.2 Data Validation**

Strict data validation will be implemented to ensure that the information entered into the system adheres to predefined formats and standards.

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### **3.6 Software System Attributes**

#### **3.6.1 Scalability**

The system should be scalable to accommodate a growing number of users, compliments, and other related data without compromising performance.

#### **3.6.2 Accessibility**

The system should be accessible from various devices and browsers to ensure a seamless user experience.

### **3.7 Other Requirements**

#### **3.7.1 Reporting and Analytics**

The system should provide reporting and analytics features to analyze complementary trends, identify areas for improvement, and recognize outstanding contributions.

#### **3.7.2 Notification System**

Implement a notification system to alert users about the status of their compliments, ensuring transparency and timely communication.

### **4. Appendices**

#### **4.1 Appendix A – Glossary**

##### **4.1.1 Terms and Definitions**

1. User ID: A unique identifier assigned to each user within the system.

2. College Email: The email address associated with the college domain for communication purposes.

3. Role: The designation or position of an individual within the college community (e.g., student, faculty, staff).

4. Compliment ID: A unique identifier assigned to each compliment entry in the system.

5. Compliment About The subject or target of the compliment, providing context for the positive feedback.

6. Location: The place or context where the complimented action or service occurred.

7. User Authentication: The process of verifying the identity of a user, utilizing college email addresses for access.

8. Data Validation: The practice of ensuring that entered data conforms to predefined formats and standards.

9. Scalability: The ability of the system to handle a growing number of users, compliments, and related data without compromising performance.

10. Accessibility: The characteristic of the system being usable from various devices and browsers.

#### **4.2 Appendix B – Analysis Models**

##### **4.2.1 Use Case Diagram**

Include a visual representation of the main use cases and interactions within the Student Compliment Management System.

##### **4.2.2 Entity-Relationship Diagram (ERD)**

Provide an ERD illustrating the relationships between different entities in the database, including the complainant and compliment information.

#### **4.3 Appendix C – Supplementary Information**

##### **4.3.1 External Interfaces**

Outline any external interfaces or integrations with other systems that the Student Compliment Management System may interact with.

##### **4.3.2 Legal and Compliance Requirements**

Specify any legal or compliance requirements that the system must adhere to, especially regarding data privacy and protection.

##### **4.3.3 Maintenance and Support**

Detail plans for system maintenance, including software updates, bug fixes, and user support.

##### **4.3.4 User Training**

Provide information about the training resources and materials needed to educate users on how to interact with the system effectively.

##### **4.3.5 Risk Management**

Identify potential risks associated with the development and deployment of the system, along with mitigation strategies.