Software Requirements Specification

For

Grievance Redressal System

Prepared by Yuvraj Narayan Mishra

KIET Group of Institutions

February 2023

Table of Contents

1.1 Purpose

The purpose of a public grievance redressal system is to ensure government accountability, improve transparency, empower citizens, enhance public service delivery, provide a platform for conflict resolution, and inform policy-making by addressing and resolving complaints and concerns raised by individuals or groups regarding government actions or services.

1.2 Project Scope

The Public Grievance Redressal System is an online platform designed to facilitate the reporting, tracking, and resolution of grievances or complaints that the general public may have against government services or policies. This system enables individuals to submit their grievances, communicate with relevant authorities tasked with resolving these issues, monitor the progress of their complaints, and receive periodic updates on the status of their grievances until they are resolved. The purpose of the Public Grievance Redressal System is to enhance the relationship between the government and its citizens by addressing public concerns and issues in an efficient, transparent, and accountable manner.

1.3 References

[1] A Prototype for Grievance Redressal System (2018): ShaligramPrajapat, Vaibhav Sabarwal and Varun Wadhwani.

[2] Online Grievance Redressal System (2019): Mukesh Buldak, Shrikant Pandhekar, Afzal Gigani, AmreshsinhKachwah.

[3] Web Portal for Effective User Grievance Support System by K.Aravindhan, K.periyakaruappn, Aswini K, Vaishnavi S, Yamini L,2020

[4] "An Online Grievance Redressal system" by Mukesh Buldak, Shrikant Pandhekar, Afzal Gigani, Amreshsinh Kachwah, Kundan Patil, Poonam Polshetwar, Pradeep Jadhav,03 Mar 2019

2. Overall Description

2.1 Product Perspective

Perspective of Grievance Redressal System:

1. Users Perspective: The system empowers users to report their grievances or complaints with ease, and they can track the progress of their complaints until they are resolved. The system improves user satisfaction and helps maintain a healthy learning environment.

2. Grievance Committee Perspective: The system provides Grievance Committee Members with a transparent and organized platform to process and resolve grievances. They can track the progress of complaints and communicate with users through the system, ensuring that they are resolved in a timely and efficient manner.

3. Administrative Perspective: The system generates reports and analytics that help administrators identify recurring issues and take corrective action. The system helps maintain a healthy learning environment and improve the overall experience of users.

2.2   Product Features

1. Transparency: The user grievance system provides a transparent platform for users to file grievances, track the status of their grievances, and provide feedback on the redressal process.

2. Speedy redressal of grievances: The system enables quick and efficient redressal of grievances by providing a centralized platform for filing, tracking, and resolving grievances.

3. Improved communication: The system enhances communication between users and the grievance redressal committee, making it easier for users to express their grievances and for the committee to respond promptly.

4. Accountability: The system promotes accountability by maintaining a record of all grievances filed, the actions taken by the grievance redressal committee, and the time taken to resolve the grievance.

5. Data analytics: The system provides valuable insights into the types of grievances filed, the time taken to resolve grievances, and the overall effectiveness of the redressal process.

2.3   User Classes and Characteristics

User Classes and Characteristics for Grievance System:

1. Users: The primary users of the Grievance Redressal System are the people of society. They can register their grievances online and track the progress of their complaints. The characteristics of users include:
- They have a valid user ID and login credentials to access the system.
- They can report grievances or complaints related to garbage management, water supply, electricity, transportation, sewage, as well as sensitive matters concerning law and order, and societal issues such as child labor and women harassment.
- They can communicate with the authorities responsible for addressing their grievances through the system.
- They expect timely and effective resolution of their grievances.

2. Grievance Committee Members: The Grievance Committee Members are the authorities responsible for addressing user's grievances. They have access to the system to review, process and resolve grievances. The characteristics of Grievance

Committee Members include:
- They have login credentials and access rights to the system to view and process grievances.
- They can communicate with users through the system to exchange information or provide updates.
- They have knowledge and experience in resolving grievances.

3. Administrators: Administrators have access to the system to manage users, committee members, monitor the progress of grievances, and generate reports. The characteristics of Administrators include:
- They have login credentials and access rights to the system to manage users and grievances.
- They can generate reports and analytics to identify recurring issues and take corrective action.
- They have knowledge and experience in managing systems.

2.4 Operating Environment

1. Web-Based Platform: The system should be accessible through a web-based platform i.e. windows, android, iOS, hence allowing users to easily submit their grievances online from any device with internet access.

2. User-Friendly Interface: The interface should be intuitive and easy to use, with clear instructions for submitting a grievance and tracking its progress.

3. Secure Login: The system should require a secure login, with credentials provided only to registered users to ensure that only authorized users can access the system.

4. Grievance Submission Form: The system should include a grievance submission form that allows users to provide details of their complaint, such as the nature of the issue, the date and time it occurred, and any relevant documentation.

2.5 Design and Implementation Constraints

1. Accessibility: The system should be easily accessible to all users. This can be achieved by making the system available online or via a mobile application. The system should also be compatible with multiple devices and operating systems.

2. Security: The system must be secure to prevent unauthorized access or misuse of user data. Security measures such as encryption, authentication, and authorization should be implemented to ensure the confidentiality and integrity of the data.

3. Scalability: The system should be able to handle a large number of users and complaints. It should be able to scale up or down based on the number of users and complaints without any performance issues.

4. User Interface: The system should have a user-friendly interface that is easy to navigate and understand. It should also be aesthetically pleasing to encourage users to use it.

5. Response time: The system should provide a prompt response to user complaints. The response time should be minimal, and users should receive regular updates on the status of their complaints.

6. Customization: The system should allow customization based on the needs of the organization. Customization options could include the ability to add or remove fields, modify workflows, and create custom reports.

7. Maintenance and support: The system should be easy to maintain, and support should be readily available to resolve any issues that may arise.

2.6 User Documentation

Step 1: Logging In
To access the system, you must first log in with your credentials which was created at the time of registration by the user. Once you log in, you will be directed to the dashboard.

Step 2: Submitting a Grievance
To submit a grievance, click on the "Add Grievance" button on the dashboard. Fill in the grievance submission form with details of the issue, including the nature of the grievance, the date and time it occurred, and any relevant documentation. Once you have completed the form, click "Submit" to submit your grievance.

2.7 Assumptions and Dependencies

Network and server problems- These problems may reduce the function of the product. Communication – When a user does not know the language to communicate. Negligence – When any user character(actors) do not care about the grievances, the system may fail.

3. System Features

A Grievance Redressal System is a web application designed to help users report and resolve issues they encounter in their academic or personal lives. The features of a user grievance system may include:

3.1 System Feature 1

User-friendly interface: The system should have an intuitive and easy-to-use interface that allows users to navigate the application and file a complaint/grievance easily.

3.2 System Feature 2

Secure login: The system should have a secure login system to ensure that only authorized users can access the application.

3.3 System Feature 3

Grievance/Complaint filing: The system should allow users to file complaints about academic or personal issues they are experiencing**.**

4. External Interface Requirements

4.1 User Interfaces

1. Dashboard: A dashboard can be created with key metrics related to user grievances, such as the number of grievances resolved, the average response time, and the number of unresolved grievances. The dashboard should also have links to key sections of the support.

2. Grievance Form: A grievance form should be available for users to fill out when they need to file a grievance. The form should be easy to use, and users should be able to attach any relevant documents. The form should also have a clear call to action, such as "Submit."

4.2 Hardware Interfaces

1. Display interface: The User Grievance Support System will require a display interface to show the interface to the users. This interface can be a computer monitor or a touch screen display that allows users to navigate through the system.

2. Input interface: The input interface is used to collect data from the users. This interface can be in the form of a keyboard or a touch screen that allows users to enter their details and file a grievance.

3. Storage interface: The storage interface is used to store the data collected by the User Grievance Support System. This interface can be in the form of a hard disk or solid-state drive that stores the system data.

Overall, these hardware interfaces will allow the User Grievance Support System to operate effectively and provide the necessary support to users who need it.

4.3 Software Interfaces

1. User interface: The user interface is the graphical interface that users will interact with to access the Grievance Redressal System. This interface can be designed using HTML, CSS, and JavaScript, and it should be user-friendly and intuitive.

2. Database interface: The database interface is used to manage the data collected by the User Grievance Support System. This interface can be designed using MYSQL databases, and it should allow the system to store and retrieve data efficiently.

3. Reporting interface: The reporting interface is used to generate reports on the grievances filed by users. This interface can be designed using reporting tools such as Crystal Reports or Microsoft Power BI, and it should allow the system to generate reports quickly and accurately.

4. Authentication interface: The authentication interface is used to authenticate the users of the User Grievance Support System. This interface can be designed using various authentication protocols such as OAuth, OpenID Connect, or LDAP, and it should ensure that only authorized users can access the system.

4.4   Communications Interfaces

1. Chatbot: A chatbot can be integrated into the system to provide quick responses to common grievances and queries. This can save time for users and reduce the workload of support staff.

2. Email: Users can send an email to the support staff with their grievances, and the support staff can respond with appropriate solutions. This can be useful for users who are not comfortable with phone calls or face-to-face interactions.

3. Phone: Users can call a designated phone number to speak with support staff directly. This can be helpful for users who require immediate assistance or have complex grievances that require detailed explanations.

4. Video conferencing: A video conferencing tool such as Zoom or Microsoft Teams can be used to conduct virtual meetings between users and support staff. This can be useful for users who are unable to physically visit the support center.

5. Social media: Social media platforms such as Facebook and Twitter can be used to provide updates, announcements, and respond to user grievances. This can also be an effective way to reach out to a large number of users simultaneously.

5.   Other Nonfunctional Requirements

5.1 Performance Requirements

1. Response time: The system should respond to user grievances within a reasonable time frame, such as within 24 hours of receiving the complaint.

2. Availability: The system should be available to users 24/7, so that users can submit grievances and receive support at any time.

3. Reliability: The system should be reliable and should not experience significant downtime or technical issues that prevent users from submitting grievances or receiving support.

4. Scalability: The system should be able to handle a growing number of grievances and support requests without experiencing performance issues.

5. Usability: The system should be easy to use and navigate, with clear instructions for submitting grievances and receiving support.

5.2 Safety Requirements

This describes the safety-related H/W and high level S/W architecture. It decomposes the design of the safety functions and specifies the associated safety integrity functions such as self-tests and safety support functions such as operating and communication systems and justifies the partitioning.

5.3 Security Requirements

All the details in this system must be secured. It must be confidential.

5.4 Software Quality Attributes

Adaptability
Availability
Correctness
Flexibility
Interoperability
Maintainability
Portability
Reliability
Reusability
Robustness
Testability
Usability

6. Other Requirements

1. Integration with user information system: The system should be integrated with the user information system to facilitate the identification and tracking of users who have submitted complaints, as well as to provide relevant information on the users behavioral records.

2. Data analysis and reporting: The system should have the capability to analyze and report on the data collected from the complaints/grievances, such as the number and types of complaints, the frequency of complaints from different groups of users, and the success rate of resolving complaints.

3. Collaboration and coordination: The system should promote collaboration and coordination between different departments and stakeholders involved in handling complaints, such as academic departments, user affairs, counseling services, and legal counsel, to ensure that complaints are handled effectively and efficiently.

4. Continuous improvement: The system should be designed to continuously improve its processes and procedures based on feedback from users and staff members, as well as on best practices in the field of conflict resolution and grievance handling.