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## ONLINE COMPLAINT MANAGEMENT SYSTEM

<sup>1</sup>Utsav Sharma, <sup>2</sup>Harsh Pardeshi, <sup>3</sup>Suraj Chauhan, <sup>4</sup>Rohini Rathod

<sup>1</sup>Student, <sup>2</sup> Student, <sup>3</sup> Student, <sup>4</sup> Faculty

<sup>1</sup>Electronic and Computer Science,

<sup>1</sup>Shree LR Tiwari College of Engineering, Mumbai, India

**Abstract:** In today's environment, citizens satisfaction and loyalty are crucial factors that directly impact the success and sustainability of organizations. One of the key challenges faced is effectively managing and resolving citizen complaints in a timely and efficient manner. Many citizens feel dissatisfied when they experience delays in service or lack clear channels for filing complaints, leading to potential loss of loyalty and time of the citizens. These issues will be resolved by Online Complaint Management System. This innovative system is a comprehensive solution designed to address the challenges face in handling complaints effectively. Recognizing the importance of citizens satisfaction and loyalty, this system helps to streamline the complaint handling process. The system features automated complaint classification and routing to the relevant department, as well as a mechanism to identify and prevent duplicate complaints. The system significantly reduces the time and procedures involved in complaint handling, enhances the channels for filing complaints, and improves progress reporting and tracking of complaint status. This innovative system aims to enhance citizens satisfaction by providing a user-friendly and efficient platform for managing and resolving complaints

**Index Terms** - complaint, citizen, satisfaction

### I. INTRODUCTION

An online complaint management system is an indispensable tool in modern society, especially in our increasingly digital world, where facilitating the resolution of user complaints is crucial for maintaining satisfaction replacing traditional offline complaint management. Offline complaint management typically involves manual filing processes, which can be time consuming and prone to errors. Customers may face challenges in accessing the appropriate channels to file their complaints, resulting in delays and frustration. Moreover, the lack of a centralized system for tracking and managing complaints can lead to inefficiencies and a lack of transparency in the complaint resolution process. In contrast, an Online Complaint Management System offers a modern and streamlined approach to managing customer complaints. This system provides a user-friendly platform for customers to easily file their complaints online, eliminating the need for manual processes. Upon filing a complaint, an automatic receipt is generated, providing customers with a reference number for tracking the status of their complaint. Additionally, the Online Complaint Management System features separate admin and user panels, allowing administrators to efficiently manage and track complaints, assign them to the relevant departments, and monitor resolution progress. Users, on the other hand, can easily track the status of their complaints, receive updates, and communicate with the relevant authorities through the system. [1]

## II. LITERATURE SURVEY

The survey delves into the concept of online complaint management systems, tracing their evolution and highlighting their benefits. It examines studies concerning citizen complaint behavior, shedding light on citizen preferences for utilizing online channels when voicing their concerns. The survey scrutinizes user interfaces and user experiences, acknowledging the importance of user-friendly designs in enhancing citizen engagement. The survey also explores techniques for analyzing feedback and sentiment in online complaints to extract actionable insights. [2] Attention is paid to data security and privacy considerations, particularly in industries handling sensitive information. Additionally, the integration of complaint management systems with other organizational systems, performance metrics, and key performance indicators are covered. [3]

## III. PROPOSED SYSTEM

The online complaint management system has been rigorously designed to ease the process of filing, tracking, and addressing complaints using an intuitive web interface that seeks to improve the citizen experience. The system, which uses a combination of HTML, CSS, JavaScript, PHP, and SQL technologies, differentiates itself by having two panels, one for the user and one for the administrator.

### A. User Panel

The user panel is an intuitive platform that makes it simple for people to file concerns. This user-focused website has a precise layout and dynamic form handling. Users are required to fill out an extensive form that includes vital facts including their name, email address, phone number, department information, and a detailed complaint description. JavaScript takes over when the form is submitted, gathering the input data and sending it to a PHP script for additional review before being inserted into the database.[4]

### B. Admin Panel

Serving as a primary interface for tracking and handling incoming complaints, the admin panel attends to the requirements of administrators. Using HTML, CSS, JavaScript, PHP, and SQL to give a comprehensive overview of the complaint landscape, the admin panel is technologically compatible with the user panel. A PHP script carries out SQL queries to extract the relevant information, giving administrators access to an organized list of complaints that are taken from the database. All of this data is arranged in an orderly manner in tabular form on the admin dashboard, and includes important components such the complaint ID, user information, contact details, departmental links, complaint descriptions, status updates, and creation dates. An extra layer of functionality that gives administrators the ability to amend the status of complaints may be added to the admin panel in order to improve the operational capabilities of the system. Administrators can easily move complaints from 'Pending' to 'In Progress' or 'Resolved' as needed with this interactive feature, creating an organized and effective method for managing complaints that guarantees accountability and transparency all the way through. [3][4]

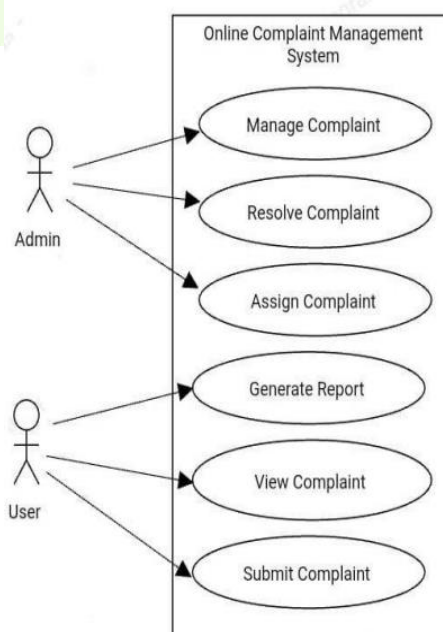


Fig. 1. Use Case Diagram of Online Complaint Management system

## IV. METHODOLOGY

A systematic approach to the design of an online complaint management system is required to ensure its effectiveness, usability, and reliability. The following are the crucial steps needed to create an online complaint management system:

### A. Conduct User Research

Clearly defining the goal and parameters of an online complaint management system is the first step in creating one. The system's objective is to give consumers an effective and well-organized platform to file, monitor, and handle complaints. The system's intended user base consists of administrators who handle and handle complaints as well as regular users who must file them. The system can be efficiently customized to solve the pain points of users and administrators by taking into account their unique demands and requirements. This phase is essential because it establishes the framework for the development process and aids in identifying the features, functionalities, and UI design needed to achieve the system's goals. [2][3]

### B. Plan the Application Architecture

Developing an online complaint management system that is user-center requires a thorough understanding of the requirements, expectations, and preferences of the users. Finding out how users feel about the present complaint management procedure, what obstacles they encounter, and what features and functions they anticipate from the system are all part of conducting thorough user research. Surveys, interviews, and usability testing can all be used in this research to get insightful input from stakeholders and future consumers. The system can be created to better fulfill the requirements and expectations of users by using the insights gathered from the user research. This will increase user happiness and adoption. [3]

### C. Develop a Prototype

One of the most important steps in creating the online complaint management system is creating a prototype. Prior to full-scale development, a prototype enables the design and functionality of the system to be tested and visualized. Early detection of design or functionality problems is facilitated, and rapid iterations and enhancements are possible in response to feedback and testing. The complaint list page for the admin panel and the user interface design for the complaint submission form will both be included in the prototype. Any possible problems or usability difficulties can be successfully resolved by creating and testing the prototype, guaranteeing that the final system is intuitive, user-friendly, and fulfills the demands and expectations of administrators and users.

### D. Implement Functionalities

The online complaint management system's functions can be put into use once the prototype has been created and tested. To enable users to create accounts and log in to the system, this involves developing the user registration and authentication system. Users will be able to file complaints online with the implementation of the complaint submission form, and the admin panel will be able to view and manage the complaints that have been filed with the development of the complaint list page. It is also possible to incorporate extra features like recording complaint statuses, allowing administrators to update information, and informing users of the progress of their complaints. The system will offer a complete solution for users to efficiently file, monitor, and handle complaints by putting these features into place.[2][4]

### E. Conduct Testing and Quality Assurance

To make sure the online complaint management system is dependable, safe, and error-free, extensive testing and quality assurance must be carried out prior to public release. This entails carrying out usability testing to assess the user interface and user experience, functional testing to confirm the system's functionalities, and security testing to find and fix any potential security flaws. All problems or defects can be found and fixed by thorough testing and quality assurance, guaranteeing that the system satisfies the necessary requirements for performance, security, and dependability. Furthermore, real-world user input can be gathered through user acceptability testing, and any necessary adjustments can be made to improve overall user happiness and system adoption. [4]

## V. FUTURE SCOPE

The Online Complaint Management System (OCMS)'s future scope is defined by the possibility for major technology breakthroughs and expanded functionality. First and foremost, the incorporation of Artificial Intelligence (AI) will be critical in automating complaint categorization and providing comprehensive sentiment analysis. AI-powered chatbots will evolve to deliver more seamless customer service and shorter response times. OCMS is prepared for multi-channel expansion, allowing for the management of complaints via multiple communication platforms such as social media, email, chat, and phone calls, providing an omnichannel approach. The future also promises greater analytics, including predictive and real time capabilities that will allow firms to obtain deeper insights into client input. Furthermore, worldwide accessibility will be prioritized, with multilingual support and geolocation capabilities enabling a more diverse and inclusive user experience. Machine learning will be used to forecast resolutions based on historical data, resulting in significantly faster complaint resolution. [5] APIs will enable seamless connection with other enterprise systems, streamlining operations and providing a comprehensive customer view. Blockchain technology can be used to assure data integrity, security, and transparency in the complaint management process. The implementation of feedback loops will allow for constant tracking of consumer opinion in order to enhance services over time. Gamification aspects will encourage employees to improve complaint resolution efficiency. Voice and speech recognition technology will enable spoken complaint reporting, while social media integration will be critical in monitoring and addressing issues presented through social channels. Regulatory compliance and sustainability concerns will be at the center of OCMS design. User experience enhancements, scalability, and sustainability practices will be critical to the system's development. The future of OCMS may include AI-driven knowledge base generation and predictive maintenance capabilities. Finally, integrating with customer feedback systems will provide a more complete picture of consumer satisfaction and emotion. [4][5]

## VI. CONCLUSION

In conclusion, the Online Complaint Management System (OCMS) is an important solution in today's business landscape, answering the critical requirement for rapid and transparent grievance resolution. By expediting the complaint management process, OCMS promotes customer happiness, trust, and brand image. The system's comprehensive reporting and analytics features enable enterprises to make data-driven decisions while continuously improving their offerings. Looking ahead, the future of OCMS seems exciting, with chances to integrate sophisticated technologies such as AI, chatbots, and predictive analytics, making it even more nimble and responsive to consumer needs. OCMS not only demonstrates a dedication to customer-centric operations, but it also emphasizes the necessity of technology-driven efficiency in the modern corporate world. It is, without a doubt, a valuable asset for organizations aiming to excel in delivering exceptional customer service and fostering enduring citizen relationships.

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