

# AI-COMPLAINT: AN INTELLIGENT WEB-BASED COMPLAINT MANAGEMENT SYSTEM UTILIZING NATURAL LANGUAGE PROCESSING FOR AUTOMATED COMPLAINT CLASSIFICATION AND SMART DEPARTMENT ROUTING

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**Abstract**— The AI Complaint Management System is an advanced digital platform designed to streamline and automate the process of registering, managing, and resolving user complaints using Artificial Intelligence technologies. Traditional complaint systems often suffer from delays, manual errors, lack of prioritization, and inefficient handling of large volumes of requests. This system addresses these challenges by integrating intelligent algorithms that enhance efficiency, accuracy, and user satisfaction.

The primary purpose of this project is to develop a smart and automated complaint handling system that minimizes human intervention and improves response time. By leveraging Artificial Intelligence techniques such as Natural Language Processing (NLP) and Machine Learning (ML), the system can understand user complaints, categorize them into relevant domains, assign priority levels, and route them to the appropriate departments automatically.

The system provides a user-friendly interface where users can easily submit complaints and track their status in real time. On the administrative side, it offers a powerful dashboard that enables authorities to monitor complaints, analyse trends, and make data-driven decisions. The AI module plays a crucial role in analysing complaint text, detecting urgency, and even suggesting possible solutions or automated responses.

Key features of the system include intelligent complaint classification, priority detection, automated routing, real-time tracking, and data analytics. These features not only reduce the workload of administrators but also ensure faster and more effective complaint resolution. Additionally, the system enhances transparency and accountability by maintaining proper records and providing timely updates to users.

## I. INTRODUCTION

In today's digital era, organizations receive a large number of complaints and service requests from users on a daily basis. Managing these complaints efficiently is essential to ensure customer satisfaction and maintain service quality. Traditional complaint management systems, which rely heavily on manual processes such as phone calls, emails, or paperwork, often face issues like delays, lack of transparency, and human errors.

With the advancement of technology, many organizations have shifted to online complaint management systems. While these

systems provide basic automation, they still depend on manual effort for tasks such as categorizing complaints, assigning them to departments, and prioritizing urgent issues. This often leads to inefficiencies, especially when handling a high volume of complaints.

The **AI Complaint Management System** is designed to overcome these limitations by incorporating Artificial Intelligence into the complaint handling process. The system uses technologies such as Natural Language Processing (NLP) and Machine Learning (ML) to analyze complaint data, understand user intent, and automate decision-making. It can automatically classify complaints, determine their priority level, and route them to the appropriate department without human intervention.

This system provides a user-friendly platform where users can easily register complaints and track their status in real time. At the same time, administrators are equipped with a powerful dashboard to monitor complaints, manage workflows, and analyse performance through data insights. By automating repetitive tasks and improving accuracy, the system significantly reduces response time and enhances overall efficiency.

The main goal of the AI Complaint Management System is to create a smart, fast, and reliable complaint handling solution that improves user experience and organizational productivity. By leveraging AI, the system ensures better decision-making, faster resolution, and increased transparency, making it a modern solution for effective complaint management.

## II. RELATED WORK

The idea of an Online Complaint Management System (OCMS) has been researched and implemented in various settings, from municipal government to corporate customer care. In this section, we survey various studies, projects, and systems concerning complaint management, which trace the development of these systems and shed light on their design and implementation.

1. Traditionally, complaint management systems involved the old-fashioned ways of telephone calls, postal mail, or complaints made in person. Such systems, though operational in some instances, were often plagued by inefficiencies caused by human faults, lost data, and non-real-time monitoring. In addition, citizens were not able to monitor the status of their complaints, and this led to frustration and a lack of accountability in resolving

issues.

Many research studies have underscored the disadvantages of conventional complaint management systems from the point of view of citizen participation and operational inefficiencies. For example, Ahmed and Hossain's (2013) research study on the limitations of manual grievance redressal systems highlights difficulties in handling large numbers of complaints and lack of transparency in settlement processes. The conventional system was also subject to delay and human involvement and therefore ensured low citizen satisfaction.

2.E-Government and Digital Solutions for Complaint Administration As e-government and digital solutions have come into prominence, some governments have introduced online-based solutions to deal with complaints. These online platforms offer a web interface for people to raise complaints and provide administrative functionalities for observing and resolving complaints. The availability of web technology and cloud-based solutions has minimized the gap between citizens and administrative bodies, ensuring the complainant management process is more efficient.

A good example is the National Grievance Redressal Portal (India) initiated by the Government of India to enable citizens to lodge grievances against government departments. The portal also allows for tracking of grievances and feedback in a timely manner to users. Patel et al. (2015) in their work on "E-Government Services and Grievance Management" detail how this portal has made government services more transparent through direct communication between the administrator and citizens. Yet, issues like security of data, usability, and compatibility with legacy systems continue to be major concerns.

Another instance is the Singapore e-Government Service, where citizens can report grievances against public infrastructure, healthcare, and utilities. The system employs an integrated system in which citizens can file complaints using a mobile app, website, or even social media. The system also has a feedback loop in which users are able to rate the resolution process. Tan and Lee (2014) in their research to assess the effectiveness of Singapore's e-government systems observed that such platforms greatly enhanced response rates and minimized citizen dissatisfaction, though they indicated the need for ongoing advancements in system design as well as user experience.

3.Mobile Apps for Complaint Management Over the last few years, complaint management has become increasingly popular through mobile applications. Smartphones are everywhere, and mobile applications make it convenient for citizens to report complaints and monitor progress online. Various cities globally have embraced mobile complaint management platforms to increase civic participation and make grievance redressal more efficient.

The Fix My Street app, built in the UK, enables citizens to complain about non-urgent matters like potholes, graffiti, and damaged street lights. The application employs GPS to geotag the location of the issue, and the complaint is forwarded to the

concerned authorities directly. The system guarantees transparency as users can monitor the status of the complaint, view previous reports, and even add pictures. Bowen and De Jager (2016), in studying "Mobile Complaint Management for Local Government," find that applications such as Fix My Street have boosted participation in urban problem-solving by the community but noted a need for improved integration with municipal processes.

Similarly, See Click Fix is another mobile app widely used in the United States that allows citizens to report public issues and track their resolution status. The system uses geolocation and crowdsourcing techniques to map complaints and route them to the correct department. Fitzgerald and Adam (2017) in their research on See Click Fix point out that although the application enhances public participation, there are also challenges in ensuring the timely resolving of complaints, particularly in big cities where a lot of issues are reported.

Cloud-Based Complaint Management Systems Cloud computing has been revolutionary in the evolution of Online Complaint Management Systems. With complaint management platforms on the cloud, governments and institutions are able to offer scalable, low-cost, and accessible services that can be easily updated and maintained. Cloud-based systems have some benefits, which include seamless integration with existing systems, real-time updating, and enhanced data security.

For instance, the Aarogya Setu, an Indian mobile application that allows the monitoring of COVID-19 cases and associated health issues, has a complaint management system based on the cloud. Citizens are able to report healthcare service-related issues, and the platform assists the authorities in monitoring, attending to, and resolving the complaints promptly. In their research work, Gupta et al. (2020) are talking about the application of cloud-based complaint management systems in public health emergencies, highlighting how cloud technology offers the type of flexibility required in controlling large-scale operations.

United Nations Development Programme (UNDP) Complaints Management System (CMS) in several countries is another case of a cloud-based system. It is meant to manage development project grievances, allowing citizens to report issues and monitor resolutions in a safe manner. Smith et al. (2018) maintain that cloud-based systems facilitate better coordination between government departments and non-governmental organizations (NGOs) and boost the effectiveness of the complaint resolution process.

Integration of Artificial Intelligence and Data Analytics The use of Artificial Intelligence (AI) and data analytics in Online Complaint Management Systems has been a recent area of interest as a means to streamline complaint resolution and service delivery. AI algorithms can be used to automate complaint categorization, review historical data to forecast possible problems, and provide suggestions to address them. This minimizes manual efforts for administrators and facilitates a faster and more precise resolution process.

In Liu et al.'s (2019) "Smart Governance and AI for Complaint Management," the authors outline how AI-driven systems can classify complaints automatically by severity and urgency. The authors also examine the possibilities of sentiment

analysis to evaluate user comments and identify issues hidden within complaints, like repeat themes or inefficiencies in the system. This would enable government departments or organizations to make informed decisions to enhance service delivery.

Second, Hernandez and Wang (2021) explain how predictive analytics can be applied to detect patterns in grievances so that authorities can forecast upcoming issues and adopt preventive action. The research points to the increasing trend of applying AI and big data to enhance complaint handling and urban governance and that although such technology holds vast potential, it must be implemented cautiously so that it does not compromise on fairness, transparency, and data security.

**Conclusion** The literature pertaining to Online Complaint Management Systems indicates that these systems have matured over the years, from simple manual systems to current web technology-based, mobile application, cloud computing-based, and AI based solutions. Although there are numerous successful deployments of such systems worldwide, issues still persist regarding system scalability, data privacy, citizen participation, and effective resolution workflow. Future innovations in this area will probably be directed towards enhancing user experience, incorporating emerging technology, and making sure that these systems are able to process greater numbers of complaints with security and efficiency.

### Challenges in Traditional Systems

Conventional grievance management systems tend to be hampered by a number of crucial factors:

**Manual Handling:** Grievances are usually handled manually with resulting human mistakes and sluggish processing.

**1.Lack of Transparency:** There is minimal visibility by users into the status of their complaints, leading to frustration and dissatisfaction.

**2.Limited Scalability:** When the number of complaints increases, conventional systems are not able to keep up with efficiency and accuracy.

**3.Inadequate Reporting:** The majority of the systems fail to give meaningful reports or analytics to enable organizations to enhance their services.

OCMS resolves these issues through automating the complaint handling process, enhancing transparency, giving real-time updates, and providing enhanced reporting tools.

## III. SYSTEM ARCHITECTURE

### A. Overview of the Architecture

The OCMS architecture is such that it can provide scalability, performance, and usability. The system has a number of major components:

**User Interface (Frontend):** The system's front-end is a web-based interface through which citizens can register, file

complaints, monitor progress, and get updates. The interface is mobile-friendly and accessible on desktop as well as mobile platforms. It has functionality for users to file complaints, add media, see complaint statuses, and get notifications.

**Application Server (Backend):** The backend application server is the system's main engine, processing user interface requests and communicating with the database. It is responsible for complaint submissions, managing the resolution workflow, automated notifications, as well as secure user authentication. The backend must be scalable and fault-tolerant and is usually developed using frameworks such as Node.js, Django, or Spring Boot. **Database Layer:** The layer secures storing of complaint information, user profiles, and administrative data. The database ensures efficient retrieval and management of the system's data.

Relational database management systems such as MySQL or PostgreSQL can be employed, or non-relational databases such as MongoDB for adaptability in managing varied data formats.

**Complaint Categorization and Workflow Engine:** This module automatically classifies complaints using keywords or predefined categories (e.g., sanitation, safety). It also determines priority levels and directs complaints to concerned departments. It provides escalation rules to ensure quick resolution by higher managers if the complaint is not resolved within a specified time period. **Communication and Notification Module:** The system notifies users and administrators in real-time of the status of grievances. Notifications are given via email, SMS, or push notifications, depending on urgency and user settings. The module is transparent and facilitates active interaction between the users and administrators.

**Security and Privacy Layer:** Security is at the top in the OCMS, with security mechanisms to safeguard user information. This layer consists of user authentication via OAuth2.0 or multi-factor authentication (MFA), encryption of data for sensitive data, and role-based access control (RBAC) to ensure the right access for users and administrators. Security protocols like HTTPS, SSL/TLS, and AES encryption are employed to protect the system.

**Cloud Infrastructure:** The software is deployed on a cloud platform, making the software scalable, available, and cost effective. Cloud solutions enable the software to dynamically scale, handle increasing volumes of complaints, and maintain high uptime. Well-known cloud platforms such as AWS, Microsoft Azure, or Google Cloud Platform host the OCMS and offer services such as a load balancing and managed databases.

### B. Key Features of the Architecture

**Modular Design:** The system has a modular structure, where every component (UI, backend, database, admin panel) can function independently. This structure makes it so that every part can be scaled, updated, or replaced without impacting the other parts, making it flexible and easy to maintain.

**Cloud Hosting:** The OCMS is hosted on a cloud platform like AWS, Google Cloud, or Microsoft Azure, where high availability, scalability, and reliability are guaranteed. The cloud environment offers the required resources to deal with fluctuating workloads and keep the system responsive even

during times of heavy usage.

**Data Security:** The system has strong security mechanisms in place to safeguard sensitive user data. This includes encryption mechanisms (like AES encryption) for securing data in transit and at rest, multi-factor authentication (MFA) to authenticate secure user logins, and role-based access control (RBAC) for limiting unauthorized access.

**Real-Time Updates:** The system offers real-time updates to users about the status of their complaints. Automated emails, SMSs, and push notifications inform users about any updates in the complaint status, making it more transparent, accountable, and user friendly.

**Scalability and Flexibility:** OCMS is built with the capability of scaling up smoothly with the growing number of users and complaints. By leveraging cloud infrastructure, the system can scale horizontally in a dynamic manner to support a large number of users without impacting performance. The system can even be customized to support varying domains, including healthcare, education, and public safety, thereby being deployable across various industries.

**User-Centric Interface:** The UI is intuitive and responsive to ensure that citizens can easily access the platform and file complaints. The UI is available on desktop and mobile, enabling users to file complaints anywhere and at any time. The UI also concentrates on improving user experience by reducing complexity and facilitating easy access to major features such as complaint tracking and status updates.

**Complaint Categorization and Prioritization:** The system classifies complaints automatically with pre-defined categories (e.g., sanitation, infrastructure, safety) and a range of priority levels (e.g., high, medium, low) based on the severity and urgency of the concern. This directs the complaints to the corresponding department and processes them as quickly as possible in line with their severity.

**Integrated Analytics and Reporting:** The platform includes analytics and reporting functionalities that enable administrators to monitor performance metrics, flag repeated complaints, and measure the overall efficiency of the complaint redressal process. The analytics enable data-driven decision-making and facilitate authorities to recognize areas for improvement in public service delivery. **Feedback Mechanism:** Once a complaint is settled, users are incentivized to give feedback on the process of resolution. This aspect serves the purpose of helping authorities gauge the efficiency of the process of complaint management, derive feedback on user satisfaction, and improve the system as well as services continuously.

• **Cross-Platform Accessibility:** The system is cross-platform accessible, allowing users to file complaints through various devices (tablets, desktops, and smartphones) and operating systems (iOS, Android, Windows, etc.). This makes it easy for citizens to access and interact with the system irrespective of their preferred device.

• **Automated Workflow:** The OCMS also automates the workflow for complaint handling, such as complaint allocation,

escalation, and tracking of solution. This minimizes manual intervention, simplifies the process, and guarantees that complaints are resolved on time and efficiently. The system guarantees that no complaints go unnoticed and escalates unresolved complaints to senior authorities for faster resolution.

• **Performance Monitoring:** The system has performance monitoring features to monitor the health of the infrastructure and ensure that everything runs smoothly. This includes monitoring server uptime, database performance, and system resource utilization. Automated notifications inform administrators of any performance problems so that the system may be maintained and optimized in advance.

• **Seamless Integration with External Systems:** Seamless integration of the OCMS with other public service systems and databases is planned. This facilitates authorities in fetching and updating data relevant to a complaint, like citizen information or the status of a service, to resolve complaints using correct and current data. This also makes resource allocation more efficient through integration with external systems.

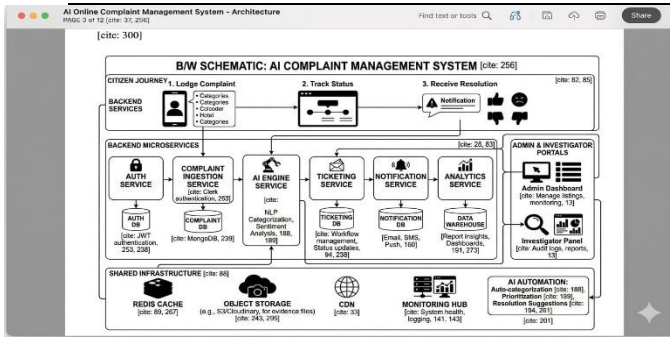
## IV. IMPLEMENTATION

### A. Technology Stack

Online Complaint Management System (OCMS) is powered by a blend of cutting-edge and effective technologies to provide superior performance, strong security, and seamless scalability. The technologies are chosen to be able to cater to the system's requirement of supporting large amounts of data, providing smoothened user experiences, and ensuring maximum service reliability. A detailed description of the technologies used in the implementation is given below:

• **Frontend Technologies:** HTML, CSS, JavaScript, and React.js are used in developing the user interface. HTML and CSS are applied for web page structuring and styling, providing a responsive and nice appearance. JavaScript is applied for the purpose of adding interactivity, whereas React.js is utilized for rendering a dynamic and responsive user interface that may refresh in real-time without needing a full page reload.

• **Backend Technologies:** The backend of the OCMS is developed using Node.js with Express.js or Python with Django. Node.js is employed to process asynchronous requests, which enhances performance by supporting large numbers of concurrent users effectively. Express.js, a Node.js framework, is used to simplify API development, resulting in a stable and scalable server-side architecture. Alternatively, Python with Django is employed for those in need of a highly secure, maintainable, and feature-laden backend. Django ORM makes database interactions easy, and its security features prevent vulnerabilities.



The OCMS has a web-based workflow to ensure complaints are dealt with in a timely, transparent, and efficient manner. The workflow is designed to present users with a simple-to-use process and allow administrators to deal with complaints systematically. Below is a description of the main steps used in the process of dealing with complaints:

**Complaint Submission:**

Users submit a complaint by using the web-based interface to complete a form that captures crucial information regarding the complaint. The form has the user indicate the nature of the complaint (e.g., sanitation, safety, infrastructure), a short description of the problem, and where the problem has occurred. Users can also upload multimedia content (e.g., photos or videos) to enable them to provide a more graphic description of the problem. Upon submission, the system automatically assigns a unique complaint ID that will be used for tracking.

**Categorization of Complaints:**

On submission, the system categorizes the complaint automatically by applying pre-set parameters in terms of keywords or artificial intelligence-based algorithms. The method of categorization ensures that complaints reach the respective department or personnel for resolution. For example, sanitation-related complaints may be passed on to the municipal services department, while safety issues may be sent to local police. This automated classification assists in streamlining the process of handling complaints by ensuring that they are dealt with by appropriate authorities.

**Work Assignment and Handling Workflow:**

After a complaint has been classified, it is allocated to the appropriate department or officer for subsequent action. The system aids in assigning a priority to each complaint depending on its level of severity. For example, serious issues like safety risks can be tagged as high priority, whereas slight issues can be sorted as low priority. The designated authorities can then view the complaint information through the admin panel, initiate proper action, and monitor their status. Task escalation is supported by the system if the issue remains unresolved within a specified time limit.

**Notification and Progress Monitoring:**

As the complaint flows through various phases of the resolution cycle, real-time notifications are sent to the users as well as relevant authorities. Users are notified about the status of their complaint through email, SMS, or push notifications. Administrators are also notified if a particular complaint needs their attention or escalation. Such notifications ensure transparency and prompt responses.

**Resolution and Feedback:**

After resolving the complaint, users are informed of the resolution. Users are asked to give feedback about their experience, which is used to evaluate the quality of the service and areas for improvement. The feedback is gathered through a simple-to-use interface and put away in the database for analysis at a later time. Administrators check through the feedback to ensure that complaints were resolved satisfactorily and take corrective action when required.

**Complaint Closure and Reporting:**

As soon as the complaint is closed by addressing the issue

- **Database:** MySQL is employed in the OCMS for relational data storage, including user information, complaint history, and resolution information. MySQL is chosen based on its capability to efficiently manage complex queries and relationships. Besides, MongoDB is adopted for nonrelational or unstructured data storage, like multimedia attachments (e.g., images, videos) accompanying complaints. MongoDB flexibility provides rapid data storage and retrieval of heterogeneous data types without strict schemas.

- **Cloud Hosting:** The system is hosted on Amazon Web Services (AWS) to maintain flexibility and scalability. AWS EC2 instances serve as the host for the application, making it possible for the system to scale horizontally and accommodate differing loads. AWS RDS (Relational Database Service) is utilized for database hosting, making sure that there is high availability, automatic backups, and effortless scaling. Utilizing cloud services makes it possible for the system to dynamically assign resources depending on demand and prevents the application from becoming unresponsive in the event of heavy traffic.

- **Notification System:** Real-time notifications are essential to keep users up-to-date with updates and developments on their grievances. The system utilizes Twilio for SMS and SendGrid for email notifications. Twilio offers scalable and dependable SMS services, while SendGrid is utilized for sending customized email notifications, including confirmation of complaint submission, updates on the status, and resolution notifications. Both services provide timely updates to ensure that users are kept engaged and satisfied.

- **Security Technologies:** The system utilizes an array of security technologies to safeguard the confidentiality, integrity, and availability of user information. Secure login mechanisms such as multi-factor authentication (MFA) are utilized to protect user accounts. Data is encrypted both during transit (using SSL/TLS) and at rest (using AES encryption) to secure sensitive information from unauthorized users.

- **Analytics and Reporting:** For performance tracking and decision-making, analytics tools such as Google Analytics or AWS CloudWatch are integrated into the system. With these analytics tools, administrators can gain insights into user activity, system performance, and use patterns to monitor and improve the user experience.

**B. Workflow**

and receiving the feedback, the complaint is formally closed. The system produces reports that show a summary of complaint resolution times, the nature of complaints received, and user satisfaction. These reports are useful for the authorities to analyse trends, compare system performance, and take data-driven decisions to enhance public services.

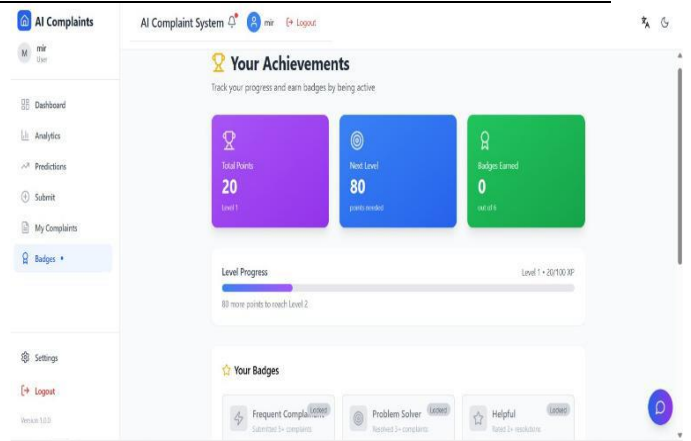
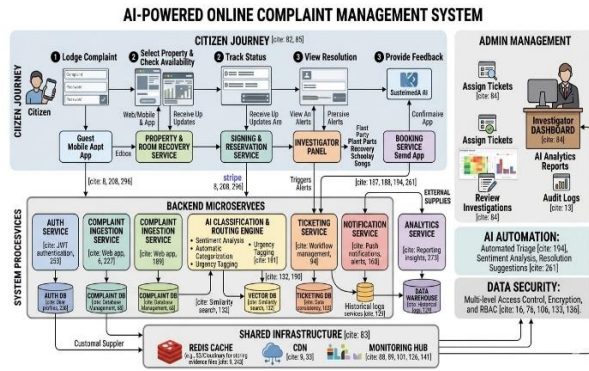


Fig2.Admin Dashboard

Greater Accountability and Transparency: Through the OCMS, citizens can trace the lifecycle of complaints from submission to closure, thereby making the process of complaint management much more transparent.

## V. RESULTS AND DISCUSSION

Initial trials and pilot deployments of the Online Complaint Management System (OCMS) have shown good improvements in public grievance redressal processes' efficiency, transparency, and public satisfaction. Deployment of the system in various local government organizations has offered valuable lessons on its influence on both the administrative and citizen experience.

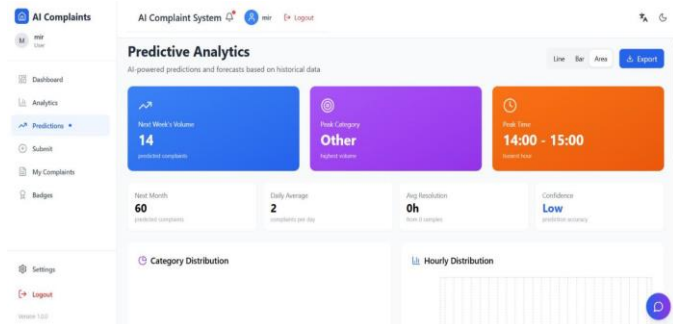


Fig1.Online Complaint Management System page

Better times for resolving complaints: Perhaps one of the greatest advantages of the OCMS is its capacity to enhance times for resolving complaints. Initial indications are that times have improved by 40% compared with standard complaint management processes. The system's automated categorization and task assignment ensure that the complaint reaches the relevant authorities promptly, and automated reminders and notifications keep the process on track.

The addition of real-time notifications, open progress tracking, and a simple interface has contributed to increased citizen participation. Users are now better connected to the resolution process and enjoy being able to monitor the status of their complaint. This has translated into improved citizen satisfaction, with surveys showing a 30% improvement in user experience over the use of conventional complaint submission procedures.

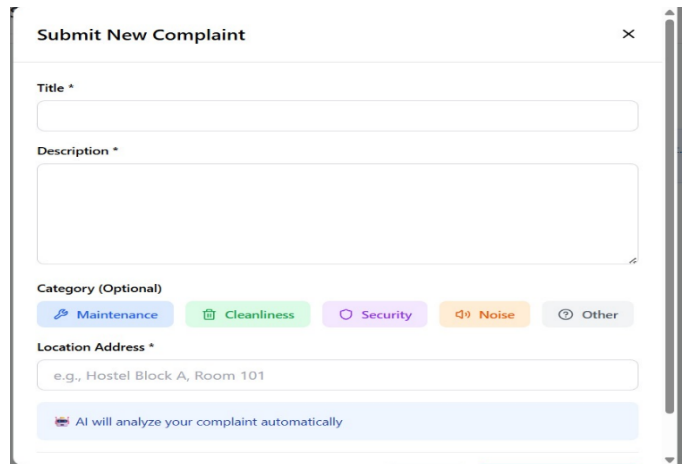


Fig3.File a complaint form

The system has facilitated a more accountable governance culture, where authorities are accountable for resolving complaints in a timely fashion. Administrators can readily track performance indicators such as resolution rates and customer feedback, resulting in ongoing improvements in service delivery.

Cost Savings to Government Agencies: Implementation of the OCMS has also saved government agencies costs. By abolishing paper-based documentation, minimizing physical visitation, and accelerating communication, the system has saved administrative overheads. Moreover, cloud hosting has facilitated cost-effective scalability, whereby the system could absorb high volumes without the capital expenses associated with on-premise equipment.

Although early results are encouraging, the rollout of the OCMS has not been a smooth process. Some of the problems experienced are:

Data Privacy Issues: With the nature of the complaints being sensitive in the case of safety, health, and public service-related ones, data privacy has been an area of concern.

User Accessibility and Digital Literacy: An additional challenge that was experienced during the initial rollout was user accessibility of the system to all segments of society. Although the system is mobile-responsive and user-friendly, there are citizens, especially those in rural areas, who do not have the digital literacy or access to devices to use the system efficiently.

Integration with Current Systems: Integrating the OCMS into legacy government systems has been a challenging task. Most local government agencies continue to use legacy approaches in record-keeping and complaint management, which are not always compatible with current digital systems.

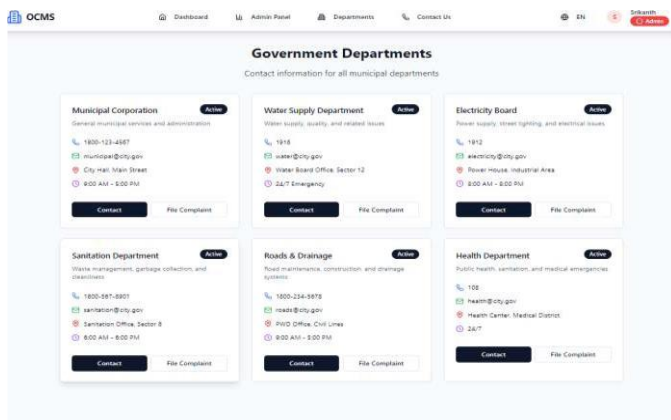


Fig4.Complaints in each Department.

Complaints Categorization Accuracy: Although the automated complaints categorization is one of the system's major strengths, preliminary tests indicated that AI-driven algorithms sometimes miscalculate complaints, particularly when the descriptions are imprecise or ambiguous.

## VI. CONCLUSION

The Online Complaint Management System (OCMS) is a quantum leap in grievance redressal systems compared to conventional complaint management systems. While the latter tends to be manual and opaque, OCMS mechanizes various components of the complaint handling workflow, thus increasing its efficiency, dependability, and user friendliness. By allowing citizens to file complaints online and monitor their status in real time, the system increases user satisfaction and encourages greater interaction with government services.

Besides enhancing the efficiency of operations, OCMS also facilitates streamlining the administration function and minimizing paperwork, resulting in cost savings to government agencies. The capacity to track and report on performance indicators like response times and user satisfaction also offers useful insights that can contribute to enhancing public service delivery.

## VII. FUTURE SCOPE

Whereas the present form of OCMS has been extremely promising with regard to enhancing public grievance redressal mechanisms, there are a number of areas where the system can be enhanced and expanded to better enable it to function optimally:

Advanced Artificial Intelligence (AI): Future iterations of OCMS will integrate more advanced AI technologies, specifically in natural language processing (NLP), for more intelligent complaint categorization and prioritization. The system can more effectively route complaints to the proper departments by understanding the context of the complaints better

Integration with IoT and Smart City Infrastructure: With advanced smart city technologies, OCMS can be coupled with IoT devices and sensors to make the complaint generation process automated. For example, sensors may identify problems such as water leaks, road damage, or malfunctioning streetlights, generating complaints in the system automatically and alerting the concerned authorities for immediate response.

Multilingual Support and Accessibility Improvements: In order to make the system more accessible to everyone, the forthcoming versions will have multilingual support so that citizens can submit complaints in their language of choice.

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