Public Complaint Tracking System Civic Connect

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Abstract: Civic Connect – Public Complaint Tracking System is a web-based application designed to streamline the process of reporting, managing, and resolving civic issues within a municipality. The system enables citizens to register complaints related to public infrastructure such as roads, streetlights, water supply, and sanitation, and allows municipal authorities to track, assign, and resolve them efficiently. The application provides a transparent communication channel between citizens and municipal staff. Users can submit complaints with details, attach images, and monitor the status of their reports in real-time. The admin dashboard allows municipal officers to view, categorize, assign, and update complaint statuses. The system also provides data analytics and reports to identify frequently occurring issues and improve service delivery. This platform ensures an intuitive interface, secure login, and a responsive design accessible on both web and mobile browsers. The goal of Civic Connect is to enhance civic engagement, ensure accountability, and improve the overall efficiency of municipal complaint handling systems.

I.   INTRODUCTION

Civic Connect is a comprehensive web-based public complaint tracking system designed to bridge the communication gap between citizens and local municipal authorities. The system addresses the critical need for efficient and transparent management of civic issues, providing a digital platform for citizens to report problems and track their resolution in real-time. The platform recognizes the growing demand for e-governance solutions in modern municipalities, where citizens expect quick and efficient responses to civic issues.Traditional complaint systems often suffer from lack of transparency, inefficient tracking mechanisms, and poor communication between citizens and authorities. Civic Connect addresses these challenges by providing a userfriendly digital interface that streamlines the entire complaint lifecycle from submission to resolution. The application is built with modern web technologies and follows best practices for user experience, security, and scalability. The system is designed to be accessible to a diverse population, supporting multiple regional languages including English, Hindi, Tamil, Telugu, and Kannada, making it suitable for deployment in various Indian municipal.

II.   LITERATURE SURVEY

A review of existing literature reveals that the digitization of university administrative tasks has been a persistent trend aimed at improving operational efficiency. Several studies, such as,

[1]. Bhuvana Sekar & Jiang B. Liu (2014) Title: Location Based Mobile Apps Development on Android Platform Definition: This paper focuses on developing Android applications that utilize GPS and location-based services to enhance user interaction and service accessibility.

[2]. R. Johnston (2001) Title: Linking Complaint Management to Profit Definition: The study explains how effective complaint management systems improve customer satisfaction and directly contribute to organizational profitability.

[3]. Bomble T., Raut R., Kanekar R., & Husen S. A. (2015) Title: Android Based Complaint Management System for Municipal Corporation Definition: This work presents an Android application that allows citizens to register complaints with the municipal corporation efficiently through a digital interface.

[4]. V. Bosch & F. Enriquez (2005) Title: Exploiting Customer Complaint

Management System Definition: The paper discusses how organizations can utilize complaint data to improve product quality, reliability, and overall customer satisfaction.

[5]. Osman Nasr & Enayat Alkhider (2015) Title: Online Complaint Management System Definition: This research proposes an online web-based complaint system that simplifies grievance registration and tracking through a centralized platform.

[6]. Devika Radhakrishnan, Nisarg Ciandhewar, Ruchita Narnaware, Prayas Pagade, Arpan Tiwari & Pooja Vijaywargi (2016) Title: Smart Complaint Management System Definition: The system aims to automate the complaint handling process using smart technologies for faster communication and resolution

III.   PROPOSED SYSTEM

1. The proposed system, Civic Connect – Public Complaint Tracking System, is a webbased application designed to overcome the drawbacks of the manual complaint management process.

2. It allows citizens to register complaints online related to civic issues such as road damage, drainage problems, or streetlight failures.

3. Users can log in to the portal, provide complaint details, upload images, and submit them to the respective department.

4. All complaints are stored in a centralized database and automatically categorized for quick processing.

5. The admin portal enables municipal staff to view, assign, update, and close complaints efficiently.

6. The system provides real-time tracking, allowing citizens to monitor complaint progress at any stage.

7. Automatic notifications inform users about status changes, ensuring transparency and communication

ADVANTAGES

• Centralized Data Management: All complaints are stored in one unified database.

• Automation: Reduces manual work and speeds up complaint handling.

• Real-Time Tracking: Citizens can check the live status of their complaints anytime.

• Transparency: Every step of the process is visible to both users and officials.

• Automatic Notifications: Keeps citizens updated about complaint progress.

• Time Efficiency: Minimizes paperwork and response delays.

• Performance Monitoring: Helps administrators analyze department efficiency.

• User-Friendly Interface: Simple design suitable for all users.

IV. PROPOSED SOLUTION

1. The proposed solution, Civic Connect – Public Complaint Tracking System, aims to digitalize and automate the entire process of municipal complaint management.

2. It provides a web-based platform where citizens can register civic complaints online without visiting the municipal office.

3. Users can log in, fill in complaint details such as issue type, description, and location, and upload relevant images for better identification.

4. Once submitted, the system generates a unique complaint ID for each case, enabling easy tracking and future reference.

5. All complaints are stored in a centralized database to ensure organized management and eliminate the risk of data loss.

6. The system automatically categorizes and routes complaints to the relevant department (e.g., sanitation, water supply, street maintenance).

7. Municipal staff can access an admin dashboard to view, assign, update, and resolve complaints efficiently.

8. The system allows real-time tracking, enabling citizens to check the progress of their complaints anytime using the complaint ID.

9. Automatic notifications or alerts are sent to users whenever the status of a complaint changes (e.g., Pending → In Progress → Resolved).

10. The solution enhances transparency and accountability, as every complaint's lifecycle is recorded and monitored digitally.

11. The admin panel provides analytical reports and performance summaries to help authorities monitor staff efficiency and identify recurring civic issues.

12. The platform is developed using HTML, CSS, JavaScript, PHP, and MySQL, ensuring a responsive design and secure data management.

13. The system is accessible from both computers and mobile devices, making it userfriendly and convenient for all citizens.

V. MODULES

User Registration and Profile Management

The User Registration and Profile Management module serves as the entry point for citizens to access the system. It allows users to register by providing their basic details such as name, email, contact number, address, and password. Once registered, users can log in to their accounts, submit complaints, and track their progress. The profile management feature allows users to update personal information and change passwords whenever required. The system ensures that all user data is stored securely in the database using encryption methods to protect sensitive information. This module ensures authenticated access, personalized experience, and secure user data handling, forming the foundation for all other system interactions.

Complaint Listing and Smart Matching

The Complaint Listing and Smart Routing module focuses on handling the complaints submitted by citizens. When a user submits a complaint, it is automatically categorized based on its type, such as issues related to sanitation, streetlights, water supply, or roads. The system intelligently routes the complaint to the relevant municipal department or official responsible for that category. This smart routing feature eliminates manual intervention, reduces delays, and ensures that complaints are quickly forwarded to the appropriate authority. Administrators can also reassign or prioritize complaints when needed. This module significantly improves the speed and accuracy of complaint handling, ensuring every issue is directed to the correct department for timely resolution.

Real-Time Communication System

The Real-Time Communication System module plays a crucial role in maintaining continuous interaction between citizens and municipal authorities. Once a complaint is registered, the user receives an acknowledgment and a unique complaint ID for tracking purposes. The system provides real-time updates and notifications through email or on-screen alerts whenever there is a change in the complaint status, such as from "Pending" to "In Progress" or "Resolved." This twoway communication ensures transparency and keeps users informed throughout the resolution process. It also enables municipal staff to receive instant alerts about new or updated complaints, ensuring prompt attention and response. This module enhances trust, accountability, and efficiency within the system.

Admin Dashboard and Data Management

The Admin Dashboard and Data Management module provides municipal administrators with complete control and visibility over the entire complaint management process. Through the dashboard, administrators can view all complaints, assign them to departments, update their status, and monitor overall progress. The dashboard displays real-time data and graphical summaries such as the number of complaints received, resolved, and pending. The data management feature ensures that all records are securely stored, backed up, and easily retrievable for analysis or future reference. This module also generates reports that assist higher authorities in evaluating departmental performance and identifying recurring civic issues. It greatly enhances operational efficiency, ensures accountability, and supports decision-making through organized and datadriven management.

Figure 5.1

VI. IMPLEMENTATION

USER REGISTRATION AND PROFILE CREATION

The User Registration and Profile Creation module is the entry point for citizens to access the Civic Connect – Public Complaint Tracking System. It enables users to create secure accounts and manage their personal profiles efficiently.

During registration, users provide details such as name, email ID, mobile number, address, and password. The system validates all inputs, checks for duplicates, and securely stores the information in the User Database using encryption techniques. Once registered, users can log in with their credentials to access the system and perform actions such as submitting complaints, tracking their status, and viewing complaint history.

The profile management feature allows users to update or modify personal information, reset passwords, and manage their account settings. Any changes are immediately reflected in the database to keep user data accurate and up to date.

COMPLAINT REGISTRATION AND MANAGEMENT

The Complaint Registration and Management module is the core functionality of the Civic Connect system, allowing citizens to register and track civic issues easily. Registered users can log in to submit complaints by providing details such as complaint type, description, location, and optional images for better identification.

Once a complaint is submitted, the system automatically generates a unique complaint ID and stores all details in the Complaint Database. The complaint is then categorized and routed to the appropriate municipal department for action.

Administrators can access the complaints through their dashboard to view, assign, update, or close them. Each complaint progresses through different stages—Pending, In Progress, and Resolved— to ensure transparency and accountability. Users can track their complaint status in real time and receive notifications about updates.

REAL-TIME COMMUNICATION AND NOTIFICATION SYSTEM

The Real-Time Communication and Notification System module enables instant interaction between citizens and municipal authorities within the Civic Connect platform. It ensures that users are continuously updated about the status of their complaints, improving transparency and engagement.

Once a complaint is registered, the system generates an acknowledgment message and a unique complaint ID for the user.

Whenever the status of the complaint changes — such as Pending, In Progress, or Resolved — the user receives real-time notifications through email or on-screen alerts.

Administrators and staff members also receive notifications about newly submitted or reassigned complaints, allowing them to respond promptly. This two-way communication keeps both parties informed and helps maintain accountability throughout the complaint resolution process.

The Civic Connect – Public Complaint Tracking System has been successfully designed, developed, and implemented to fulfill the objectives set at the beginning of the project. The system provides a complete web-based platform for citizens to register complaints, track their progress, and receive timely updates from municipal authorities. It also ensures that administrators can efficiently manage and resolve civic issues through a centralized dashboard, thereby enhancing transparency and public satisfaction.

The developed system enables users to create an account, log in securely, and submit detailed complaints by providing category, description, location, and optional images for clarity. The use of interactive maps allows citizens to pinpoint exact complaint locations, making it easier for municipal departments to identify problem areas quickly. Furthermore, the inclusion of multi- language support in English, Hindi, Tamil, Telugu, and Kannada ensures that the platform is accessible to people from diverse linguistic backgrounds across India.

On the administrative side, the system allows officials to view, filter, and manage complaints according to department type, priority, and location. The Admin Dashboard displays all complaints in a structured table, showing essential details such as ID, category, department, and status. Administrators can update the progress of each complaint— marking it as "Pending," "In Progress," or "Resolved." These updates are automatically reflected in the user's complaint tracking section, ensuring real-time communication and accountability between citizens and authorities.

The project also integrates data management and visualization features that help administrators analyze the number of complaints received, resolved, and pending. This statistical insight enables the municipal corporation to identify problem-prone areas and improve public service efficiency. The use of PHP and MySQL provides a reliable backend infrastructure, while HTML, CSS, and JavaScript ensure a responsive and intuitive front-end experience. The system was tested on multiple browsers and devices, confirming compatibility and consistent performance.

During testing, all major functionalities—such as user registration, complaint submission, location tracking, feedback submission, and admin updates—performed successfully without errors. The application proved to be secure, efficient, and user-friendly, meeting all the functional requirements specified in the system design. The modular structure of the code also allows easy maintenance and future scalability, such as integrating mobile applications or SMS notifications.

In conclusion, the Civic Connect System achieved its goal of providing a digital solution for effective civic complaint management. It simplifies communication between citizens and municipal departments, reduces manual workload, and promotes

transparency in local governance. The final outcome demonstrates the potential of web-based technologies in improving public service delivery, citizen participation, and administrative accountability.
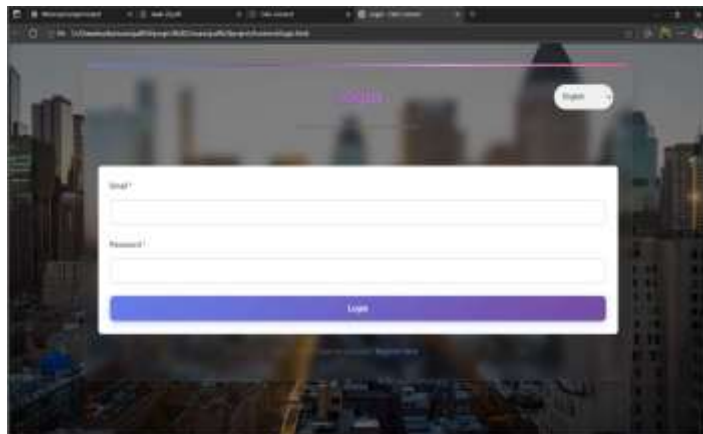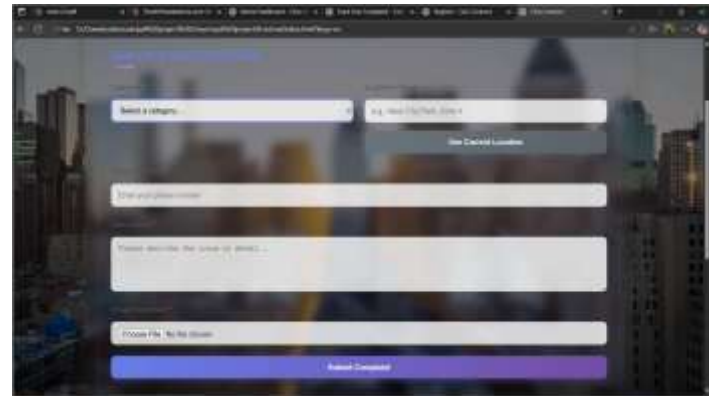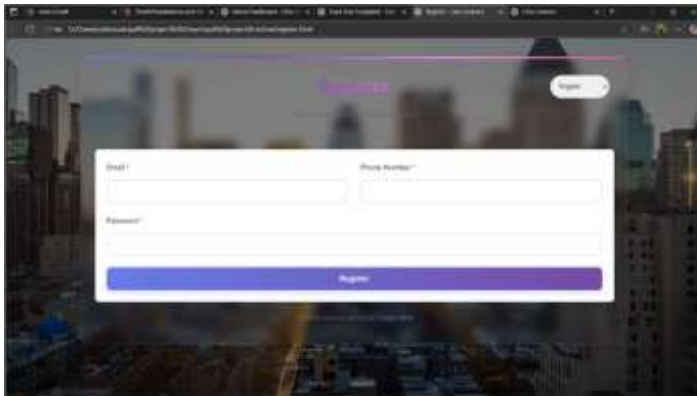

VII. CONCLUSION

The Civic Connect – Public Complaint Tracking System successfully fulfills its purpose of providing a digital platform that connects citizens with municipal authorities to ensure efficient handling of civic grievances. The system bridges the gap between the public and local administration by enabling a transparent and streamlined process for reporting, tracking, and resolving complaints.

Through the implementation of this project, the traditional manual system of lodging complaints has been replaced with a faster, more reliable, and accessible online platform. Citizens can now register complaints related to civic issues such as sanitation, road damage, streetlights, drainage, and public safety directly through the web interface. The system's user-friendly design ensures that even users with minimal technical knowledge can operate it easily. Additionally, the multi- language support feature makes it accessible to users from different linguistic backgrounds, promoting inclusivity and wider usability.

From the administrative perspective, the Admin Dashboard plays a crucial role by allowing municipal staff to manage and monitor complaints efficiently. Administrators can view all submitted complaints, assign them to the relevant departments, update their status, and generate reports on complaint resolution performance. The
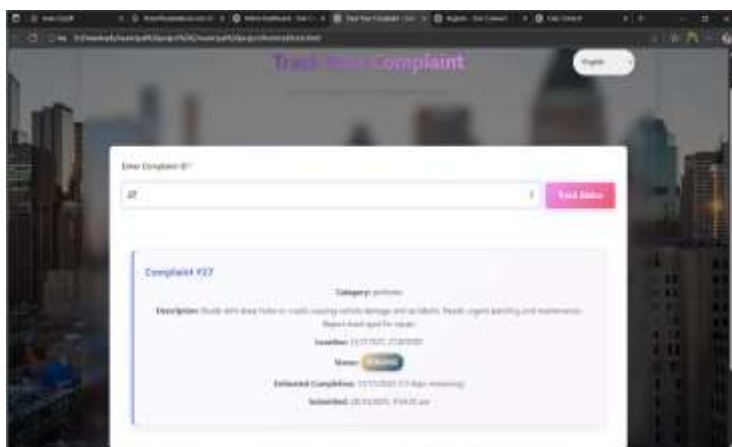
system enhances accountability by maintaining digital records of all user interactions and departmental responses, which can be used for audits or performance evaluations.

The project also emphasizes data accuracy, security, and scalability. By using PHP for backend development and MySQL for database management, the system ensures that user data and complaint records are stored securely and processed efficiently. The integration of HTML, CSS, and JavaScript ensures an engaging, interactive, and responsive interface. Furthermore, the real- time communication and feedback features strengthen the relationship between citizens and government bodies by keeping users informed at every stage of the complaint lifecycle.

VIII. REFERENCES

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