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Smart City Complaint App Using Android Development

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Abstract: In the age of digital transformation, the implementation of Smart Complaint Apps has revolutionized the way businesses and organizations handle customer grievances. This abstract delves into the conceptual framework, functionalities, advantages, challenges, and the overall impact of these innovative applications. Smart Complaint Apps represent a pivotal advancement in customer service strategies. While challenges exist, the advantages and positive outcomes underscore their importance in the digital landscape. Striking a balance between technological innovation and human - centered approaches will be essential in maximizing the potential of Smart Complaint Apps, ensuring a harmonious relationship between businesses and their customers in the digital era..

Keywords: customer complaint, complaint management, complaint handling, chatbot, classification.

I. INTRODUCTION:

In an increasingly connected and tech-savvy world, the need for efficient and streamlined complaint management has become more crucial than ever. Enter the Smart Complaint Application, a cutting-edge solution designed to revolutionize the way individuals and organizations handle complaints. Complaints are an inevitable part of any business or organization, spanning industries such as customer service, government agencies, healthcare, and more. However, traditional complaint management processes often involve cumbersome paperwork, long response times, and a lack of transparency, leading to frustrated customers, decreased efficiency, and potential reputational damage. The Smart Complaint Application is a dynamic and user-friendly platform that harnesses the power of modern technology to simplify and enhance the complaint resolution process. By seamlessly integrating smart features and intuitive design, this application empowers both complainants and organizations to efficiently address and resolve issues, leading to improved customer satisfaction and operational excellence. The Smart Complaint Application is poised to redefine the way complaints are handled, offering a user-centric, efficient, and data-driven approach that benefits both complainants and organizations alike. Join us in embracing the future of complaint management, where challenges are turned into opportunities, and customer satisfaction is paramount.

II. MOTIVATION

The motivation behind the Smart Complaint Application is to provide a holistic solution that addresses the challenges organizations face in managing and resolving complaints effectively. By achieving these objectives, the application aims to improve customer satisfaction, operational efficiency, and decision-making, ultimately benefiting both organizations and their customers.

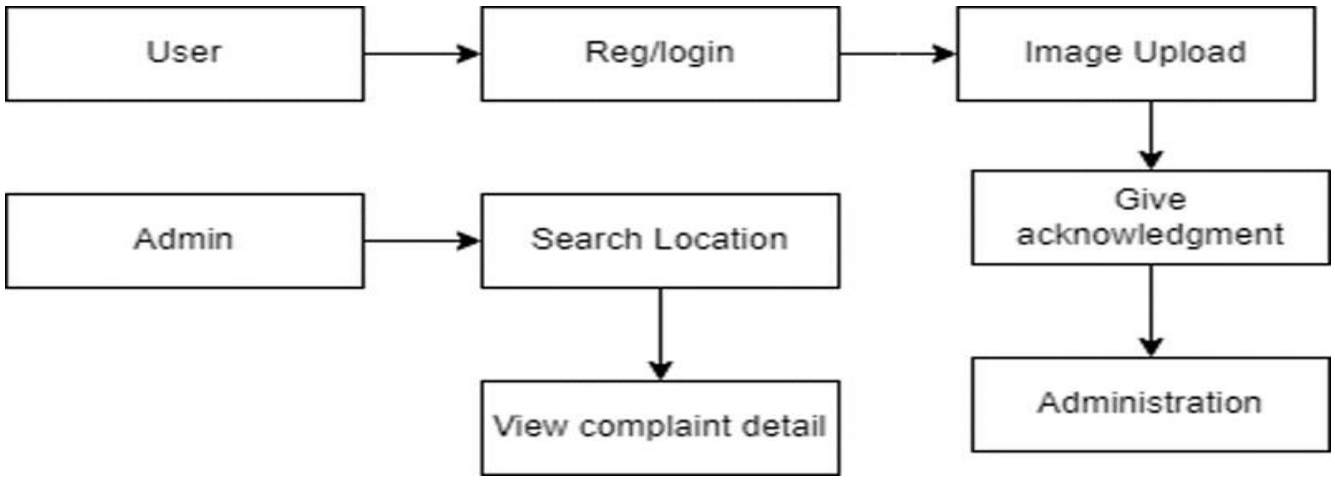
III. LITERATURE REVIEW:

1.Paper Name: Occupant Feedback and Context Awareness: On the Application of Building Information Modelling and Semantic Technologies for Improved Complaint Management in Commercial Buildings
Author: Francesco Massa Gray, Henrik Dibowski, Jan Gall, Sven Braun
Abstract :
Common methods for submitting hardware- or comfort-related complaints in an office or industrial environment, such as online forms or via a telephone hotline, can lead to misinterpretations of the issue and/or be perceived as being cumbersome by the submitter. This can act as a barrier for the submission of feedback and thus cause the facility management to remain unaware of unsatisfactory comfort conditions or faults, which can result in further issues and costs. In order to reduce the submission effort, a novel software-based solution is proposed, which automatically determines the most probable complaints, suggests them to the user and, when possible, automatically solves them. This is achieved by employing detailed context information stemming from a Building Information Model, the Building Automation System and past complaints submitted by the occupants.

2.Paper Name: Smart Complaint Management System
Author: Pattamaporn Kormpho, Panida Liawsomboon, Narut Phongoen, Siripen Pongpaichet
Abstract :
—Customers are the essential factor in the organization. The business has to support the customers' preferences and demands for creating the customer loyalty, which make the customer still purchases with the particular company. The customer may feel dissatisfied with the service when he or she receives the delay of services and they do not know the channel for filing the complaint, and also the current complaint handling in the organizations still has the problems. Therefore, we, developers of this project implemented the Smart Complaint Management System (SCMS) consisting of the mobile application, chatbot and web application, for solving the customer's dissatisfaction issue. Furthermore, the SCMS has the service for classifying the complaint, then automatically direct to the responsible department, and the service for finding the similar complaint to avoid submitting the duplicate complaint. The test result shows that this system is able to reduce the time and procedures for complaint handling, increase the channel for filing the complaint, and increase the channel for progress reporting and tracking the status of the complaint.

3.Paper Name: Smart Complaint Redressal System Using Ethereum Blockchain
Author: Suhani Jattan, Vineeth Kumar, Akhilesh R, Rachith R Naik, Sneha N S
Abstract :
In today's world, more importance is given on the availability of the applications and various websites available in the digital market. People will manage their daily work on time, precisely, very fast, and with satisfaction. So various technologies are used to fulfil daily work. In India, there is no direct and efficient way of communication between the government and the public, for solving a problem i.e for getting a problem solved at any place, people may have to wait for three months, but it can probably be solved sooner. Nowadays, the scenario has changed. Many applications are available, which allow users to register their complaints. But there are some problems related to its transparency. This paper proposes an Ethereum blockchain application that will help people to register their complaints and get updates about the complaint. Adoption of blockchain technology makes the application more secure, transparent and immutable.

IV. SYSTEM ARCHITECTURE:



The methodology can be categorized into several key phases:

I) Admin:

In this module, the Admin has to log in by using valid user name and password. After login successful he can do some operations such as View All Users and Authorize,

II) View and Authorize Users:

In this module, the admin can view the list of users who all registered. In this, the admin can view the user's details such as, user name, email, address and admin authorizes the users.

III) End User:

In this module, there are n numbers of users are present. User should register before doing any operations. Once user registers, their details will best or to the database. After registration successful, he has to login by using authorized user name and password. Once Login is successful user will do some operations like Manage Account.

IV. Data Flow Diagram (DFD) :

In Data Flow Diagram, we Show that flow of data in our system in DFD0 we show that base DFD in which rectangle present input as well as output and circle show our system, In DFD1 we show actual input and actual output of system input of our system is text or image and output is rumour detected like wise in DFD 2 we present operation of user as well as admin.

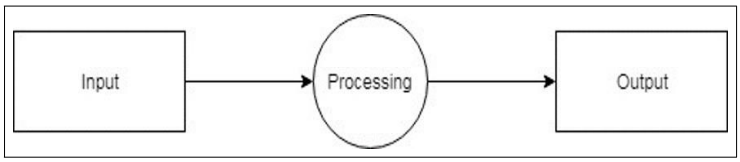


Figure 5.0: Data Flow(0) diagram

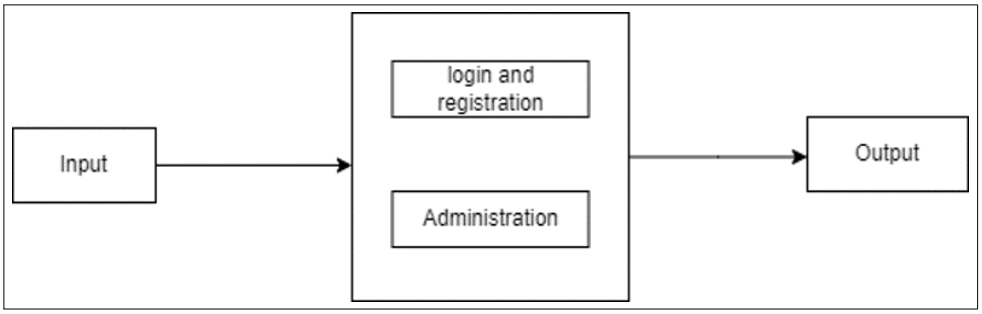


Figure 5.1: Data Flow(1) diagram

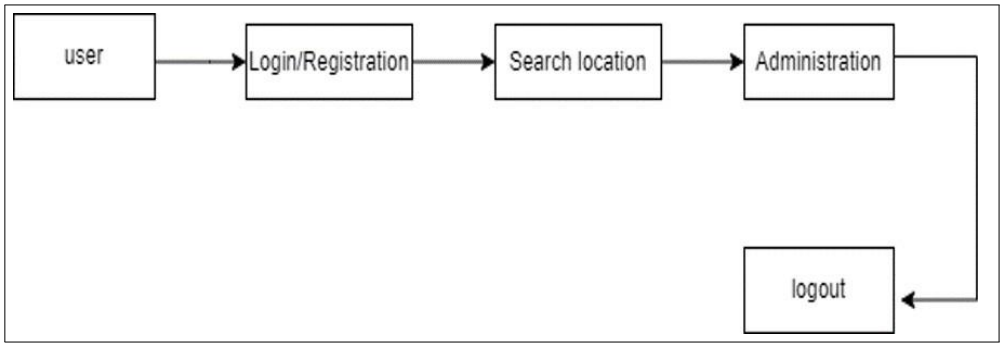
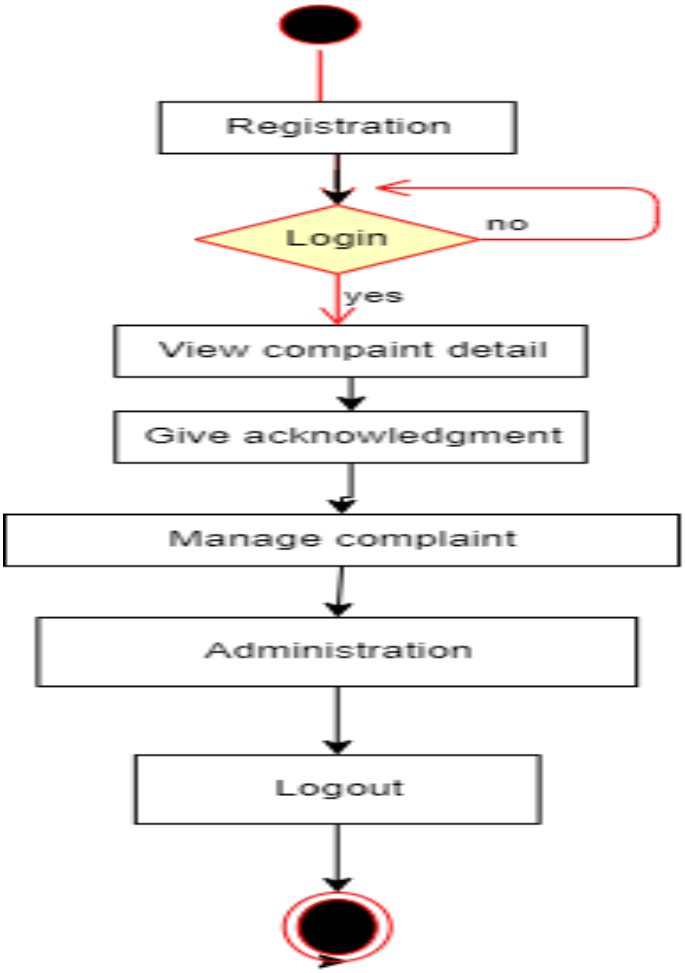


Figure 5.2: Data Flow(2) diagram

V. END RESULT



1.Registration / Login:

- **Identify the issue:** Clearly define the problem or concern that you want to file a complaint about.
- **Gather relevant information:** Collect any documentation, evidence, or details related to the complaint to support your case.
- **Contact the appropriate authority:** Find the correct organization, agency, or department to file your complaint with.
- **Follow the complaint process:** Understand the specific steps and procedures for filing a complaint, which may vary depending on the organization.

- **Provide accurate and concise information:** When registering your complaint, be clear, concise, and factual in describing the issue.

2. View Complaint Detail:

- View complaint detail allows you to access specific information about a customer's complaint, such as the nature of the issue, the date it was filed, and any communication history related to the complaint.

- It helps customer service representatives or support staff to understand the customer's concerns in detail, enabling them to provide more effective and personalized assistance.

- Viewing complaint details is a crucial step in resolving customer complaints and ensuring a positive customer experience.

3.Give Acknowledgement:

- Acknowledgment is a simple gesture of recognizing someone's efforts or contributions, which can boost their morale and motivation.

- It involves expressing gratitude or appreciation, either verbally or in writing, to let the person know that their actions are valued.

- Acknowledgment fosters positive relationships, enhances teamwork, and creates a supportive and encouraging environment.

4.Manage Complaint:

- **Listen attentively:** When handling a complaint, make sure to actively listen to the customer's concerns. Let them express their issue without interruption to fully understand their perspective.

- **Show empathy and understanding**: Respond with empathy and acknowledge the customer's feelings. Let them know that you understand their frustration and are committed to finding a solution.

- **Take swift action:** Address the complaint promptly and professionally. Provide a solution or a clear plan to resolve the issue and follow up to ensure the customer is satisfied with the outcome.

5.Administration:

- Administration involves the management and organization of resources, people, and processes to achieve specific goals and objectives within an organization.
- Administrative tasks often include planning, decision-making, coordinating activities, and ensuring efficient communication and information flow within the organization.

- Effective administration is crucial for the smooth operation of businesses, government agencies, and other institutions, as it helps maintain order and optimize productivity.

6.LogOut:

- Logout is the process of ending a user's session on a computer or online account to ensure their data and privacy are protected.

- It is typically accomplished by clicking a "Log Out" or "Sign Out" button, which terminates the current user's access and returns to a login screen or homepage.

- Logging out is crucial for security, as it prevents unauthorized access to a user's account or device when they are not actively using it.

VII. CONCLUSION

A Smart Complaint App serves as a powerful tool for organizations and businesses to enhance customer satisfaction, improve operational efficiency, and maintain a positive reputation. By streamlining the complaint submission and resolution process, such an app addresses customer concerns promptly and effectively. Through its userfriendly interface and transparent communication system, it fosters trust and confidence among customers.by prioritizing customer satisfaction and leveraging technology to streamline complaint resolution processes, businesses can build stronger, long-lasting relationships with their customers, fostering loyalty and positive brand perception.

VIII. FUTURE WORK

Explore opportunities to further automate complaint handling processes using emerging technologies such as artificial intelligence (AI) and machine learning (ML). This could involve implementing advanced chatbot functionalities to provide immediate responses to common complaints or employing natural language processing (NLP) algorithms for more accurate classification and routing of complaints.

Investigate the integration of Internet of Things (IoT) devices within the complaint management system to enable proactive monitoring and detection of issues.

Explore the addition of new communication channels for submitting complaints, such as social media platforms or voice assistants. This can help reach a wider audience and cater to diverse user preferences, ultimately improving accessibility and convenience for complainants.

Focus on enhancing user engagement and satisfaction through personalized experiences and proactive communication. This could involve implementing features such as real-time status updates on complaint resolution progress, feedback mechanisms for users to rate their experience, and gamification elements to incentivize participation in the complaint resolution process.

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