

A Typical Call Monitoring System to Handle Complaints & Queries in Smart Cities

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Abstract— In this paper, we build a website which is complaint registration and monitoring system that will perform several tasks regarding complaints and feedback services and instead use the complaint registration and monitoring system. It is an online solution for any organization for resolving the complaints and queries of the hostel staff and faculty members. The faculty of any department can put up their issues and track the status of the complaint whether it is solved, processed or unsolved. The hostel warden can put up any complaints like electricity, water, food providing to the students etc. The primary objective of this system is to enable users to lodge complaints. Users can also monitor the status of resolution of their complaints registered through this system. The system will also help build a knowledge base of common problems and their resolutions. This will help us to respond to user complain and queries faster and in a systematic way. This procedure aims to help the council “get it right first time” and to achieve quicker, simpler and more streamlined complaints handling with local, early resolution by competent, well-trained staff.

Key words: Complaint, Online, Monitoring, Council, Resource Shearing, Resource Allocation and Security

I. INTRODUCTION

Call monitoring system is providing the set of integrated tools which optimized to meet efficient handling of complaints, and automate processes like registering new complaints, managing existing complaints, automatic escalation of unresolved complaints, managing complaint statuses, performing number of consumer inquiries, handling of complaints by respective persons/departments and producing informative system. It allows all team members to work in a collaborative manner.

Complaints are an important way for the management of an organization to be accountable to the public, as well as providing valuable prompts to review organizational performance and the conduct of people that work within and for it.

A complaint is an expression of dissatisfaction made to or about an organization, related to its products, services, staff or the handling of a complaint, where a response or resolution is explicitly or implicitly expected or legally required. An effective complaint handling system provides three key benefits to an organization:

- 1) It resolves issues raised by a person who is dissatisfied in a Timely and cost-effective way.
- 2) It provides information that can lead to improvements in service delivery; and
- 3) Where complaints are handled properly, a good system can improve the reputation of an organization and Strengthen public confidence in an organization’s administrative processes.

CMS is protected from unauthorized system access by its User Management Module. Its Logging facility ensures complete management control over its usage. This ensures that the system is used to meet its purpose.

II. LITERATURE REVIEW

Many authors have stretched to the work on online complaint management system that provides an online solution to the problem faced by public of the any society. They provide report on and facility to submitting any complaints [1]. In current years however, there has been conversation as to whether conflict should be "managed" by the organization and understand the goal with and learn from conflict. There is also worry about real-world and theoretic issues in "integrating" a system, with some observers preferring the idea of "coordinating" a conflict system. However, 2012 research by David Lip sky et al., suggests that a cumulative number of companies see themselves as having "integrated conflict management systems [2]. In year 2015, B. Sudhir et al on sustain and development on municipality. They addressed about the garbage managing, water supply, electricity supervision, road repairs and threatening of animals [3]. Esraa Abd El-Aziz Abd El-Sadek Afify at al. are focused to improve the bond between citizens and the social harmony by presenting a new model of e-complaint web service based on SOA.

III. OBJECTIVES

The main objective of this project is to make a website for any organization for resolving the Complaints and Queries. The website allows the user to easily access the relevant information and make necessary Complains arrangements by providing Current status details. Here we categorized as.

- General: Establish procedures and responsibilities to address complaints and proposals made by staff and students.
- Specifics: Have a system to deal with claims and customer feedback and suggestions to the appropriate bodies to provide timely responses. Develop a system based complaints and suggestions registration system to take appropriate action.

IV. PROPOSED COMPLAINT MONITORING SYSTEM

An effective complaint handling system should be a 'fit for purpose' system. This is a system that is varied to fit an organization's circumstances and is proportionate to the number and type of complaints it receives. Decisions about building a 'fit for purpose' system could incorporate the following considerations:

- The number and demographics of the organization's customers, and how they generally communicate with the organization.
- The nature and breadth of the organization's interactions with the public.
- The level of complaints that is considered reasonable for the organization (by examining trends in its level of complaints over time and industry benchmarks).
- The organization's risk management strategy – complaints are an important way of monitoring and Mitigating any risks.
- The value the organization derives, or wishes to derive, from complaints to improve its operations over time, as well as other information needs of management.
- The cost of operating a complaint handling system.

This procedure aims to help the council "get it right first time" and to achieve quicker, simpler and more streamlined complaints handling with local, early resolution by competent, well-trained staff.

V. PRINCIPLES OF EFFECTIVE COMPLAINT HANDLING

- 1) Customer focus – the organization is committed to effective complaint handling and values feedback through complaints.
- 2) Visibility – information about how and where to complain is well publicized to customers, staff and other interested parties.
- 3) Accessibility – the process for making a complaint and investigating it is easy for complainants to access and understand.
- 4) Responsiveness – complaints are acknowledged promptly, addressed according to urgency, and the complainant is kept informed throughout the process.
- 5) Objectivity and fairness – complaints are dealt with in an equitable, objective and unbiased manner. This will help ensure that the complaint handling process is fair and reasonable. Unreasonable complainants are not allowed to become a burden.
- 6) Confidentiality – personal information related to complaints is kept confidential.
- 7) Remedy – if a complaint is upheld, the organization provides a remedy.
- 8) Review – there are opportunities for internal and external review and/or appeal about the organization's response to the complaint, and complainants are informed about these avenues.
- 9) Accountability – accountabilities for complaint handling are clearly established, and complaints and responses to them are monitored and reported to management and other stakeholders.
- 10) Continuous Improvement – complaints are a source of improvement for organizations.

VI. PROPOSED SYSTEM ARCHITECTURE

System architecture is a conceptual model that defines the structure, behavior, and more views of a system. An architecture description is a formal description and representation of a system, organized in a way that supports reasoning about the structures and behaviors of the system. A system architecture can comprise system components that will work together to implement the overall system. The faculty of any department can put up their Complain and Track the Status of the complaints whether it is solved, processed or unsolved. The Hostel Warden, Collage Staff and Student also can put up any complaints like Electricity, Water, Food, Cleaning etc.

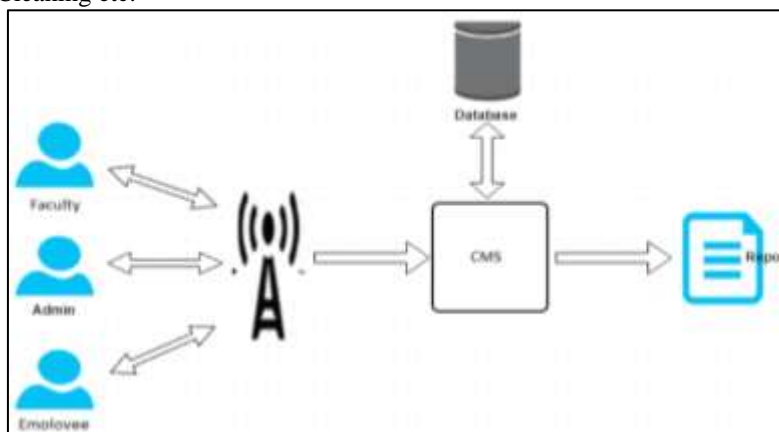


Fig. 1: Proposed system architecture

As we know that faculty members and hostel staffs are facing many problems related to various department. Like in the department of computer science the faculty members have the problem of computers whether they are working properly or not and all the software on which the student has to work are installed on the computers or not, Wi-Fi is working properly or not. Similarly, the mechanical department faces the problem of machines that are working properly or not. The hostel staffs are also facing many problems like Electricity, Water, Food, Cleaning etc. To resolve all these problems quickly we use call monitoring system which saves time of faculty members and hostel staffs for resolving their complaints.

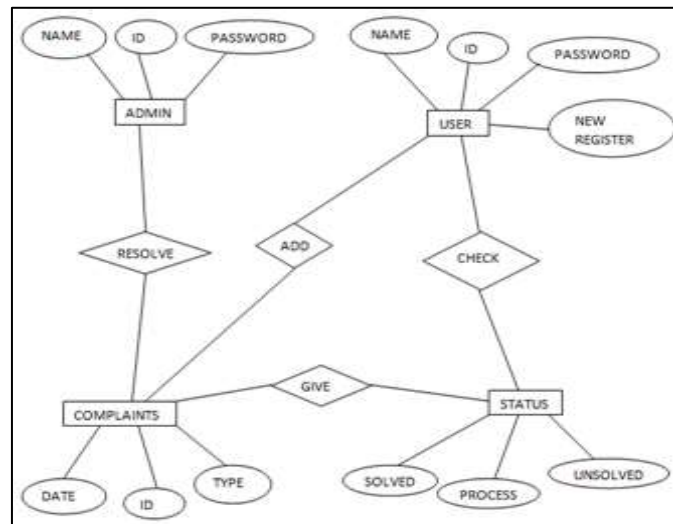


Fig. 2: Entity Relationship Diagram

In this system, the hostel staff and faculty members first have to register into the system and then write their complaints and queries. After that they submit it to the admin of the organization. The faculty members and hostel staff can track the current status of the complaints whether it is solved, processed or unsolved. The admin can solve problems of all the department and give current status of the problem to the user. The registered person can also take the snap of the problem and upload it on the system wherever they find any problem at any location and the admin can easily get the problem of any department by using this system. The user also able to give feedback whether the system is good or not and how helpful it is for them. Admin can see all the reviews so this will be easy for users to put their complaints. It is easy to access by users and easy to handle and manage by admin.

VII. METHODOLOGY & EXECUTION

There are two main processes login and complaints process which involves the role of three people Admin, Faculty and Employee. In database, there are four tables of CMS first is admin, faculty and employee table which stores all the details of these peoples, second is complaint table which stores all the details related to the complaints, third is faculty and worker registration table which stores the registration details of these people and the last is student registration table which stores all the registration details of the students.

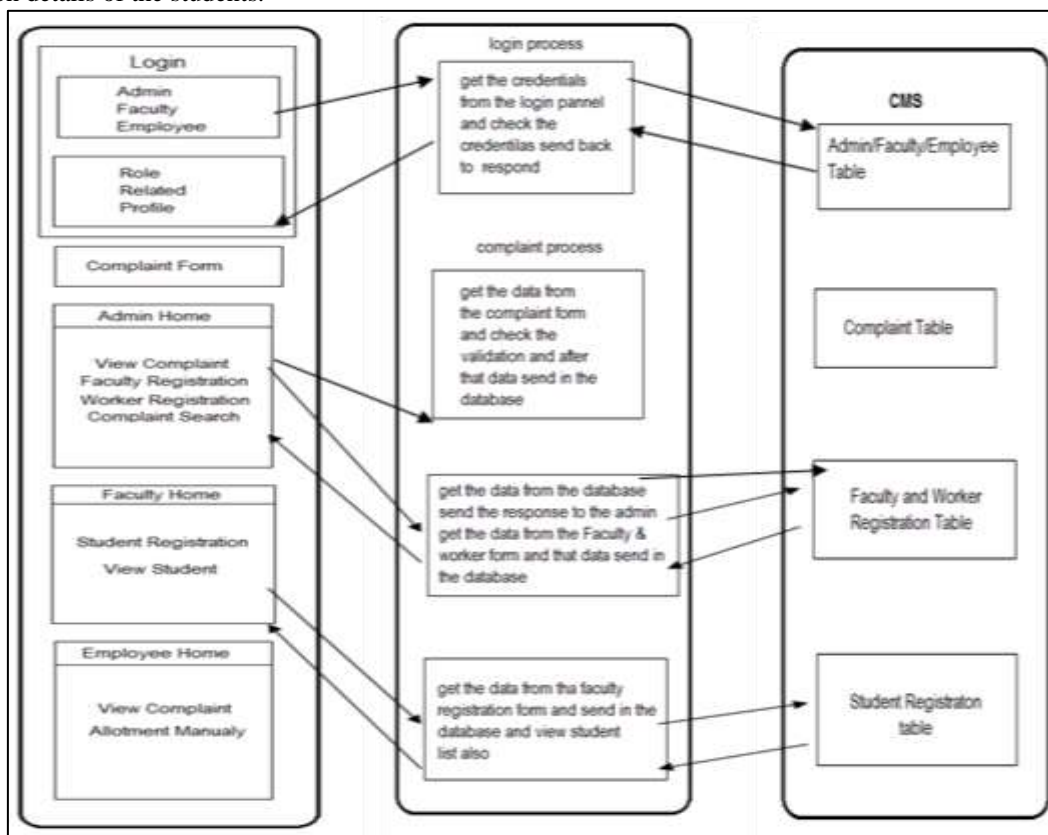


Fig. 2: Internals of CMS

A. Login Process

In login process three members will login into the system such as admin, faculty and employee. They get the credentials from the login panel and check the credentials send back to respond. After login process the registered person go to the role related profile such as admin, faculty and employee. The details of admin, faculty and employee will be stored in the database (admin, faculty and employee table).

B. Complaints Process

- Complaint Form: In complaint process, registered person can get the data from the complaint form and check the validation and after that data send to the database (Complaint Table).
- Admin Home: Admin can view complaint and do the registration of faculty and workers and also search for the complaints. The admin can get the data from the database, send the response, and get data from the faculty and worker from and that send in the database. The details of the faculty and worker will be stored in the faculty and worker registration table.
- Faculty Home: Faculty can do the registration of student and view student details. They get the data from the faculty registration form and send in the database and view student also. All the details of registered student will be stored in the student registration table.
- Employee Home: Employee will view the complaints and allot those complaints to the worker. After resolving the complaint, the employee or admin update the current status of the complaint so that the person who submit the complaint can view whether their complaints is solved or not or processed.

VIII. SCREEN DESIGNS

Here we will show some system interfaces that have been designed, and named by its function in the system.



Fig. 4: Admin Login Screen



Fig. 5: Admin Profile

This screen show the allotment of complaints to the employee reply to the customer on the complaint.

IX. CONCLUSION

This paper presents the CMS which provides the access to the users with an account through the process of registration with a mechanism that lets the customer give some feedback. It allows the registered user to register them complains. It also provides the facility of monitoring the complaints from any place & anywhere. The current system is not follow the manual process, so

it will not require more time for completion of any work as the existing system was. The automated system is decreases the chance of errors and also decreases turnaround time. Immediate response to the inquiries and not a time consuming. Reports will be generated on time. So, at but not least, it is a suitable proposal for the any organization in current smart environmrnt.it could be used for as a project for smart city.

A. Open Issues

There are several open issues that need to be further investigated in the current smart technical environment. Various government and non-government organizations are struggling with their complaint management system. Examples include the municipality, public departments, corporate and education industry. They concern about complaint management control, resource sharing, resource allocation, security and authentication.

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