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Housing Societies in Social Network

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ABSTRACT

Due to increasing urbanization, communication among the people living in the metropolitan cities is becoming diverse. The areas highly affected by it are the housing societies. This paper introduces a solution to such a problem using technology of social networking using a web application which is capable to connect the people, enhance their interactions and manage the housing society associations. The system provides facility of inter society communication. Facilities like online clubs for sports, festivals, social events for children and elders, service providers from the society as well as external providers are mentioned in the proposed system. To maintain record of all these events a calendar has been provided which can be updated by the society secretary. The system also provides account management system, maintenance records of the society, complaint facility for all the residents, Emergency contacts and help desk for the all the users of the website making the society management transparent and efficient.

Keywords : K-means clustering algorithm, hierarchical system of housing society.

I. INTRODUCTION

Urbanization is a process where an increasing portion of any country's population lives in an urban area. It is a result of economic, social, educational, professional progress which is leading to urban concentration. In a housing society, people from a variety of backgrounds stay under one head. Due to these reasons there is a distinct communication between society members.

This system is made to make people live amiable and decrease the communication gap in the society where they will be allowed to come together and share their same passion and interest through various clubs for events, festivals, and sports formed online. Currently the housing societies are controlled traditionally with manual meeting arrangements, records on paper, notice boards for rules and invitations and only known people come forward to organize events, festivals and clubs.

Our system overcomes the drawbacks of the traditional system by forming a network of people online where things can be done on a click thus reducing the dependency on other people and bringing translucency in the managing system of the society.

II. METHODS AND MATERIAL

A. Literature Survey

Due to increasing urbanization, it has become important to enhance communication between people and it can be started with the housing societies where most of the people living together are unknown to each other. In such a context, technology can take a stand and connect people online and improve their interactions.

A web application can work effectively for housing societies which can be accessed from anywhere, anytime and make things done remotely. Various types of societies with different working patterns and hierarchical system exists which have some common issues. Considering these issues a single platform can be built flexible to all the types of societies. The paper "Study of Implementation of Society Management System" publication form International Journal of Computer Applications states that due to lack of communication among people it becomes difficult to keep track of records and thus leads to misunderstandings resulting in lack of transparency.[3] The web application can thus provide a provision to maintain records of hard copies

and help them store digitally rather than depending on people who may mishandle them.

The website can be made flexible by providing privileges for the registration of the housing society chairmen panel and the residents separately which can be detected by the system.[1] The residents can be identified from unique Id given to them.[5]This unique id will help the system recognize the type of user and function properly. These ideas have been stated by the paper publication named, "Web Portal: Housing society management" form Journal of Engineering Research and Applications and paper named " Cloud based apartment management system" from International Journal of Scientific & Engineering Research respectively.

Housing societies need to maintain the records of funds and bills which can thus be provided through a powerful, robust and automated account management system online where the residents can be notified on a click. [1][2] People living in the society face a lot of problems regarding the daily living including water supply, electricity, parking system, access to the society hall and et cetra. To deal with this a complaint portal can be embedded in the website for the residents which will be viewed by the secretary panel and response message can be send to a particular resident. [1][3]

Every housing society conducts monthly meetings and various events which can be discussed through the Meetings tab, and calendar to keep a track of events on the website. [3] IEEE publications by Transactions on Knowledge and Data engineering paper "Task Assignment on Multi-Skill Oriented Spatial Crowdsourcing" states that many people migrate to a newer location and face problems related to vendors that they require for their work in emergency. Vendors like event managers, carpenters, gardeners, electricians, plumbers, et cetra can be connected to the website which can be made available with their services at doorstep. [4] Including all these functionalities we can make a basic system that can function for the betterment for the people making their lives easy.

B. Existing System

Notification for monthly meetings are displayed on the society notice board and through social messaging applications which may not be viewed by the residents due to their unavailability in the society or their busy schedule. The records of billings and maintenance are in the form of stack of papers causing overhead to handle and may also be lost. In a society, very few people know each other and hesitate to personally talk to the neighbours thus forming limited social clubs for their favourite sports, events, etc. Also, the participation among the residents may not be active. Usually migrants are unaware about the location and thus need timely help for their daily living which includes need of vendors like carpenters, event managers, electricians and many more. The owners of the flats living remotely heir tenants and may not know about their social behaviour and face embarrassment. Complaint system is either verbal or in the written form which may not be recorded and hardly possible to track if it is heard. Thus, managing the society with these issues is a tedious task.

III. RESULTS AND DISCUSSION

A. Proposed System

The web application supports three types of users viz. the super-admin, the housing society secretary and the residents where the system will determine the type of user on login and open their respective profiles. The admin panel will display the details about the number of societies present and provide the emergency contacts of the particular cities and the help manual to use the website. Emergency contacts and Help manual can be updated by the super-admin while the secretary and residents can only view it. The secretary panel will showcase the society and the residents' details. The resident panel will give details about the notifications of various events from calendars, broadcast and personal message services. Also will provide the provision to add and remove oneself form the group and chat with the other members.

The web application provides privileges to notify the residents via message broadcast service on the website and through bulk email. Also the events to be conducted can be added to the society's calendar which will be notified to the resident via the bulk messaging and email service. Provision of online clubs will be provided where the residents can join or remove themselves. Also,

the secretary is given the authority to create and delete the online clubs as per the profiles of the residents.
The clubs will be open for all the residents depending upon the society structure if Federation or co-operative. During registration the information will be collected from all the residents of the respective societies which include their hobbies, interests, and qualities. On the basis of this information, various groups will be formed using the k-means clustering algorithm, where residents belonging to a same interest or hobby will be grouped. Clubs made by the super-admin and the secretary will be suggested to them. This will help the members to take new initiatives and explore their skills. Facility for chatting in the respective groups has been provided to the residents. The secretary or the chairmen panel has an important responsibility to handle the accounts and to maintain the records which in the proposed system can be abolished by making it online by giving the accounting status and the record details.

Every society has a class of people interested in entrepreneurship. The proposed system facilitates provision of society service providers which will help them promote their business starting from their own society. Also, the provision for services by external vendors will be provided to help people ease their daily living. The secretary will be given the right to add and delete the external and internal service providers and the residents can view it. The residents can raise complaints through the complaint section and can be seen only by the secretary and can be tracked through a response from the secretary. The complaints on the website will be as a proof and can be maintained.

This is how the proposed system can simplify the management of housing societies.

B. System Overview

The system is built flexible as per the requirement. Once the website URL is input on the web browser, the user will get connected to the remote web server machine where the machine will send the requested web pages to the user.

The web server is connected to the Web Application Programming Interface from where different applications can be fetched by the web server; also all kinds of mobile devices can access the service efficiently. Its main function is to make the design and building of HTTP services easier.

A database will be created consisting of the client information like the housing societies, its residents and the external and internal service providers. This information will be easily fetched through the Web API and submitted to the webserver in the form of web pages and will be visible to the user.

IV. CONCLUSION

The traditional system can be modified with a touch of technology by creating a social networking site for the housing societies which will help them manage their functioning effectively and help live all the people connected to this application with harmony. By simplifying the accounting procedure, through the messaging services the members can be notified and kept alert. The system can help the residents advertise their business through the society service providers sections and help people reach out till the vendors they need in their daily lives. Interaction among societies in federation can be made possible through the broad cast service and the clubs. The system thus takes the societies on the next level making it smarter.

V. FUTURE SCOPE

New features like parking lot management, tie-up with private services like Travel agencies, Movie theatres, Amusement Parks , Food Facilitators can be done to provide discount on their services limited to the housing societies which will help improve the network and improve communication through business.

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