SocMan: Society Management System

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Abstract— This paper is about the implementation of Android Application for housing society management. Day-to-day life in city areas has essential things to deal with housing society management. Our day to day needs such as Funds, Complaints, Security and many more things which directly or indirectly plays vital role in residential life, comes under Housing Society Management. To overcome the problems occurring due to this time lagging manual system, an automated system has been developed.

Keywords: Housing Society Management, Residential Life, Manual System

I. INTRODUCTION

Android is very common platform in smart phone communication. In Indian economy, Android is a very inexpensive tools which every other citizen can buy. Since mobile devices have become more and more powerful and distributive, mobile computing has significantly changed our everyday life. As smart phones are extensively used by everyone now-a-days it provides a valuable platform for communication via an android application.

In general, in a society all the work is decided in meetings and maintenance bills, contact no of members are logged on the papers. There exists no automated system for performing all the things that largely takes place in society, so that members are made aware of what is going on in society. The Society Management System allows members to login with their own account and get informed with society happenings. Society Management System is the website portal to condense clashes amongst society members. The system has automated functionality for computing monthly maintenance bill and member can inspect their bill status on their account. The major functionality of this software is that, there is a voting system for several society standings like Chairman; Treasurer Etc.

Member can vote the candidates that are standing for several roles in society. The system provides an exceptional interface to every user to interact with the system. System accepts queries from users and calculates the need of the query and discharges it over the database and results are displayed to the user. The application chiefly featured with operational solution for Day to day notifications for meetings, water management, electricity management, parking, various contacts. It will definitely ease the human efforts and errors to increase crystal clear sheerness between society members and management. It will be very much consistent way of communication regardless of time and location. One can remain associated with society members around the clock. In addition to that it will conserve time, paper work, and human efforts and offers reliability. This system is a cloud-based system to achieve day to day activities of any co-operative housing society, they require the synchronization among the respective management societies coupled with the vendors which provide these services so that the appropriate convenience can be delivered. SocMan is an android application to shrink the conflicts among society members. The system has automatic functionality for computing monthly maintenance bill and member can view their bill status on their account. There are different logins for the secretary, treasurer, security and members respectively. The system provides unique interface to every user to interact with the system.

II. DESIGN & IMPLEMENTATION

A. Login Module

Fig. 1: Login Module

The conventional way of keeping records on papers and records required manual work and was a tedious task. Searching for a record is a mundane task and time consuming. The maintenance of such records is problematic. Data analysis which is useful for managerial decisions is so complex that it seems impractical. The user, secretary and administrator of the system. The administrator has the authority to login to the application and manage the profile. Secretary has special privileges to update monthly bills. The secretary, treasurer, security and members have the authority to log in to the website and manage their profile
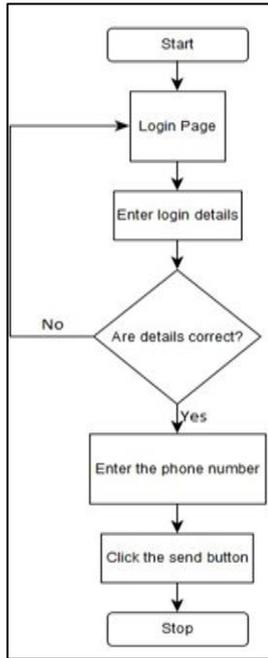
B. Security Login

Fig. 2: Security Login

When the security guard logins with his username and password the app takes him to the notification page. The security can notify the respective flat owner by sending a text message on his/her mobile. The security has the control of the arrival of the visitors. He enters the name of the visitor and sends the notification to the resident (registered member) that a visitor has arrived via a text message. He can also issue complaints to the secretary if any. In the Security Login module, the security can send notification of visitors sends the notification to the resident (registered member) that a visitor has arrived via a text message.

C. Secretary Login

Fig. 3: Security Login

Fig. 4: Secretary Module

When the Secretary Logins with his username and password the app takes him to the next page. The next page shows the option of uploading a maintenance bill (in a .pdf format) monthly or quarterly. The secretary acts as the administrator of the application. He has the right to upload maintenance bills and notices so that users can view and download it. He receives the complaints of the members that have been sent by them to the secretary. Bills are generated by the system hence the system reduces the paper work and produces the bills in digital form. System offers a superior interface to the Secretary to update or change the amount charged to the members of the society as per the "bye laws".
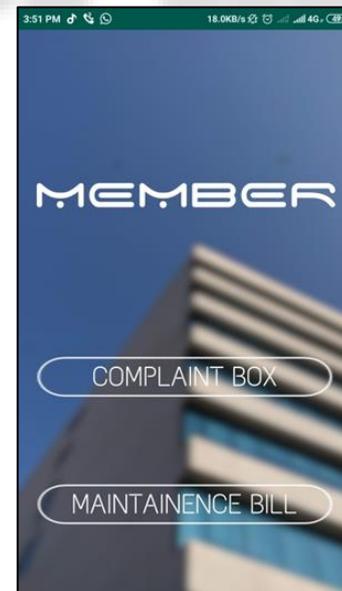
D. Member Login

Fig. 5: Member Module

When a member logs in with his username and password the app takes him/her to the next page with following options: -
1) Maintenance Bill
Here the member can download the bill uploaded by the Secretary

2) Complaint Box

Here the member can launch complain if any and send it via mail or other apps in their respective mobile. The application provides an assurance to follow up every complaint made by society members. The members can download the updated maintenance bill by the secretary. They can issue complaints regarding the society to the secretary via e-mail, telegram or text message. They (resident) receive a text message regarding the arrival of a visitor in the society.

III. PROPOSED SYSTEM

The system has automated functionality for the member to view their bill on their account and download it in a .pdf form. The secretary can upload a pdf document which is uploaded on the firebase storage. The treasurer can manage the funds and all others can view the funds. This system also has a functionality of sending a notification to a resident when an outsider arrives in the society. The Society Management System permits members to login with their own account and get updated with society actions.

A. Login & Administration
- Login will separate the member, secretary, treasurer and security of the System.
- The administrator and members have authority to login to the website and manage their profile.
- Secretary has the superior advantages of renovating monthly bills.

B. Maintenance Bills
- The monthly maintenance bill will be authenticated by secretary.
- The secretary will upload the maintenance bill through his account.
- The maintenance bill will be visible the members and will be available for downloading.

C. Sending Notification
- When a visitor arrives, he will not be allowed to enter without verification.
- So, the security will take the visitor's details and send a notification to the resident to which the visitor wants to go.

D. Complaints
- The members have the right to issue complaints.
- The members can write complaints in the complaint section.
- They can write their issue and send it to the secretary via G-mail, Telegram, Text Message or Google Drive.

IV. LIMITATIONS

- This system can only handle a single society.
- This system provides a set of predefined user name and password for member, secretary, treasurer and security
- The secretary has no provision to generate in-app maintenance bills. He has to make an invoice in the word document where the Invoice template is provided. It will be easy for him to generate invoices rather than writing the whole invoice manually. He just has to enter the values in the invoice template.
- The application has not provided the sign-up facility for the new residents which will be done via Firebase Authentication. The admin has to inform the developers to add new members, thereby after that the developers will provide a user ID and password to the new resident.
- Whoever opens the application has to login every time he/she opens it. The system requires the login every time it is opened.
- The system only sends a text message to notify the user that a visitor has arrived. The limitation is that it resists from keeping any records. (since a text message is being sent to the resident; it may be considered as a record of a visitor arriving)

V. FUTURE SCOPE

- Along with the information at the gate biometric can also be added.
- For the allowance of outsiders capturing of photos and sending to the resident can be implemented.
- The daily visitors can be a QR code that the SocMan can scan. The code can contain the information of the respective person.
- Concept of data mining and artificial intelligence would be worked upon as a future work for our project.
- There might be some kind of changes like online payment transaction and some further integration of different modules on same platform.
- The maintain bills bill generation san be provided in the application itself.
- The system can provide a facial recognition of the visitor or the finger print of the visitor and send it to the resident.

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