

Software Requirements Specification

for

Society Management System

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

Introduction

Purpose

Humans today reside in a society and live in co-operation. This society is generally managed by humans only while they keep a register or a log file. This procedure is prone to errors and inconsistencies. Therefore, this product helps to integrate the entire society management under one application. This ensures integrity, consistency and transparency.

Document Convention

The section 1 of the document contains the introduction to the Society Management System. It specifies the purpose and scope of the project. The product perspective and constraints are contained in the Section 2. Section 3 and Section 4 have brief details about the requirements and the features of the project respectively.

Intended Audience and Reading Suggestion

Now a days number of society get increases that why its need a system which manage the whole working of the society. This system fulfill all the requirements of society members. Goal of this system is to convert manual working of the system into computerized system. Thus it is a secure system for confidential, it minimize inconsistency.

References

We referred to an IEEE paper which was similar to our system. From this paper, we referred to the requirements and features section

Overall Description

Product Perspective

Our main perspective is to develop this system is to minimize tedious work of large society handled by one person. It helps people to manage work of society in convenient way because of computerized system all data are stored in one place which is help full form access without any problem.

Product Functions

Product contain following functions:-

- *It store information about society members.*
- *It store detail information about employee of society.*
- *calculate maintenance for member.*
- *Create notice, report (annual or monthly).*
- *Sent notification to members via sms and email.*

User Classes and Characteristics

The project is meant to offer a optimal data handling that is faster, easier and more convenient than manually storing and retrieving. Consequently, the application will have little or no learning curve, and the user interface will be as intuitive as possible. Thus, the technical expertise and computer experience should not be an issue. Instead, anticipated users can be defined by how they will use the product in a particular situation. This product can be used by users irrespective of their knowledge about technical work.

Operating Environment

The main component of the Society manager project is the software application, which will be limited to the Android operating system. The application is not resource or graphics-intensive, so there are no practical hardware constraints. The project will rely on several functionalities built into VB.net Application Programming Interface (API), so ensuring appropriate usage of the API will be a major concern. Beyond that, the application is a self-contained unit and will not rely on any other software components.

Design and Implementation Constraints

The primary design constraint is the computer platform. Since the application is designated for computer and laptop, the screen size and the resolution will be a major design consideration for small size device. Creating a user interface which is both effective and easily navigable will pose a difficult challenge. Other constraints such as memory and processing power are also worth considering.

User Documentation

The primary goal of Expenditure Supervisor is to facilitate the process of managing expenses. Consequently, the application will be designed to be as simple to use as possible. Nonetheless, users may still require some supplementary information about each component of the project. The application will contain two features that offer this: the Tutorial and the Help menu. The Help menu is a collection of topics covering each of the application's menus, features, etc. At any time, the user navigates to the Help menu and selects any of these topics to obtain more information. The Tutorial takes all of these topics and condenses them into a single, step-by-step demonstration that user can access immediately after installing the application.

Assumptions and Dependencies

The features of Society Manager are divided into two groups: core features and additional features. Core features are crucial to the basic functionality of the application. These features must all be implemented in order for the application to be useful. Optional features, however, are not crucial to the function of the application. They are usability improvements and convenience enhancements that may be added after the application has been developed. Thus, the implementation of these features is entirely dependent upon the time spent designing and implementing the core features. The final decision on whether or not to implement these features will be made during the later stages of the design phase.

External Interface Requirements

User Interfaces

The first and foremost window in this project is the log-in window. No access to any content will be provided until the user log-in first. For logging in the user is expected to provide his dedicated user id and the password. Once, the user logs in he is displayed with a home page that consists of navigations to various features of the system. The menu bar on the top should display these navigations and this bar is to be kept fixed on all the screens to ensure good flow for the user. Each link on the navigation bar links to a new page with dedicated use. The home page includes all the features like sending emails, complaints, gallery, upcoming events, maintenance and billing, etc. The basic and fundamental user interface should be as mentioned above. Any changes in the look and feel is anticipated if it doesn't hinder this basic structure.

Hardware Interfaces

This application needs a Windows PC. The device should have Visual Web developer and Visual Basic 2010 Express (VBE) installed in the system. It requires internet connection to avail some features like sending emails.

Software Interfaces

This software has a front-end developed in VB .NET and the back-end is built using MS-SQL. The user is expected to enter his details like user-id and password for logging into the system and if the entered details matches the ones stored in the database, the user is granted access to the software. The user can select from a wide range of features provided to him and for each feature he/she has to enter respective details. The user communicates with the software on a high amount. The user can send emails via the software and can also keep track of various other aspects like maintenance and billing, status board, notices, committee members and invoice statements. The menu bar displays the wing information, wing details, parking space allotment, member details, employee details like the watchman, sweeper, plumber, etc. Lastly, there is an option to log-out from the system and a second option to simply exit the system without logging off.

Communications Interfaces

The software ensures emailing, SMS-ing. Since incorporating the SMS feature would require to pay extra charges we simply added a link to a free SMS sending website. The user can add the phone number and the message and send the message. For sending the emails, one needs an internet connection and a browser support.

System Features

Maintenance and Billing

4.1.1 Description and Priority

The most important feature of our system is to calculate the bills for each and every resident of the society. The bill is supposed to be calculated using the prefixed data and assumptions.

4.1.2 Stimulus/Response Sequences

The most important feature of our system is to calculate the bills for each and every resident of the society. The bill is supposed to be calculated using the prefixed data and assumptions.

4.1.3 Functional Requirements

The successful completion of this feature requires exact details of the residents. For e.g. What is his room number, how much big his house is, are there parking spaces allocated to him, etc. Any past unpaid debts also need to be kept in track. If suppose there are any unpaid debts, the person needs to pay fine amount too. This feature would also keep a track on the number of times a person is not paying his/her dues on time. After a particular number of times, the authority needs to take an action against the person. For proper functioning of this feature one would have to keep track of all the past payments and dues and each transaction that takes place.

REQ-1: Predefined numbers for defining the billing

REQ-2: User details

REQ-3: Past debts of the residents

Emailing bills and other notices.

4.1.1 Description and Priority

After the successful calculation of the payments, the bills need to be forwarded to the residents. This feature takes care of the sharing of the bills to the respective person. Not only the bills, but monthly notices, meeting announcements and festivals invitation can be sent through this emailing system.

4.1.2 Stimulus/Response Sequences

After the successful calculation of the payments, the bills need to be forwarded to the residents. This feature takes care of the sharing of the bills to the respective person. Not only the bills, but monthly notices, meeting announcements and festivals invitation can be sent through this emailing system.

4.1.3 Functional Requirements

For emailing, we would need to have access to the internet. Then we would require the email addresses of the residents. The required message can be forwarded to multiple residents at the same time. The authorities can even send an SMS to the resident but as integrating this feature would require to pay extra charges. For the sake of still integrating the feature we added a link to a free SMS website.

REQ-1: User email-id

Storing Employee details and calculating their salaries

4.1.1 Description and Priority

A society would obviously need some helpers to ensure the smooth flow of the everyday activities. The various employees would include the watchman, sweepers, gardener, electrician, plumber, etc.

4.1.2 Stimulus/Response Sequences

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4.1.3 Functional Requirements

This feature needs to have a database of all the employee that work for the society. The number of hours they work and their shifts and also their salary per hour. The employee needs to mark his attendance before and after he/she leaves. This would help to track the number of hours he/she has worked. At the end of month, the total number of hours worked can be used to calculate the total salary of the employees.

REQ-1: Employee details(number of hours he/she works)

Other Nonfunctional Requirements

Safety Requirements

One should avoid ensure keeping daily record of the employees and to ensure integrity and consistency of the system, these requirements needs to be kept track of. If the system doesn't keep the track of employee working hours and other important aspects, it would result to loss of data and hence cause unnecessary harm.

Security Requirements

The database of the employees and the entire residents database needs to be stored in one place. Only a few responsible members of the society should be allowed to have the access to system. The treasurer, secretary and the president are examples of some of the allowed users of the system. It is also important that the credentials of the users need not be shared with any family members for the sake of security from any threats. Since, the database is the most important aspect of this system so the database can be secured with another authentication system.

Business Rules

The treasurer of the society needs to have access to all the billing and maintenance system. The President of the society will have access to every feature of the system. The secretary too has access to every aspect. Other than a handful of people must have access to the entire system.

Appendix A: Glossary

No jargons are used in the system that would not be understood by normal user.

Appendix B: Analysis Models

None explanatory diagram is yet made.

Appendix C: To Be Determined List

- <https://www.ijraset.com/files/serve.php?FID=4033>
- <http://www.ijcaonline.org/research/volume132/number1/gavhane-2015-ijca-907265.pdf>
- http://www.ijera.com/papers/Vol4_issue2/Version%201/CF4201547551.pdf

Use Case Diagram

