Old Age Home Organizer

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Abstract—With today's fast lifestyles and busy schedule, nuclear families are becoming popular. Thus, the elderly members of these families are often neglected. This has lead to the popularity of the concept of Community living for the aged. The elders reside at a centre, which is controlled by the MANAGER. The manager takes responsibility of the functioning of the centre which includes taking care of 'residents' at the centre along with managing the daily chores of the centre, which he accomplishes with the help of a number of staff members and volunteers Often the Manager is not an employee but a volunteer. In such cases especially, time is an important constraint. A system, which provides an easy and efficient manner of managing the working of an old age home in detail, will prove to be of great benefit. We have developed a P.C. based organizer used to monitor the various activities of an old age home. It is an effective and easy-to-use system which will enable the manager to keep an account of all the residents, their accounts, staff members, volunteers, the centre's logistic requirements etc. It is thus, a comprehensive 'Organizer' for Old Age Homes.

Keywords—Old Age Home Organizer, HelpAge India.

I. INTRODUCTION

A computer system with minimal configurations and java [2] run time environment (version 1.6) will suffice and only basic computer knowledge is required to work on this software. It has been developed after thorough research of various old age homes and has now been handed over to the Help Age India for use in the old age homes across the country. The working of the system has been described below by dividing the functioning of the system into different frameworks. This is the first page that opens when the manager turns on the system. This page is used to log into the system by entering the passkey in the field provided.

There are two entry layers for the accessing the system. The first layer gives you a full access to enter the system provided to the manager of the center. The second layer gives you the option to only view the system. Option to edit/delete the entries does not exist.

There are a couple of additional features provided on the login page itself:

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II. LOGIN PAGE

Fig. 1 Login page

- *Medical Aid/Doctors and Medical Info/Hospitals*

    Incase of an emergency, the manager can view medical details of nearest hospitals and doctors without logging onto the system. The Medical aid/doctors page gives an account of the staff and volunteer doctors available to serve the residents of the center. The Medical Info/Hospitals gives an account of the medical facilities at the disposal of the old age home [1].

- *Help*

    The Help function provides a list of frequently asked questions to aid the manager in using the software. This feature is provided on every page of the system. Incase of some other queries, the manager is can contact the developers using the Contact us feature.

- *Choose Skin*

    This feature is used by the manager to choose an appearance of his own preference for viewing the system. The skin will get updated when the manager the next time when he starts the system.

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III. HOME PAGE

The home page opens the following options:

- Residents
- Volunteers
- Medical Aid
- Schedule
- Records
- Miscellaneous

Fig. 2 Home Page

IV. RESIDENTS

This page is designed to manage the account of the elders residing at the centre. This page enables the manager to search for the residents on the basis of their name (first/last name), room number and ID number. This page gives the manager an option to add new entries, display the list of all the residents as well as the ones under the deceased category. There is also an option to filter the search from only amongst the deceased residents.

Fig. 3 Resident Home

Resident details page can be viewed after selecting a particular resident in the Search category.
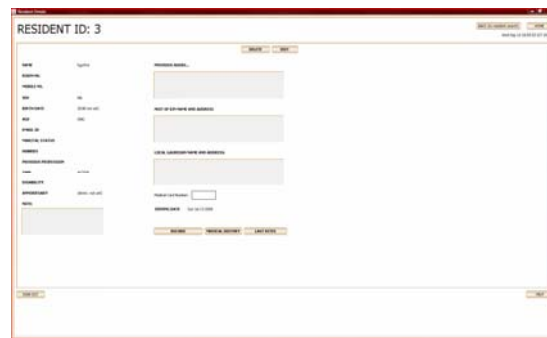

Fig. 4 Resident Details

The details available are:

- Name
- Room No
- Mobile No
- Sex
- Age
- Date of Birth
- Email Id
- Marital status
- Hobbies
- Previous Profession
- Type
- Disability
- Previous address
- Next of kin's name and address
- Local guardian's name and address
- Medical card details
- Note

An option to edit and delete medical records exists. In the unexpected case of death or if the resident decides to leave the old age home, the resident's database is made inactive by choosing the deceased option or otherwise. An inactive account cannot be edited or deleted. However, the account can be restored if the particular resident rejoins the centre. The *"Note"* option is use to store general information such as health problems, special requirements etc. of a particular resident. The joining /leaving date of a resident is also displayed.

There are 3 additional features on the resident's page:

Record:

It keeps a track of the payments made by the resident to their respective old age home for the services provided under various categories displayed in the screenshot. There is also an option to view the current month's rates and adding new records.

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Fig. 5 Resident Records

Fig. 6 New Records

The New Records can be added for a particular resident by selecting the 'Add New Records' button. The units consumed for a particular month for the various services can be entered by using this option.

Medical History:
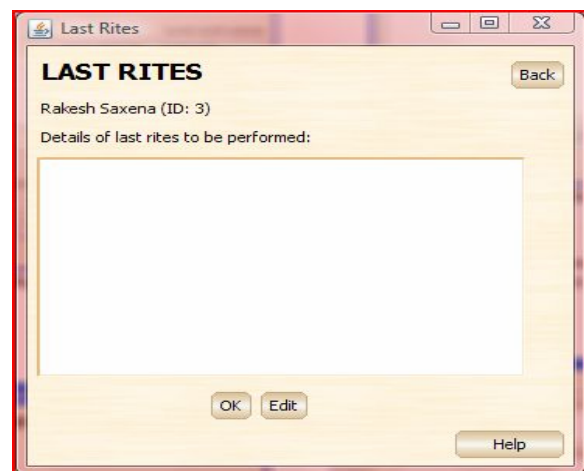It gives the monthly details of the health of the geriatrics residing at the centre. (Fig. 7)

Fig. 7 Medical history

It is used for entering/editing the Medical history of a resident. In the 'NOTE' field entries are appended and appear in chronological order with date of entry displayed in bold.

Last Rites:
This keeps an account of the last rites to be performed for the resident in the unfortunate event of death. These last rites can be updated by pressing the Edit button.

Fig. 8 Last Rites

- To register new residents the 'Add New Entries' button (Fig. 3) is used.

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Fig. 9 New Resident

- Previous Address may prove beneficial in case prior records are needed.
- Local Guardian's details can prove handy for reporting discovery of chronic ailments, casualty etc.
- Medical card details: enter ECHS/CGHS along with corresponding no.
- There is also an option to note their type under the following categories: Active, Assisted, and Dependent and their disability.
- Leaving date can also be mentioned wherever applicable and the joining date is set to the current date by default.

V. VOLUNTEERS

The Volunteer's Page gives an option to the manager to search for a specific volunteer according to his/her name/ID number. There is also an option to add new entries and display the entire list of volunteers for the centre.

Fig. 10 Volunteer Home

During the registration of new volunteers the following information is registered.

- Name
- Address
- Residence No
- Mobile No

- Sex
- Date Of Birth
- Age
- Profession
- Email ID
- Note

Fig. 11 New Volunteer

If the volunteer is a medical expert, certain professional details are noted in the medical experts option provided on the 'Volunteer Home' which can be accessed by pressing the 'Medical Experts' button (Fig. 12). His clinic/hospital's address is registered along with his days/time of availability and his specialization. He can, thus, be called in case of emergency or when medical aid/advice is required.
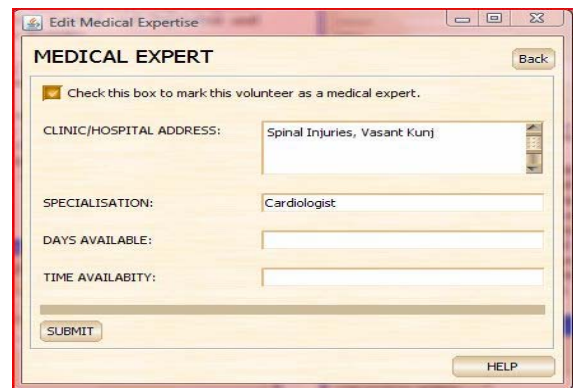

Fig. 12 Medical Expert

The following pop-up opens when the 'DONATIONS' button (Fig. 13) is selected. This is used to register financial aid in the form of cash/commodities that the volunteer wishes to donate

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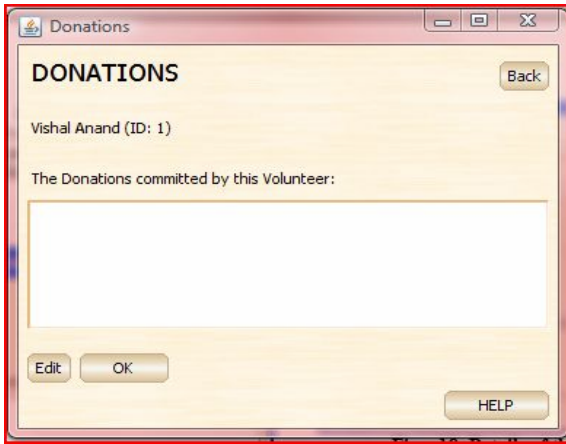Vol:2, No:8, 2008

Fig. 13 Donations

The following popup appears when the 'Time Availability' button (Fig. 14) is selected to register the time and day when the volunteer is available for help at the centre.
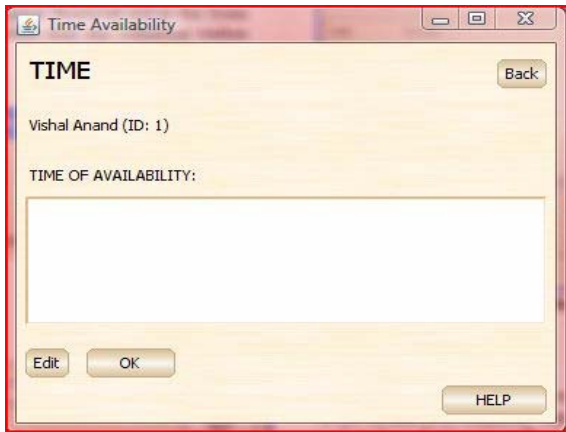

Fig. 14 Time of Availability

Fig. 15 Volunteer Details

The above page (Fig. 15) shows the front end of the details of a volunteer. The organizer can update the volunteers' profiles by using the Edit button. The option to delete the volunteer database is also provided.

VI. MEDICAL AID

A list of medical experts registered as volunteers along with day/time of availability and contact number is presented. This is of great benefit in case of an emergency. We have divided the section in two parts: Staff and volunteer doctors.

Fig. 16 Medical Aid

The manager can simply browse through this list and call for help. He can enter the expert's ID (for faster access) and get a detailed description of his background. Also the area's hospital and medical care centers are listed and can be contacted. Due to its application this page is visible to read-only mode as well.

VII. SCHEDULE

The schedule will function as a planner for the manager that will help him keep a track of daily events at the center. He can manage meetings, birthdays, mess account, reminders, working of the staff members etc [3].
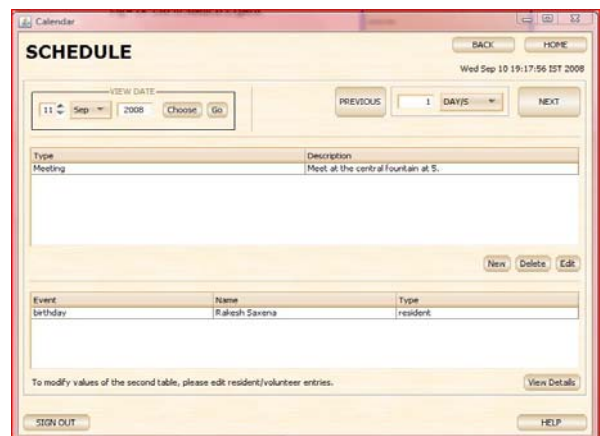

Fig. 17 Schedule

As shown in (Fig. 17), the various options are displayed. The residents' and volunteers' birthdays are displayed automatically. The tasks (which include a separate birthday option) can be edited and dates can be directly selected. By default, the present date is displayed. Traversal through any number of days/months/years is also possible. There is also an

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option to go to a particular date to view/edit the schedule accordingly. In order to edit the data we can select the type and then press the edit button that would lead us to the following page.
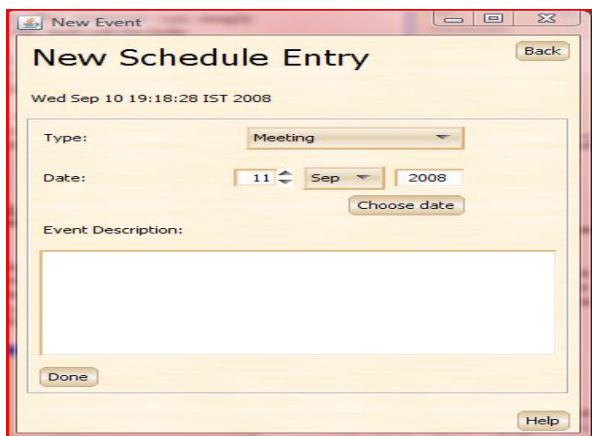

Fig. 18 New Schedule Entry

VIII. RECORDS DATABASE

Fig. 19 Records Database

The Records database keeps a track of the monthly consumption of the services provided by the residents at their respective old age homes. The list of services is tabulated with the units consumed in a particular month being displayed for the current year. The records database provides a set of options to the manager to manage the records:

Edit Threshold Year:

Once the threshold year is set to a particular value, entries before the threshold year cannot be changed. This is basically to provide a manner to control the dates before which no data can be tampered and only read-only mode works. So say for example a date should be set for when the old age home was set up or when a manager leaves or any other situation where previous data should not be editable.
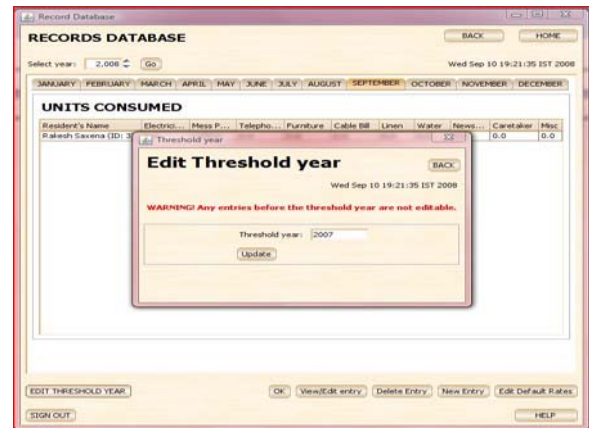

Fig. 20 Edit Threshold year

Fig. 21 Edit Default Rates

Edit Default Rates:

This option enables the manager to fix user defined rates for a particular month. This system does not allow future values of the dates to be edited. However, in case the past values for rates are entered for the first time, rates will be updated for all the subsequent months for which a new set of rates has not been entered.

New Records:

This gives an option to the manager to enter the units consumed by a resident in the records database. However, it is advisable to update records in the residents' page since it is required to know the resident id while adding an entry in the records database.

View/Edit Entry and Delete Entry:

This option can be used to view, edit and delete selected resident records from the records database. The option of editing/deleting a deceased or inactive resident does not exist to maintain authenticity of their records.

IX. MISCELLANEOUS

The "Miscellaneous" page keeps a track of all the additional requirements for the smooth functioning of the centre.

There are three main tabs in the 'Others' page:

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- Staff
- Assets
- Notes

STAFF:

The Staff is employed by the manager to perform various tasks to help in the functioning of the centre. It can include all sorts of workers required at the centre like cleaners, nurses, cooks, electricians etc. The page gives tabulated description of the task performed by each member of the staff, sorted task-wise along with his personal details and salary. There is also an option to add a new worker to the staff.
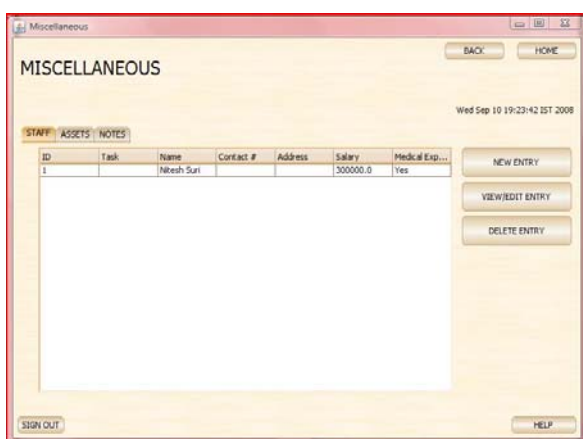

Fig. 22 Miscellaneous - Staff

ASSETS:

Fig. 23 Miscellaneous- Assets

It is further divided into sub-tabs on the basis of different locations:

1. Rooms
2. Mess
3. Others

The available furniture etc for different places in the centre is shown with the help of a table depicting the item with its corresponding quantity. Addition of any item can also be done at the same page for any location in the centre.
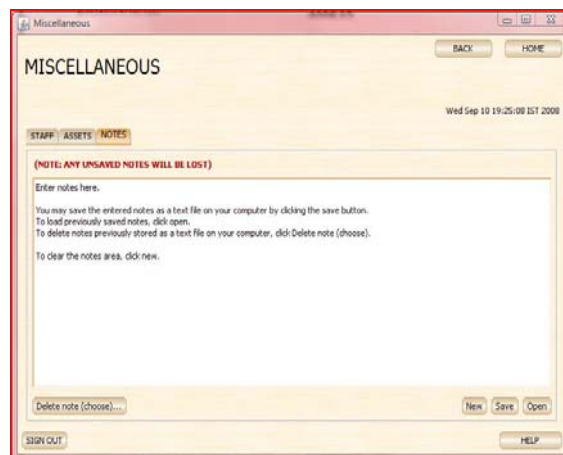
NOTES:

Fig. 24 Miscellaneous- Notes

The 'Notes' page will function as a personal database for the manager, which he may use to keep a record any information that does not fall into the criteria we have provided. It is saved in the memory of the user's computer depending on the path provided by her/him

BENEFITS OF THE PROPOSED SYSTEM

- A single home for all elders promotes healthy interaction.
- The technology needed for this software is very basic with just a computer required at the manager's end with basic Java 2 Runtime Environment.
- Provides faster access and easy control for the manager.
- Enables out sourcing.
- In case of emergency the concerned medical expert can be contacted at the earliest.
- The option of reminder serves very well, which cannot be accomplished by an 'on paper' organiser.
- Convenient to keep all the data at one place
- Searching is done by the computer and thus proves more convenient as compared to procedure maintaining and searching through a number of registers.
- Often the manager maybe a volunteer working part time. This manager greatly benefits from the efficiency of this organizer.

FUTURE PLANS

- The system can be extended to enable communication with geriatrics living in the vicinity of the centre via the Internet. The geriatric may be financially well off and live in his home but effective communication with their peers will be of great help. Besides this their health and food supply can be monitored.

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- Yoga can prove to be huge benefit for the residents of the centre. Hence volunteers who are trained in yoga will be encouraged to hold classes. At centres where television is available we can provide yoga clips. These may be used in the absence of a yoga trainer.

TECHNICAL SPECIFICATIONS

- This is a desktop-based program.
- This software uses java-programming language (JDK version 1.6 update 1).
- The IDE used is NetBeans (version 5.5.1).
- The software uses a single interactive interface (i.e. the Organizer's interface) that is controlled by a manager of the centre.

TECHNICAL REQUIREMENTS

- A single computer is required at the manager's end with basic configurations.
- Java Runtime Environment (Version 1.6) is necessary to run the system that is free software, which can be easily downloaded from the Sun site.

IX. CONCLUSION

Our system is a logistical tool based on simple computer technology for the management of the elders residing at the centre along with volunteers, available staff and various other aspects of an Elderly Care centre [4]. The simplicity of the software, with minimal technical requirements makes its practical implementation easy and economical. The efficiency achieved through this system via quick searches, sorted lists etc. makes it highly appealing especially in cases when managers themselves are volunteers and time is an important constraint.

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