

# An Online Unused Medicine Donation System for NGOs

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## Abstract:

In India, there is a large number of peoples who comes below the poverty line. They can not even afford basic medicines. Because India is an underdeveloped country, its health conditions are gradually improving, but still, there is a large section in India that is unable to buy even basic medicines, while there are many leftover medicines that are available after the patient is cured, which are of no use, people throw them in the garbage, whereas these medicines can be used to help the poor people so that they can be cured. That's why we are making a website on which anyone can donate the remaining medicines to NGOs after the patient's recovery, further the NGO will distribute these medicines to such people who are struggling with the disease but due to poverty they are unable to buy medicines. Also, this website will have a complete record of medicines like name, manufacturing date, expiry date, etc.

**Keywords** — NGOs, Health system, Medicine Donation, Unused Medicines.

## I. INTRODUCTION

In today's era, we can see the growing format of the internet we can use the internet to solve health-related problems, people can help others very quickly and easily with the use of the internet. The main objective of this medicine donation website is to create a platform for people who cannot buy medicine. Users can register by entering their basic details and login into this website anytime in the future using the same login credentials.

After successful registration, medicines can be donated by entering the correct details. If any user donates wrong and expired medicine, then the admin will have the power to block that user temporarily and permanently. This website will have a complete account of donated medicines and existing medicines. Any user can donate any medicine at any time.

The project is being set up to donate medicines that are left over after a patient recovers. But that medicine should be unused and not expired.

By donating the medicines left over after the patient is cured, we can save the lives of people who cannot afford this medicine. By doing this the medicine will also be used properly and there will be no harm to the donor.

As we know that India is a developing country in which people of every class live, and there are also a very large number of people whose expenses are met by daily earnings. Let's see some facts about it-

[1] According to the International Comparison Program of PPPs held in the year 2019, 80 million people in India live their life below the poverty line.

[2] As we know that India is a very large country in terms of population. There are around 138 crore people living in India. The population density of

India is increasing day by day which according to the 2011 survey was 382 per square kilometres which was 17.72% higher in the last 10 years.

[3] According to a report by the World Bank and the World Health Organization, half the world's population lacks access to health facilities. Due to the rising cost of medicines, thousands of people are pushing themselves into poverty.

Due to these circumstances, the poor peoples are not able to buy medicines and they become helpless and learns to live with the disease. Because of this, their family has to face very serious consequences, that's why we are going to make such a platform so that poor people who are unable to buy medicines, we can help them by giving them donated medicine on this platform.

## **II. LITERATURE REVIEW**

This section of the literature introduces some facts based on speculative research by many working writers in this way.

[4] Rural Healthcare Foundation, It was established by Late Arun Tevatia ji, the goal of this foundation is to provide health facilities to the poor and backward people living in the village. And they are doing their work very well to a large extent. At present RHCF is working in Kolkata and it has a good network of around 10 clinics. It has provided health facilities to about 10 lakh people since its inception.

RACF is rated as a Special Consultant with FCOSOC in the United Nations and a case study has also been published by Harvard Business School on RHCF.

[5] LEPRO Society, It is an NGO that promotes good health services, it supports the National Health Program, which especially helps in preventing diseases like Leprosy, Filariasis and Lymphatic. They have worked with the Government of India in an anti-malarial program. They have also done a commendable job in the prevention and treatment of eye problems.

LEPRO research Blue Peter has been recognized by the Government of India for the research activities they are doing.

LEPRO basically focuses on providing health facilities to poor children and women belonging to very low rungs and saving them from deadly diseases and bringing good changes in their lives.

LEPRO was established in 1989 in Hyderabad city of Telangana with the help of LEPRO UK. Initially, it focused on leprosy. Now it is also giving its help in about 10 other states of India.

[6] Sanjivani Health & Relief Committee, This Committee was established on 25 November 2005 in Ahmedabad, it is a not-for-profit organization that provides health-related assistance to the poor people living in the villages around Ahmedabad. Provides health-related facilities by going home.

When it started in 2005, it was a small group of only 3 doctors and 8 workers but now it has become a big family of more than 75 doctors and more than 150 volunteers.

Giving its facilities in the surrounding areas of Ahmedabad, Gandhinagar, and Kheda in Gujarat. Apart from providing health facilities, these institutions are also giving knowledge of free education to poor children, in which 180 students study. In the year 2010, they were awarded by Ahmedabad Medical Association for their best services towards social welfare.

[7] India Health Action Trust (IHAT), This trust was legally registered in the year 2003, since its inception, this organization has been continuously helping people of every class and every religion related to health. Originally this organization provided technical training and support related to management in the states of Rajasthan and Karnataka, India. For many years this trust is helping AIDS control societies in many states of India like Goa, Bihar, Andhra Pradesh, Tamil Nadu, Rajasthan and Maharashtra. The senior technical advisor of this institution was awarded the Honoris Causa Award by the University of Manitoba, for his exceptional contribution to society at the University's 21st Convocation. The journey of IHAT is in 2007 Began work in HIV prevention and care together with the Government of Karnataka, he worked for the AIDS

Prevention Society and helped the Government of Karnataka in combating AIDS. A project was started in Rajasthan in collaboration with both India and Canada for the prevention of HIV (ICHAP).

In 2013, Reproductive, Maternal, Newborn and Child Health work was launched in Uttar Pradesh as the lead unit of technical support in the Government of Uttar Pradesh.

In 2014, expanded HIV prevention and care work in Delhi as the Delhi State AIDS Control Society's technical support unit. Focused support of Uttar Pradesh government for family planning and child health through Uttar Pradesh technical support team.

In 2015 the Uttar Pradesh Government Food Assistance Program was launched as part of the Uttar Pradesh Technical Assistance Department.

In 2016, the Uttar Pradesh technical support team started providing assistance to the Uttar Pradesh government to strengthen the health system.

The Madhya Pradesh Government Project in 2019 was launched to address important public health issues in areas such as maternal health, strengthening health programs, and HIV/AIDS and tuberculosis

### **III. PROPOSED SYSTEM**

- Considering the confusion in the existing computer system for all work is suggested after the initial analysis.
- The proposed program is achieved by three organizations namely, Admin, NGO and member.
- Administrator needs to log in with their official login details first in order to access the website.
- After successful login, the administrator can access all modules and handle each task accurately.
- Admin will enter and manage members by removing and blocking users who provide inappropriate or expired medications.
- Admin also has the authority to authorize appointments requested by the NGO. Admin has a monthly report of donated medicines.
- Registration can be done by the user using the required information and can be logged using login details. They can apply for an

appointment which will also be approved and arranged by the administrator.

- The NGO manages the stock that helps keep a record of available medicine.
- Password can be changed by NGOs for security reasons. Members can register and log in using the information.
- They can donate the drug by providing drug details and proposing applications that will be approved by the regulator, and they will arrange a donation date.
- All previous activities may be reviewed by Members.

### **IV. MODULES**

The program consists of 3 main modules as follows:

#### **1. Admin**

- Login: The admin can log in using details.
- Manage Members: The administrator analyses and removes or disqualifies a member from donating unwanted drugs that exceed their expiry date.
- Manage Approvals: The appointment of NGOs is regulated by approving the nomination application.
- Reporting: Monthly report of members who donate medicine.

#### **2. NGO**

- Registration: For details, NGOs need to register.
- Login: With the help of NGO login details, they can log in.
- Scheduled Appointments (Only Approved Appointments): The NGO may apply for re-approval and re-appointment.
- Stock Management: Drug stock provided will be included in the stock management list.
- Change Password: NGO can change its password in the event of security.

#### **3. Member**

- Registration: A member can register and receive details.

- Login: With the help of the credentials member can log in.
- Donate Medicines: A member can donate medicine by providing its details.
- View Transactions: A member can view previous drug transactions.
- Change Password: A member can change his or her password in case if the password is unprotected.

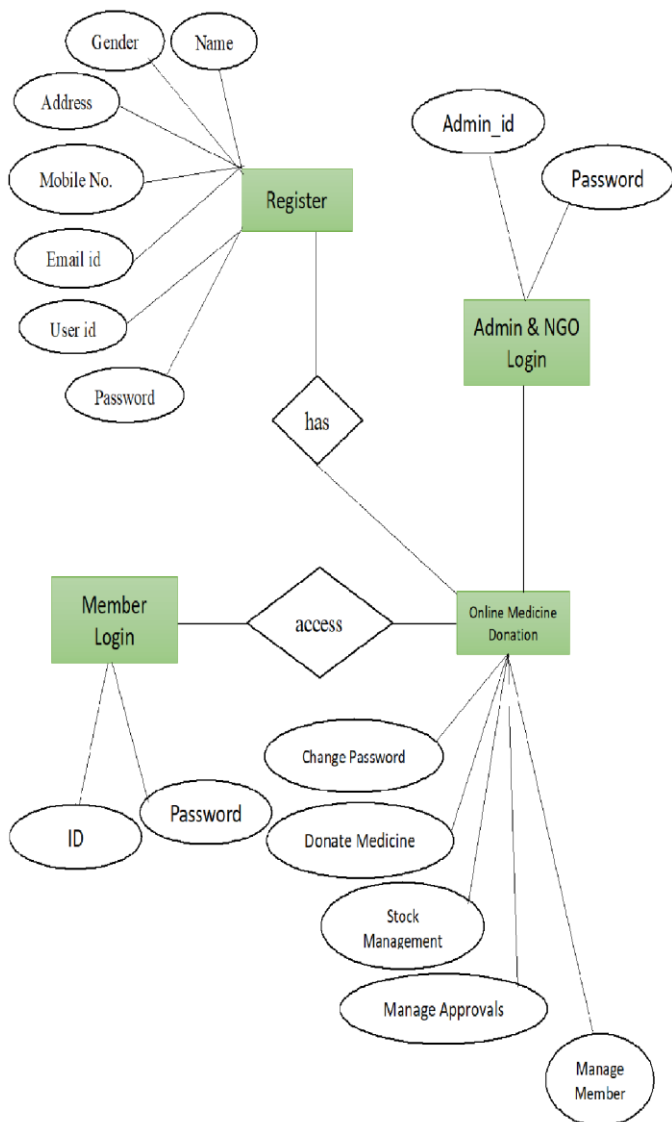


Fig. 1 Website E-R Diagram

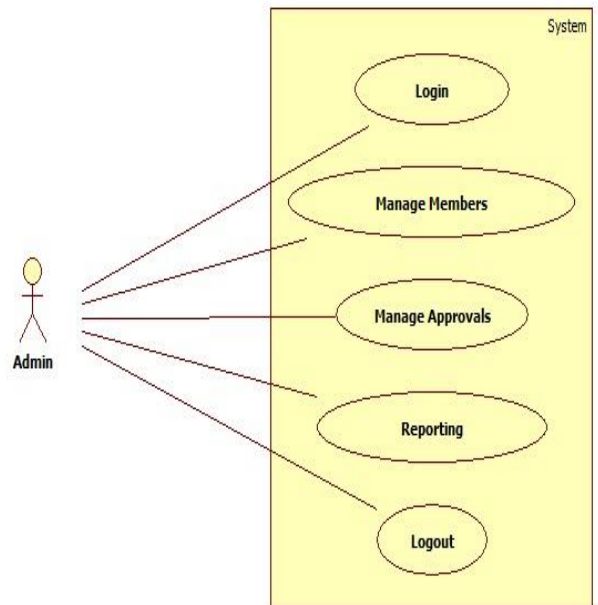


Fig. 2 Use Case Diagram of Admin

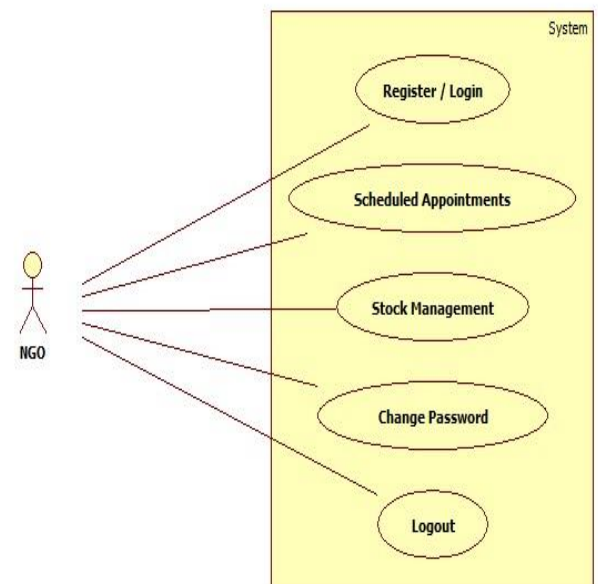


Fig. 3 Use Case Diagram of NGO

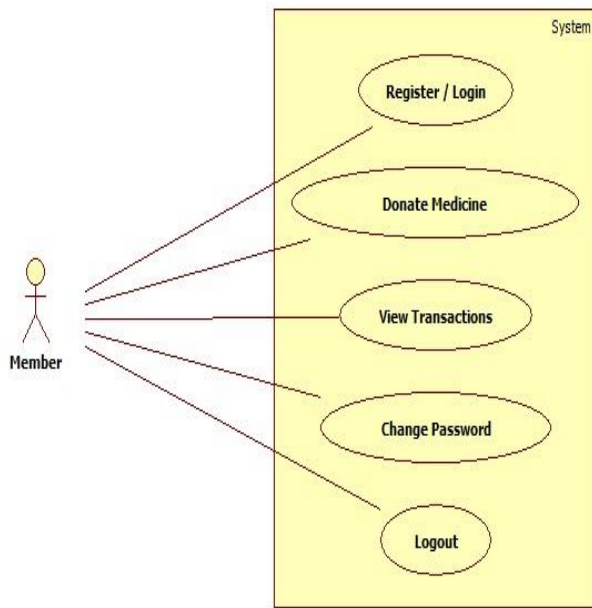


Fig 4. Use Case Diagram of Member

## V. TESTING

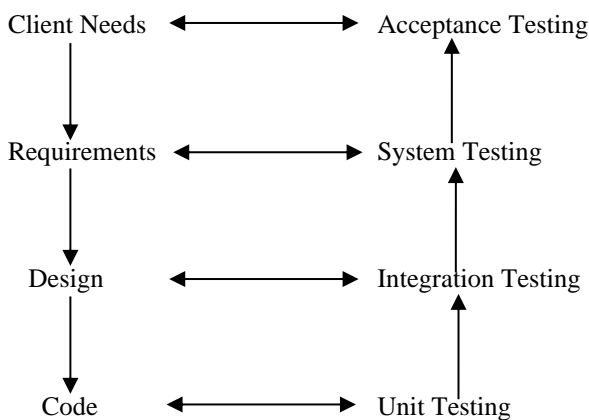
As we know that testing is very important to make any project successful, if every part of the website is working well and after giving input it is giving us the desired output then we can say that our website will work properly.

We know that many errors can come during testing, and we should correct all those errors before implementing the website.

The code of this entire website is written using asp.net with C#, in the website we have used C# in the frontend for the user interface. If we want to do good testing then we should do it from the point of view of the user. We have thoroughly tested everything on this website

- **Testing Standards**

To identify an error in the different categories, we have some testing parameters so that we can find out where the error is. The basic test levels are:



Before doing user acceptance testing of the website, we have also done some more tests on the website, these tests are as follows.

### A. Unit Testing

Unit Testing As the name suggests, in this testing, every unit of every module is thoroughly tested. Unit testing is always done during the programming phase, in this testing, we tested every module well and every module of this website passed this testing well.

### B. Integration Testing

Integration testing is done by combining unit testing modules together. This testing is a good test for building the structure of the website as well as it removes any errors that occur with the testing interface. It is difficult to correct it because the program here becomes very huge and expensive. Similarly, errors found in testing are corrected in the steps of text testing.

### C. System testing

In this testing, we tested the system during implementation, in this, we are satisfied with whether the entire system is completely ready to perform the live operation or not. By doing this testing, we came to know whether all the parts of the system are working properly or not. In which we got everything right, due to which we were able to implement the website well.

### D. Validation Testing

During validation testing, we checked whether the website for which we have created this website is doing the job well or not, in this, we found that the website is working well and every function of the website is also working well. After verification testing, one of two possible scenarios.

One is a function or functional factor that ensures clarity and acceptance and the other deviation from the system is identified and a deficiency list is created. The proposed system was tested using validation tests and was found to be effective.

### E. Output Testing

We performed the output testing after validation testing as we know that if the website does not give the required output, it will not be of any use. That's why we did output testing. In output testing, we test whether the output is coming as we thought or not. In this we did two types of output testing – first, the output user interface that we thought is coming in the output user interface or not, and secondly whether the operations we are performing are giving the output correctly or not. In which some mistakes occurred, we rectified those mistakes and the output testing of the website became successful.

### **A. User Acceptance testing**

System user acceptance is an important factor in the success of any program. The research program assesses user acceptance by staying in touch with potential users during the development process and making changes where necessary.

#### **1. Test Cases**

**Registration:** To log in, the user will have to first register on the website, in which the user will have to fill in some details, which should be within the criteria. For example, special characters cannot be used in usernames.

**Login:** As we know that Login ID and Password are very important fields to log in to any website. If the user enters the wrong login ID and password, the website will show an error message. *Validation Standards*

- In each form, no empty space should be left empty.
- All the number fields must not pursue non-numeric values. Parallely, text fields also can not contain capital letters.
- All keystrokes must be set impulsively to stave off the user from accessing any of the existing keys.
- Use the error management for Save, Edit, Delete and other important functions.
- Whenever a user removes it or puts it in a text box, the data should be verified and if it is not valid, the focus should be re-sent to the text box with the appropriate message.

#### **2. Features**

##### **A. Load Rate:**

As the system will only be available for administrator logs uploaded to the server it will be limited to administrator access time.

##### **B. Easy Access:**

Records can be easily accessed and maintained along with other information respectively.

##### **C. Easy to use:**

The website will provide an easy-to-use interface for all users.

##### **D. Effective and reliable:**

Maintaining all security and server on an accessible server depending on the need of the user without any repair costs will work better compared to storing all customer data in a spreadsheet or literally in record books.

##### **E. Easy fix:**

Online Medicine Donation is designed as an easy way. So maintenance is also easy.

## **VI. CONCLUSION**

It is very sad when it comes to knowing that we are living in the second decade of the 21st century and even today there is such a huge section in the country who cannot even buy medicines for their diseases. We see that most of the NGOs are doing a very good job of treating the people free of cost but they are not able to arrange medicines for them. This website will work to provide free medicines to such poor, backward and needy people. Medicines that used to get spoiled and thrown away, through this website, we can use such medicines in a good direction. In this paper, information has been given about the design, development and testing of the website, which can be useful for improving the health service.

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