

Blood Donation Portal using Twitter

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Abstract— Blood is the most precious gift that anyone can give to another person the gift of life. Blood Donation is definitely a noble act. Many clinics & hospitals constantly require blood for several purposes. More than 38 thousand blood donations are needed every day! India faces a shortage of 3 million units of blood currently. Many patients die due to lack of blood, the reason is common people can't get proper information of blood donation notifications.

Key words: Blood Donation, Twitter

I. INTRODUCTION

The project entitled BLOOD DONATION MANAGEMENT is a pilot project for new Blood bank to be start soon in the city. A blood donation occurs when a person voluntarily has blood drawn and used for transfusions and/or made into biopharmaceutical medications by a process called fractionation (separation of whole-blood components). Donation may be of whole blood, or of specific components directly (the latter called apheresis). Blood banks often participate in the collection process as well as the procedures that follow it.

II. EXISTING IDEA

In existing system, not all users can get access to the information because of the low working of the application or is not able to access any site. Sometimes the information is not updated or available for a particular place. Existing system the security is less and latest updates and uploads are not so frequent.

III. PROPOSED IDEA

Our idea is to create web portal and interactive webpage using Django where blood donor can register them. Patients can upload required blood information via 2 methods, website form and twitter! Patients can upload blood details which is required on our website. If any person tweet regarding blood requirements. Tweet should contain Person name, contact details, city name, and blood group name. Our machine will read that tweet, analyze that tweet, and search for city name. If any city found in that tweet, then server will send SMS to blood donors of the same city.

Interested blood donor may contact the patient and give blood (life) to him/her. Patients can send details through twitter, website. It's not required to have internet connection on donor side.

IV. TECHNICAL OVERVIEW:

A. Blood Donor Side:

1) Blood Donor will register themselves on portal through Website with data:

- 1) Name
- 2) Blood Group
- 3) Mobile Number

- 4) Email Address
- 5) City

B. Blood Receiver side:

There are two ways for requesting blood.

1) Through Twitter:



Fig. 1.1: Snapshot of tweet.

2) Through Website

Relative/Friend/Doctor will send blood data via website with the data:

- 1) Name
- 2) Blood Group
- 3) Hospital name
- 4) Mobile Number
- 5) Email Address
- 6) City

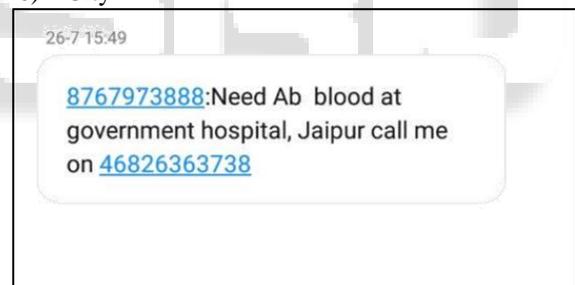


Fig. 1.2: Sample of SMS received by Blood Donor.

V. PROJECT FLOW

Portal is consisting of 3 stages as shown in fig 3.

- 1) Blood receiver will tweet the Blood requirements.
- 2) Our Portal will extract the tweet and find the City name.
- 3) SMS will be sent to all the citizens of that particular city.

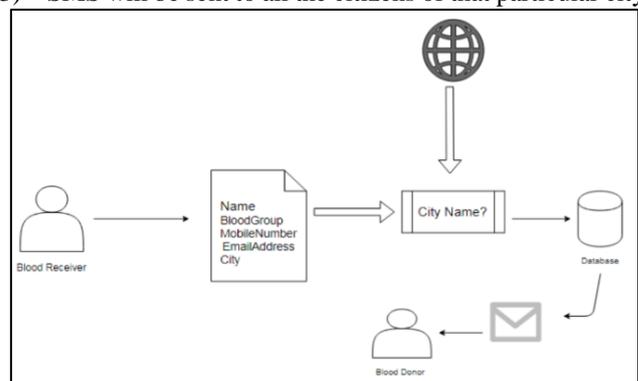


Fig. 3: Flow Diagram

VI. TECHNOLOGY USED

A. Developer Side:

1) Language:

- Python (Django)
- HTML/CSS /JavaScript.

2) Software Requirements:

- Interactive Development Environment (IDE) for Python (Recommended Spyder)
- Database (MySQL)

3) Hardware Requirements:

- Computer System with any OS

B. User Side:

1) Blood receive side:

- Internet connectivity
- Browser/Twitter

2) Blood Donor side:

- Only Cell phone with Active Sim Card! (Internet Connectivity not Required)

C. Why Django?

Django is a web development framework that assists in building and maintaining quality web applications. Django helps eliminate repetitive tasks making the development process an easy and time saving experience. This tutorial gives a complete understanding of Django.

Twitter API: The API class provides access to the entire twitter RESTful API methods. Each method can accept various parameters and return responses.

VII. ADVANTAGES

- 1) One of the best ways for communicating with the donors as well as receivers.
- 2) It saves the energy of the person for searching the blood group needed.

VIII. REQUIREMENT ANALYSIS

A. Feasibility Study:

The feasibility study plays a major role in the analysis of the system. The very decision of the system analyst, to design a particular system depends whether the system is feasible or not. Hence, the feasibility study forms the very basic of the system.

The feasibility study can be categorized into:

1) Technical Feasibility

It has been determined that the technology required for the planned system is accessible which this technology may be integrated into the appliance. Technical analysis has conjointly evaluated the present system to seek out that it can't be upgraded keep with the user's wants. Hence, we'd like to make a completely new system that caters to the particular wants of the user. The tip user may be equipped with the pre-mentioned hardware and code necessities.

2) Operational Feasibility

There are two aspects of operational feasibility for the system. One aspect is that of technical performance and other is of acceptance. It has been determined that the system can provide correct and timely data required for the end user

needs. Also, it has been determined that the system will be accepted by both users with and without technical knowledge.

3) Economic Feasibility

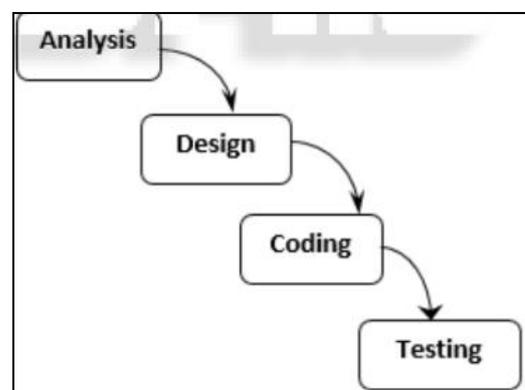
The economic practicableness of the system is principally involved with its money aspects. It determines whether or not the project is economically possible. As the hardware and computer code are already out there simply within the market, no more investment is to be created therein direction, the sole price concerned is that of implementing the system. The side system is made in jdk1.5.0 that is freely out there. The backend is built in MS SQL server that the is made out there with straightforward efforts and lower price. Also, since the appliance works on inferior phones it's not necessary to pay lots of cash in getting a phone. It was decided that the project was technically feasible because of the following:

- Necessary technology exists to do what is suggested.
- The system would be expandable if so decided.
- The system can be integrated with other networking tools and output of the system can be provided to other tools for high end analysis.
- This system is technically more secure.
- Software Development Model Used:
- Software method model deals with the model that we tend to area unit aiming to use for the event of the project.

There are a unit several software system method models offered however whereas selecting must always select it consistent with the project size that's whether or not its trade scale project

- Huge scale project or medium scale project.
- Accordingly, the model that we elect ought to be appropriate for the project because the software
- system Process model changes the price of the project additionally changes as a result of the steps
- Software method model varies.
- This software system is built mistreatment the falls mode. This model suggests work cascading from step to step sort of a series of waterfalls. It consists of the subsequent steps within the following manner.

IX. WATERFALL MODEL



- 1) Analysis Phase: To attack a problem by breaking it into sub-problems. The objective of analysis is to determine exactly what must be done to solve the problem. Typically, the system's logical elements (its boundaries, processes, and data) are defined during analysis.

- 2) Design Phase: The objective of design is to determine how the problem will be solved. During design the analyst's focus shifts from the logical to the physical. Data elements are grouped to form physical data structures, screens, reports, files and databases.
- 3) Coding Phase: The system is created during this phase. Programs are coded, debugged, documented, and tested. New hardware is selected and ordered. Procedures are written and tested. End-user documentation is prepared.
- 4) Databases and files are initialized. Users are trained.
- 5) Testing Phase: Once the system is developed, it is tested to ensure that it does what it was designed to do. After the system passes its final test and any remaining problems are corrected, the system is implemented and released to the user.

X. CONCLUSION

The blood you donate gives someone another chance at life. One day that someone may be a close relative, a friend, a loved one or even you. Being a human, we must help other humans and tell other humans for the humanity. We must make a loud message for the whole world that "Humanity still exists in us! And our Project will help you for the same!

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