

Location Based Smart Blood Donor System

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ABSTRACT:

The status of modern technology grows very fast in every field. Introduction of the computers in each field has made the process easier, faster and smoother. So the computerization in the field of blood bank administration should be implemented. Keeping this in mind, specialized software has been developed which is a friendly assistant, which is a friendly assistant to the concerns to maintain the details about the new donors and already existing donors for the future reference. The Smart blood donor app is a android mobile based project. This project acts as an important role in saving life of human beings and which is also its main aim. The project Android Blood Bank system is developed so that users can view the information about registered blood donors such as name, address, and other such personal information along with their details of blood group and other medical information of donor. The project also has a login page where in the user is required to register and only then can view the availability of blood and may also register to donate blood if he/she wishes to. And also this project mainly used in emergency situations, through mobile user can get whole information regarding blood donars. Person who need to donate blood may register in our mobile app as he can modify their details by giving their login user name and password. The person who need blood donor then they can search and find blood donors by using our application. User can get brief details about their contact details including their location. The user can make a call directly by using our application. The main aim of developing this application is to reduce the time to a great extent that is spent in searching for the right donor and the availability of blood required. Thus this application provides the required information in no time and also helps in quicker decision making.

I. INTRODUCTION:

Blood bank is a place where blood bag that is collected from blood donation events is stored in one place. The term "blood bank" refers to a division of a hospital laboratory where the storage of blood product occurs and where proper testing is performed to reduce the risk of transfusion related events. It processes blood that will be supplied to the patients in according to their needs. Before the blood is supplied to the patients, the blood will undergo several tests to ensure that the blood receiver is not infected by serious diseases. Every management organize blood donation event which is one of the way they can increase the blood stock. After the blood donation events, the blood bags that they obtained will undergo tests.

All of the blood received at the blood donation events must be managed thoroughly and systematically to avoid patient who need the blood infected by any viruses or diseases. Blood Donor System is a web based system that can assists the information of blood donors during its handling in the blood bank. With this system, the user of this system can key in the result of blood test that has been conducted to each of the blood donor received by the blood bank. This developed application dynamic search the blood donor details that will help to search the needed information in the emergency case. This application will have two main module admin and the user. The admin will manage all the donor information, client information, current blood donor details and other needed information. This proposed system overcome the existing system disadvantages where the user to know about the donor information who is nearby to provide emergency blood.

1.2 EXISTING SYSTEM:

In the existing system all the work are done manually, which is a time consuming process. This may cause great deal of mistakes. It also

requires more manpower to maintain all the required files. The existing system cannot provide currently needed information that will ensure present donor system in the case of emergency. This existing system need the manual approach to search the emergency case.

DISADVANTAGES OF EXISTING SYSTEM:

- Everything is manual, so it is very difficult to remain the details.
- It's also very difficult to find the particular details.
- Long time process
- It takes more time to prepare the various events within the short time.

1.3 PROPOSED SYSTEM:

The proposed system is designed to eliminate all the drawbacks of the existing system and to provide a permanent solution to the problem. The proposed system will bring all the blood donor information into one web application. This system provide all the necessary details about the donor details that includes the donor details, current available donor details, client details, and the location details. These details are provided dynamically by the admin where the user can view the needed details. The information are entered by the admin that can be updated, modified and also can be deleted. This will display the donor name, address, phone number and the nearby location. This system will work efficiently in the case of emergency.

ADVANTAGES OF PROPOSED SYSTEM:

- This is reliable, flexible. So it is Easy to store and retrieve the huge amount of data.
- Any time you have to view a particular status.
- Takes less time to do the process.
- All information will be accessed at any cost of time.

II. FEASIBILITY STUDY

Depending on the results of the initial investigation the survey is now expanded to a more detailed feasibility study. "FEASIBILITY STUDY" is a test of system proposal according to its workability, impact of the organization, ability to meet needs and effective use of the resources. It focuses on these major questions:

- What are the user's demonstrable needs and how does a candidate system meet them?
- What resources are available for given candidate system?

- What are the likely impacts of the candidate system on the organization?
- Whether it is worth to solve the problem?

During feasibility analysis for this project, following primary areas of interest are to be considered. Investigation and generating ideas about a new system does this.

2.1 Technical feasibility

A study of resource availability that may affect the ability to achieve an acceptable system. This evaluation determines whether the technology needed for the proposed system is available or not.

- Can the work for the project be done with current equipment existing software technology & available personal?
- Can the system be upgraded if developed?
- If new technology is needed then what can be developed?

2.2 Economical feasibility

Economic justification is generally the "Bottom Line" consideration for most systems. Economic justification includes a broad range of concerns that includes cost benefit analysis. In this we weight the cost and the benefits associated with the candidate system and if it suits the basic purpose of the organization i.e. profit making, the project is making to the analysis and design phase. The financial and the economic questions during the preliminary investigation are verified to estimate the following:

- The cost to conduct a full system investigation.
- The cost of hardware and software for the class of application being considered.
- The benefits in the form of reduced cost.
- The proposed system will give the minute information, as a result the performance is improved which in turn may be expected to provide increased profits.
- This feasibility checks whether the system can be developed with the available funds. The Hospital Management System does not require enormous amount of money to be developed. This can be done economically if planned judiciously, so it is economically feasible. The cost of project depends upon the number of man hours required.

2.3 Operational Feasibility

It is mainly related to human organizations and political aspects. The points to be considered are:

- What changes will be brought with the system?
- What organization structures are disturbed?
- What new skills will be required? Do the existing staff members have these skills? If not, can they be trained in due course of time?

The system is operationally feasible as it very easy for the End users to operate it. It only needs basic information about Windows platform.

2.4 Schedule feasibility

Time evaluation is the most important consideration in the development of project. The time schedule required for the developed of this project is very important since more development time effect machine time, cost and cause delay in the development of other systems. A reliable Hospital Management System can be developed in the considerable amount of time.

III. SYSTEM REQUIREMENT

3.1 HARDWARE REQUIREMENTS

System: Pentium IV 2.4 GHz.
Hard Disk: 250 GB.
Monitor: 15 VGA Colour.
Mouse: Logitech.
RAM : 2GB RAM.

3.2 SOFTWARE REQUIREMENTS

Operating system: Windows 7
Front End : ANDROID
Back End : SPLLITE
CODING : JAVA

IV. SYSTEM DESIGN:

Admin

Donor Details

The donor details allow the donor to enter their identities with respective address and associative contact details This will help to update, modify and to delete the donor details. By this the data can be clarified by the admin and can also handle efficiently. The authenticated admin will only do all these purpose.

Blood Bank

This module allows the administrator to maintain the blood bank details with corresponding address, and necessary contact details. The authenticated admin will only do all these purpose. The needed details are managed by the admin that will cross check the data of the blood bank details. This can also modify, update and deletion can be done.

Search Blood

This module is designed to search the needed blood for the client that will give the relevant details about the search items. This module will help for the quick search of the blood. The admin will analyze the searching the blood of the user and can be clarified more frequently. This module is designed for the retrieval of the data.

Donor Status

In this module the details about the donor is entered by the admin whether the donor is in the status of donating the blood or not. The authenticated admin will only do all these purpose. This will help the donor to ask frequently while they are not in the status s to donate the blood. This will reduce the effort of the end user on the donation.

Report

The report is the module in which the whole details of the admin are produced as the report for the retrieval purpose. This report is created by the admin for the later usage. This module will help the admin to reduce the effort of the clarification.

USER Registration

In the registration module the end user will register the needed information about the user who is in search of the blood. This register will help the admin to know about the client in need of blood. The registered client will have the unique username and the password that will help to login to the application.

Login

The login module will help the registered user can login the application that will help to search of the donor people. This will help the client to authenticate person to search the blood. This will help the authentication purpose.

Nearest Blood search

This module will help the client or end user to search the needed blood to know the blood nearest donor details. This module will display the notification about the eligible nearest donor to donate the needed blood. By the accurate needed data is extracted by the client that will quickly help the user to know the available nearest donors. This module will have the unique feature to trace the donors.

Blood Bank View

This module is designed to know about the nearest blood bank that is in avail of the needed blood. By this the end user can know the exact location of the blood bank without any difficult. By this the information that are gathered will help to access the client needed blood in the bank. The contact details are accurately descriptive to know the blood bank details

Blood Search

This module will help the client or end user to search the needed blood to know the blood donor details. This module will display the notification about the eligible donor to donate the needed blood. By the accurate needed data is extracted by the client that will quickly help the

user to know the available donors. This module will have the unique feature to trace the donors.

DONARS Registration

In the registration module the donor will register the needed information about the donor who is willing to donate the blood. This register will help the admin to know about the donor details that will help in need of blood. The registered donor will have the unique username and the password that will help to login to the application.

Login

The login module will help the registered donor can login the application that will help to search of the people. This will help the donor to authenticate person to donating the blood. This will help the authentication purpose that will ensure the donor details. This will have the unique id for each donor.

Search Blood

This module will help the donor to search the needed blood to know the blood donor details. This module will display the notification about the eligible donor to donate the needed blood. By the accurate needed data is extracted by the donor that will quickly help the donor to know the available donors. This module will have the unique feature to trace the donors.

Donor Status

In this module the donor details are updated. This will explain the details whether the donor is in the status of donating the blood or not. This will ensure the donor to proceed of permitting to give the details for the ends user. This will also avoid the conflict respective user in need of blood immediately.

V. CONCLUSION:

This project "Blood Donor System" handling and managing the donor database in an efficient manner. This system is more innovative to use, any user can make up an easier and faster transactions between users. This site can be used under any private concern, for flexibly handling the databases, to get dispatches the data to process them for individual usages. Thus it makes the system more flexible, and more reliable for use. For all the above this site is the perfect place for the users especially students who preferred to save the time, and entered into the current trend. Thus the entire project of Blood Donor System is clearly tested; all the modules are working correctly, as well as the output is verified. Technology is introducing new innovations day by day, thus reducing the time required to do things. The proposed system can be used to reduce the time

required to deliver required blood to the needy in cases of emergency. The web application can be used by the people interested in donating their blood by locating their nearest blood donors. The web application provides a way of communication and synchronization between the hospitals and the blood donors. It also provides them with the facility of communicating with the nearby donors in emergency.

VI. FUTURE WORK:

The database is a vital aspect of the system. The database of the hospitals and the blood banks must be checked for consistency on regular basis for smooth working of the system. The proposed system will provides the user with an efficient way of locating the nearby donors/blood banks. The web application is developed using Visual Studio which is dynamic software; hence the system developed is quite feasible. Future enhancements can be made to the applications, so that the application functions very attractive and useful manner than the present one.

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