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India's Blood-Banking System Using Spring Boot

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ABSTRACT: Blood is a very significant aspect of human life for survival. It also states that it is a lifeguard module for living in an emergency situation. There are an enormous number of blood banks situated for interacting with people and consortiums. But there is the major problem which is that none of any online blood-bank provides the direct connection between the donor and the blood-bank. Which we observed as the major drawback in the traditionally used system. Those systems were very less effective in terms of cost and needed lots of manpower.

In this paper we will talk about the difference between the newly proposed system and traditional system. By using this new idea it will improve the traditional system which we have been using for a long time, this conventional desktop system and change it to web and also a mobile screen. This paper mainly introduces the newly proposed features of the system in comparison to the existing system. Initially we are going to talk about the merits and limitations of the existing system and about the newly proposed features. In this paper we will also discuss ongoing issues in the blood-banking system. Blood-Bank is a kind of unit where blood is actually screened, donated, stored and then goes in processing for the blood transfusion and then used for life saving purposes for the patients. This is the kind of preparation unit which is responsible for storing and transfusion of the suitable blood products.

I. INTRODUCTION

In this rapidly developing technical world's advance technology is becoming a significant main aspect of our life. Current generation is basically highly reliant on advanced technology than other things. This generation mainly uses updated technologies for communication and information in the day to day life such as smartphones and the internet. So the main objective of this paper will be to make the whole operation time saving. In this system we have different modules of requesters, donors, registration and nearby blood bank center information. So the very first user has to register in the portal so that he can get access for the further processing and also doctors have no need to call donors for any requirement all the information is given on the portal so that he can access from there also.

This management system provides instant access to donor records which are collected across different parts of the country. It also enables inspection of the outcome and the real performance of the blood donation working such that proposed and scalable objectives of the institution could be studied. Here we provide a well organized search for the person who needs the blood in the particular city in their best location as soon as possible. Transfusion and blood donation is a very crucial part of this modern medical era in the health-care system. The blood-bank system mainly consists of enormous interrelated centers of blood which usually collect, store and get to the hospitals for the transfusion related processes.

II. LITERATURE SURVEY

In this literature survey work done by people is explained. Those projects are for Blood Bank systems where this is designed in such a way that a recipient can access blood in very ease other than those existing systems.

Most of the people try to propose efficient ways of blood-bank activity in their own customized way so these are some common ways.

a. [1]. They build a system by which services taken by donors are done via messaging. If anyone is in need of the blood then he/she has to request via SMS so the database of this app is customized in such a way first search for the availability and respond to the recipient.

b. [2]. Here they proposed a system of central server with direct call routing technique. When Someone who needs blood calls their toll-free number. First they get required information and connect with the donor and interact with the recipient as soon as they get blood.

c. [3]. This project was to describe the merits of donating blood and advantages to the human body by donation and their benefits.

d. [4]. In this system all the donors are connected and help in the maintenance of the transfusion process. In this system it holds the data of all the donors and requesters in the database so that it can be used for further processes as per the demand.

e. [5]. In this system if any one is going to donate the blood then he has to login first by GIS, and they can also get information of nearest blood-donors. And here is the facility of donating blood by registering there.

Sr. No.	PROJECTS	PROPOSED WORK	REVIEW
1.	[1] Servicing of Short Messages (SMS).	Accesing is possible by SMS service.	Accessing is very easy as well as using.
2.	[2] Automation in on-line blood-bank inventory.	Toll free no. is given for connecting with donors.	There is only a connection between donors, not to the blood-bank.
3.	[3]Management and their benefits in the bank-system.	It gives the comparison between existing blood-bank systems.	Information is only given about advantages.
4.	[4]MBB: life-saver application.	It helps in controlling blood transfusion and provides linking between donors.	Given data is biferticated according to the concerned area.

5.	[5]Life Saving in Blood-donation.	By login into the application it provides the contacts of donors	Able to check the information of the donors at a particular time by using Graphical Detail System helps in login.

By observing all the above references and studies we have come to a conclusion where we see how the requesters and donors both are not able to get connected properly so that's why we need a process and maintenance of data accordingly. So for that we require a better quality of software technology and management approach flow so that is why we have provided a better approach of connection between central system and donor and requesters. And here also we have provided the ease of access to the nearest blood bank center where we have updated the list of all the blood bank centers in all the cities of India which helps the donor or recipient to reach out. To make this possible we have used Spring boot technology and for accessing the database we have used SQL so all the data should be preserved in safe mode regarding registration, donor and requester profile and nearby blood bank center list.

III. METHODOLOGY

Architecture:

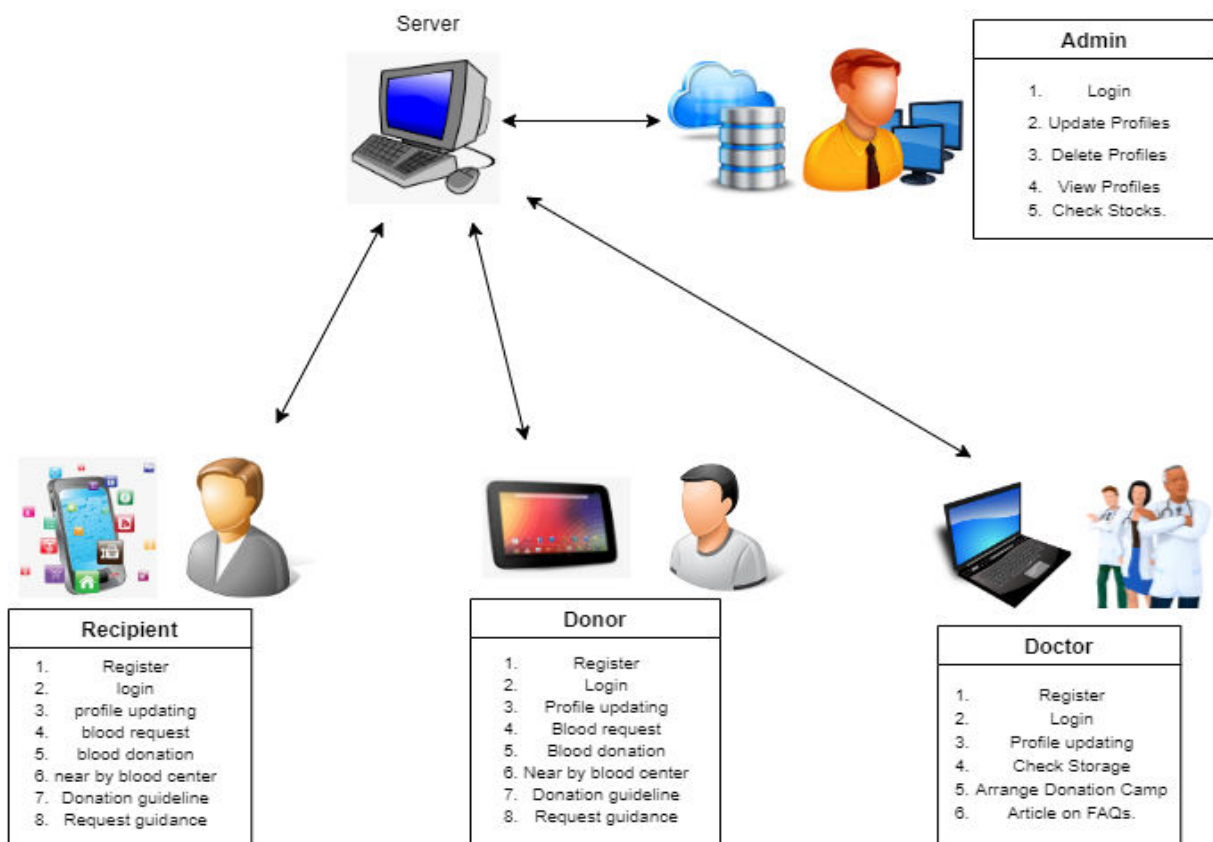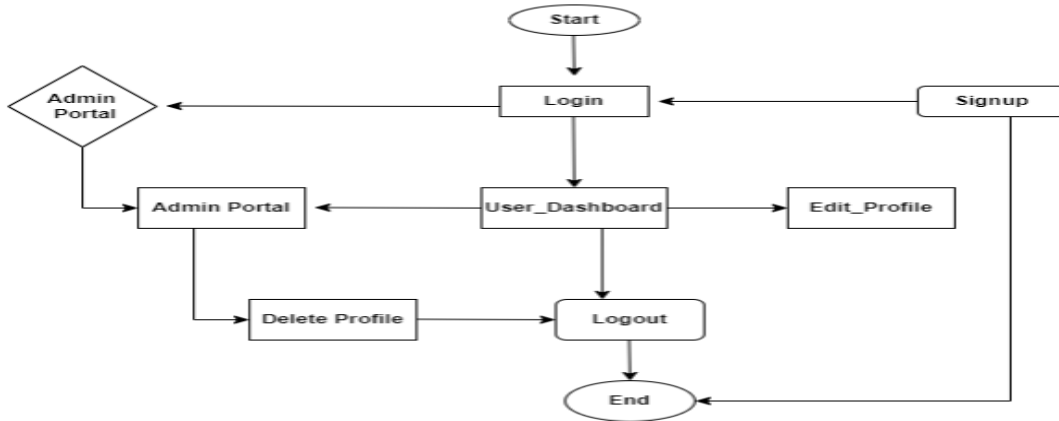Figure 1. Architecture of Blood-Bank

Flow Diagram:

Figure 2. Blood-Bank Flow-Diagram

IV. CONCLUSION

As of now we are having an idea of many researches regarding Blood-Bank of helping people by evolving technology in different ways. Since we have seen many options for providing the services but still plenty of people can't get sufficient services. Many of the blood centers work for only regular groups which are common to access and have more requirements but some of the groups like 'HH' many of them which do not have centralized environment systems. Some of them work for blood-banks, some for donors but the blood system should have three main components: hospitals, blood-banks and donors. So it's very required to have a centralized system for all of those which have all the records of the hospitals, blood-banks and also donors at the required time.

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