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Research Paper on Blood Bank Donation and Management using Danjgo

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Abstract: Blood Warrior is a pwa application that enables patients or hospitals to find the nearest available blood donor based on the blood group. The application will have the donor's details so that hospitals or patients can directly contact them required for blood donation. The application will be developed using Python, HTML, CSS, Flask, Sql and machine learning. The application will have three types of users which are patients or users who are in need of the blood, donors who'll be donating the blood and the hospitals which can work as an intermediate to manage the communication between the patients and the donors
Index Terms: Blood Bank Donation and Management, Django, Chatbot

I. INTRODUCTION

The main aim of developing this technique is to provide blood to the people that are in need of The number of persons who are in need of blood are increasing in sizable amount day by Using this technique user can search blood type available within the city and he also can get contact number of the donor who has an equivalent blood type he needs. In order to help people who are in need of blood, this application are often used effectively for getting the small print of obtainable blood groups and user also can get contact number of the blood donors having an equivalent blood type and within an equivalent city. So if the blood group isn't available in the blood bank user can request the donor to donate the blood to him and save someone life. Using this application people can register himself or herself who want to donate blood. To register in the system they've to enter their information like address mobile number etc. This blood warrior is an online website so it's easily available to everyone. When an individual want to donate blood he need to register to the system. Donor registration is extremely easy, to urge register to the system hen has to fill up registration form. After submitting the enrollment form he can create username and password. Donor need to give information like blood type , contact details etc. donor also can change his account information when he wants using his username and password. Using this application people can search blood group available which they're needed. They check it online using our blood warrior website. If in case blood group isn't available in blood bank they can also get contact numbers of the persons who has the same blood group he's need. And he can request the donor to donate the blood for saving someone life. Our system also allow user to look online the one that have an equivalent blood type he needs and if If he find a donor in his city then we give him all details of the donor, if he doesn't find any donor also he's given the contact numbers and addresses of the Life Saving Contact Persons for big cities.

II. RELATED WORK

There are several related works available which has been already published. In this section we will analyze the related surveys approaches for the problems and there solutions and extend it to make application. Below are some literature reviews: According to (S, 2014)[4]Teena,C.A, Sankar,K. and Kannan,S. (2014) in their study entitled " A Study on bank Management they defined bank data system as an information management system that contributes to the management of donor and blood bank records. Their system allowed a licensed bank administrator to check in with a password to manage easily the records of donors and patients who need blood. The system provided many features including a central database, quick access to system content through login, includes the search code to seek out donors on a given basis, and the simple adding and updating donor data. The main aim of the system was to complete the process of the bank . This system was designed to suit all kinds of blood banks. Once successful within the implementation of the appliance , it are often applied and unrolled in several blood banks. This application contains user login screen, blood management, menu module, blood stock, donor Management, Donor Registration, Blood Reservation, Donor biopsy , Recipient Management and Blood Reservation. In similar manner, the researchers planned in their application to possess hospital administrator, doctors, and bank receptionists as users. The authors didn't mentioned the research Page 1 of 2 method they used, and

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failed Provide screenshots of system prototypes, it is difficult for researchers to see their application. No discussion also for his or her respondents, samples and sampling techniques used. Subsequently, the researchers planned to supply figures to elucidate the system, screenshots of system prototypes, and other diagrams which will help other researchers to see the event of web- based application. Also, the researchers will explicitly discuss research methods, sampling procedures, and statistical treatment to be used for analyzing the gathered data.

A study entitled (kumar R, 2017)[5]*"Blood Bank Management System"* done by [3]*Kumar, R., Singh, S. and Ragavi, V.A.*(2017), the researchers developed a web-based blood bank management which assists the blood donor records management, and provides ease Control of the distribution of blood products in various regions of the country that takes into account the needs of hospitals. The system developed was scalable and adaptable to meet the typically complex needs of a blood bank. Based on this study, since blood donor details and related records were captured Therefore, manual tracking of blood donation activities was difficult and complicated and even led to incorrect information. Subsequently, researchers said that the manual system can be a waste of time, result in error results, consumes a lot of work, lack of data security, data retrieval is time-consuming, reporting is time-consuming, and the accuracy of results is less accurate.

Thus, in the development and implementation of an online blood management information system, there was a rapid and quick access to donor data and the system provided management with timely, confidential and protected medical reports. There were three (3) users of the system, namely the administrator, donor and acceptor. Each user has received a user ID and a password to identify their identity. The application above was developed using ASP.NET, C#.NET, and using SqlServer 2000/2005 for the database. The research document did not mention the research methods used.

In the study entitled (F L.)[6]"*Blood Bank Management System Using Rule-Based Method*" undertaken by [4]*Liyana, F.* (2017), found that it is important for each hospital to use an information system for managing data in the blood bank. Moreover, he noted that the manual system has disadvantages for the user and for the hospital. One of the disadvantages identified was the blood bank staff should enter the details of the donor at any time that gives blood In which he led to duplication of donors and data data, they may also be lost or missing after a while. As a result, the author develops a web system to help the blood bank record the details of the donor quickly and easily. The system has used regular regular decisions to ensure a good time decision. In addition, the system can send messages to donors if a particular type of blood is needed.

III. METHODOLOGY

The proposed system in order to get the donor information first the donor needs to register him in the database by filling up the registration form.

When the user is seeking for donor he has to register in user registration form and then login in as user. In order to search for donor add blood group and address in search engine. The backend algorithm of search engine searches the database, sorts them and shows them in a table shown in table . The result is sorted on the basis of most eligibility according to the recruitment algorithm

IV. ANALYSIS AND INTERPRETATION

To deal with the research query and related studies troubles as defined formerly, we want to create a web application that helps to donate blood and search for donor easily using searching algorithm. The aim is to create a well-known version through which other proposed methodologies may be compared.

A. System Design

The application is prepared in such a way that it should be user interactive using Django where the donor can register himself and search for nearest donor and chat bot is also implemented for user assistant and queries.

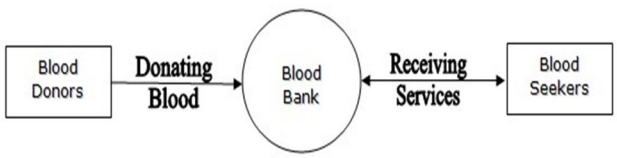


Fig 1

B. Proposed System

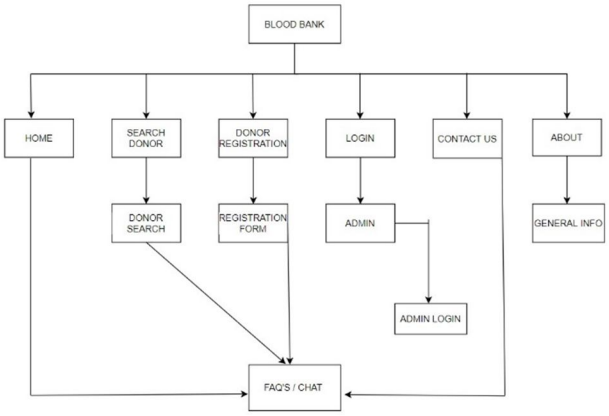


Fig 2

Blood Warrior project is a useful application for organizations (managing blood bank) and the hospitals. We will be using Django for GUI development and MySQL for database management to implement this project.

C. Experimental Results

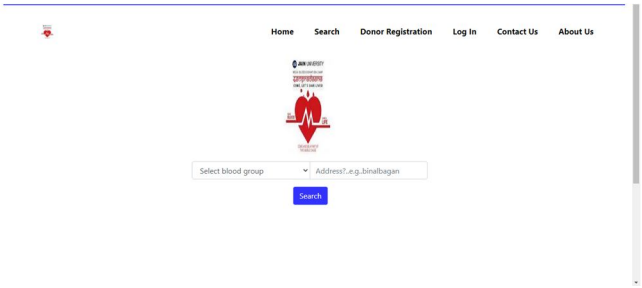


Fig.3

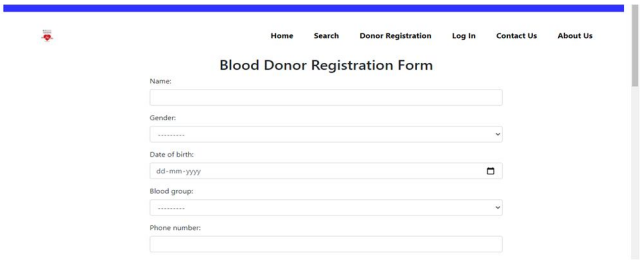


Fig.4

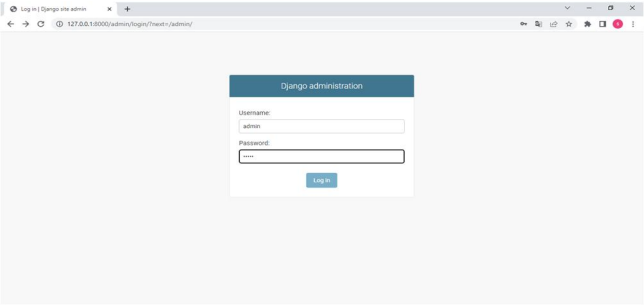


Fig.5

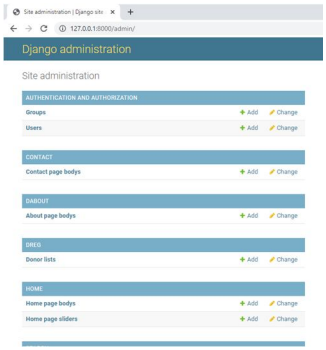


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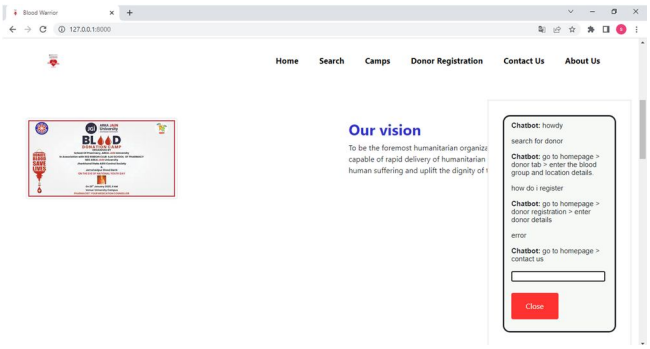


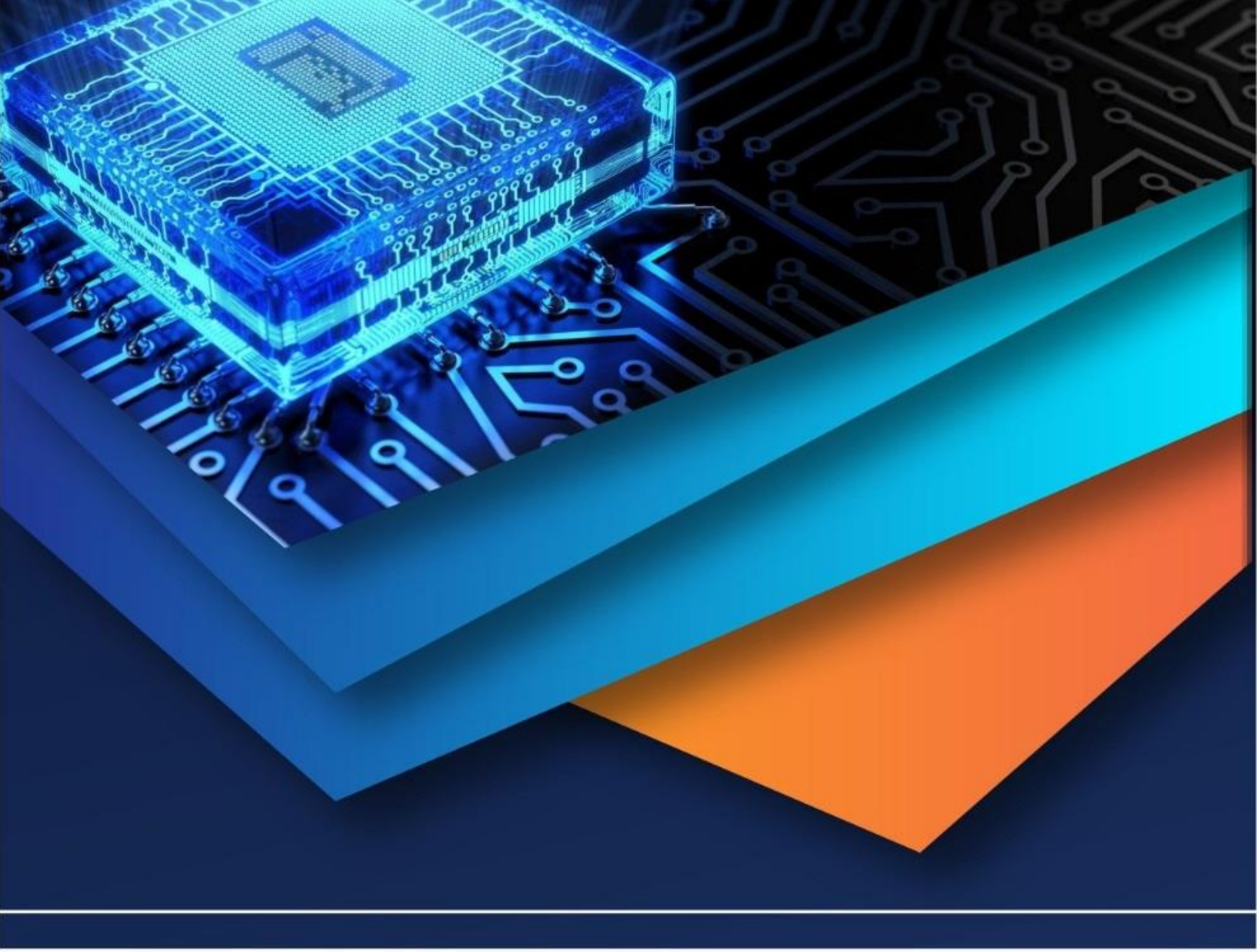
Fig.6

V. CONCLUSION AND FUTURE SCOPE

This study has developed an online platform which has made the blood receivers to connect with donors at the place of requirement this application can be developed more by using machine learning and artificial intelligence and also by adding GPS technology.

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