Blood Bank Database System

Milestone: Project proposal

Group 16
Hrithik Puri
Aryan Fernandes

617-935-8046(Hrithik Puri)
617-708-5129(Aryan Fernandes)

puri.hr@northeastern.edu
fernandes.ar@northeastern.edu

Percentage of Effort Contributed by Hrithik Puri: 50%
Percentage of Effort Contributed by Aryan Fernandes: 50%

Signature of Student 1: Hrithik Puri
Signature of Student 2: Aryan Fernandes

Submission Date: 09/30/2022

Introduction:

- A blood donation happens when a person willingly consents to having blood drawn for transfusions or, in some cases, when their blood is fractionated and utilized to create pharmaceutical drugs. Blood in its entirety or a specific component may be directly donated. Blood banks frequently take part in both the operations that come before and after the collection process.
- In hospitals or blood donation camps, one can give blood. Voluntary, unpaid blood donors from low-risk communities are the safest blood donors. According to 1975's World Health Assembly resolution 28.72, the World Health Organization wants all nations to receive all of their blood supplies from willing, unpaid donors

Business Problem:

- It has been observed that the number of blood donors is rising annually, in the US an estimated 6.8 million people donate blood each year. Surgery, severe injuries, childbirth, cancer therapy, blood abnormalities, chronic illnesses, anemia, and many more conditions all require blood. According to an American Red Cross report, the US needs about 29,000 units of red blood cells every day.
- When it comes to the use of blood, there are a few crucial points such as, platelets must be utilized in just 5 days, while red blood cells must be used in 6 weeks (or fewer). However, a study from Johns Hopkins University found that red blood cells lose some of their capacity to transport oxygen-rich cells throughout the body after three weeks. Over three weeks, blood loses flexibility and loses its ability to fit in the body's smallest capillaries.
- Our final aim is to maintain a database system where the user can get blood in the most efficient manner considering the factors such as location, blood type, and duration of blood stored. To give the receiver valuable information, we'll be constructing a robust, centralized system that contains all the data on the blood bank's stockpiles, donor information, blood bank information, and many more.

Requirements:

- In our project, the donor can donate blood at various locations such as hospitals and blood banks. The details of the donor to be stored is as follow (Id, name, blood group, medical report, address, contact number, amount donated, date of donation).
- The details of the patient to stored are (Id, name, disease, blood group, address, phone number, payment id).
- There can be many blood bank where blood can be donated, the details stored for the bank are (Id, blood bank name, blood type, blood quantity, address, contact number).
- The details of the nurse which given the blood to the patient and also helps the donor is also recorded (Id, name, year of experience, address, contact number). The nurse can give blood to many patients. The nurse can also help many donors in the blood bank.
- The donor medical report is important for the blood donation and to check the compatibility with the patient. There can be only one medical report for one donor (hemoglobin, temperature, blood pressure, pulse rate, donor id)
- The payment done by the patient should be recorded having payment Id, payment status, date of payment, quantity of blood.