LifeSource Foundation

Blood Donation

BLOOD DONATION MANAGEMENT SYSTEM

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Blood Donation Management System

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Introduction:

About:

Blood Donation Management system is a web -based system that helps the users to keep the information of different blood types and how they can be utilized in the blood bank to help several clients that are in need. This project will have a login system which will help different admins to sign in separately. Admins and clients will use their own personal email address to sign in or register. New clients can use the Register system to register themselves as blood doners. Admins will receive requests from both the patients and clients for blood bags. Then they will use Records to search which blood type and how many bags are needed and extract them accordingly and send to the patients in need. Admins will monitor the entire system whereas clients will only use the webpage to donate blood.

Background research/Motivations

There are many projects which have been made for the betterment of people and the prime example of those are the active NGO's in Bangladesh that are operating at an enormous speed to help people in need. But unfortunately they lack funding for their work, lack technical support and organizational capacity which makes a process like blood donation time consuming.

In a country like Bangladesh, people do not have much opportunities specially the lower-middle income families. If unfortunately they have an accident then it's extremely hard for them to find a suitable donor for their blood type since most hospitals these days are saturated with patients and not many options are available to them except to wait. Blood donation management system will provide a faster and more efficient way to get their blood type as soon as possible and might even save a life.

Resources and Technologies

Technology:

For this project we used PHP for backend, Html and CSS for Frontend and MySQL for the database.

Resources:

We mostly took help from the internet, watched multiple tutorial videos and self-taught ourselves to learn the basics of web-development to complete this management system from scratch.

Project Design:

Features:

~Users will be able to donate blood using this website: Usually people contact hospitals in order to search for blood or to donate them but through this website they can do it much faster and easily without a medium or source.

~Unique blood types: Unique and rare blood types such as A- ones are not usually found at all times; through this website they will be able to search easily and in turn might save a life.

~Different type donation: Not only whole blood, but platelets, plasma and double red cells are donated as well which increases variety.

~Digitalized: This software replaces all paper work and helps in better management and transparency.

Project Design:

Features continuation:

~Admins will have power: Admins will be able to see the information of blood, patients and volunteers.

~Anyone can sign up: Anyone can sign up for donating blood or receiving blood in this website. They will then wait till the admin accepts their donation or receival request.

~Contribution: Anyone can contribute to this organization by donating money/ charity which will help enlarge the organization .

~Volunteer: Volunteers are a vital part of our organization and they can sign up to help as well.

Discussion:

The process of managing the blood bag that is received from the blood donation events needs a proper and systematic management. The blood bag must be handled with care and treated thoroughly as it is related to someone's life. The development of Web-based Blood Donation Management System is proposed to provide a management functional to the blood bank in order to handle the blood bag. The focus is to find the blood donors in an emergency situation and to provide direct link between the donor and the recipient. The Manual Blood donation system has many disadvantages which includes, it is too time consuming, often leads to error prone results, consumes lot of manpower, lacks donor information, retrieval of data takes a lot of time, percentage of accuracy is less. In the time of emergency, it becomes difficult to approach the right donor. Rare blood groups are not available all the time at all blood banks and recipients find difficulties to track the right blood donor.

System Specification:

Our system is about Blood Donation Management System:

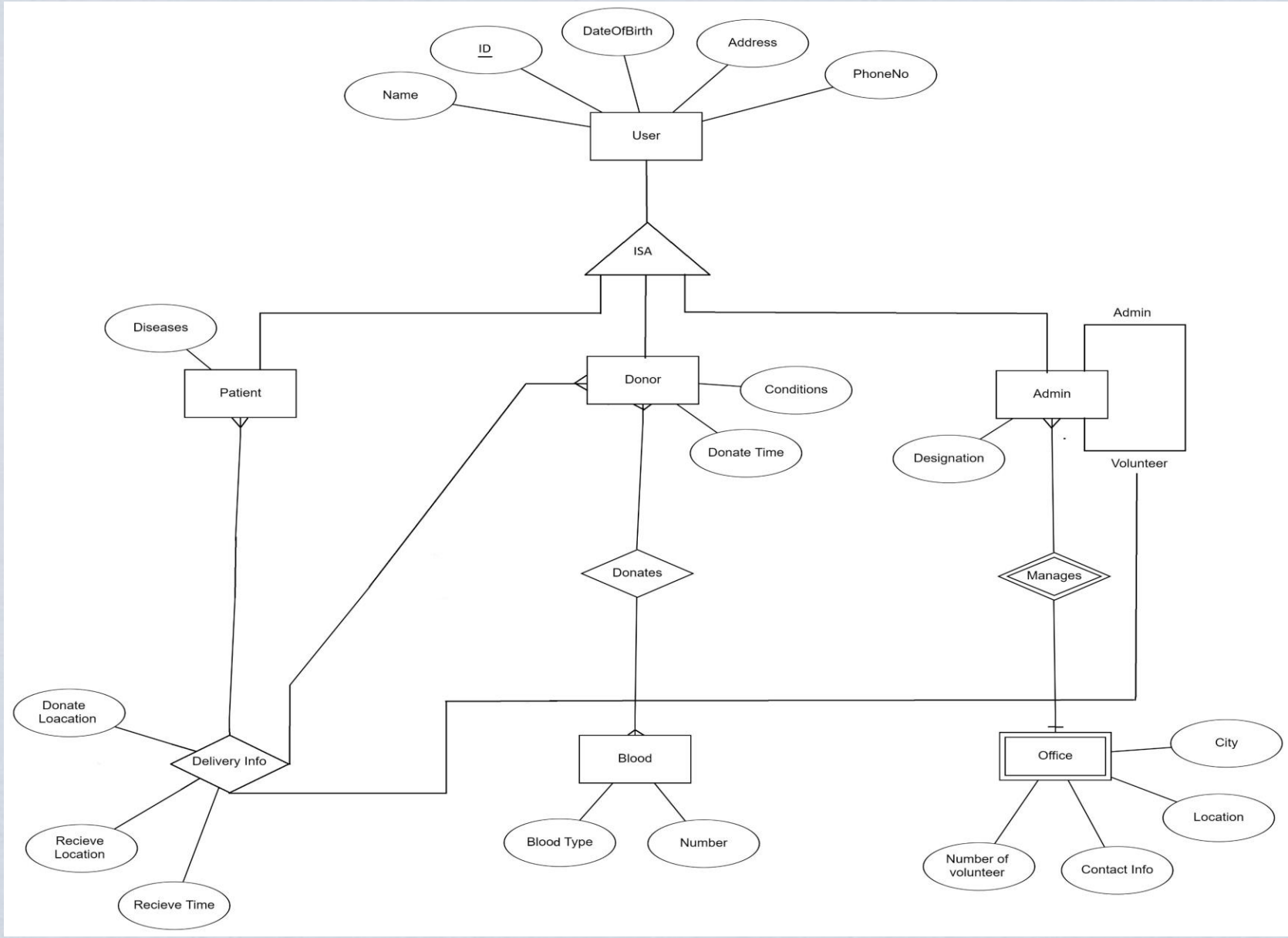
Strong Entities(Attribiutes): User(Name, ID, DOB, Address, PhoneNo), Patient(Diseases), Donor(Conditions, DonateTime), Admin(Volunteer, Designation), Blood(Number, BloodTypes), DeliveryInfo(Donate location, Donate time, Receive location, Receive time)

Weak entities(Attributes): Office(City, Location, ContactInfo, NumberOfVolunteer)

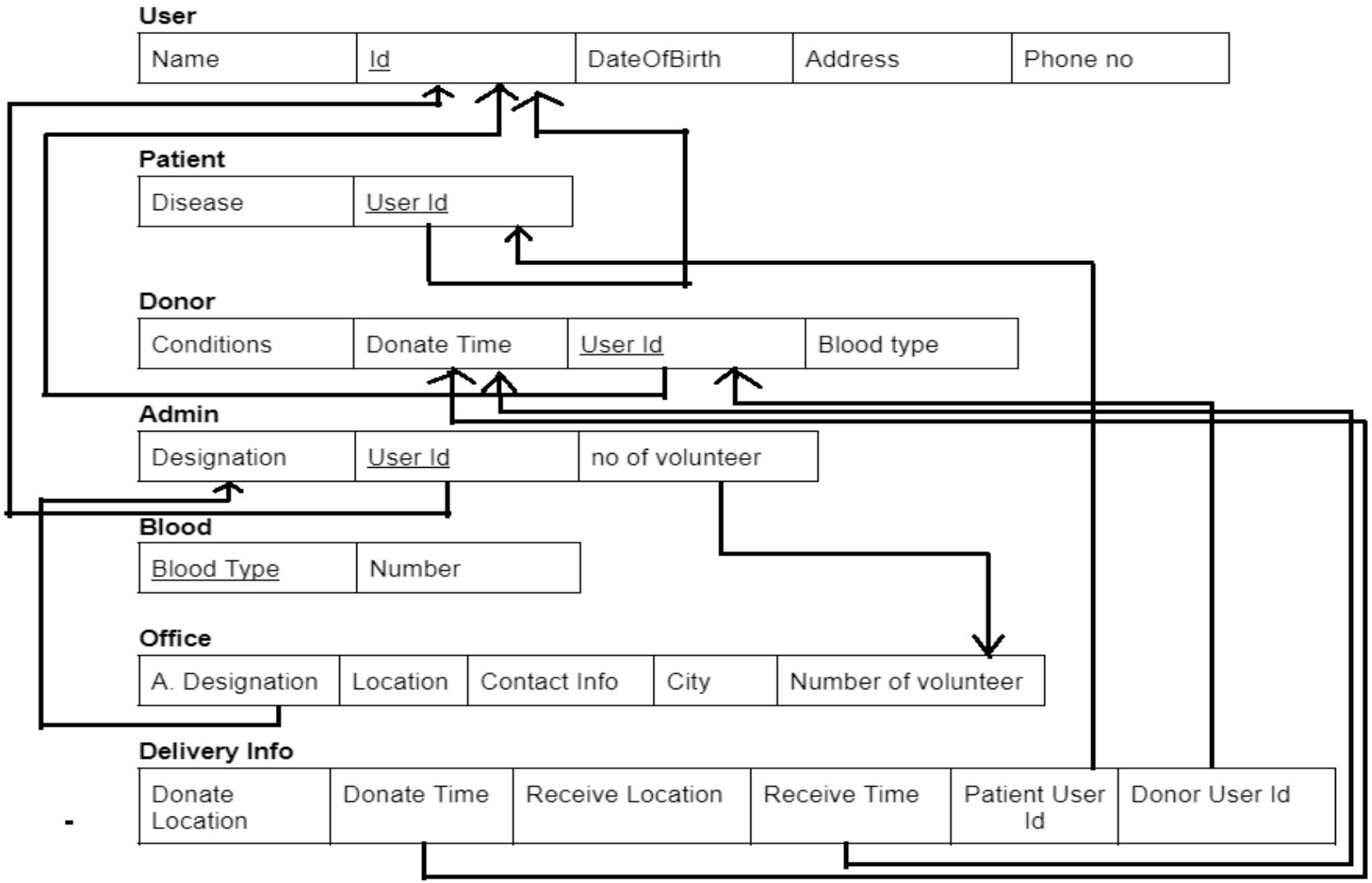
<Relationships>(Cardinality Constraint): Patient <Is At> DeliveryInfo(M:M), Donor <Delivers blood> DeliveryInfo(M:M), Donor <Donates> Blood(M:M), Admin <Manages> Office(M:1)

ISA relationship: User ISA Donor, Patient, Admin

ER Diagram For Blood Donation Management System:



Relational Table For Blood Donation Management System:



Normalization For Blood Donation Management System:

User	Is in 1NF, 2NF, 3NF, 4NF
Admin	Is in 1NF, 2NF, 3NF
Donor	Is in 1NF, 2NF, 3NF
Blood Group	Is in 1NF, 2NF, 3NF, 4NF
Office	Is in 1NF, 2NF,3NF contact into multivalued
Patient	Is in 1NF, 2NF, 3NF, 4NF
Delivery Info	Is in 1NF It depends on Patient, Donor and may have multivalued dependency

Normalization For Blood Donation Management System:

Conditions for 1NF:

- Each cell has the same single value
- Entities in a column are same type
- Primary key is present
- Order of rows and column doesn't matter.

Condition For 2NF:

- Table already in 1NF
- No partial Dependency

Condition For 3NF:

- Table already in 2NF
- No transitive dependency

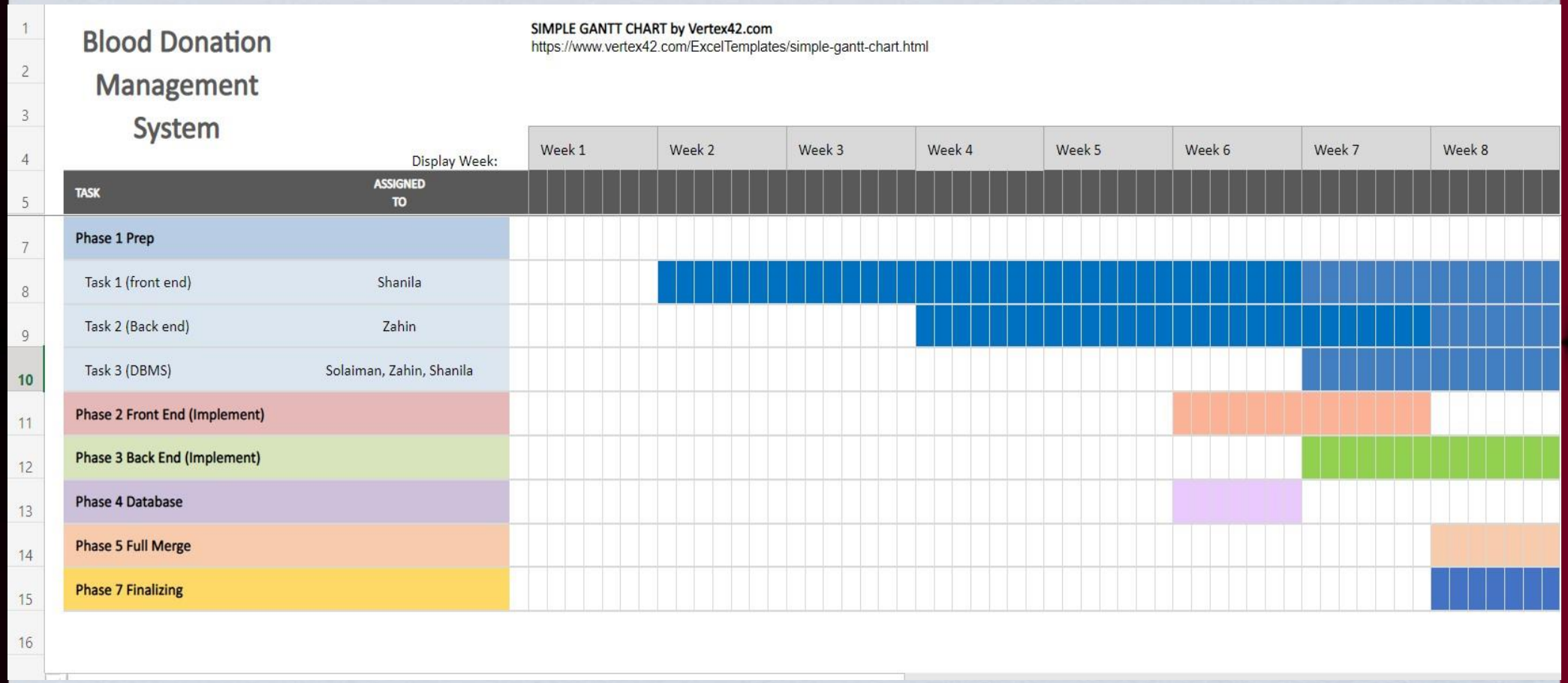
Condition For 4NF:

- Table already in 3NF
- No multivalued dependency

Sitemap

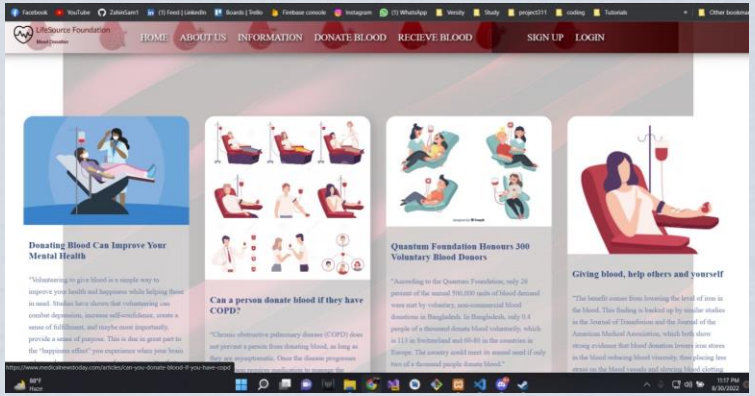

HOME
SIGN UP
LOGIN
DONOR PANEL OPTION
PATIENT PANEL OPTIONS
ADMIN
VOLUNTEER
GUEST
VOLUNTEER
PATIENT
DONOR
ADMIN
VOLUNTEER
PATIENT
DONOR
ADMIN
TYPES OF BLOOD DONATION
BLOOD POINTS
DONATION REQUIREMENTS
ELIGIBILITY CRITERIA
PATIENT INFO
DONOR INFORMATION
DONOR RECORDS
CONTACT DETAILS
VOLUNTEER INFO
PATIENT INFO
DONOR INFO
PERMISSION AUTHORIZE
RECORD CHECK
OWN INFO
PATIENT INFO
DONOR INFO
TASK
TRACK RECORDS
FRONT PAGE
DROP DOWN
SECTIONS

Gantt Chart

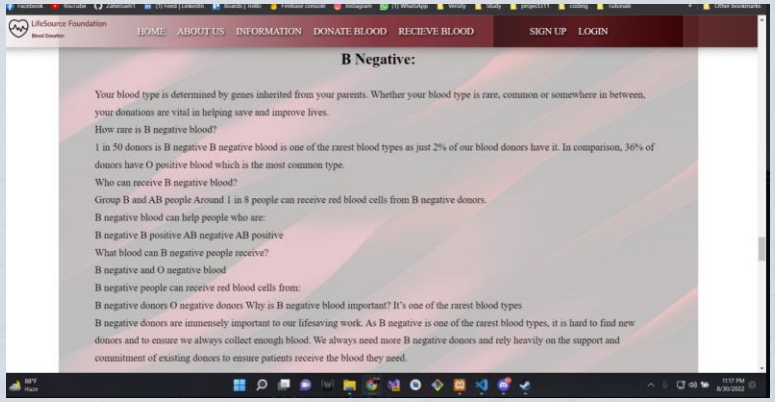

Blood Donation Management System
SIMPLE GANTT CHART by Vertex42.com
https://www.vertex42.com/ExcelTemplates/simple-gantt-chart.html
Display Week:
Week 1
Week 2
Week 3
Week 4
Week 5
Week 6
Week 7
Week 8
TASK
ASSIGNED TO
Phase 1 Prep
Task 1 (front end)
Shanila
Task 2 (Back end)
Zahin
Task 3 (DBMS)
Solaiman, Zahin, Shanila
Phase 2 Front End (Implement)
Phase 3 Back End (Implement)
Phase 4 Database
Phase 5 Full Merge
Phase 7 Finalizing

Snapshots:

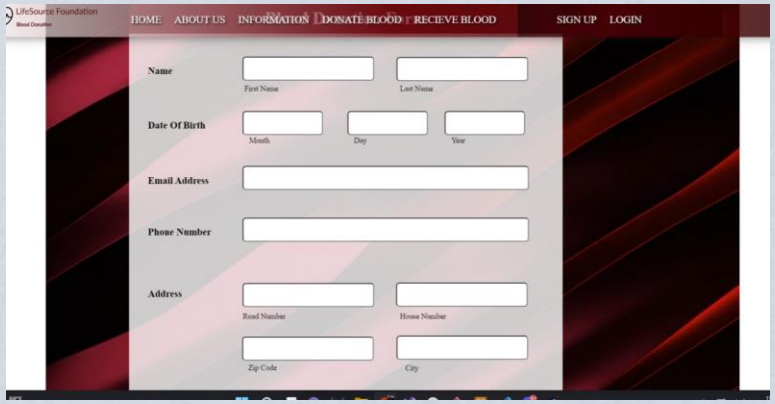
Front Page of the website



Articles on the website

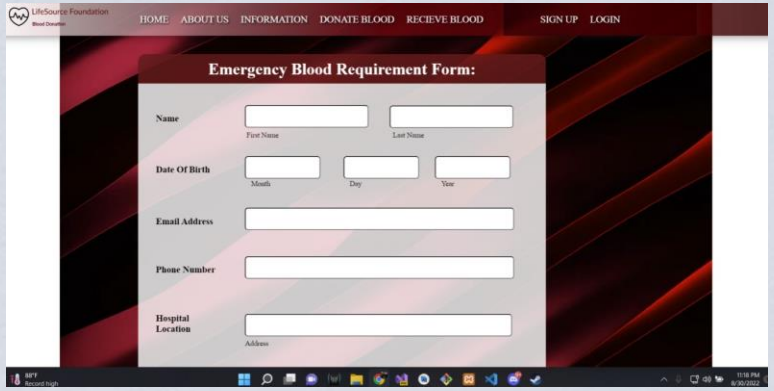


Information about bloodType in website

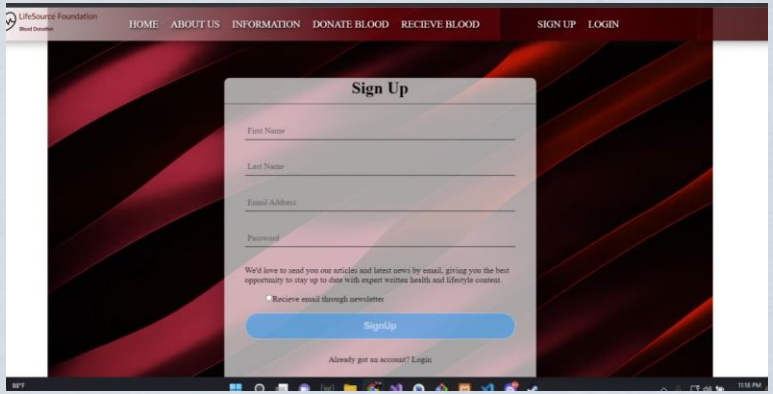


Form page for donating blood

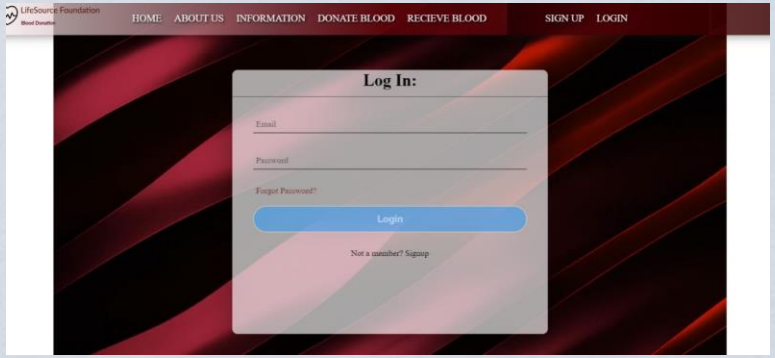
Snapshots:



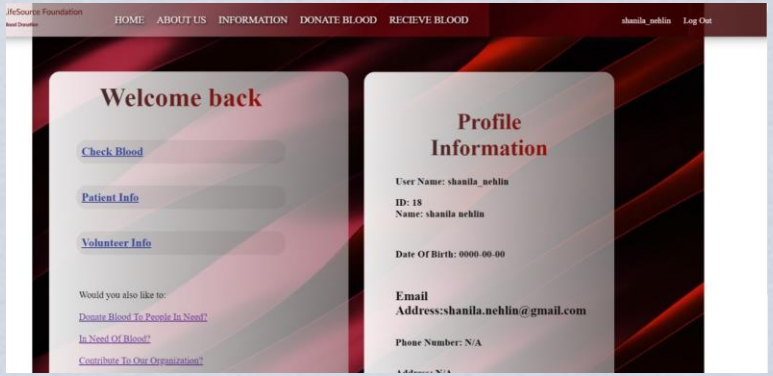
Form of Blood requirement



Signup form for unregistered users



Log in form for registered users



Welcome page for signed in users

Conclusion and future work:

•**Risk** was the biggest hurdle in this project. The fact that it will work or not or if we would be able to complete it without any issues was the biggest concern. Many potential external events could've had a negative impact on our project if they occurred.

•**Resources** were required to carry out this project tasks. We mostly used internet to find resources. Saw multiple YouTube videos to learn from scratch and then implemented the knowledge into our project.

•**Time** was also one of the biggest issue. To be able to complete it within the specified time-period was important to us since it is often the most frequent project oversight in developing projects.

For future work, we would like to take in factor of the above issues. Risk, Resources and Time is usually the problems that a group faces and we did so as well.

Contribution

S.A.M. Zahin Abdal (2031276642)
Initial Planned Role: Backend using Php
Contribution: Completed Backend using Php and DBMS using Sql.
Problems faced: Fetching and retrieving backend information was problematic. Didn't face any issues in database

Shanila Nehlin (2031113642)
Initial Planned Role: Frontend using HTML and CSS
Contribution: Completed Frontend using HTML and CSS and DBMS using Sql.
Problems faced: Was hard to make it device independent, Difference in layout in different browsers.

Md. Solaiman Haque (2021710642)
Initial Planned Role: DBMS using Sql
Contribution: Wrote relational table in the final report.
Problems faced: