# Blood Bank System


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Integrated Thebes Institute


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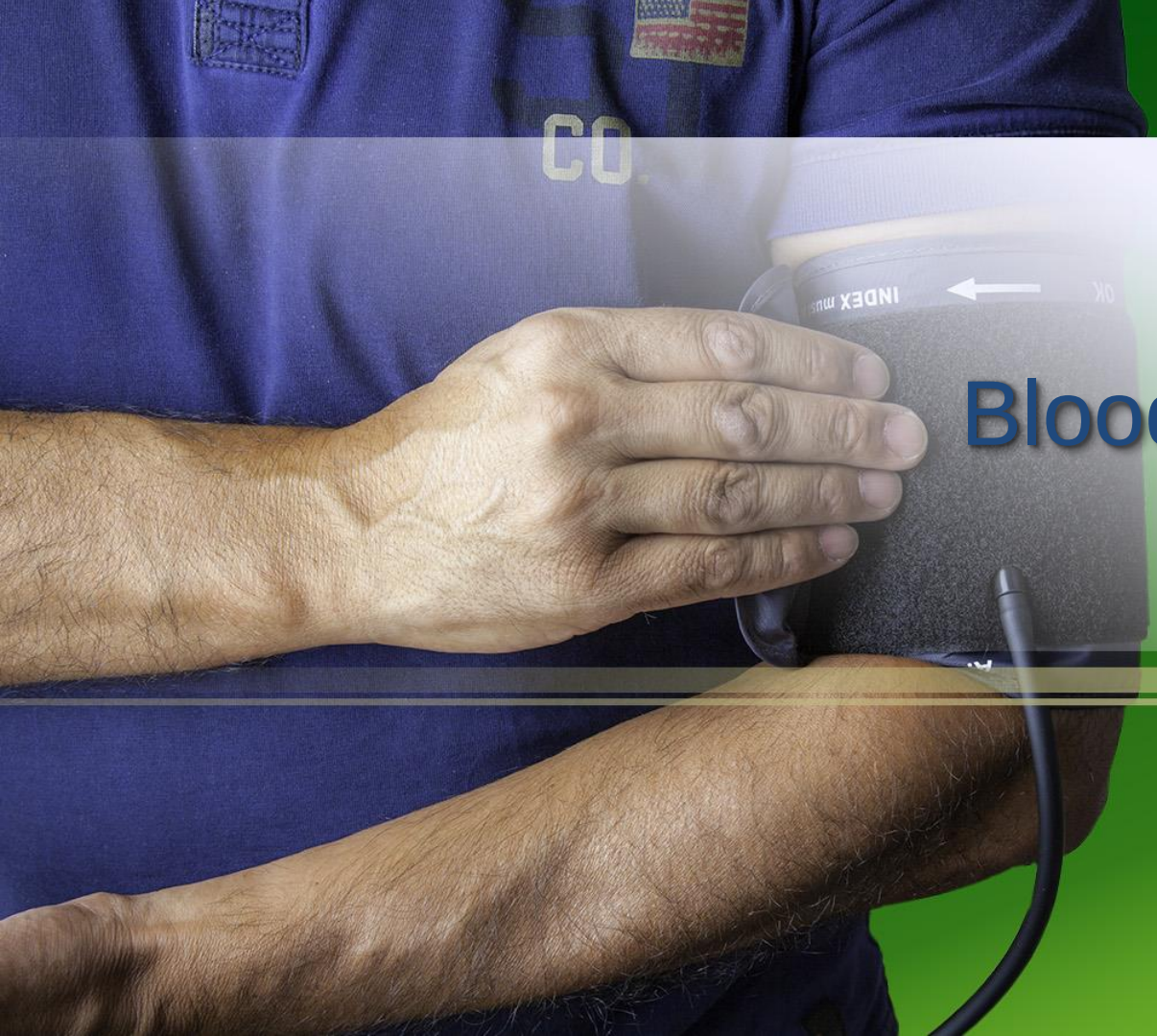
Database System ( Project )



# Blood Bank System

# Abstract


- Blood Bank Management System (BBMS) is a Desktop application based system that is designed to store, process, retrieve and analyze information concerned with the administrative
- This project aims at maintaining all the information pertaining to blood donors
- Aim is to provide transparency in this field, make the process of obtaining blood from a blood bank hassle free and corruption free and make the system of blood bank management effective .
- Our client is not interested in blood stocking instead we are stocking blood donors information. The donors who are interested in donating blood has to register in the database.
- There is no storage of blood so no complications in the project.
- It is developed in a manner that is easily manageable, time saving and relieving one from manual works.
- The Admin can update their donor status
- The Admin can Add and Delete  record

## ✓ Activity

- Choose state
- Log-in
- Authentication
- Search
- FAQ process
- Report
- Manipulation
- Backup

## ✓ Data store

- Administrator
- Donor
- Seeker

## ✓ Stakeholders

- Administrator
- Blood Donor
- Blood Seeker

## ✓ Button

- List of details
- Command help
- Choose state
- Search
- FAQ
- update
- Logout
- Delete
- Add
- Exit

# Identifying Problems, Opportunities, and Objectives

# Problem

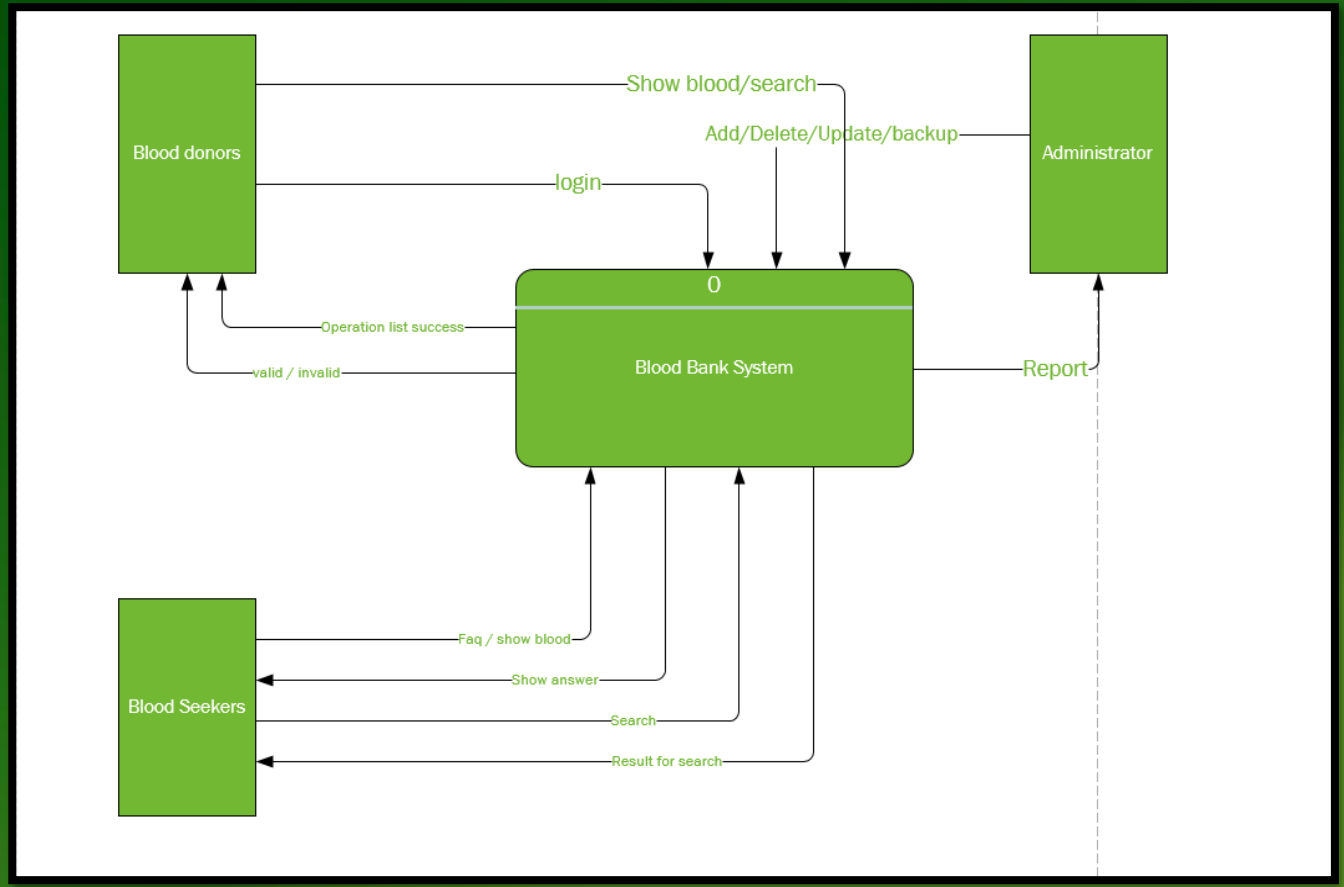
- As we all know the Working of Blood Bank Management System A blood bank is provide blood, blood components, stored blood and preserved for later use in blood transfusion. But the Real Fact is Blood transfusion service is a multibillion dollar profession/ business worldwide. During the literature survey I am find some limitation in the conventional blood bank system , in my literature survey I am collect some of the news paper cutting as evidence that shows the some limitation of existing blood bank system .Some time blood bank are not able to provide a particular blood to needy person, in casualty case , so many blood bank a maintain record manually, in the rural area not have a proper resource for storage of blood . A hospital has its own systems and limitations, the coordination between the blood banks is practically impossible. Because of low number of donors and more number of blood banks, the efficiency and quality of blood banks are low, resulting in wastage of blood and blood components

# Objective

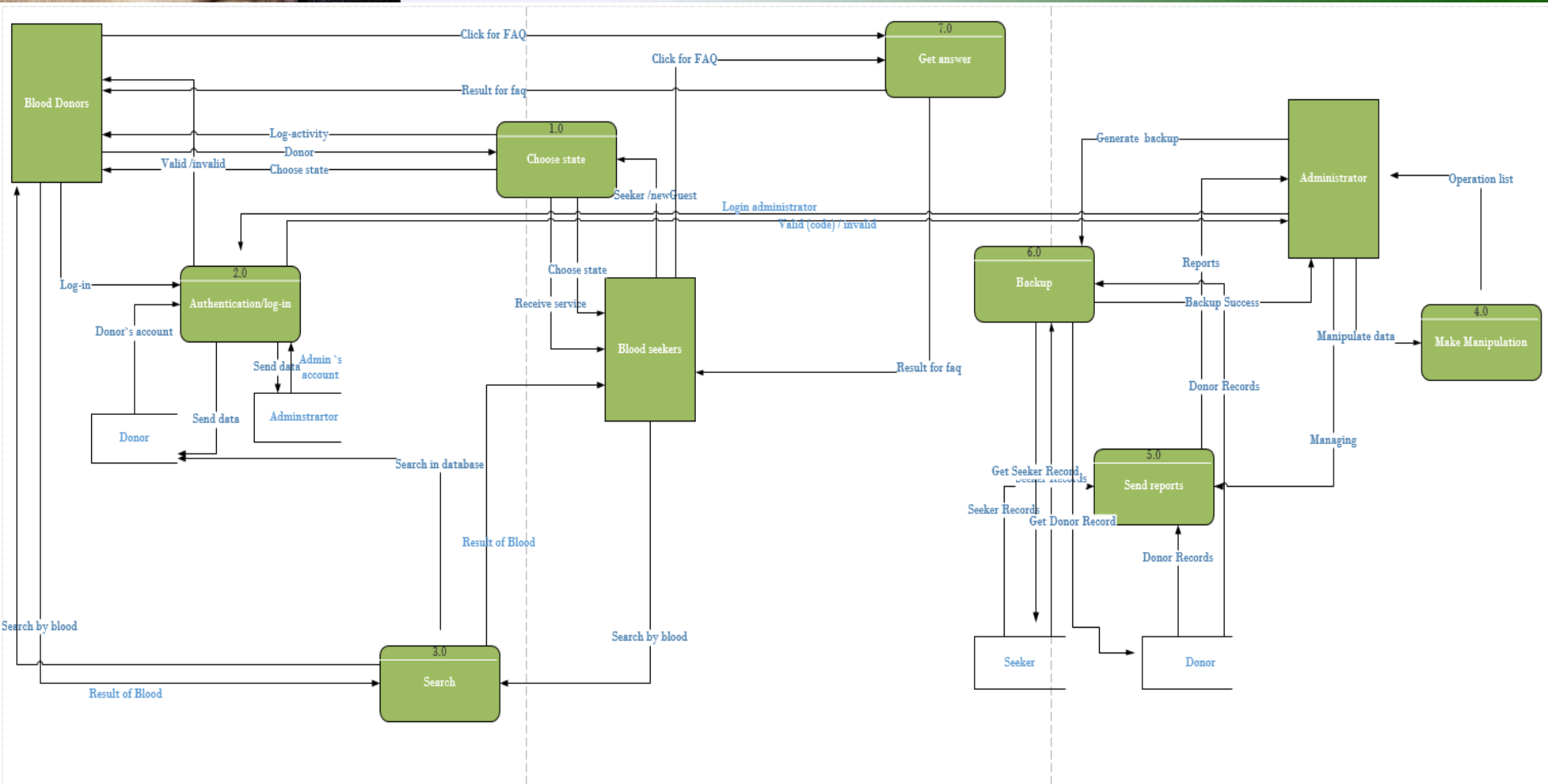
- The objective of the blood transfusion system is to facilitates the process between blood donors and blood seekers
- To provide a means for the blood banks publicize and advertise blood donation system
- To allow the probable recipients to make search and match to volunteer donors .

# Analyzing System Needs

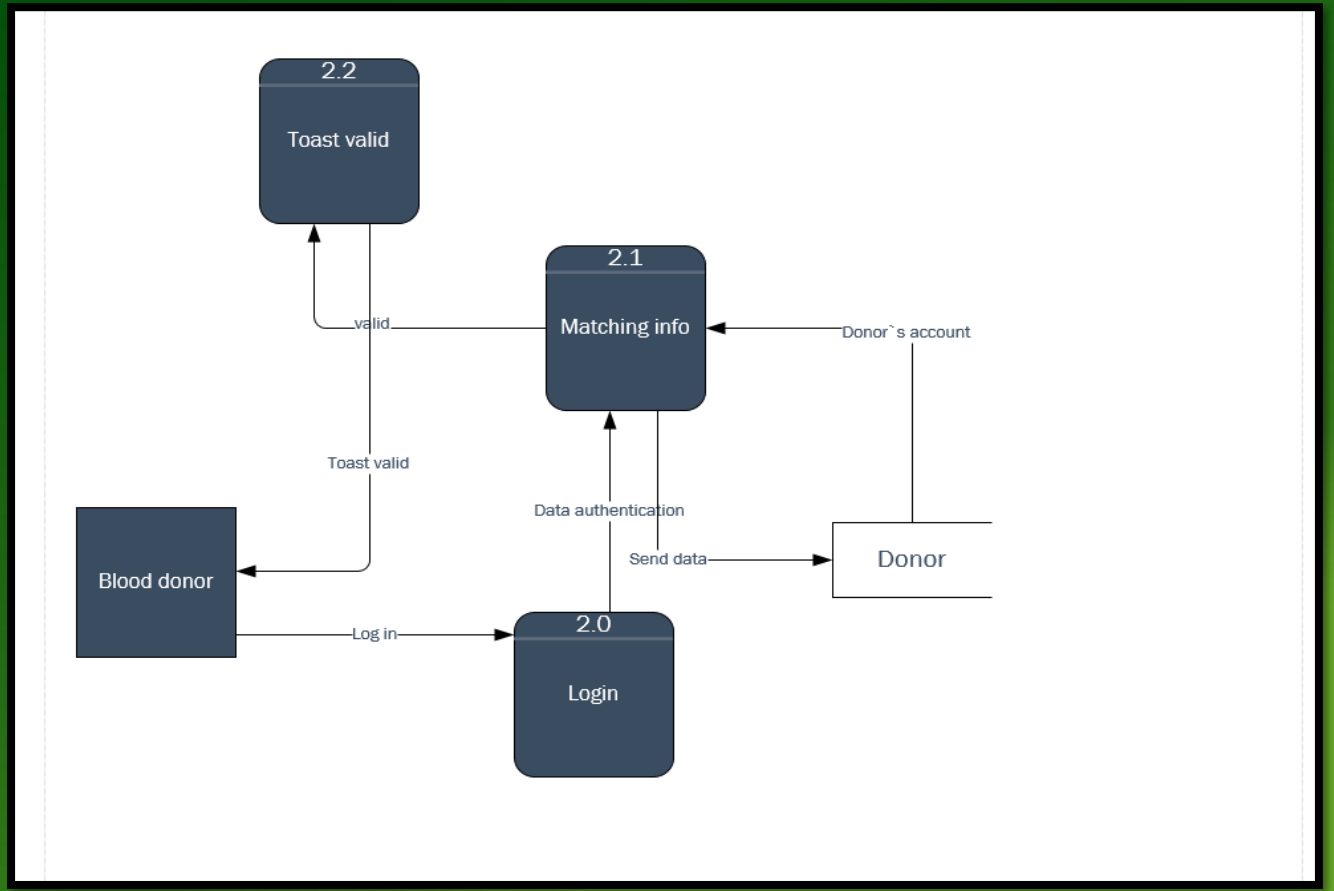
# Context Level



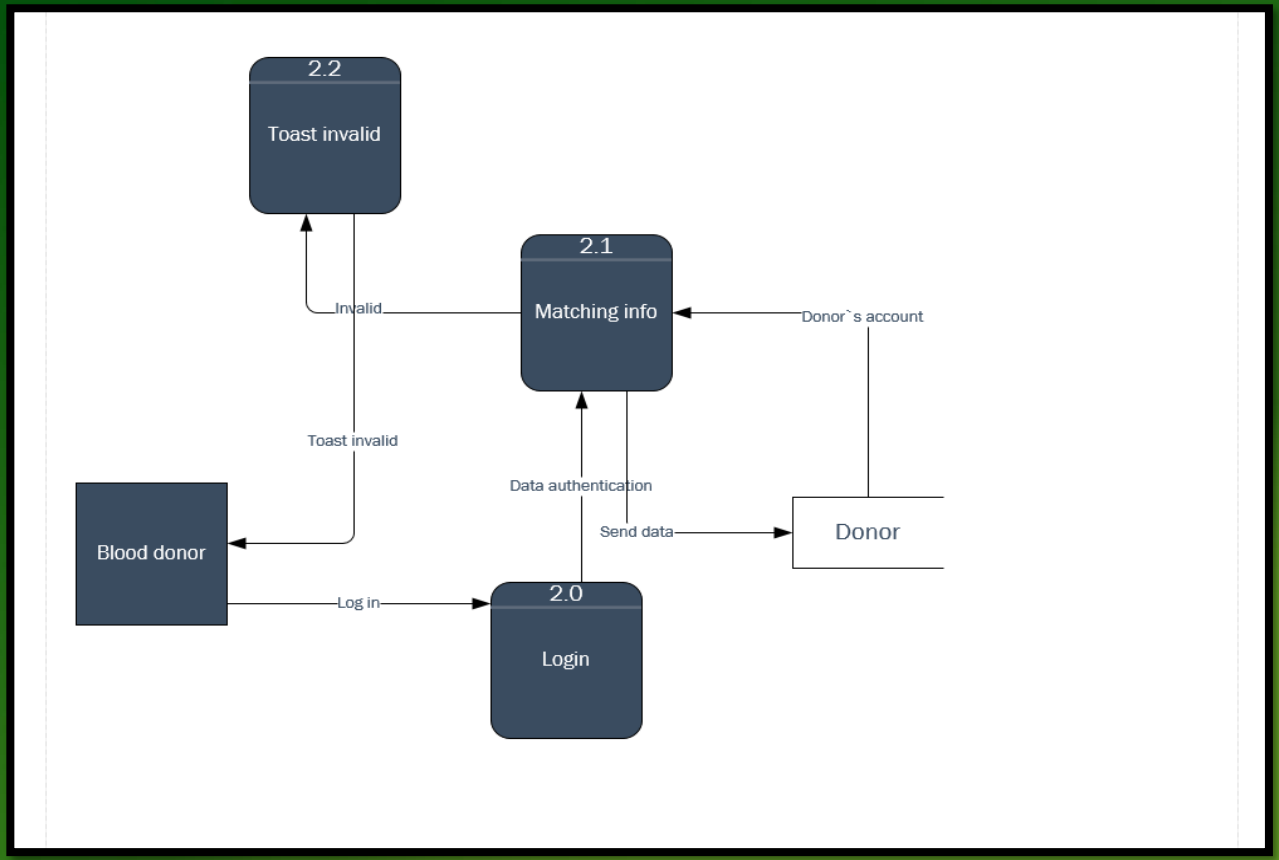
# Level Zero


Blood Donors
Click for FAQ
7.0
Get answer
Click for FAQ
Result for faq
Log-activity
Donor
Valid /invalid
Choose state
1.0
Choose state
Seeker /newGuest
Login administrator
Valid (code) / invalid
Generate backup
Administrator
Operation list
Log-in
2.0
Authentication/log-in
Donor`s account
Send data
Admin `s account
Adminstrartor
Donor
Send data
Search in database
Choose state
Receive service
Blood seekers
Result for faq
6.0
Backup
Reports
Backup Success
Manipulate data
4.0
Make Manipulation
Donor Records
Managing
5.0
Send reports
Get Seeker Record
Seeker Records
Get Donor Record
Donor Records
Result of Blood
Search by blood
Search by blood
3.0
Search
Result of Blood
Seeker
Donor

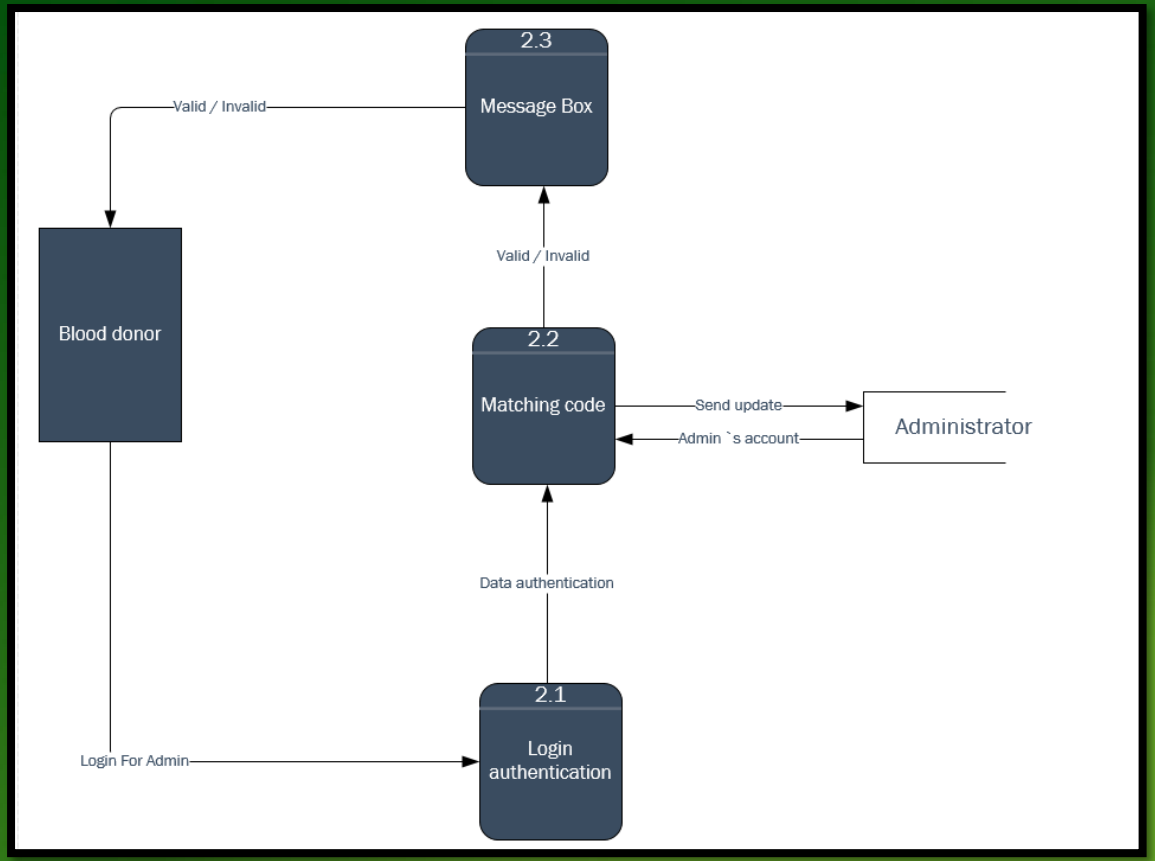
# Level One (case valid) Authentication for User



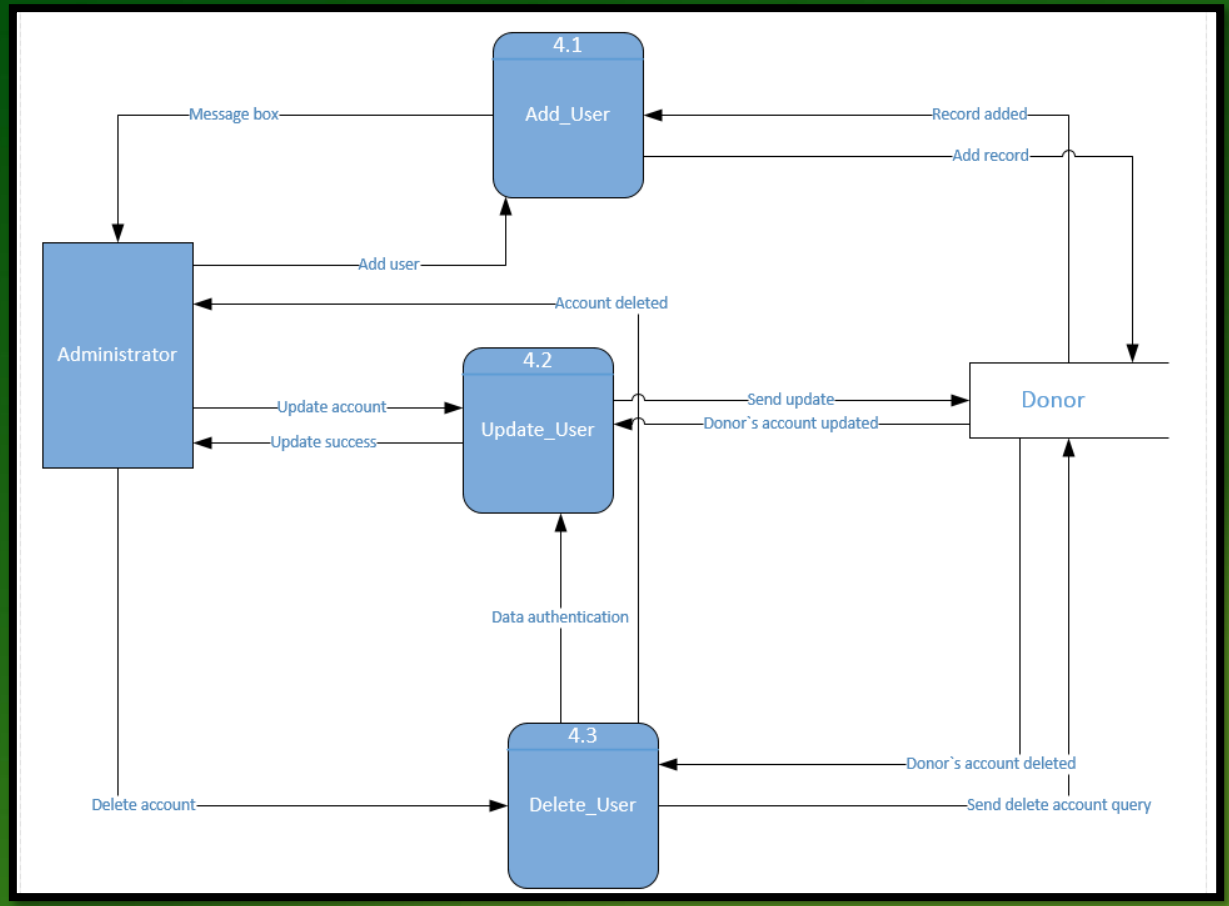
# Level One (case invalid) Authentication for user



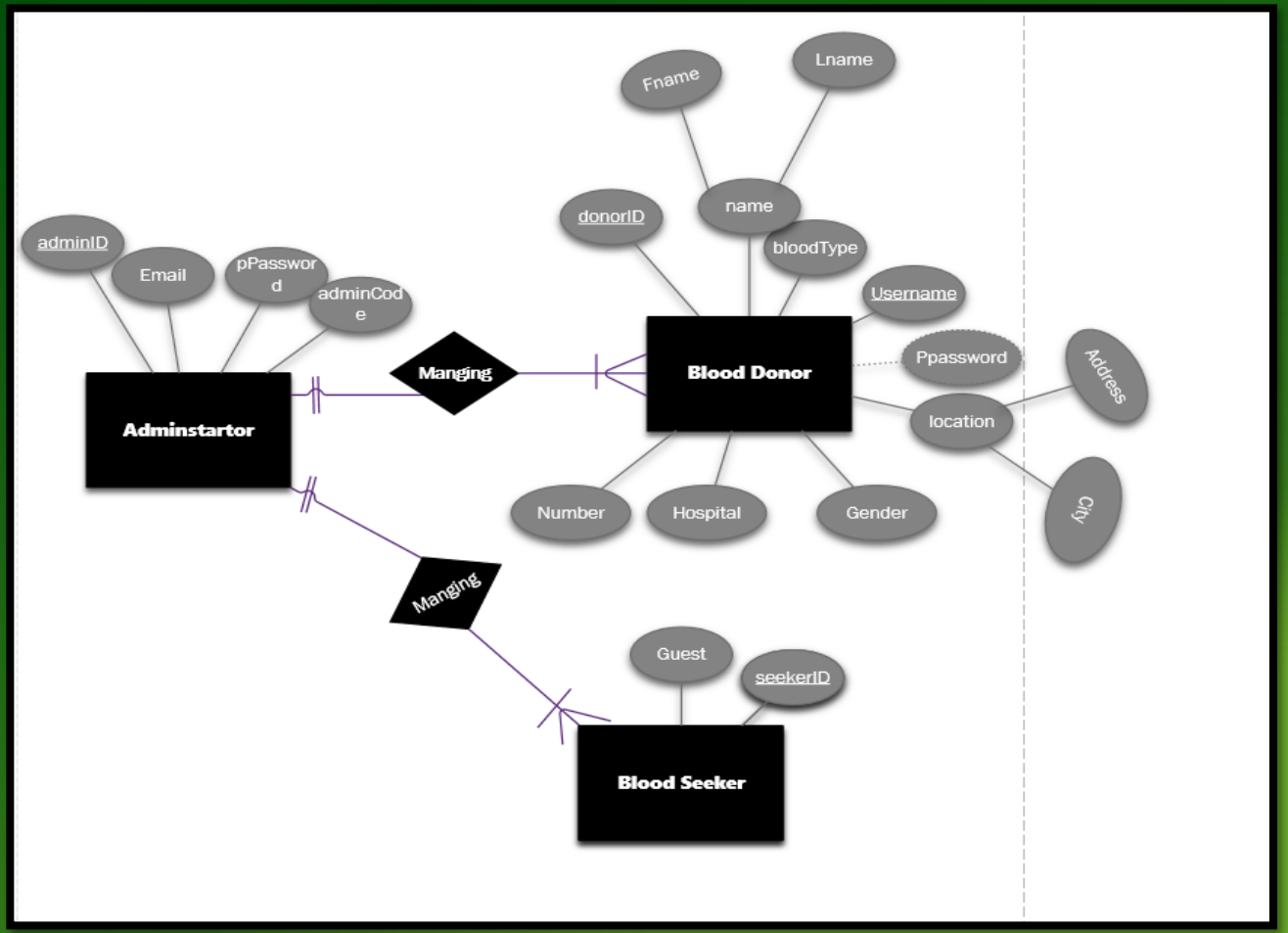
# Level One (case invalid) Authentication for Admin



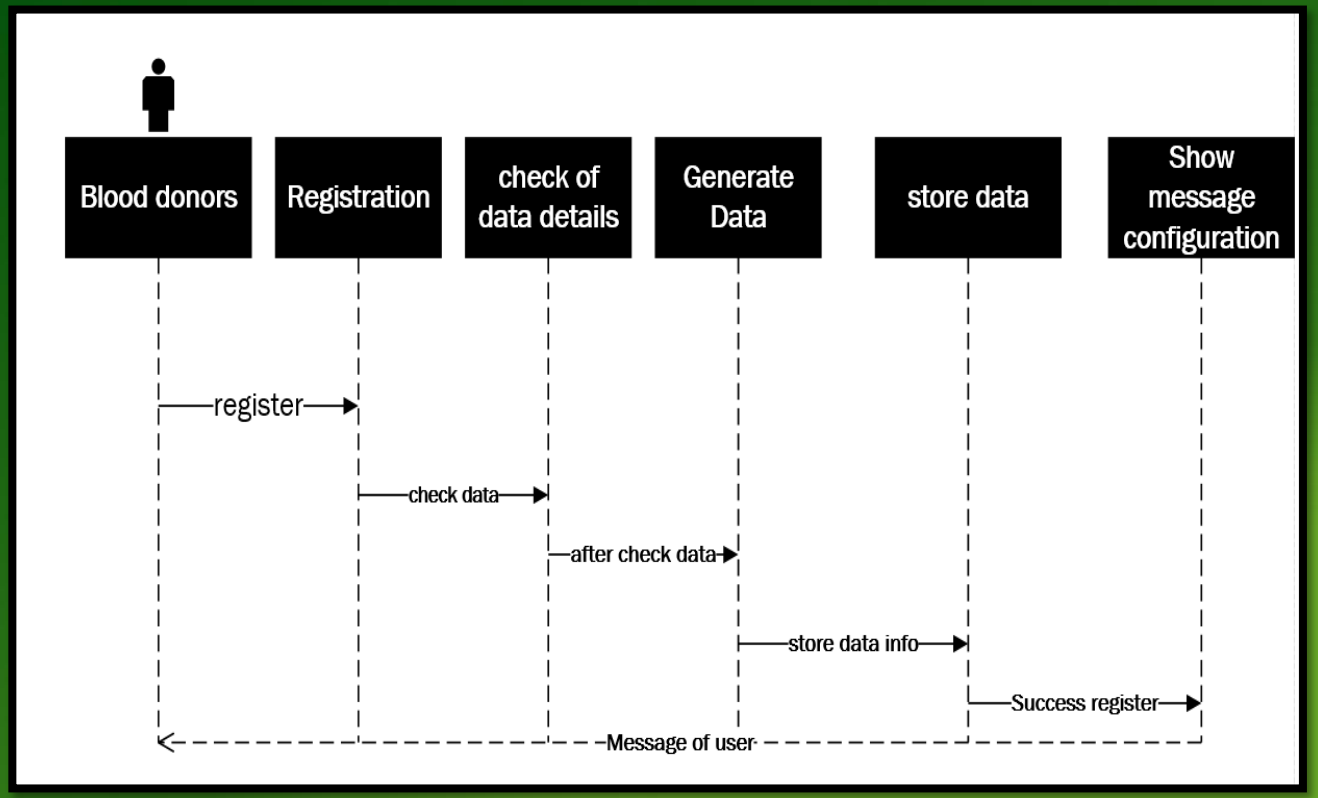
# Level One Manipulation



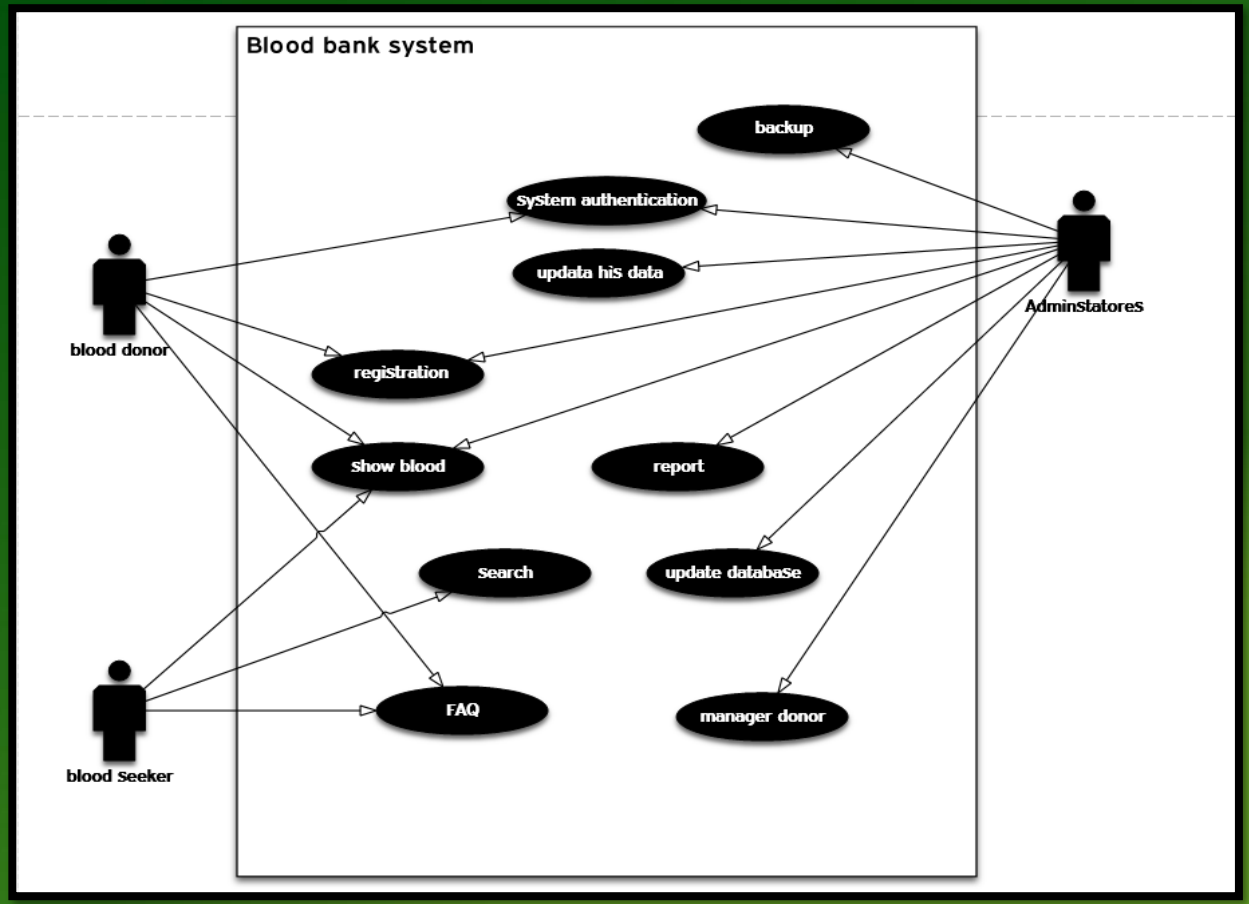
# Entity Relationship Diagram (ERD)



## Sequence Diagram



## Use Case Diagram



# Designing the Recommended System

# Database Scheme

## Administrator

| adminID | Email | UserName | pPassword | adminCode |
|---|---|---|---|---|

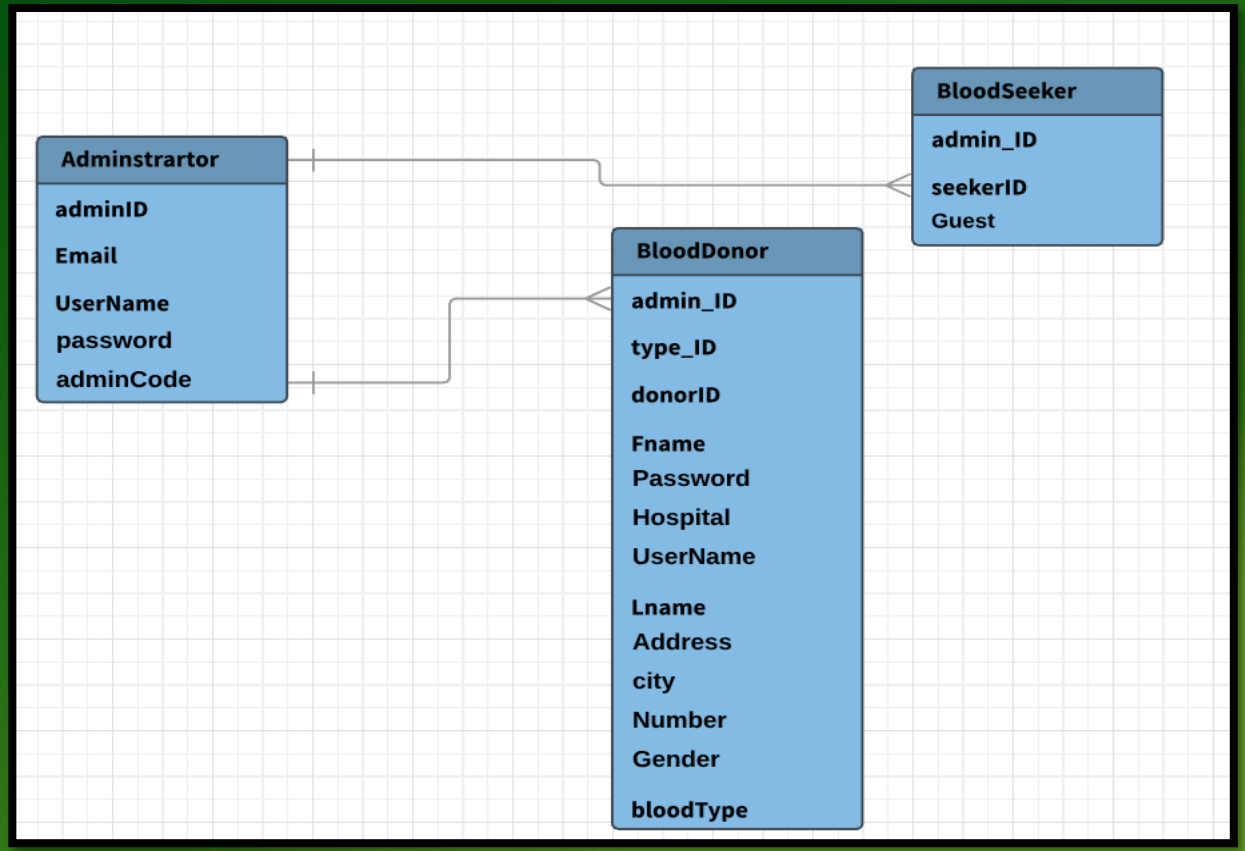
## Blood Donor

| donor_ID | Fname | Lname | UserName | pPassword | Hospital | aAddress | city | Number | Gender | bloodType | Gender |
|---|---|---|---|---|---|---|---|---|---|---|---|

## Blood Seeker

| seekerID | Guest |
|---|---|

Database Design

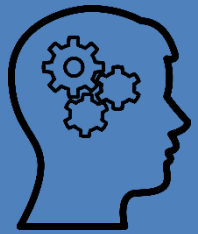


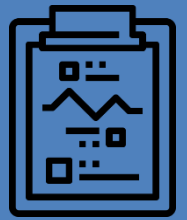
Database Code

```
CREATE TABLE Adminstrartor (
  adminID int primary key identity(1,1) ,
  Email varchar(50)  ,
  UserName varchar(50)  ,
  pPassword int,
  adminCode int
);

CREATE TABLE BloodDonor (
  admin_ID int ,
  donorID int primary key identity(1,1) ,
  Fname varchar(50) ,
  pPassword varchar(50) ,
  Hospital varchar(50)  ,
  UserName varchar(50)  ,
  Lname  varchar(50) ,
  aAddress varchar(50) ,
  city varchar(50)  ,
  Number varchar(11)  ,
  Gender varchar(25),
  bloodType varchar(5)
  foreign key (admin_ID) references Adminstrartor (adminID),
);
/*Schema of BloodSeeker */
CREATE TABLE BloodSeeker (
 admin_ID int ,
 Guest varchar(20),
 seekerID int primary key identity(1,1),
 foreign key (admin_ID) references Adminstrartor(adminID)
);
```

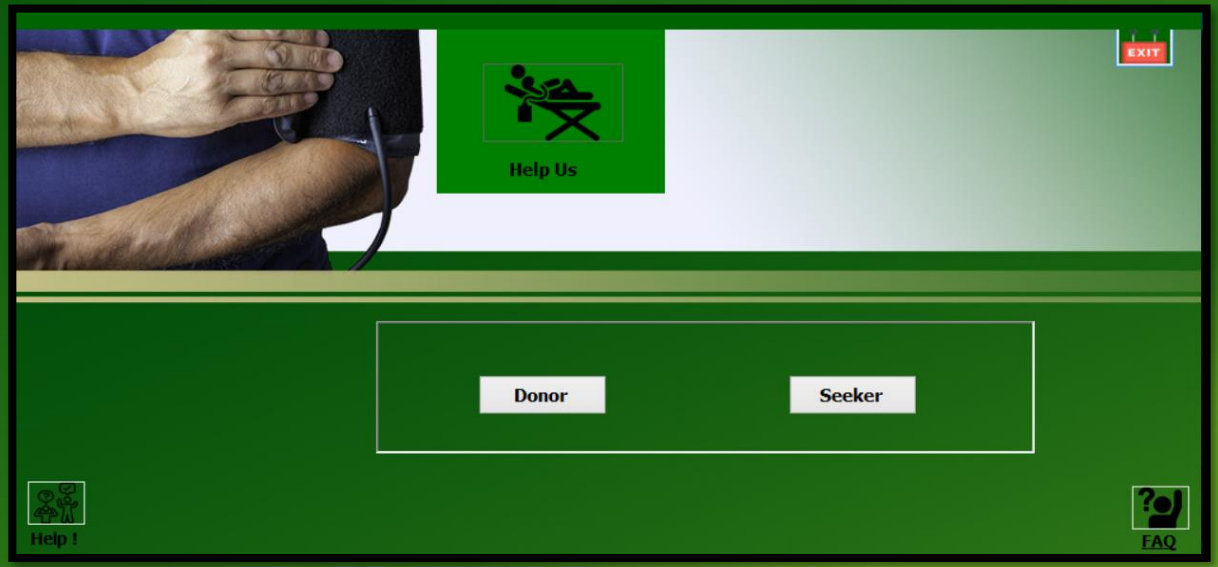
# Developing and Documenting Software



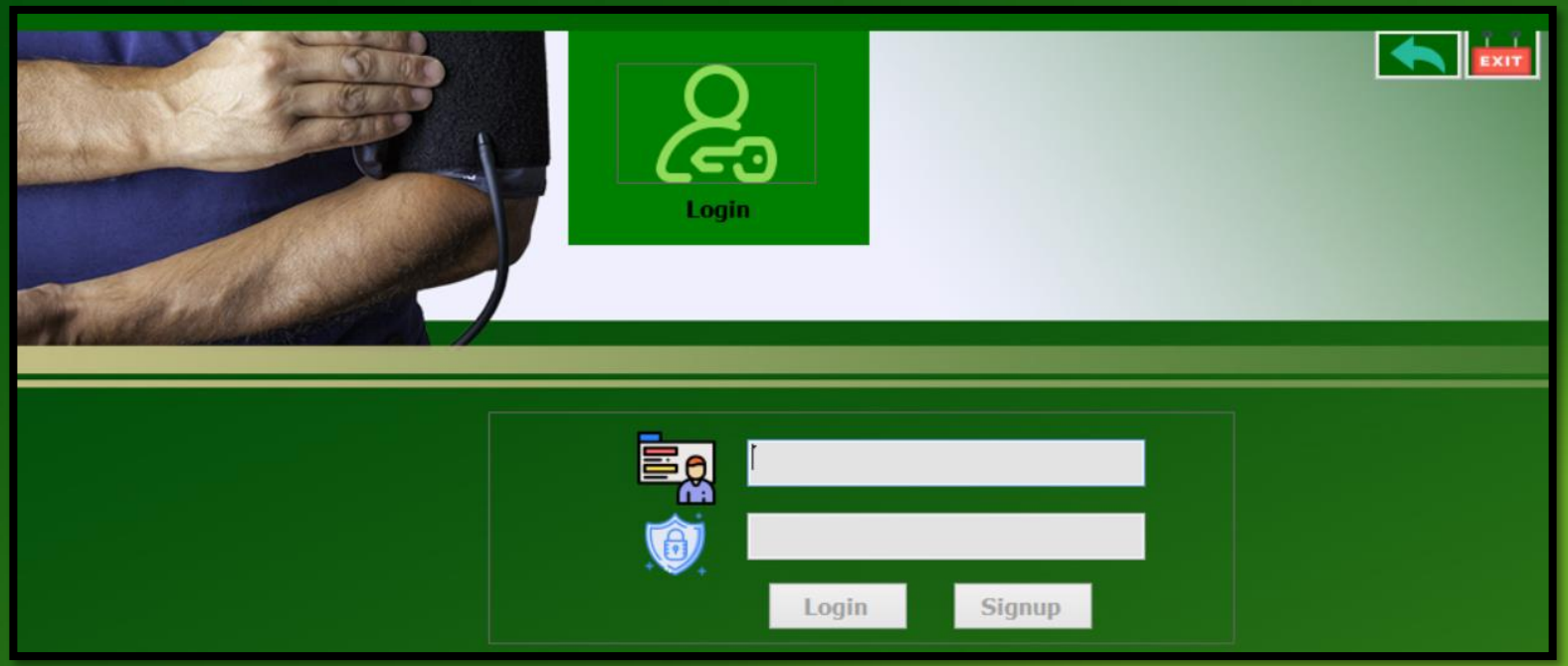


# Loading…

Choose State



Log-in



Sign-up

EXIT

Sign Up

Firstname

Lastname

Username *

Password *

Hospital *

Number *

Address

City

Gender Male Female

Blood_Type *

A+ A- B+ B-

O+ O- AB+ AB-

Register

BloodBankSystem

BloodBankSystem

EXIT

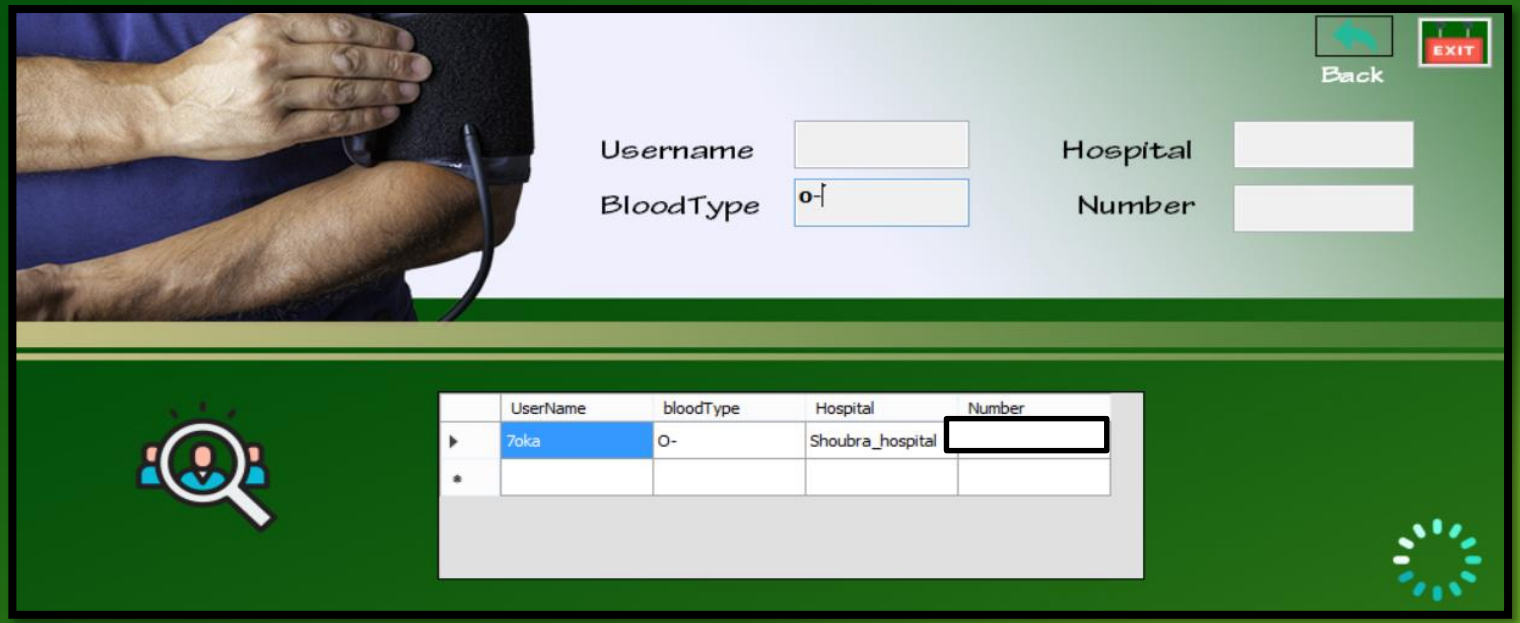
| DonorID | Name | BloodType | Number | City | Hospital |
|---|---|---|---|---|---|
| 1 | remon_emad | A+ | | Cairo | Elrahabaat |
| 2 | karem | AB+ | | Cairo | Samra_Hospi... |
| 3 | 7oka | O- | | Cairo | Shoubra_hos... |
| 4 | ibrahim_nasr | O+ | | Cairo | Kubra_Elkoba |
| 5 | Modaser_Elh... | A- | | Cairo | Elmarg_Hosp... |

Guest

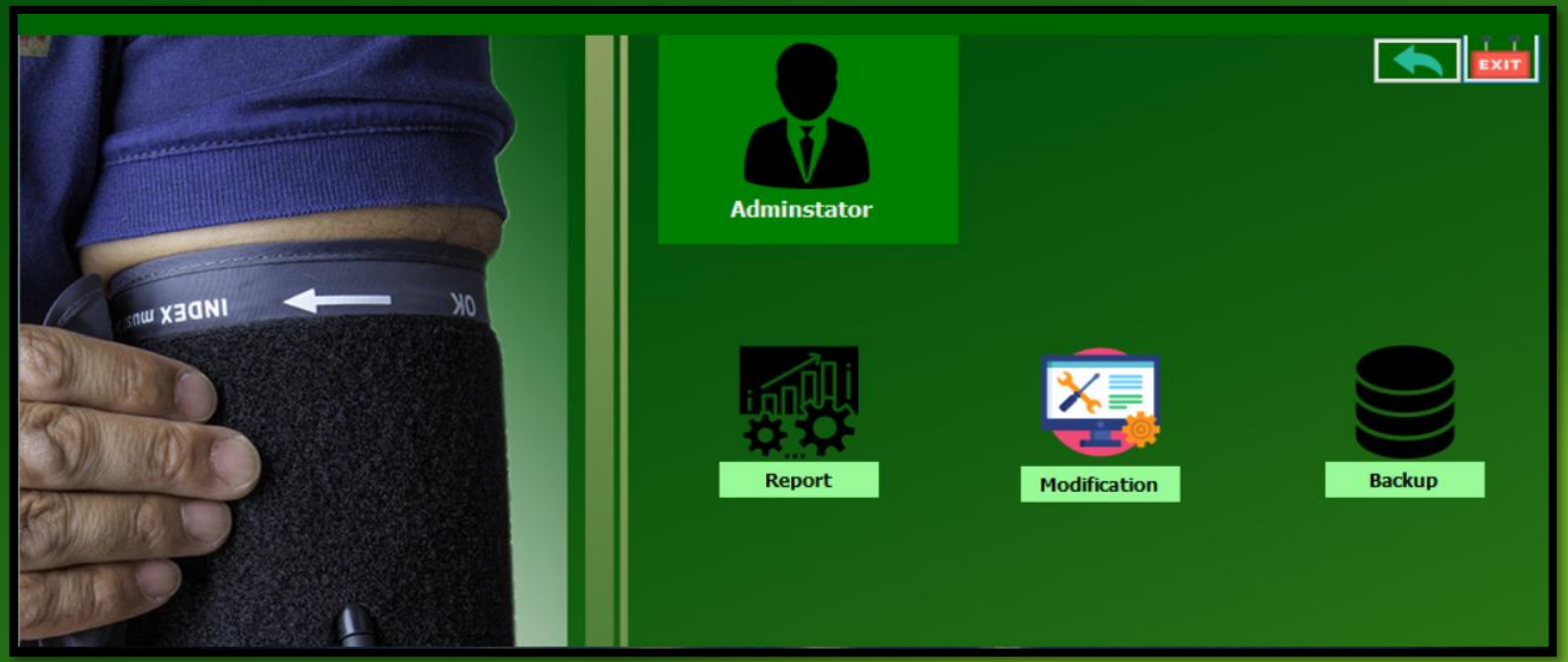
Logout

Search

Search


Back
EXIT
Username
BloodType
o-
Hospital
Number
UserName
bloodType
Hospital
Number
7oka
O-
Shoubra_hospital

Administrator


INDEX mus
OK
Adminstator
EXIT
Report
Modification
Backup

Modification

Adminstrartor

Add

Delete

Update

Display

EXIT

| donorID | UserName | bloodType | Hospital | Number | pPasswo |
|---|---|---|---|---|---|
| 1 | remon_emad | A+ | Elrahabaat | | 0000 |
| 2 | karem | AB+ | 8amra_Hospital | | 12345 |
| 3 | 7oka | O- | Shoubra_hospital | | 12345 |
| 4 | ibrahim_nasr | O+ | Kubra_Elkoba | | 01226121 |
| 5 | Modaser_Elhady | A- | Elmarg_Hospital | | 12345 |

FirstName

LastName

UserName

BloodType

Number

Gender

Hospital

City

Password

Address

* Update

* Delete ID

# Backup & Restore

Back

Backup Database

Location

Browse

Backup

Restore Database

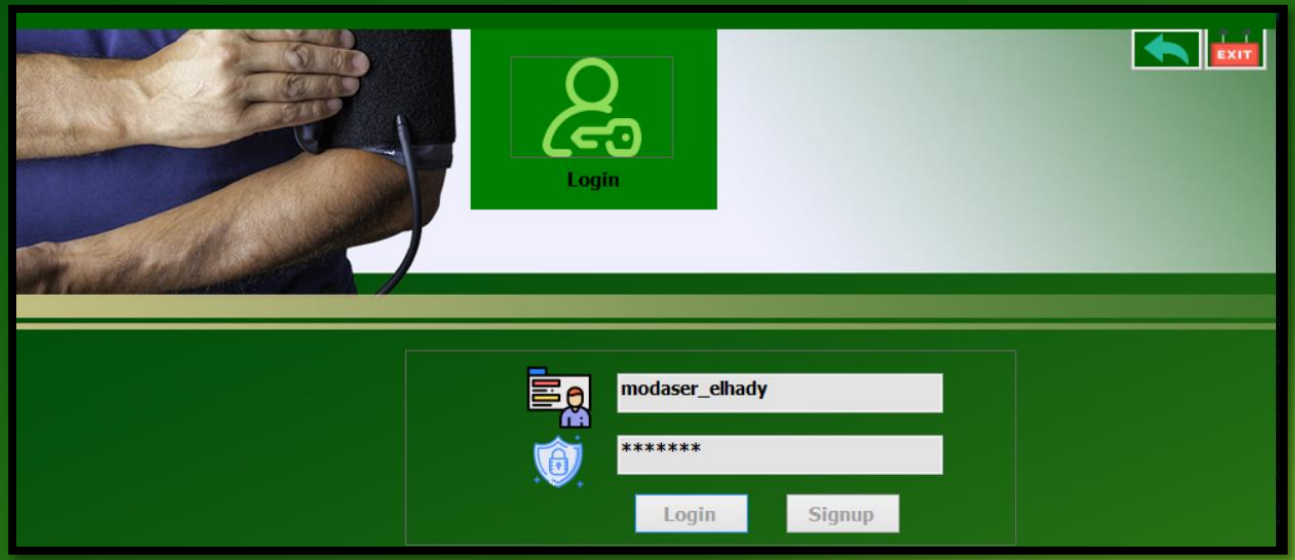
Location

Browse

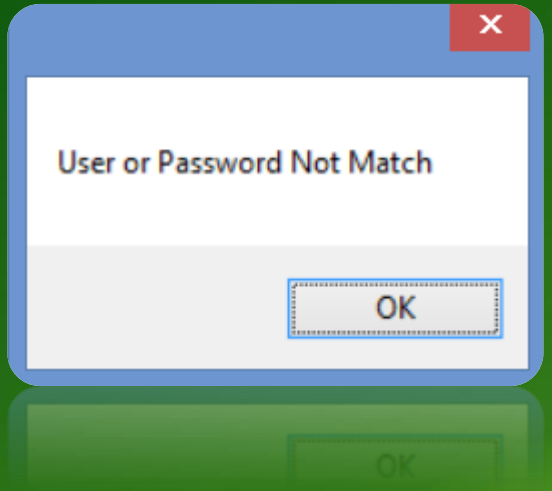
Restore

# Testing and Maintaining the System

Validation



# Validation



Security

Username :iNasr

Password :01033191978

# FAQ (Frequently Asked Questions)

**How long does it take to donate blood?**

The process of donating blood usually takes about 35 minutes from start to finish, however the act of donating blood usually takes about 5 to 8 minutes on average.

**You're asking me a lot of personal information, is it confidential?**

Absolutely. Your complete honesty in answering all questions asked is very important and all information you provide is completely confidential.

**Will it hurt?**

You may feel a slight pinch when the phlebotomist inserts the needle but rest assured, our staff does everything possible to make sure that the donation process is an easy and enjoyable process for all of our donors.

**Are there any risks to me?**

While uncommon, there are risks of donating. Some of these risks and/or problems associated with donating include: bruising (hematoma), pain or nerve damage at the site, dizziness or lightheadedness, nausea and/or vomiting. Your phlebotomist will go over all of this with prior to donating, and will give you after care instructions to help you avoid any reactions. If at any point you have an questions or concerns please do not hesitate to contact us.

**I take prescribed medications regularly, does than mean I can't donate?**

Not necessarily. While there are some medications that will make you ineligible to donate, most are not an issue. The best way to verify if your medication will or will not defer you is to call us prior to donating or ask a nurse when you come in to donate.

**I just got over a cold/the flu, can I still donate?**

We ask that you be in good in general health (feeling well) when you donate, meaning that you are symptom free and are not on any antibiotics. Take the time to fully recover from your cold/the flu before you come back to donate, we'll be happy to see you regardless of when you come back!

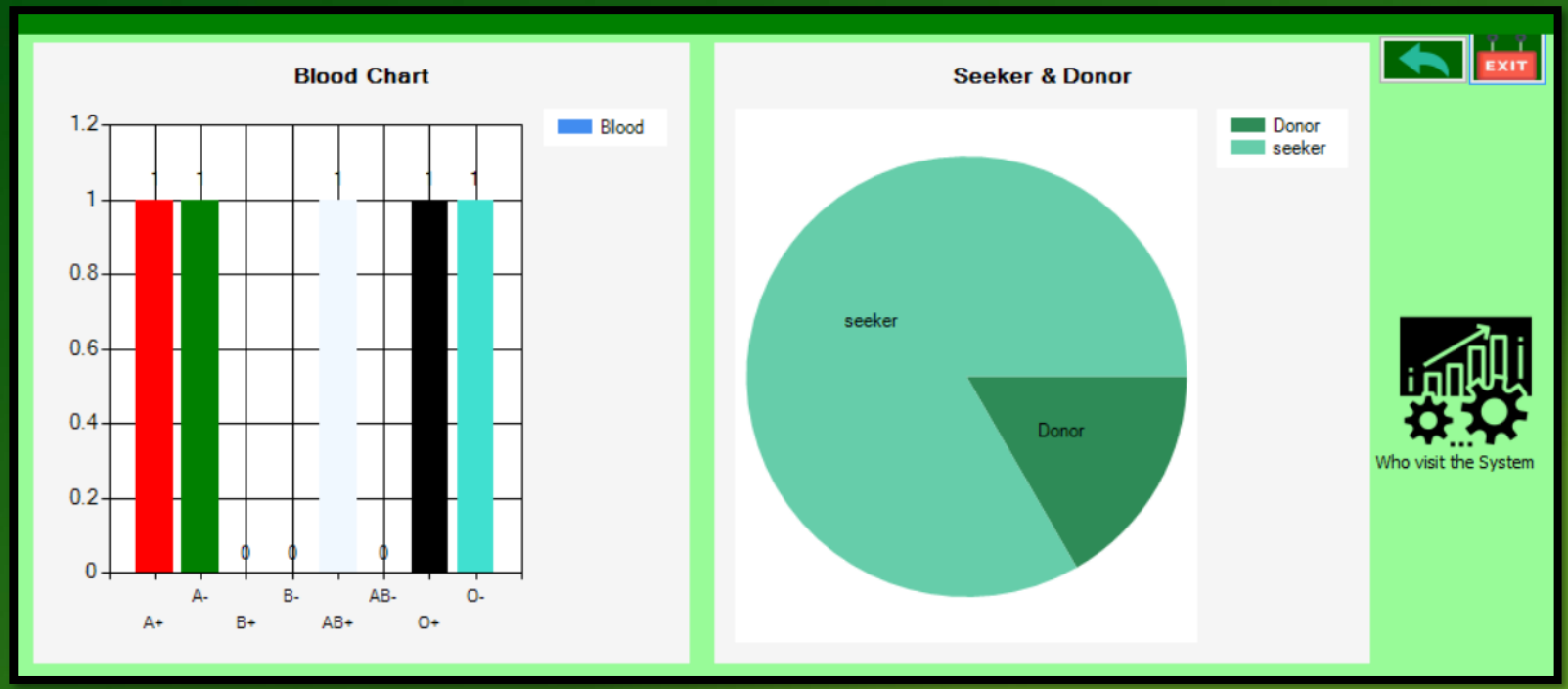
**What area will my donation help?**

The Community Blood Bank of Northwest Pennsylvania and Western New York is the predominant supplier of blood to hospitals in Erie, Elk, McKean, Mercer, Potter, Tioga, Warren and Venango counties, as well as to Titusville Area Hospital. They are the preferred supplier to many hospitals in Allegany and Chautauqua counties in Western New York. We rely on donors in these areas to support their local blood supply.

**Is there a minimum number of donations needed?**

We need about 700 donors each & every week in order to keep up with usage by our partner hospitals.

Statistics


Blood Chart
Blood
1.2
1
0.8
0.6
0.4
0.2
0
A+
A-
B+
B-
AB+
AB-
O+
O-
Seeker & Donor
Donor
seeker
seeker
Donor
EXIT
Who visit the System

About us

Home

# Blood Bank System

Team Codec

Version 1.0

Web Site

Team Codec

Ibrahim Nasr Ibrahim (20162084)

Mudassar Elhady Mohamed (20162201)

Mahmoud Saad Mohamed (20162297)

Remon Emad Helmy (20162032)

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