BLOOD AND ORGAN DONATION MANAGEMENT SYSTEM

Submitted to:
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(Internal Guide)

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Introduction

1.The Blood and Organ Donation Management System is a web-based application designed to simplify the process of blood and organ donation.

2.This system aims to bridge the gap between donors and recipients by providing a platform where donors can register and share their blood and organ details, and hospitals can access the information of donors and available blood and organs for patients.

Modules

Hospital Verification:

- The system should provide an administrative function to verify and manage hospitals participating in the blood and organ donation system.
- The administrator should be able to review and approve hospital registrations.

Organ and Blood Details Management:

- Hospitals should have the ability to add and update organ and blood details in the system. This includes entering information such as blood types, organ availability,location and expiration dates.

Search Functionality:

- Hospitals and common users should be able to search for blood details based on specific criteria such as blood type, availability, and location.
- Hospitals should be able to search for organ details based on specific criteria such as blood type, organ type availability, and location. The system should provide accurate and up-to-date search results.

Requesting Functionality:

- Hospitals should be able to request for more organ details to other hospitals.
- Requesting Hospital, request all there queries with the help of chat box to other hospital.

Complaint Management:

- The system should allow users, both hospitals and common users, to lodge complaints related to blood and organ donation.
- The administrator should have the ability to review and address these complaints effectively.

Donor and Recipient Matching:

- The system should facilitate the matching process between donors and recipients based on compatible blood types, organ compatibility, and other relevant factors.
- It should provide hospitals with an efficient mechanism to identify suitable donors for recipients.

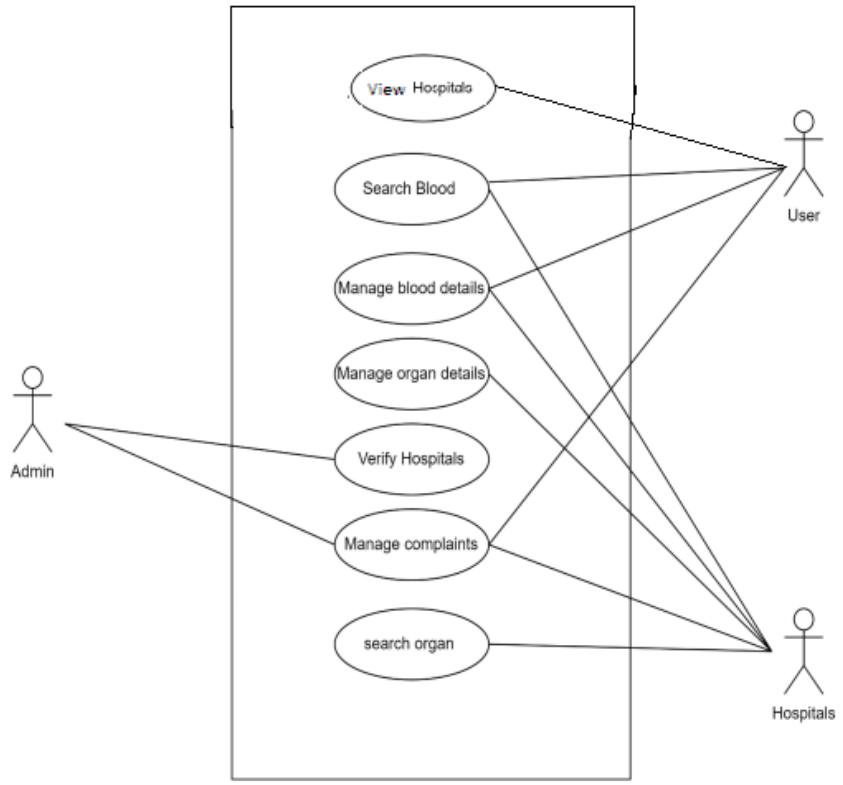
Blood Donation Information:

- Common users should have the ability to add blood donation information, including their blood type, availability, and location.
- This feature helps in expanding the pool of available blood donors and improving donation accessibility.

View Hospitals:

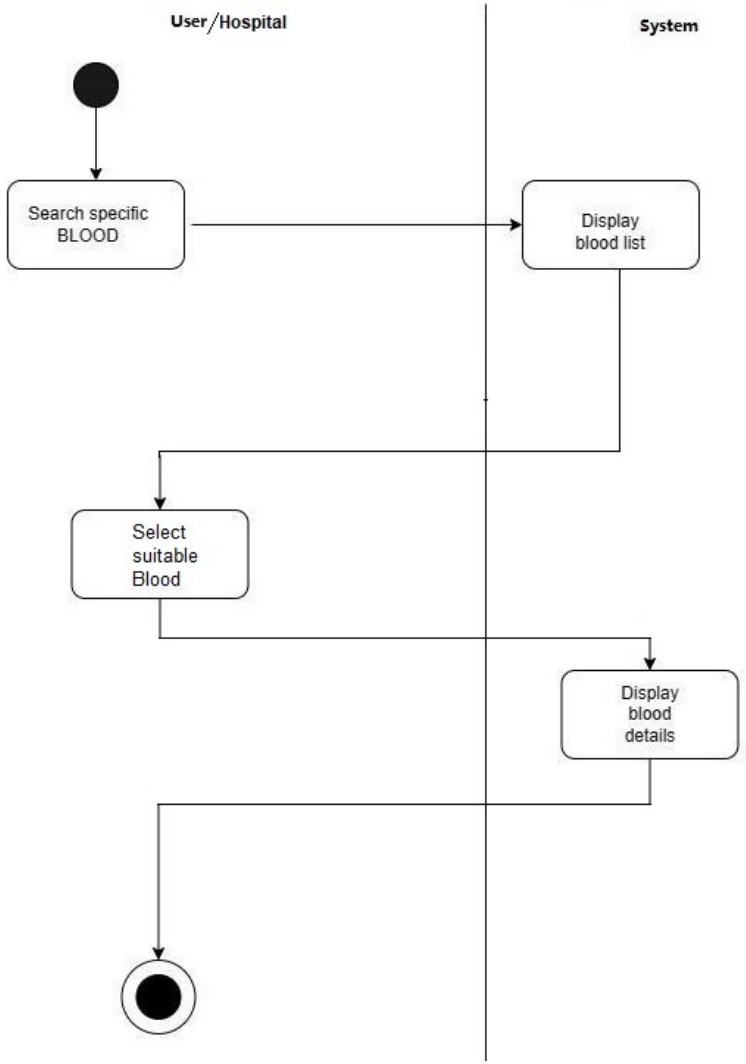
- Common users should have the ability to View Organ Donation Hospitals with location.
- This feature helps accessibility of user with hospital in the matter of Organ Donation.

Use Case

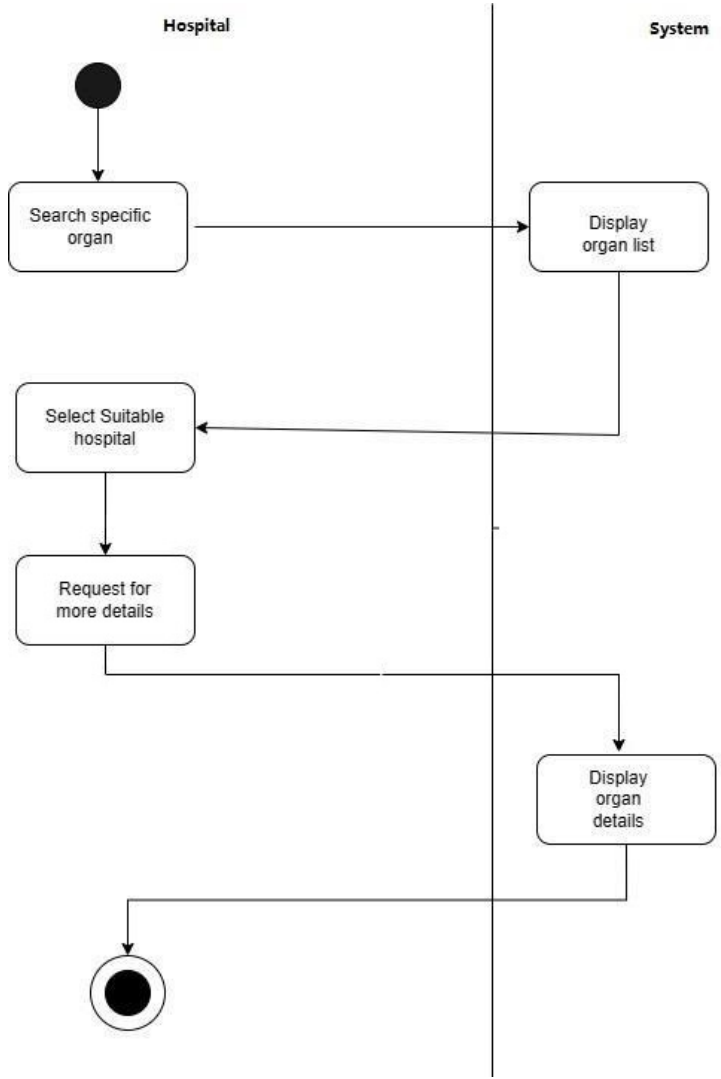

View Hospitals
Search Blood
Manage blood details
Manage organ details
Verify Hospitals
Manage complaints
search organ
User
Admin
Hospitals

Activity Diagram

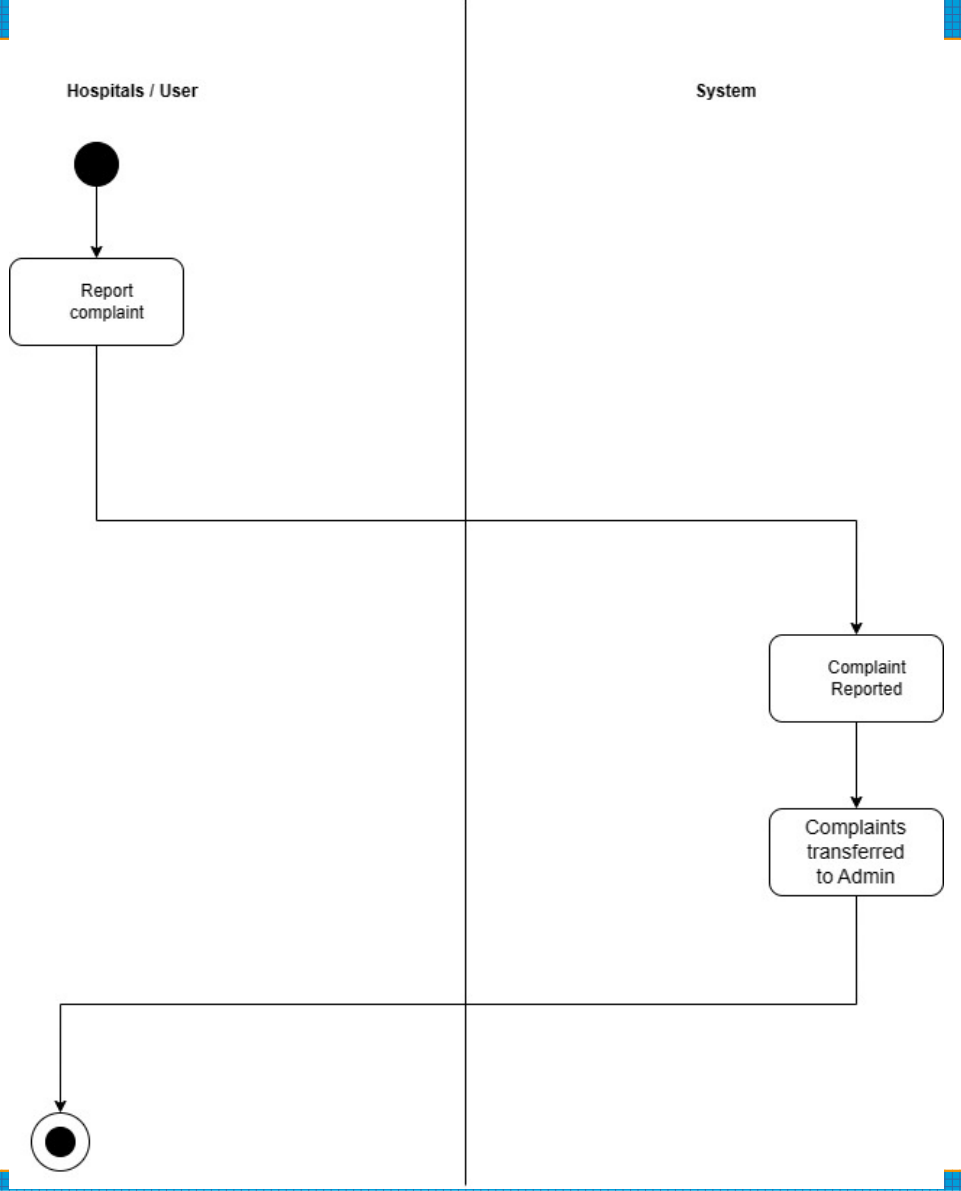
Search Blood



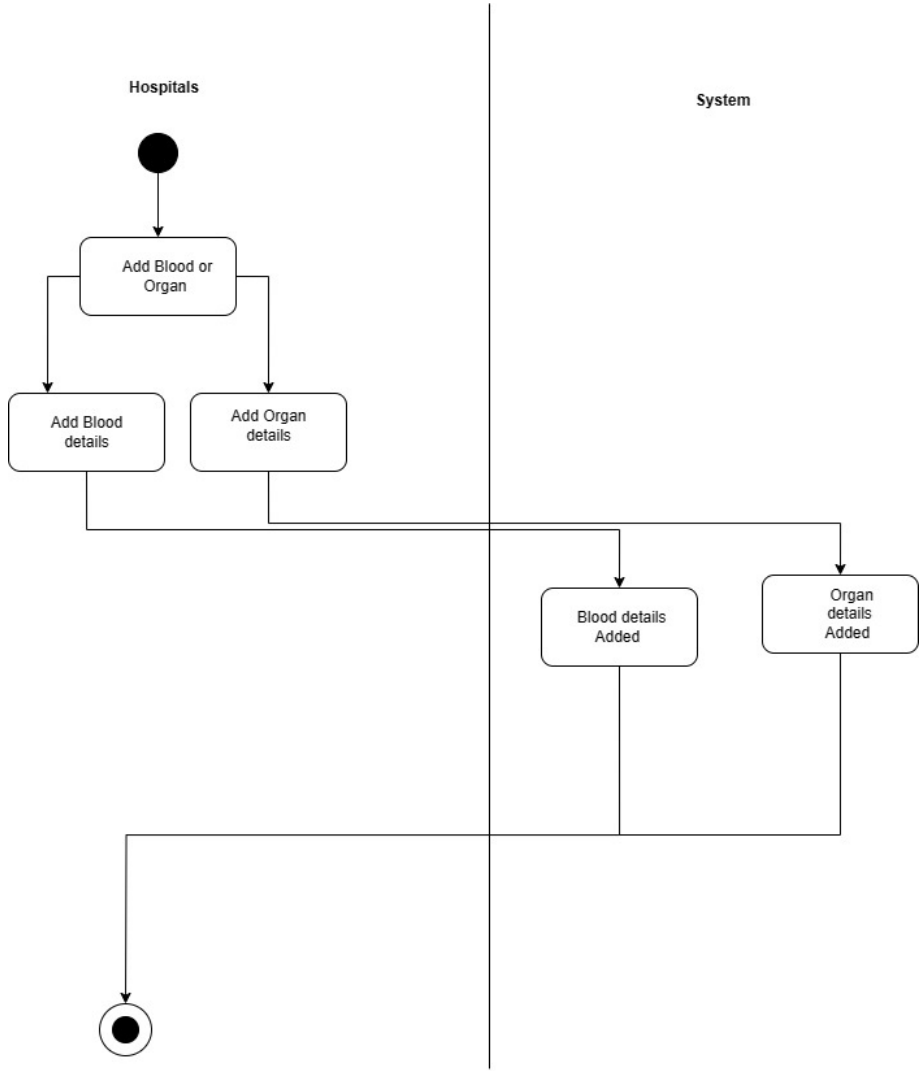
Organ Search



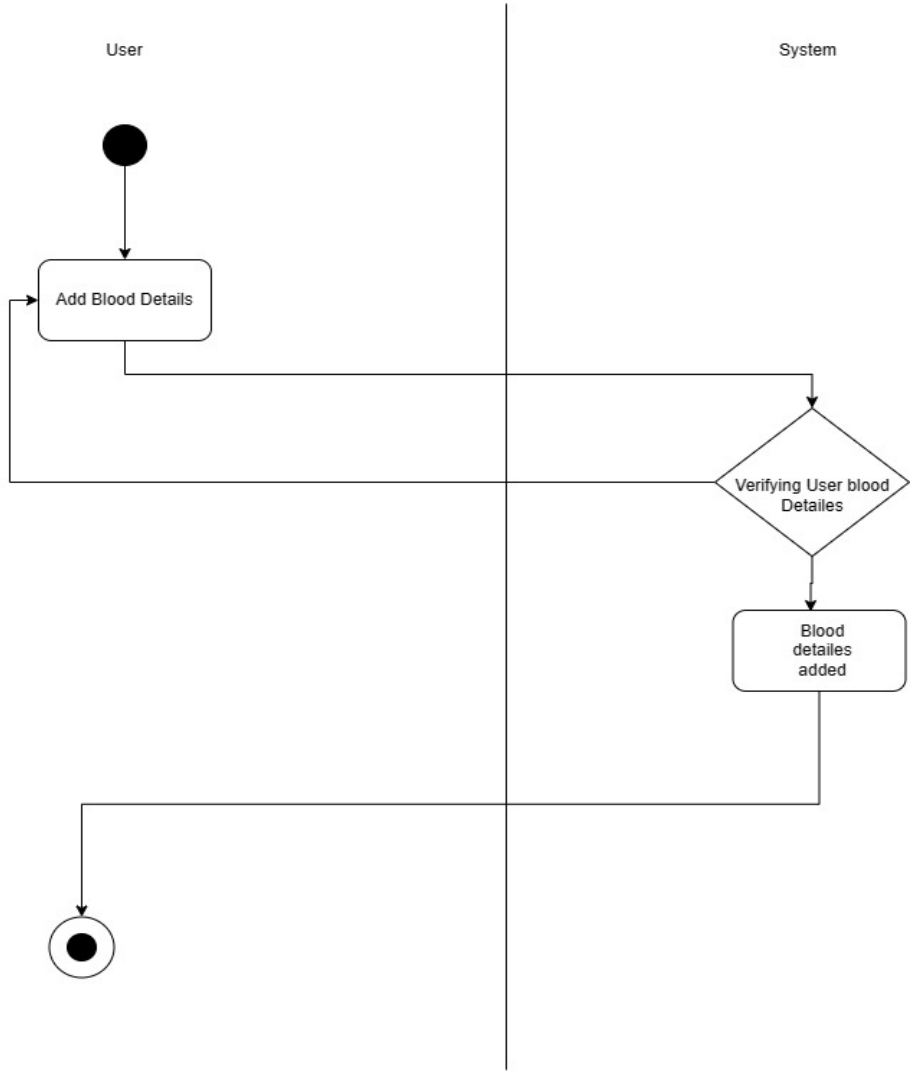
Manage Complaints
(Hospital & User)



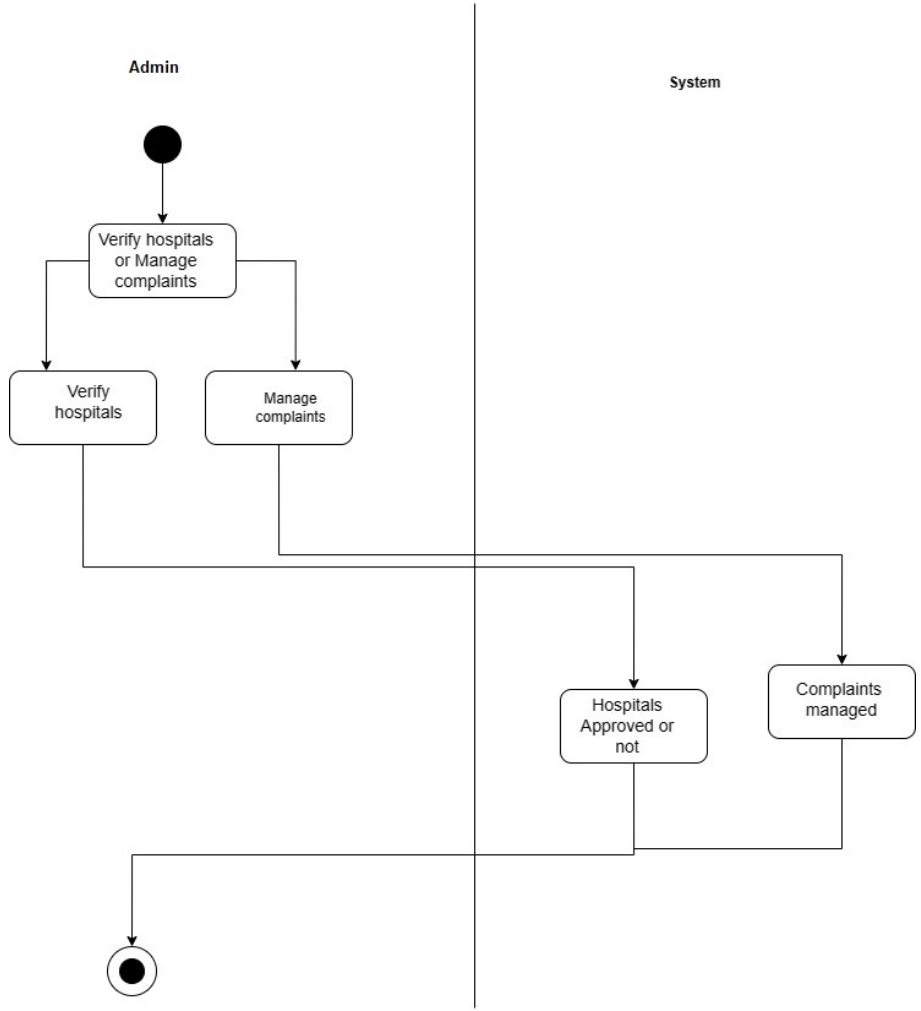
Add Blood and Organ



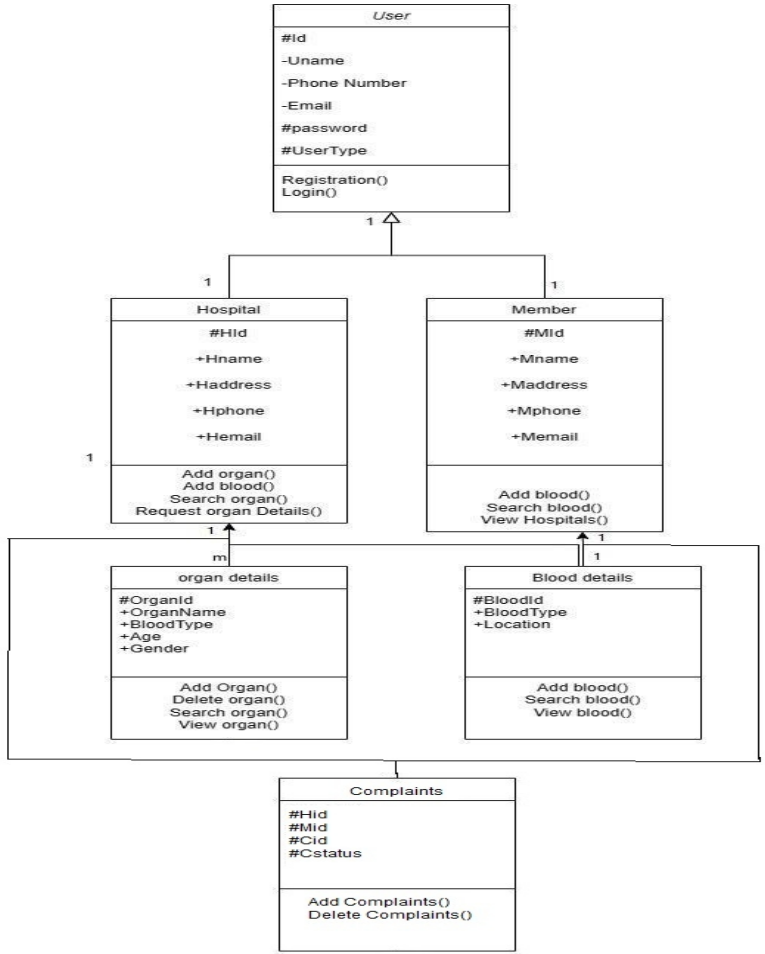
Add Blood(User)



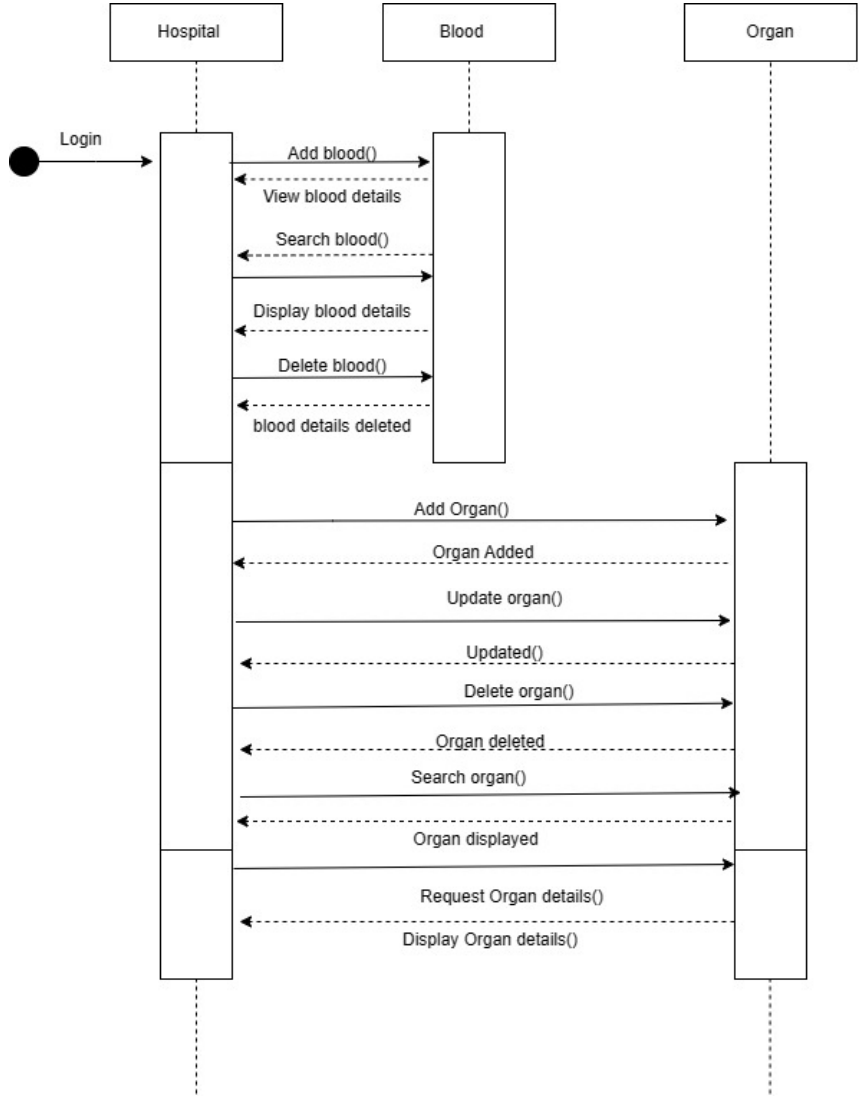
Admin Activity



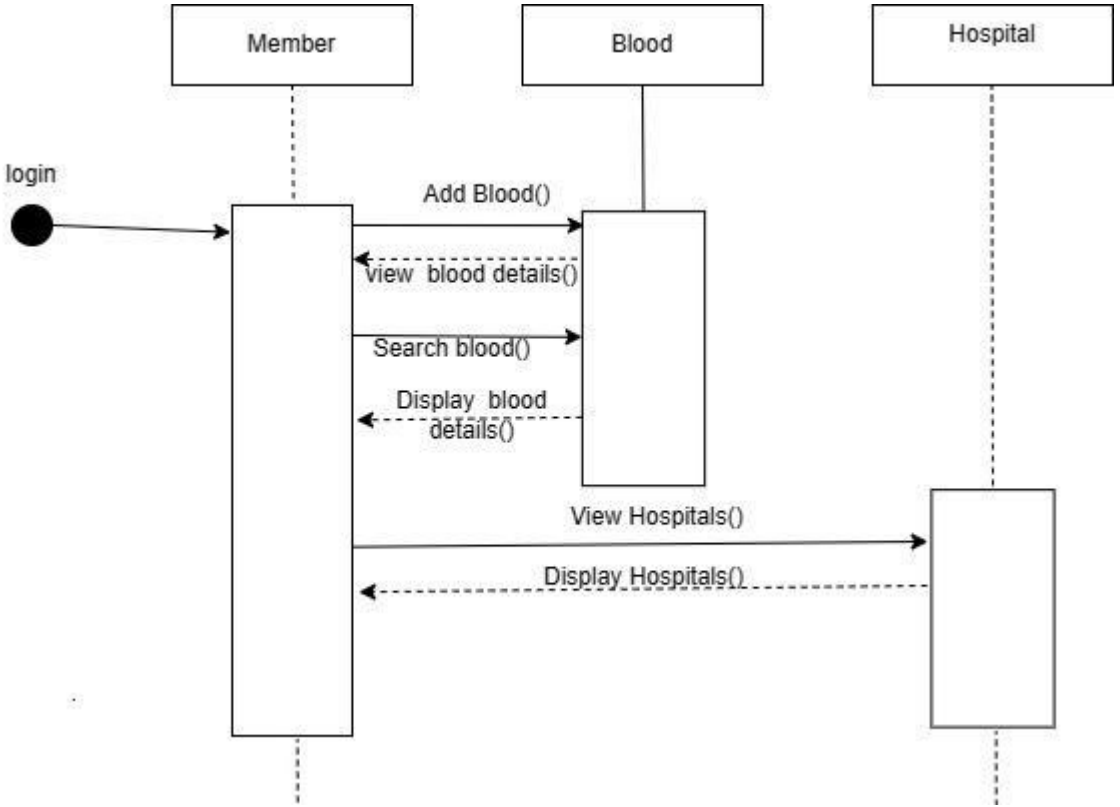
Class Diagram



Sequence Diagram Hospital



User


Member
Blood
Hospital
login
Add Blood()
view blood details()
Search blood()
Display blood details()
View Hospitals()
Display Hospitals()

Data Base Design

Users

NAME	TYPE	DESCRIPTION	Constraints
Id	ObjectId	Unique Id of Users	Primary Key
Uname	String	Name of User	
Email	String	Email Id of User	
Phone	Number	Phone number of user	
Password	String	Password of user	
Usertype	String	Type of User	

Hospitals

NAME	TYPE	DESCRIPTION	Contraints
Id	ObjectId	Unique Id of Hospital	Primary Key
HId	ObjectId	User Id of Hospital	Foreign Key
Hname	String	Name of Hospital	
Haddress	String	Address of Hospital	
Hphone	Number	Number of Hospital	
Email	String	Email id of Hospital	

Organ Details

NAME	TYPE	DESCRIPTION	Contraints
Id	ObjectId	Unique Id of Organ	Primary key
OrganId	ObjectId	Id of Organ	Foreign Key
OrganName	String	Name of Organ	
BloodType	String	Type of Blood	
Age	Number	Age of Donor	
Gender	String	Gender of Donor	

Member

NAME	TYPE	DESCRIPTION	Contraints
Id	ObjectId	Unique Id of Member	Primary Key
MId	ObjectId	User Id of Hospital	Foreign Key
HouseName	String	Name of House	
Street	String	Name of Street	
District	String	Name of District	
Pincode	Number	Pincode of Member Address	
PhoneNo	Number	PhoneNo of Member	

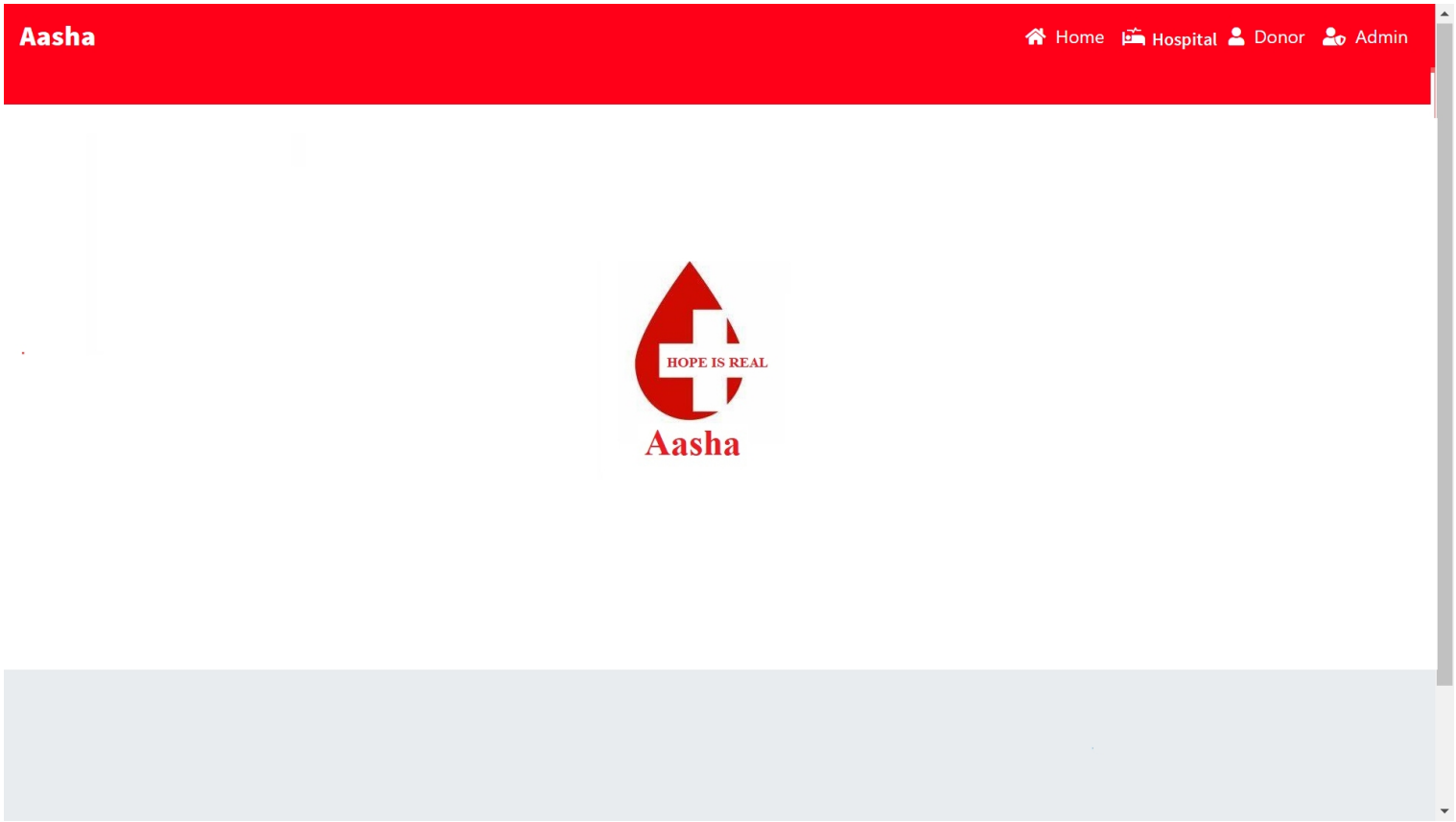
Blood Details

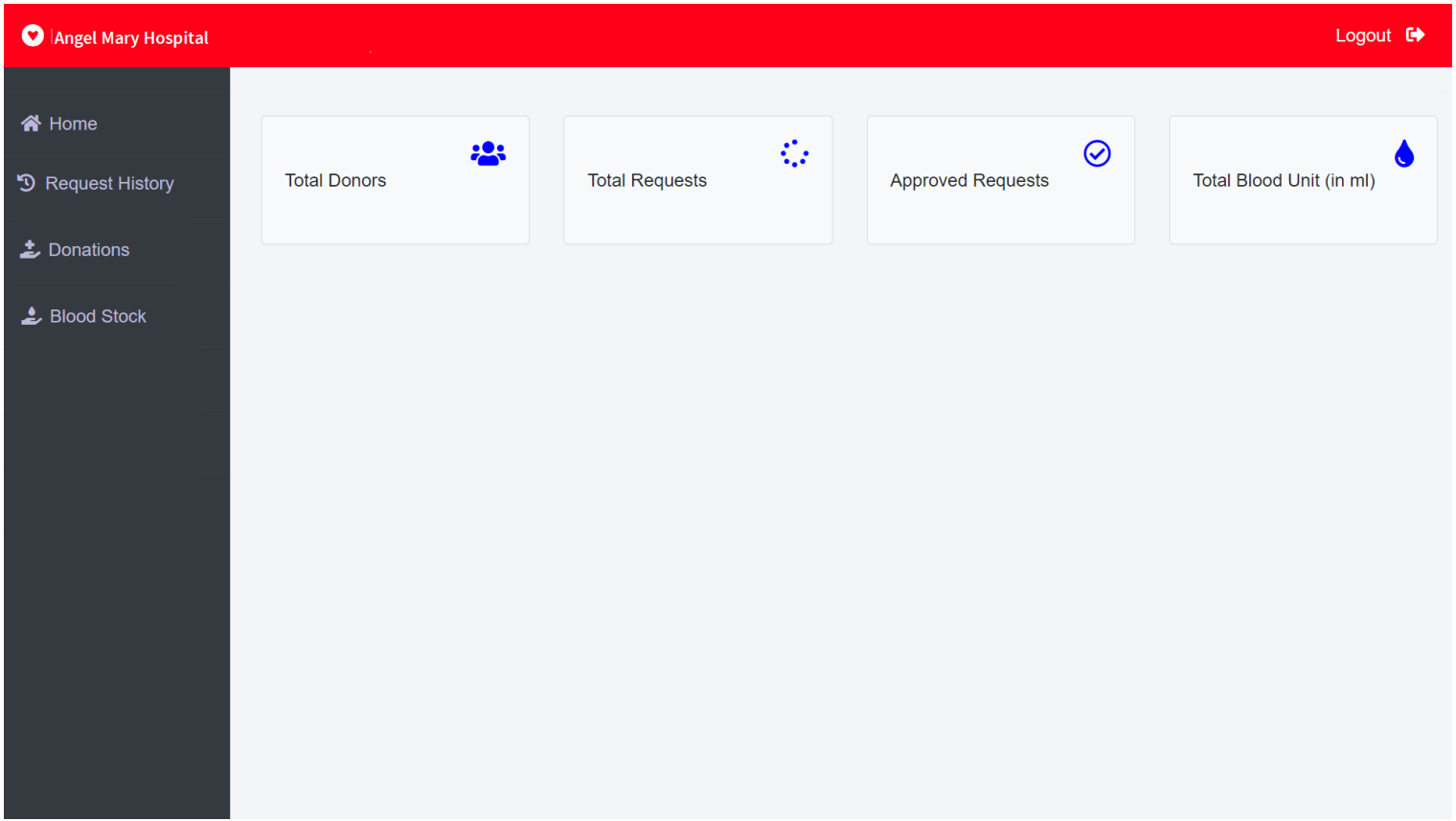
NAME	TYPE	DESCRIPTION	Contraints
Id	ObjectId	Unique Id of Blood	Primary Key
BloodId	ObjectId	Id of Blood	
BloodType	String	Type of Blood	
Location	String	Location of Blood	
BloodBank	Boolean	Check blood bank or not	
BloodThinner	String	Thinner of blood	
BloodDate	Date	Expiration date of blood	

Organ Request

NAME	TYPE	DESCRIPTION
Id	ObjectId	Unique Id of organ
RecipientId	ObjectId	Id of Recipient
RequestId	ObjectId	Id of Request
OrganId	ObjectId	Id of Organ
RequestStatus	Boolean	Status of information Request

Form Design




Angel Mary Hospital
Logout
Home
Request History
Donations
Blood Stock
Total Donors
Total Requests
Approved Requests
Total Blood Unit (in ml)

References

- https://www.who.int/news-room/questions-and-answers/item/blood-products-why-should-i-donate-blood
- MongoDb