

Course: Software Design & Architecture

Project Title: Blood Bank Management System

Section: U

Semester: 5th



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Submitted To: Sir. Junaid Abdallah

Introduction

- The Blood Bank donation system can collect blood from many donors in short from various sources and distribute that blood to needy people who require blood.
- Bank login your account via correct ID and password and blood bank register donor's account if donor does not exist before and also go towards dashboard after registration if donor exists.
- Blood bank searches the existing Donor via different filters.
- Blood bank check the stock details like how many total number of bags exist with blood groups.
- Blood bank have different types of contact methods like via website, email and telephone, the most popular method in our country.
- Other functions of our project are acceptor and donor feedback. It helps the system to improve its services. In short this section is for user experience. There are also blood camp details. Camp organized by the blood bank in different areas in different times. Time and location are pre uploaded on the application . And also the details are shared with current user via Email and text messages. In the blood bank, volunteers donate blood and bank also buys blood. Bank buys only rare blood groups. At the end there are the payment methods of buying and selling the blood.

Background

- To provide an efficient donor and blood stock management system to the blood bank by recording the donor and blood details.
- To provide pure blood with no wastage blood is been collected in different types of packs.
- They provide synchronized and centralized donor and blood stock database.
- To provide immediate storage and retrieval of data and information.

Limitations

- No work in Pakistan
- We are only one who implements in Pakistan

Project Scope:

Blood bank login:

- Require to active in website

Register donor:

- Create a new User account if the donor does not exist before and also go towards the dashboard after registration if the donor exists.
- Search Donor

Search Donner:

- Show all
- Via blood Group

Stock details:

- Total number of bags

Contact us:

- Via Website
- Via Email
- Via Phone Number

View Inquiry:

- Acceptor Feedback
- How to improve our services

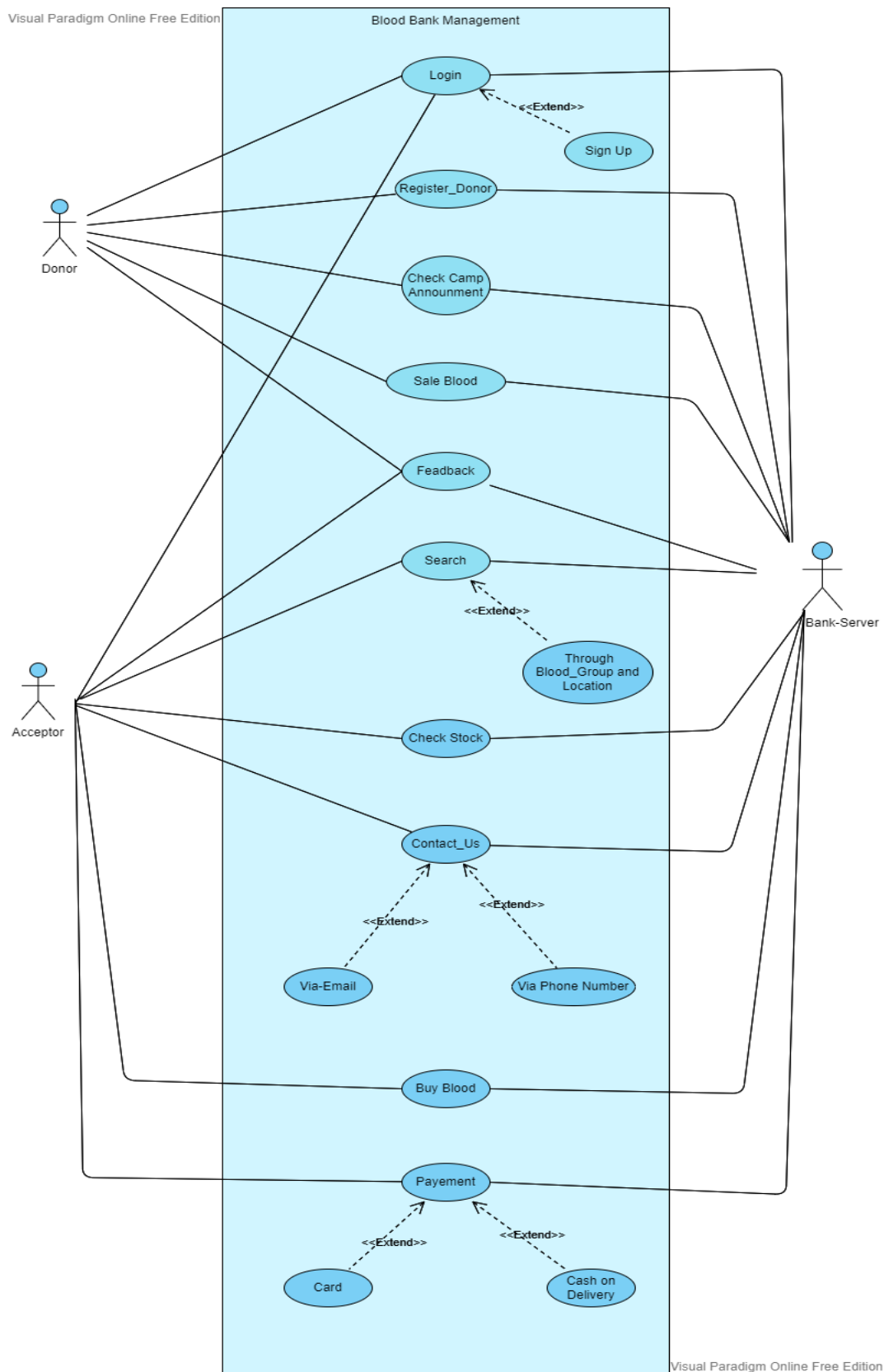
Camp:

- Location and timing of camp.

Buy blood:

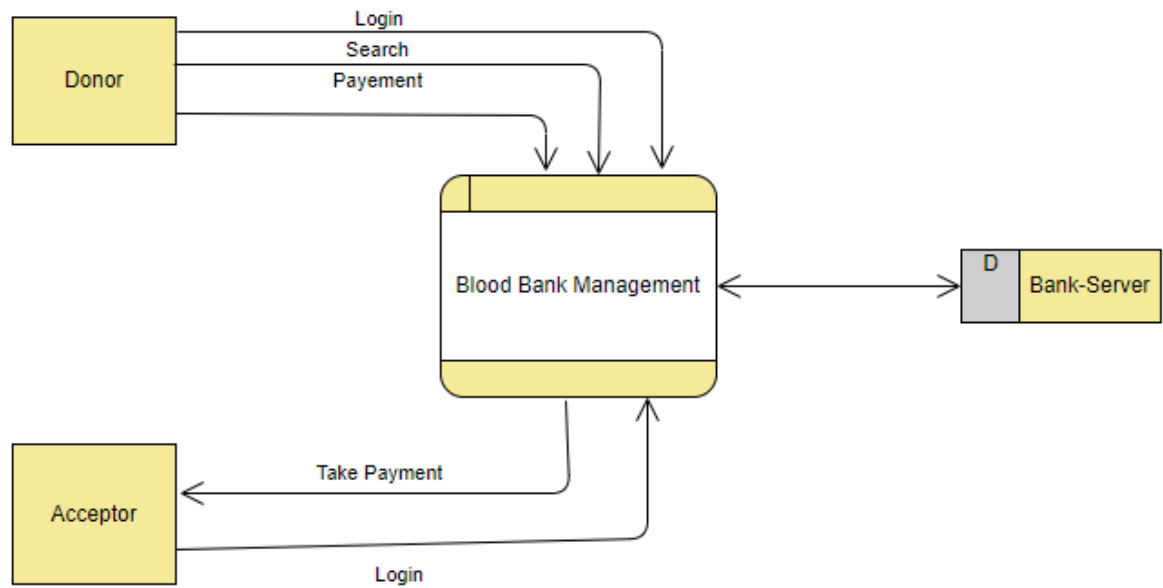
- Buy rare blood groups for a premium amount.
- Payment method.

Functional Requirements (Use case diagram):



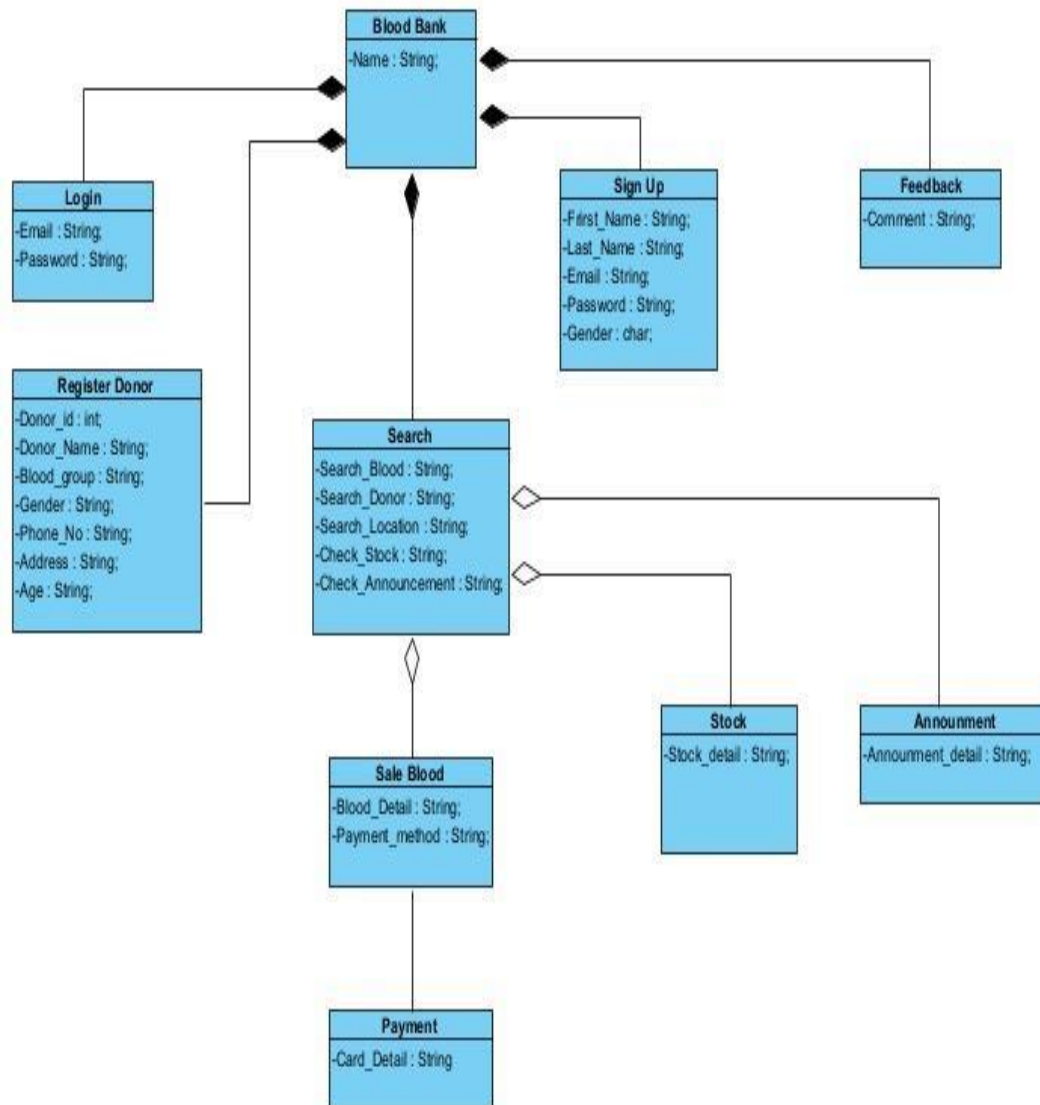
Data Flow Diagram (DFD):

Level “0” of Data Flow Diagram (DFD)

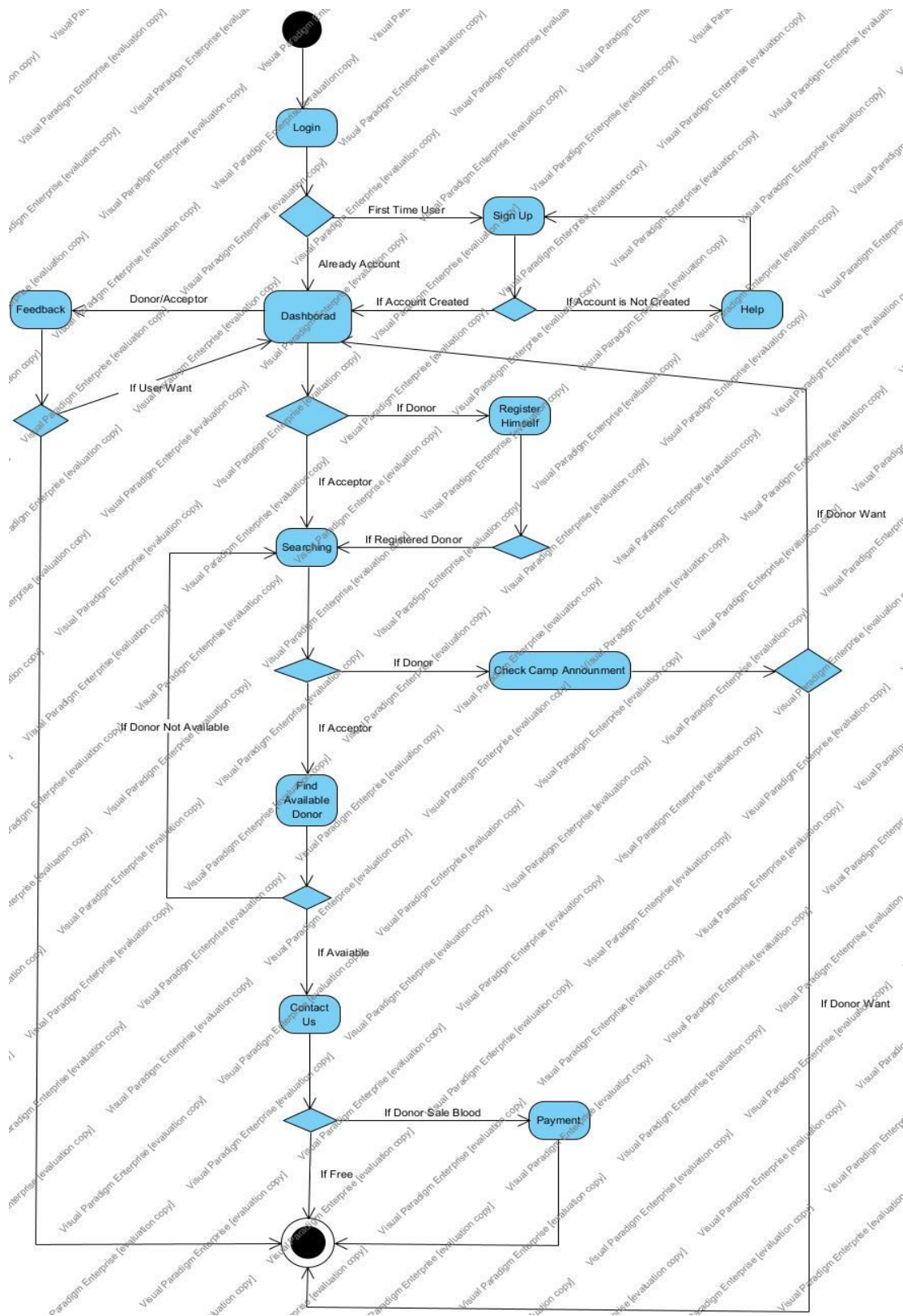
**Description:**

It's a basic overview of the whole system or process being analyzed or modeled. It's designed to be an at-a-glance view, showing the system as a single high-level process, with its relationship to external entities.

Class Diagram:




Activity Diagram:



Prototypes:

- **Log in**


Blood Bank

[Home](#)
[About](#)
[Services](#)
[Contact](#)


Email & User ID

Password



[Login](#)






IF First TIME User [Sign up](#)


- **Dashboard**


Blood Bank

[Dashboard](#)
[Logout](#)

 Dashboard
  Inbox

 Inbox
  Search Donors
  Active Donor
  Not Active Donor
  Need Blood

 Setting

Hussnain Arshad [View](#)

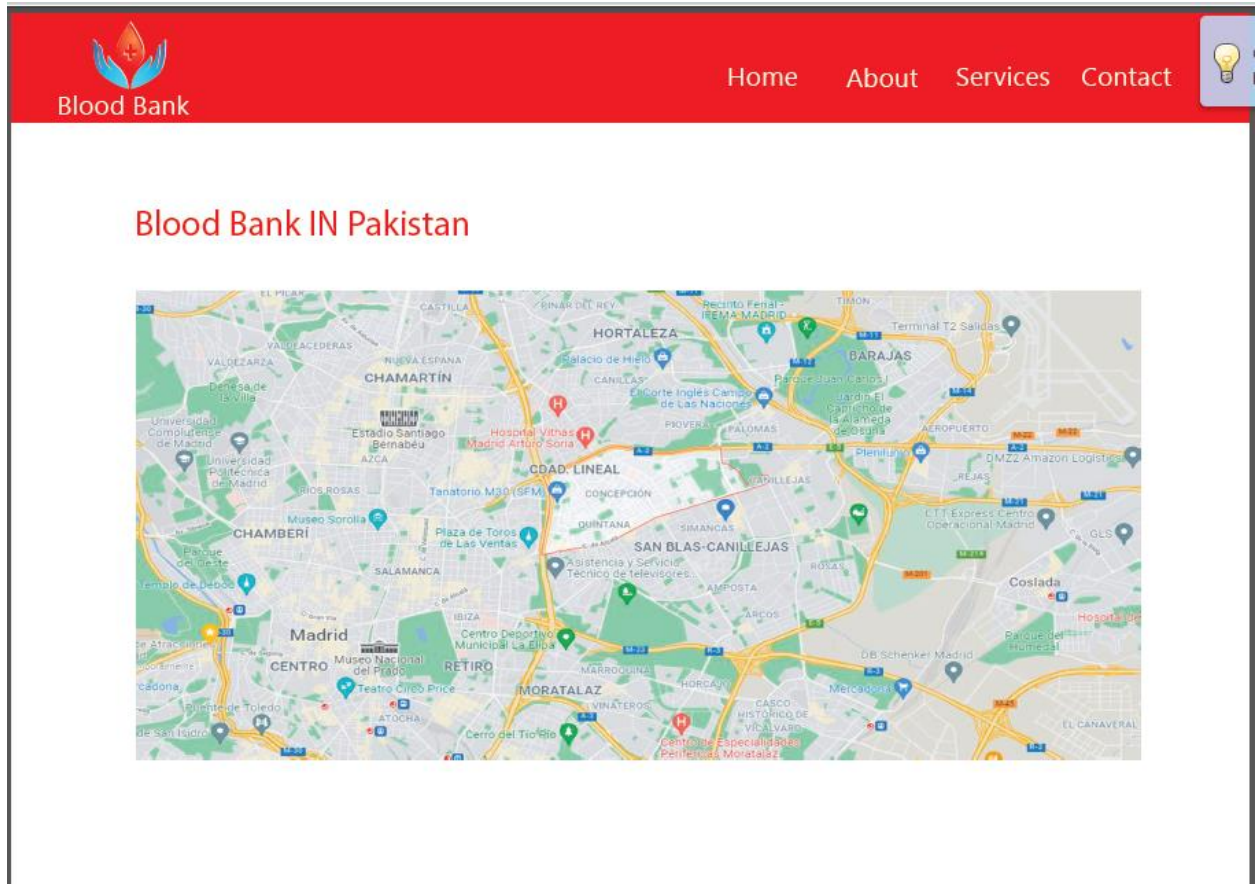
Ali Aftab [View](#)

Dua Nadeem [View](#)

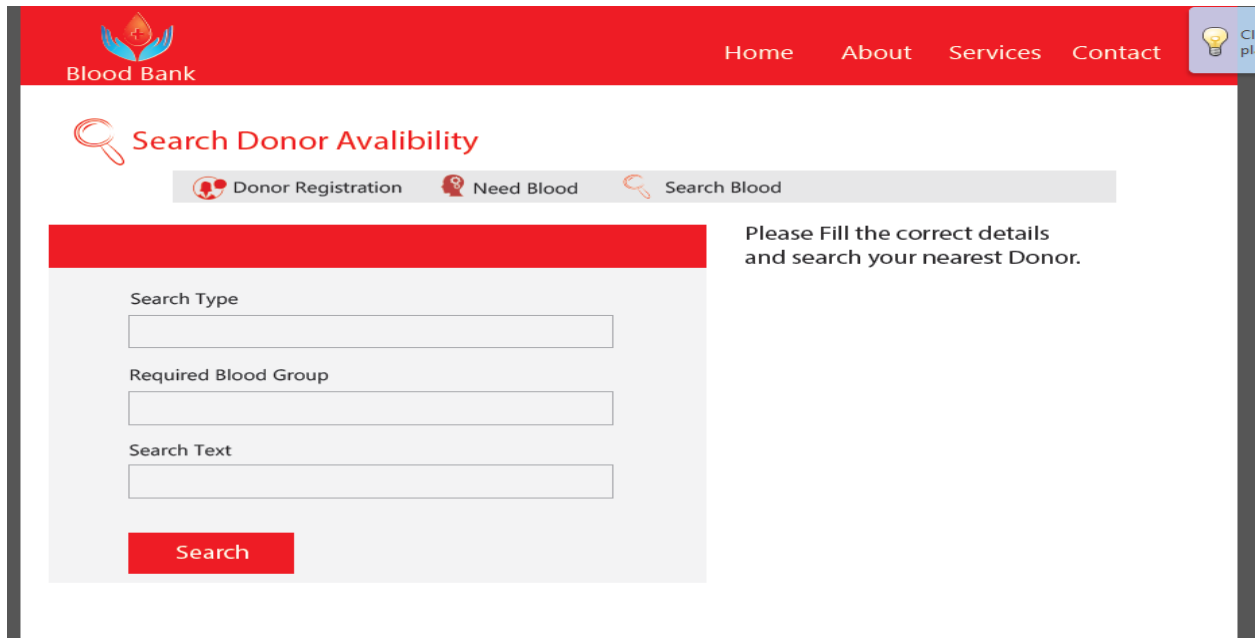
ram : ghruw.... [View](#)

Gokul : Test Message.. [View](#)

- **Location**

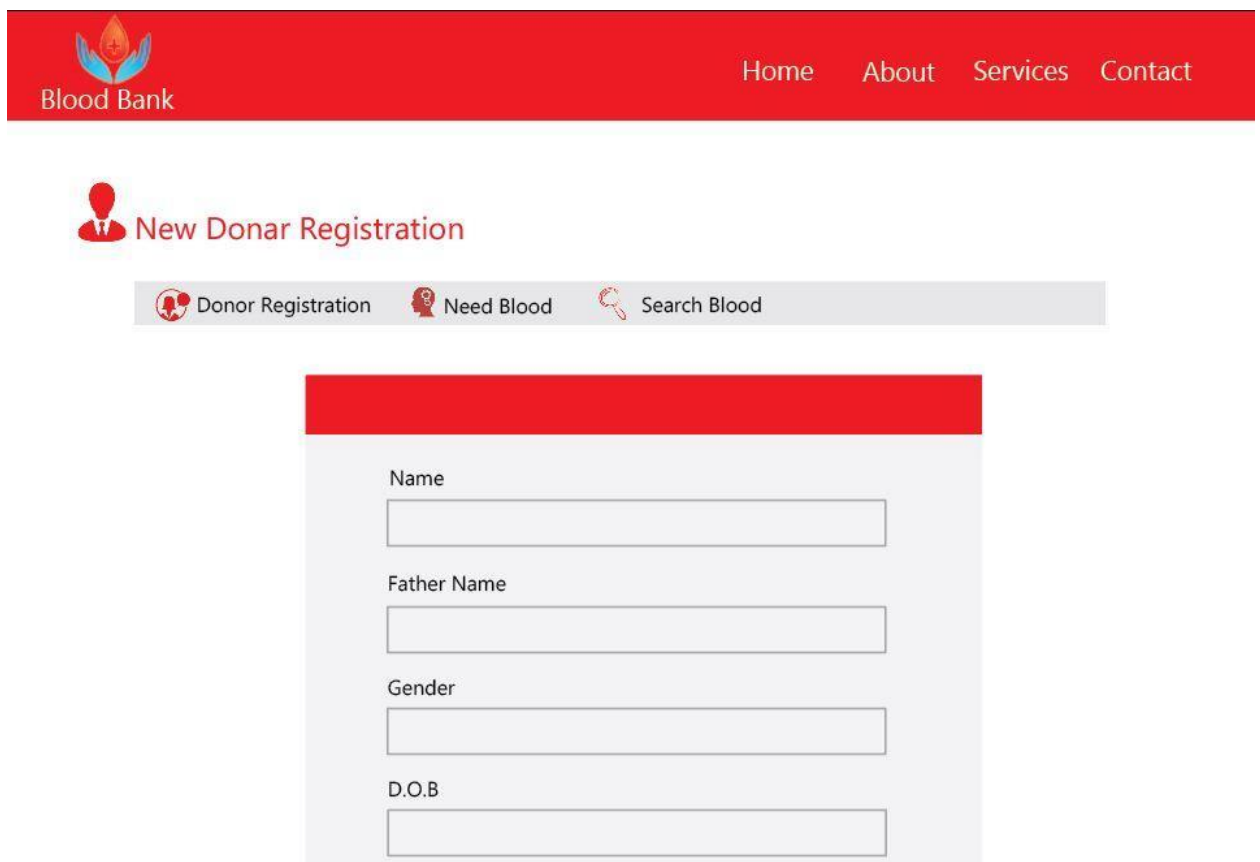


- **Search**



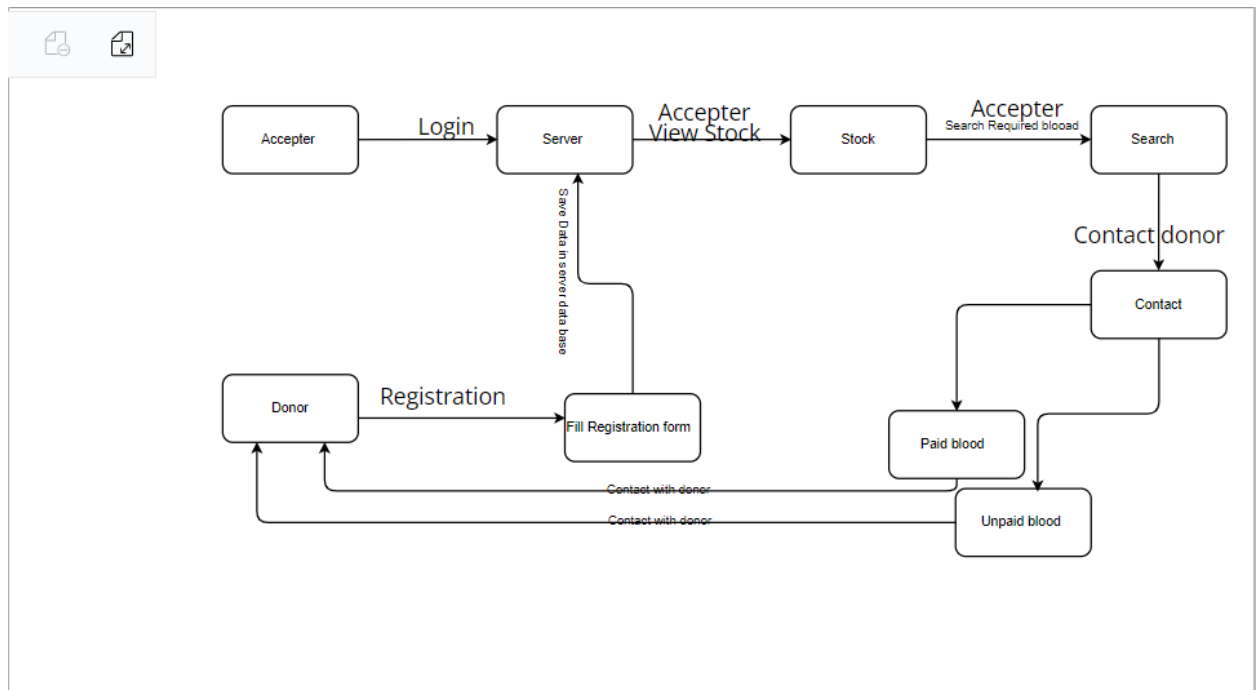
The screenshot shows the 'Search Donor Availability' page of a Blood Bank website. The header is red with the Blood Bank logo and navigation links: Home, About, Services, and Contact. Below the header, there's a search bar with a magnifying glass icon and the text 'Search Donor Availability'. A secondary navigation bar contains three options: 'Donor Registration' (with a person icon), 'Need Blood' (with a person icon), and 'Search Blood' (with a magnifying glass icon). The main content area has a red header bar. Below it, there's a form with three input fields: 'Search Type', 'Required Blood Group', and 'Search Text'. A red 'Search' button is at the bottom of the form. To the right of the form, there's a text prompt: 'Please Fill the correct details and search your nearest Donor.'

- **Registration**

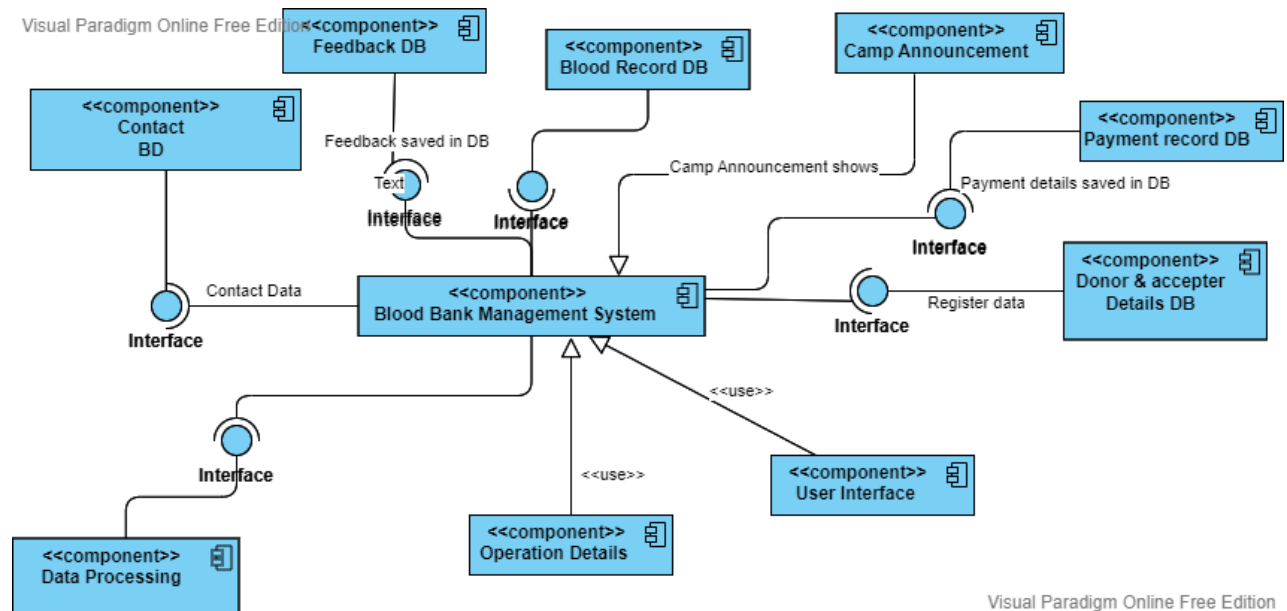


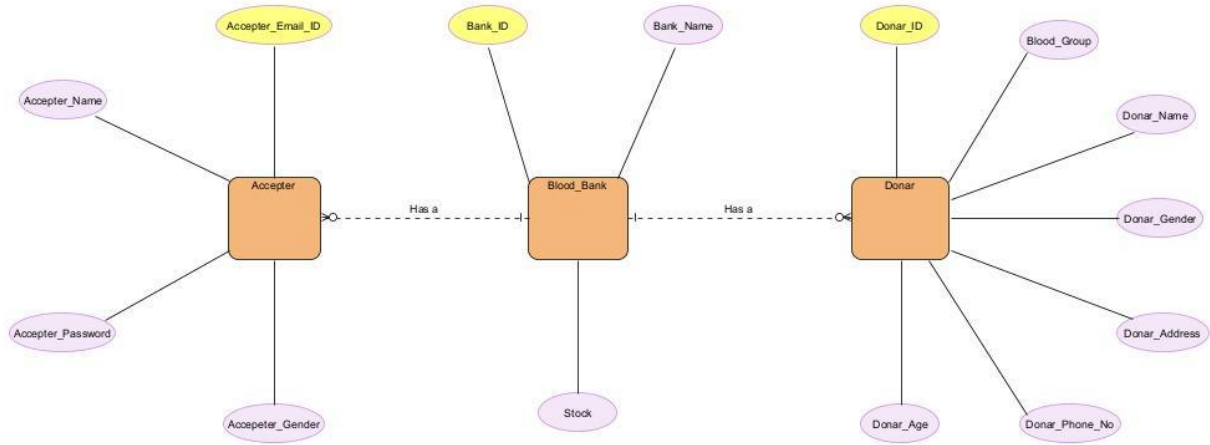
The screenshot shows the 'New Donar Registration' page of a Blood Bank website. The header is red with the Blood Bank logo and navigation links: Home, About, Services, and Contact. Below the header, there's a registration bar with a person icon and the text 'New Donar Registration'. A secondary navigation bar contains three options: 'Donor Registration' (with a person icon), 'Need Blood' (with a person icon), and 'Search Blood' (with a magnifying glass icon). The main content area has a red header bar. Below it, there's a form with four input fields: 'Name', 'Father Name', 'Gender', and 'D.O.B'.

Collaboration diagram:

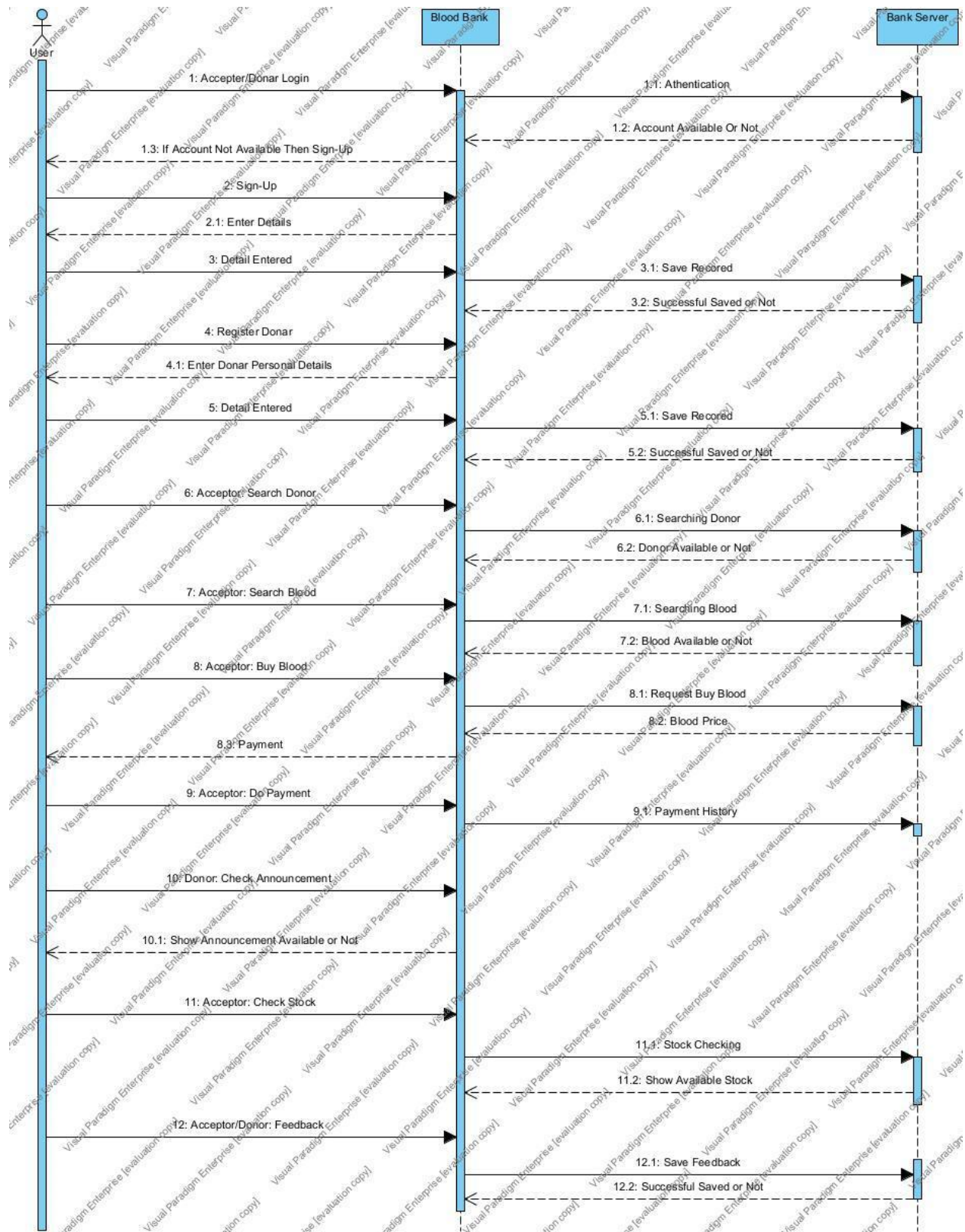


Component Diagram:



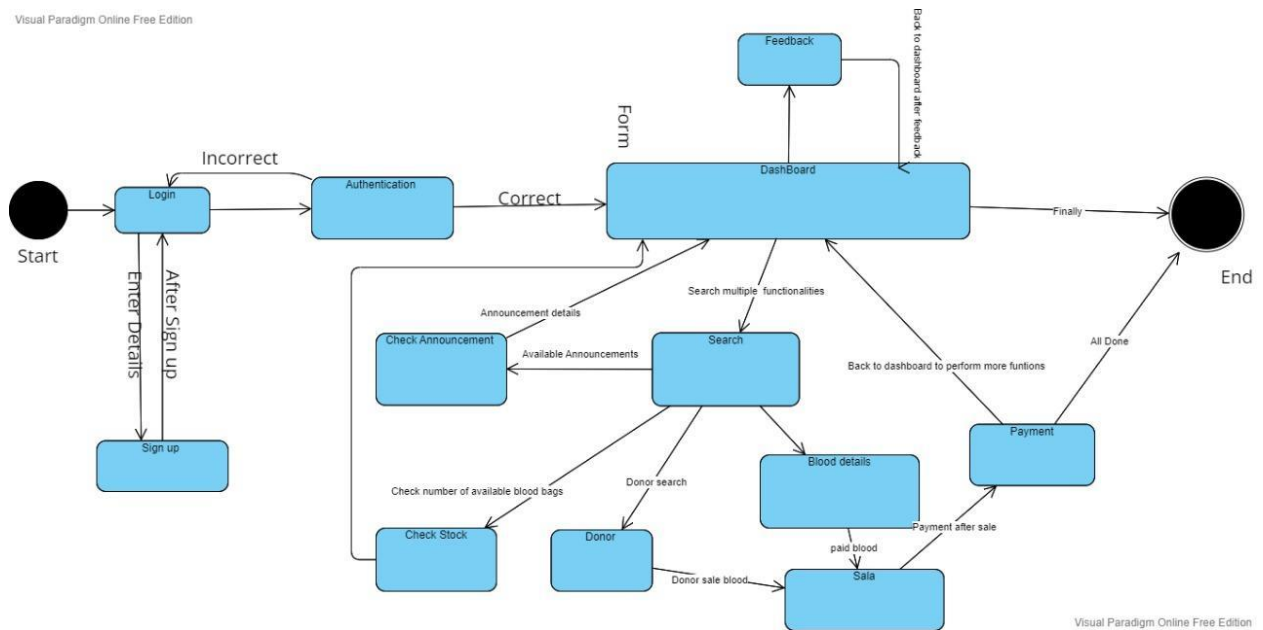
ER Diagram:

Sequence Diagram:



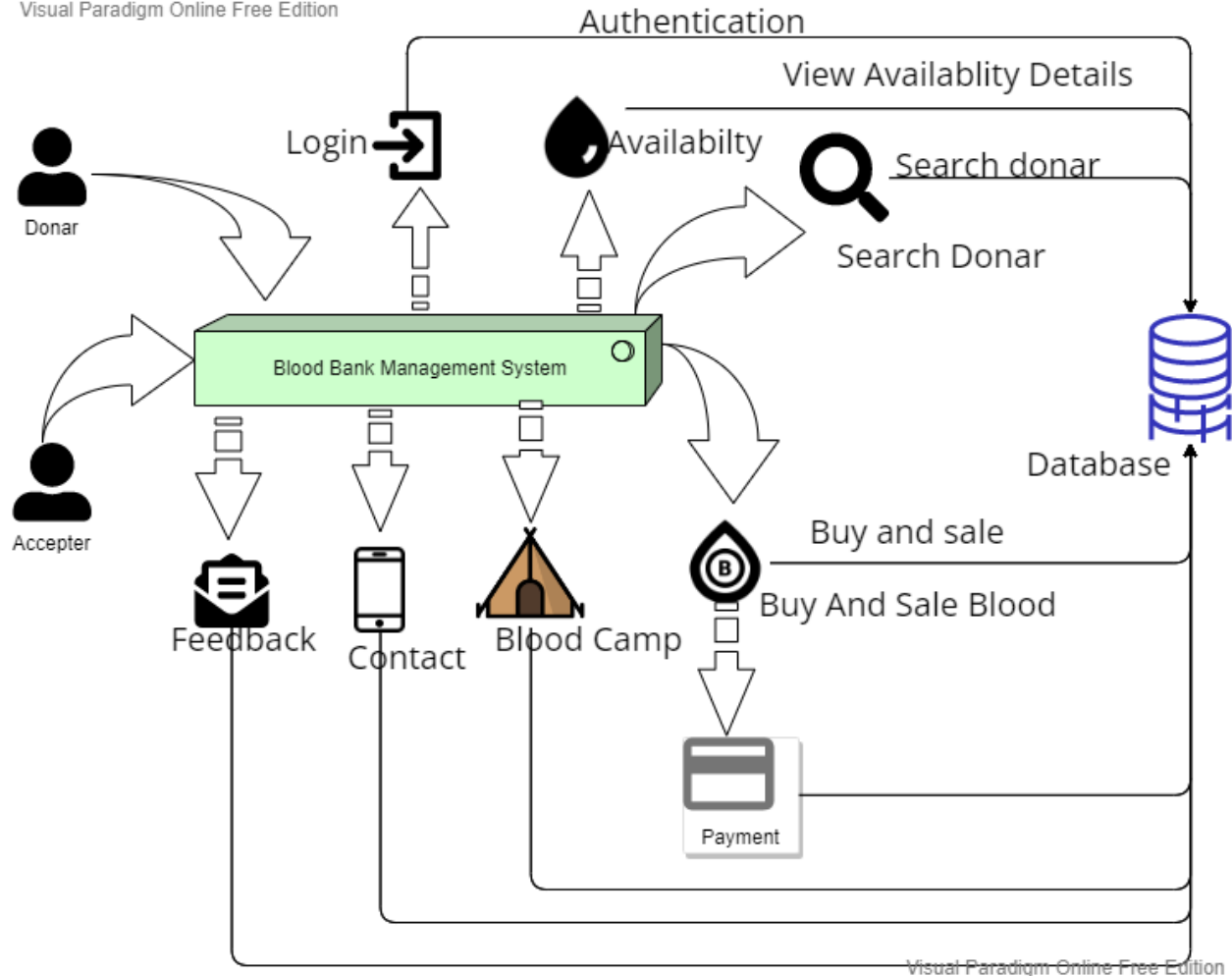
State Transition Diagram:

Visual Paradigm Online Free Edition



Architecture Diagram:

Visual Paradigm Online Free Edition



Visual Paradigm Online Free Edition

Description:

Architecture in designing software is a concept that focuses on various elements and the data of the structure.

These components interact with each other and use the data of the structure in architecture.

• Conclusion and Future Work:

Our Blood Bank Management System gives a reliable platform for both donors and acceptors. It is a fast-paced and efficient way to communicate without any security threats as the data entered will be verified and frequently updated thereby increasing the probability of saving one's life.

Our future work would be to integrate this blood bank management system with other health care provider centers, hospitals and blood banks. We will add new features as well and when required. And improving its effectiveness as well.