CAPSTONE PROJECT REPORT

SHARE BLOOD APPLICATION

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1. Introduction

1.1 Objective of the project :

The goals and objectives of the Blood Share Application are as follows:

1. To allow the probable recipients to make search by pincode to get nearby blood banks.
2. To provide an efficient donor and blood stock management functions to the blood bank by recording the donor and blood details.
3. To provide synchronized and centralized donor and blood stock database.
4. To provide immediate storage and retrieval of data and information.

1.2 Description of the project :

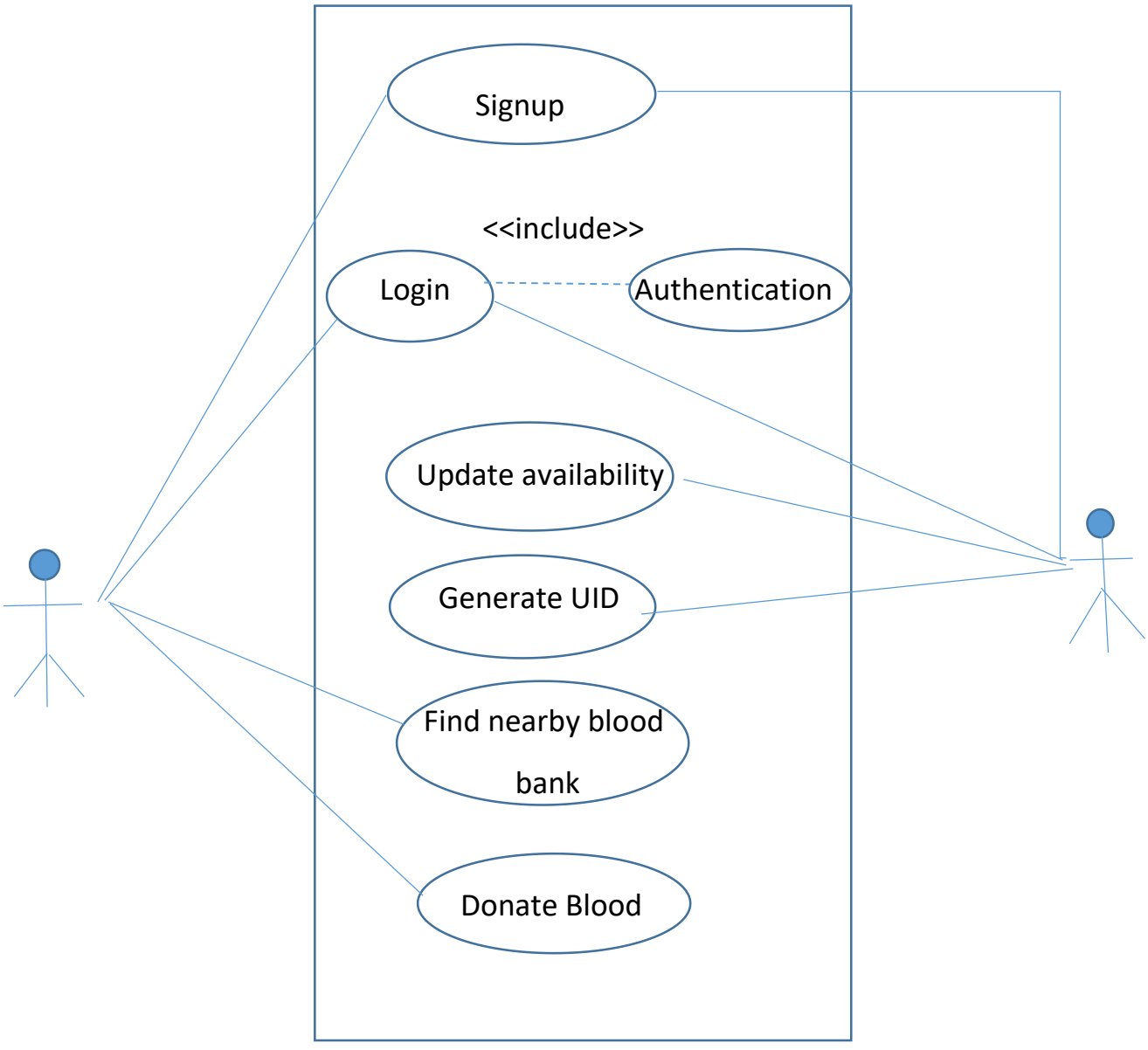
There are some applications related to our project but they are not up to the mark. They are only generating the e-certificate no use of it and there is no chance an user to donate his blood when he/she has free time and also there is no information about the blood units available in the blood banks.

The System that is going to be developed is Share Blood. This is a Mobile application based system that is to be used by the blood banks or blood centers to update the availability of blood, as well as everyone who want to know blood availability. The system keeps the record of all the donors, recipients. This system also has the ability to keep track of the donor's donation records and the blood stock in the blood bank. It also generates e-certificate which can be used for further by donor if he wants blood. This project intends to computerize the blood availability.

1.3 Scope of the project :

The system is used for maintaining activities of blood bank which include updating availability of blood through which user can get know the availability from home

1.3.1 USE CASE DIAGRAM



2. System Description

2.1 Customer/User Profiles :

System Owner: The Blood Bank
System Users:
• Administrators: has full privilege on the system's functions
• Staffs of Blood Bank: has privilege on the system's functions as assigned by the administrator
• Public: can view the blood availability and donate or can make requests for donation (Donor and Recipients fall under this category)

2.2 Functional Requirements :

Management

1.Sign Up

2.Login

3.Update availability of Blood

4.Generate unique id

User

1 Sign Up

2 Login

3 Find Nearby Blood Banks

4 Donate blood

SOFTWARE REQUIRMENT SPECIFICATIONS:

MANAGEMENT:

FR 1:Sign Up

DESCRIPTION: If the user doesn't have an account then he will be asked to create an account.

FR 1.1:Select Sign Up option.

I/P:Click on the Sign Up option.

O/P:A new window appears asking the details like name of the blood bank,mobile Number, email id and set password.

FR 1.2:Select create account option.

I/P:click on create account option after filling all the details

O/P: A new window apperas asking for enter the OTP.

PROCESSING:It will checks whether the entered OTP is correct or not. if it corrects then It will show you home page otherwise it shows an error message.

FR 2:Login

DESCRIPTION:If the user wants to get access to all the functionalities of Share Blood, he should login using his registered email id and password.

FR 2.1:Select Login option.

I/P:Click on Login option.

O/P:A new window appears asking for enter email id and password.

FR 2.2:Email id and password.

I/P:Enter Email id and password

O/P:A new window appers showing Share blood homepage or an error message occurs

PROCESSING:It will checks whether the entered email id and password is correct or not.If it is correct a homepage will appears otherwise an error message will be shown.

FR 3: Availability of Blood Units

DESCRIPTION: It shows availability of number of blood units present in there blood bank. If there is change in the availability of blood group units corresponding blood banks will update blood group units.

FR 3.1: Select availability of blood units option.

I/P:Click on availability of blood units option.

O/P:A new window appears displaying the blood groups with their availability.

PROCESSING: It will fetch the details from the data base.

FR 3.2: Select Edit option

I/P:Click on edit option.

O/P:A dialogue box appears to update availability of blood units.

FR 3.2.1: Select Save option.

I/P:Click on save option.

O/P: A toast appears which shows data updated successfully.

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PROCESSING: The data will be updated in the data base.

FR 4: Generate Unique id

DESCRIPTION: it will generate unique id which will help the user to generate e-certificate

FR 4.1:select generate unique id option

I/p: click on generate unique id option

o/p: A new window appears which will display the unique id with donor name

USER:

FR 1:Sign Up

DESCRIPTIOPN: If the user doesn't have an account then he will be asked to create an account.

FR 1.1:Select Sign Up option.

I/P:Click on the Sign Up option.

O/P:A new window appears asking the details like user name,mobile Number, email id, blood group and set password.

FR 1.2:Select create account option.

I/P:click on create account option after filling all the details

O/P: A new window apperas asking for enter the OTP.

PROCESSING:It will checks whether the entered OTP is correct or not. if it correct then It will show you home page otherwise it shows an error message.

FR 2:Login

DESCRIPTION:If the user wants to get access to all the functionalities of Share Blood, he should login using his registered mobile number and password.

FR 2.1:Select Login option.

I/P:Click on Login option.

O/P:A new window appears asking for enter mobile number and password.

FR 2.2:Mobile number and password.

I/P:Enter mobile number and password

O/P:A new window appears showing Share blood homepage or an error message occurs

PROCESSING:It will checks whether the entered mobile number and password is correct or not. If it is correct a homepage will appears otherwise an error message will be shown.

FR 3: Nearby Blood banks

DESCRIPTION: It will display the nearby blood banks and availability of blood group units in the blood bank.

FR 3.1: Select Nearby Blood Bank option.

I/P:Click on Nearby Blood Bank option.

O/P:A new window appears asking the user to enter the pincode.

FR 3.2: Select search option

I/P:Click on Search option.

O/P:A new window appears displaying the nearby blood banks with availability of blood group units

PROCESSING: It will fetch the blood banks details by pincode from the data base.

FR 4: Donate Blood

DESCRIPTION: If user want to donate blood he or she can donate blood in nearby blood banks through this option

FR 4.1 : Select Donate Blood option:

I/p :click on donate blood option

o/p:A new window appears and asking the user to select time slot

FR 4.2 : Generate Certificate

I/p: click on generate certificate option

o/p:A new window appears asking the user to enter unique id

FR 4.3 :Select Print option

I/p :click on print option

o/p: e-certificate will be generated

PROCESSING: it will check the unique id .if it correct then it will generate e-certificate otherwise not

2.3 Non-Functional Requirements:

1.Usability

As the system is easy to handle and navigates in the most expected way with no delays. In that case the system program reacts accordingly and transverses quickly between its states

2.Security

The main security concern is for users account hence proper login mechanism should be used to avoid hacking. The tablet id registration is way to spam check for increasing the security. Hence, security is provided from unwanted use of recognition software.

3.Realiabilty

As the system provide the right tools for discussion, problem solving it must be made sure that the system is reliable in its operations and for securing the sensitive details **.**

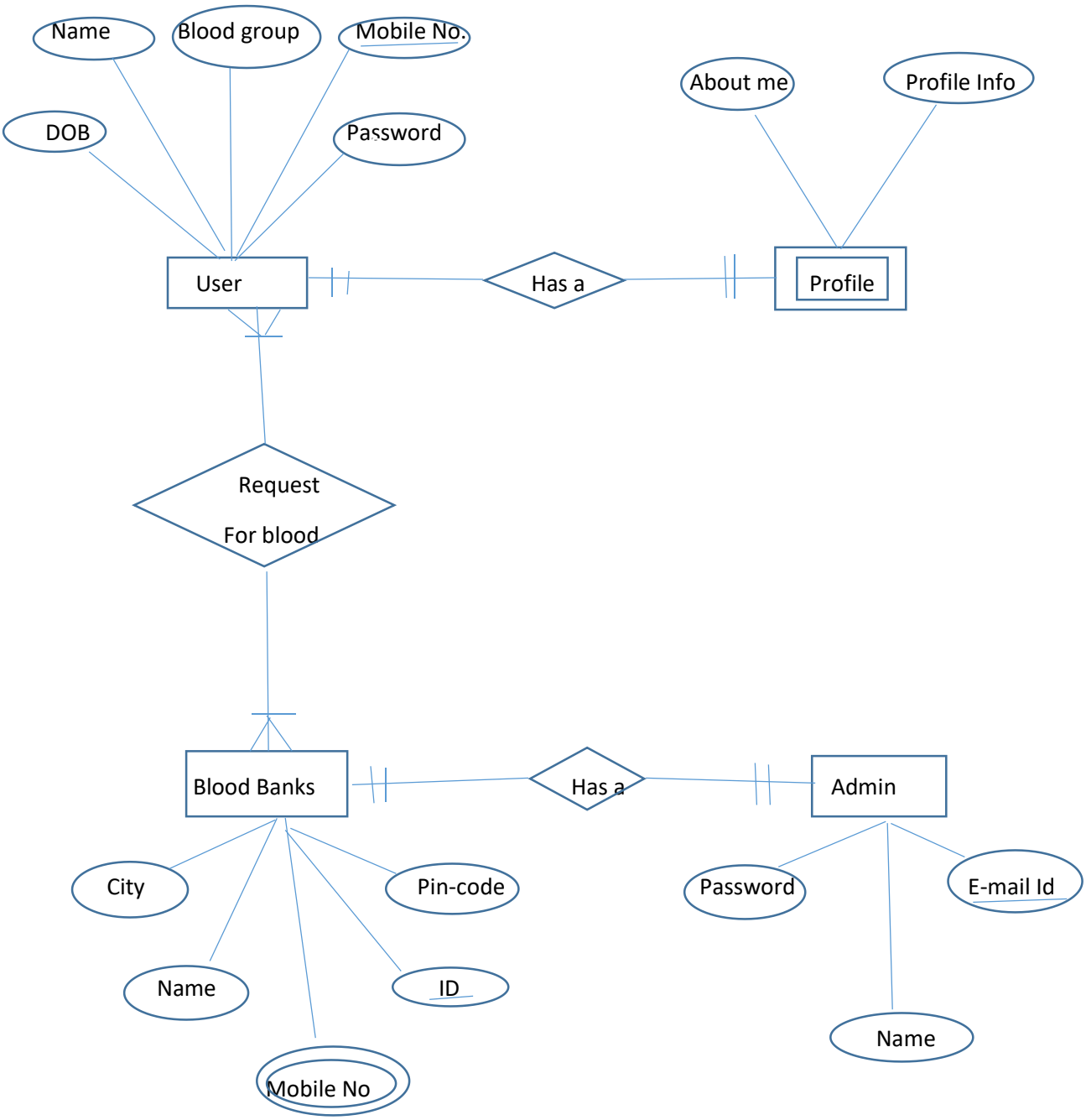
4.Portability

portability in high level programming is the usability of the same software in different environments. The pre requirement for portability is generalized abstraction between the application logic and system interfaces. When software with the same functionality is produced for several computing platforms, portability is the key issue for development cost reduction.

3. Design

3.1 System Design

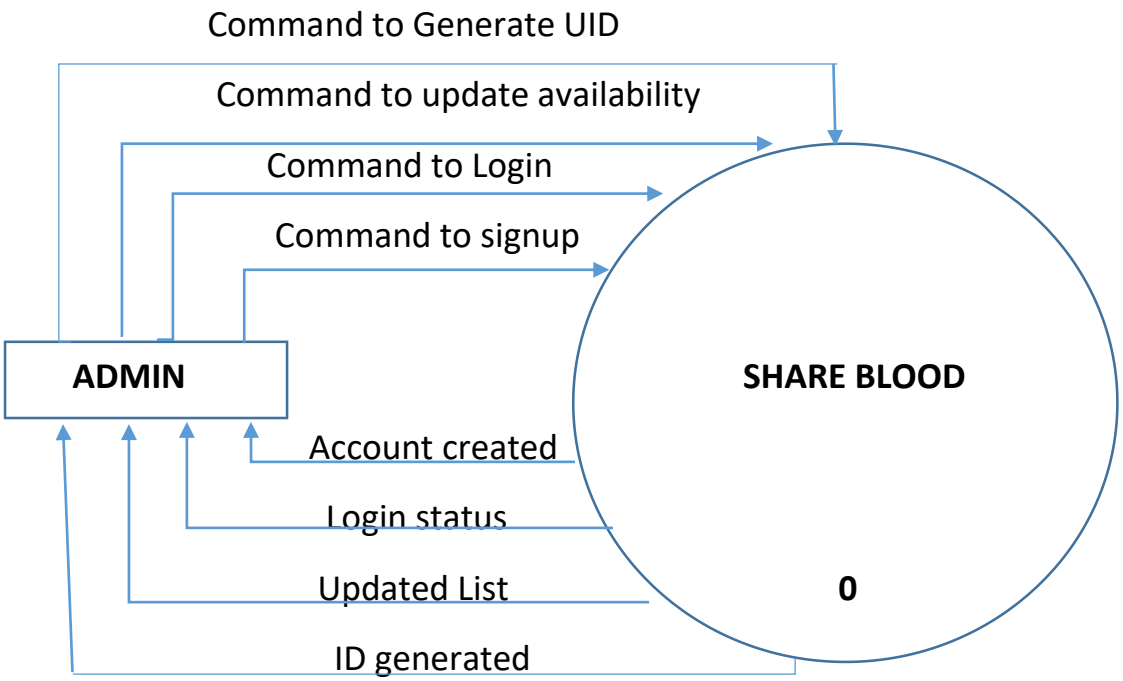
3.1.1 E-R Diagrams



3.1.2 DATA FLOW DIAGRAMS

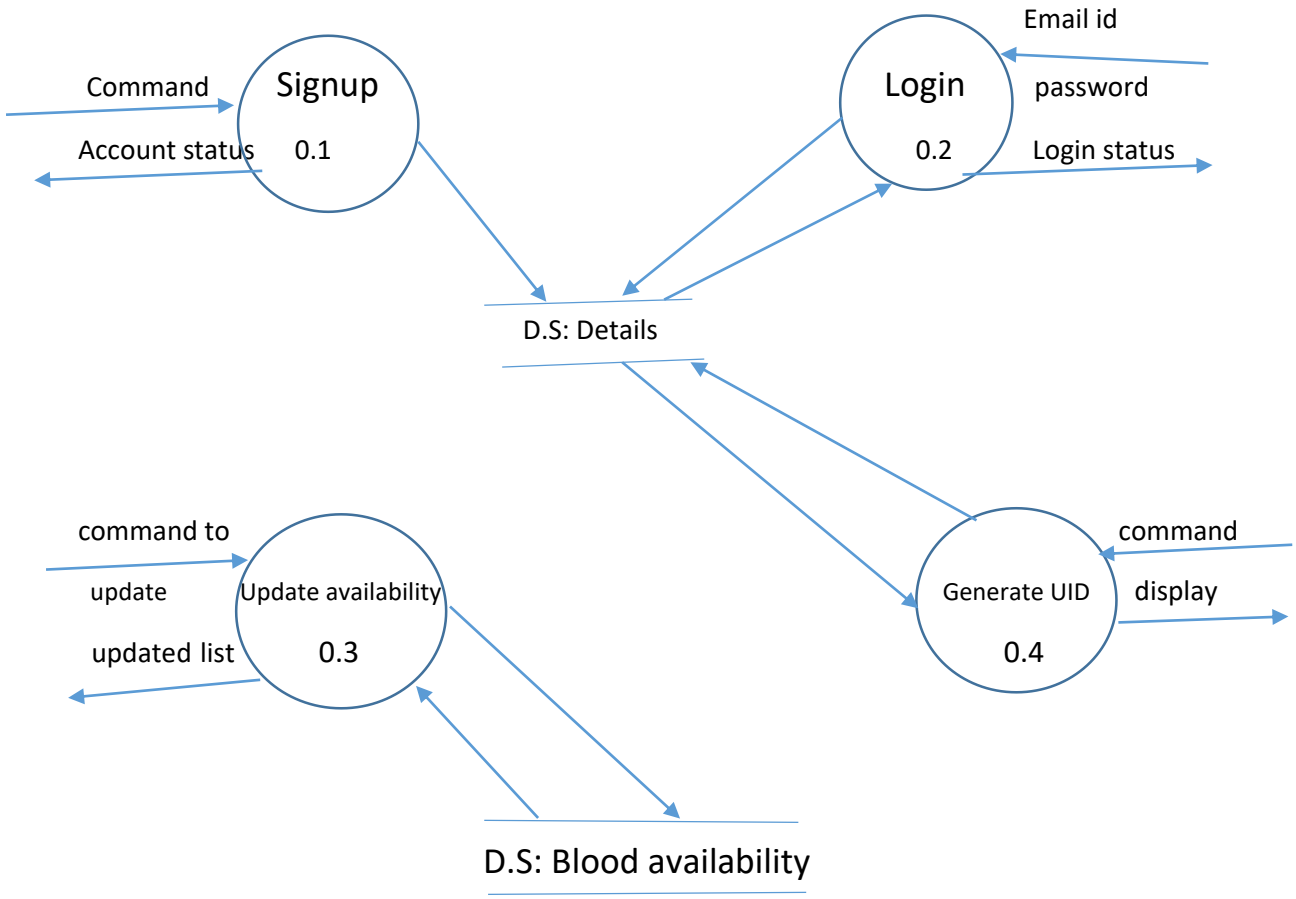
Management:

Level-0



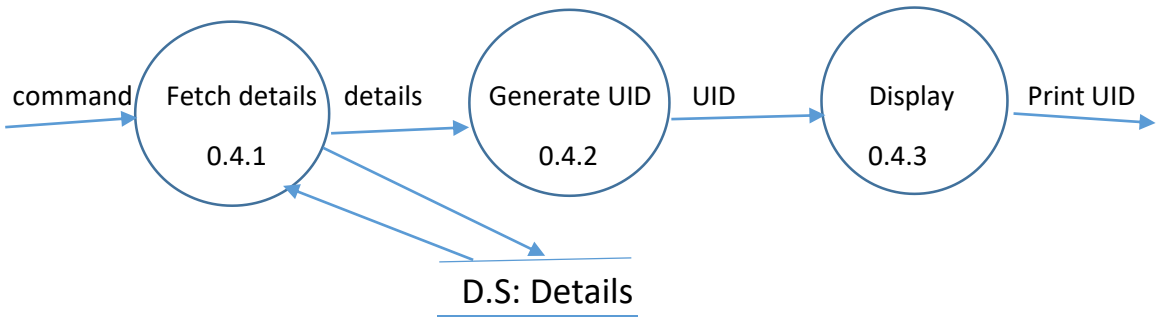
Description: It is level-0 DFD in which we will know about the functional requirements and their output for admins. We will divide it further in next levels. When we give command to Signup we will get the output as account created and for login we will get about login status and for update availability we will get output as updated list and for generate UID we will get UID as output.

Level-1



Description: It is level-1 DFD in which we divided the level 0 DFD. We will give command to the signup, login , update availability and generate UID they will fetch details from data store and generate appropriate output.

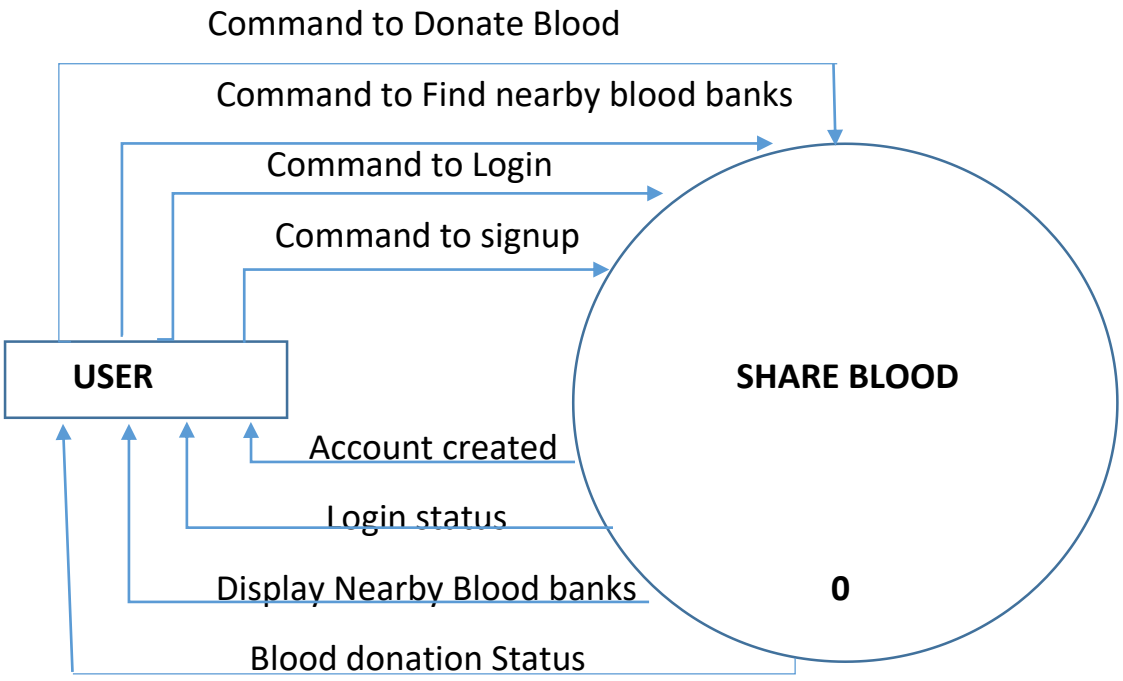
Level-2



Description: It is level 2 DFD in which we divided the Generate UID module. When we give the command it will fetch details of user and with that details it will generate UID and finally we will display it and also print it.

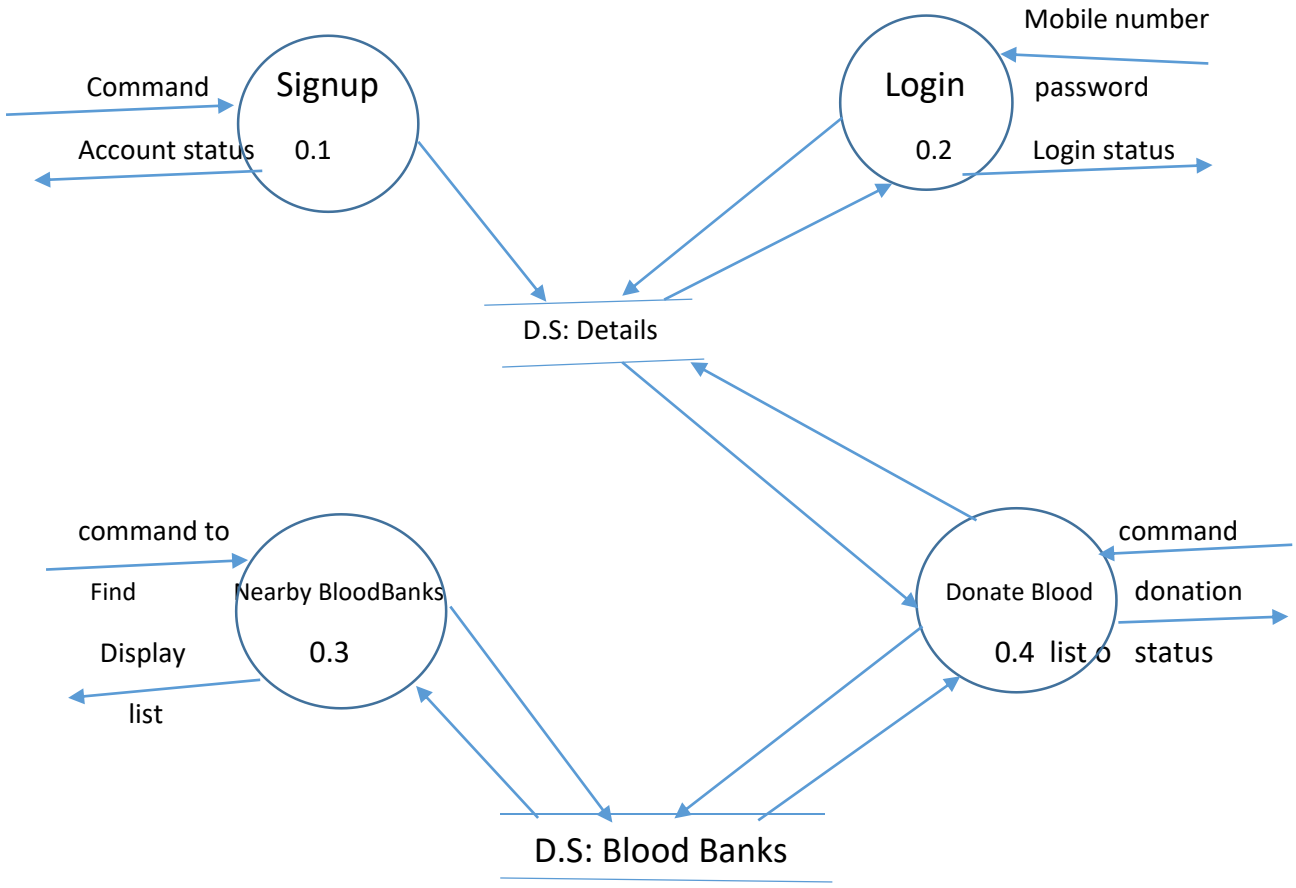
USER:

Level-0



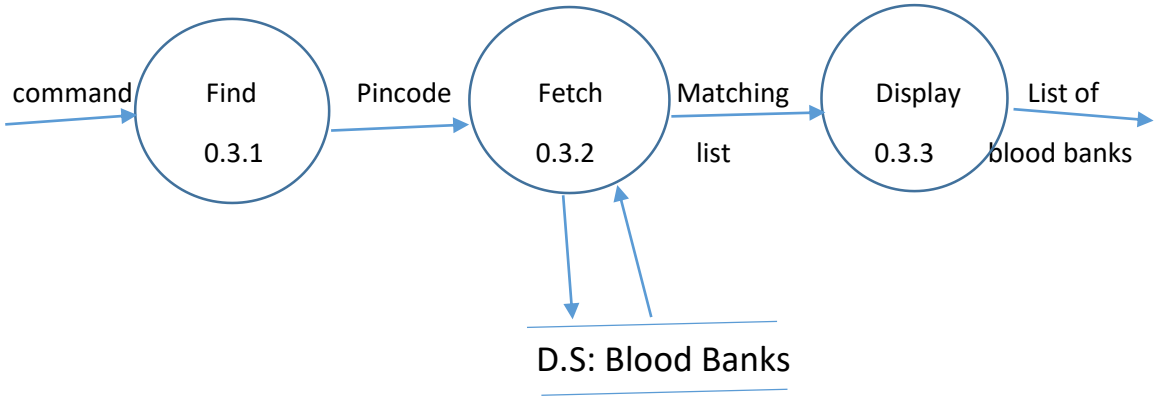
Description: It is level-0 DFD in which we will know about the functional requirements and their output for users. We will divide it further in next levels. When we give command to Signup we will get the output as account created and for login we will get about login status and for finding nearby blood banks we get output displaying the nearby blood banks and for donate blood he will get the blood donation status.

Level-1

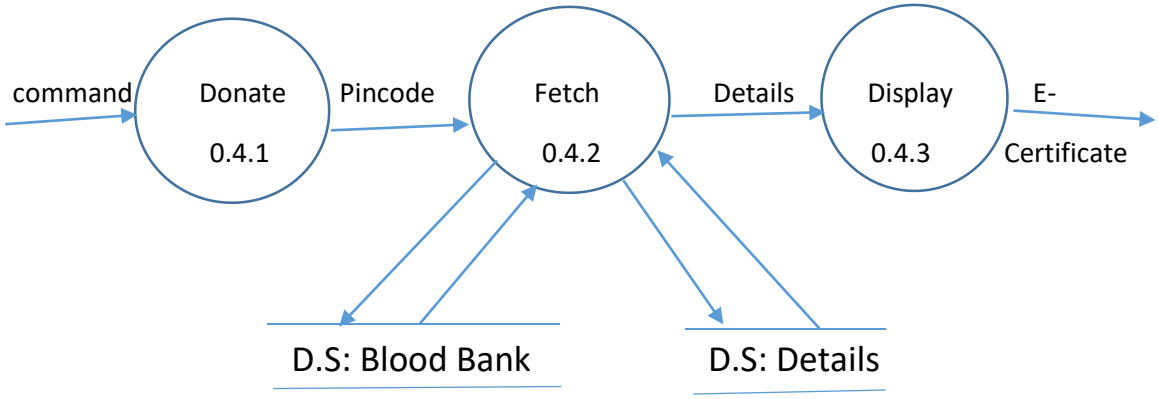


Description: It is level-1 DFD, we got this DFD by dividing the level-0 DFD. In this we will give the command to signup where the user will enter the details and he will get a message as account created as output. We will give the command to login and we enter details there and finally we will get output as login status. We will give commands Find Nearby blood banks and donate blood we will get output as blood banks and donation status. In these we have data stores like details and blood banks.

Level-2

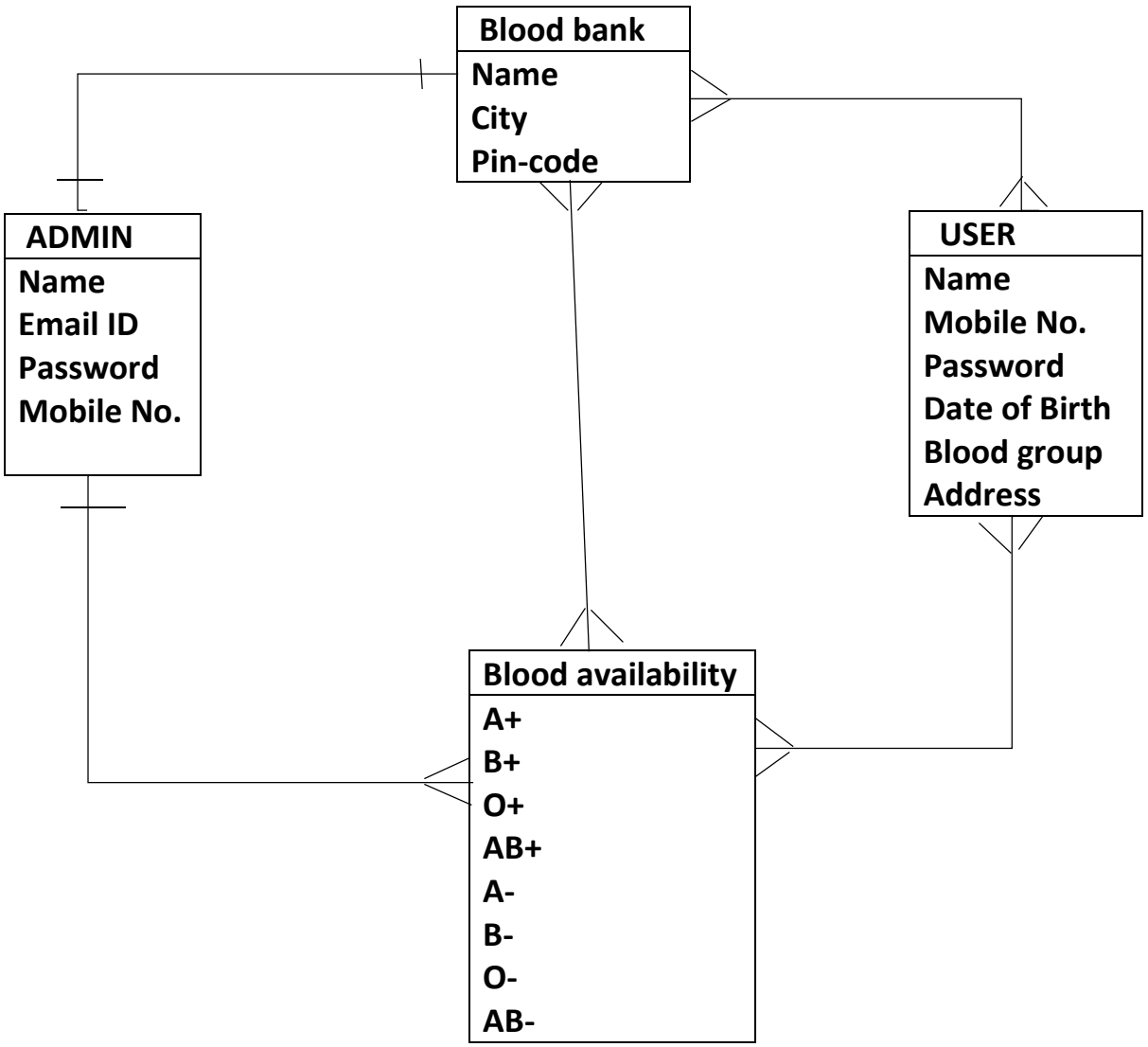


Description: It is level 2 DFD we have divided the Find nearby blood banks module. In this firstly we will give command to find and we will enter details the details are send and we will fetch from data store blood banks and display the list to the user.



Description: It is also level 2 DFD, we have divided the Donate blood module. In this we will give command then we will enter pincode afterwards it will send request to the blood bank and also fetch details from data store and finally after completion of donation it will generate E- certificate.

3.2 DATABASE DESIGN



4. Scheduling and Estimates

No.	Start Date	End Date	Task
1	01-04-2019	01-05-2019	Idea Generation
2	01-05-2019	20-05-2019	Report
3	20-05-2019	15-06-2019	React Native
4	15-06-2019	15-07-2019	User Interface for Management
5	15-07-2019	25-07-2019	User Interface for Pubilc
6	25-07-2019	01-08-2019	UI Testing
7	01-08-2019	10-08-2019	Database
8	10-08-2019	15-08-2019	Database and removing bugs
9	15-08-2019	25-08-2019	Integrated Testing

GANTT Chart