ITMD-510-04
Object Oriented App Develop
I-Semester

BLOOD BANK MANAGEMENT SYSTEM

Submitted By

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Submitted To

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CONTENT:

A) PROBLEM STATEMENT :

This is a BLOOD BANK MANAGEMENT SYSTEM is to ease for an acceptor to get through donors or organization effectively .It deals with collection of blood in blood bank which is central for all the modules in the project .

The main actors of this system are following :-

1. A DONOR
2. An ACCEPTOR
3. An ORGANIZATION
4. An ADMIN

B) FUNCTIONALITIES AND WORKING :

1> DONOR
- can add his personal details .
- can view it what they have entered.
- can update their personal details .
- can tie up with an blood bank /organization if they are donating blood as per their blood group.

2> ACCEPTOR
- can add his personal details .
- can view it what they have entered.
- can update their personal details .
- can tie up with an blood bank /organization if they are request blood as per the requirement of the blood group.
- Search of blood through donors details.

3> ORGANIZATION
- can add his personal details .
- can view it what they have entered.
- can update their personal details .
- Can view blood available in blood bank
- See current availability of blood types in a bar graph format.

4> ADMIN
- Can add new acceptor
- View acceptor details
- Update acceptor
- Delete acceptor
- Can add new donor
- View donor details
- Update donor
- Delete donor

- Can add new organization
- View organization details
- Update organization
- Delete organization
- Add new quantity of blood in blood bank
- See current availability of blood types in a bar graph format.

C) **SPECIFICATIONS:**

1. **CRUD OPERATIONS:-**
   1> ADMIN-(CREATE INSERT VIEW UPDATE DELETE).
   2> ACCCEPTOR-(CREATE INSERT VIEW UPDATE [only his personal details ie address and other basic info details]).
   3> DONOR-(CREATE INSERT VIEW UPDATE [only his personal details ie address and other basic info details]).
   4> ORGANIZATION-(CREATE INSERT VIEW UPDATE [only his personal details ie address and other basic info details]).

2. **CODING ARCHITECTURE :-**
   1> MVC structure is used .
   2> Meaningful names are given to the packages.
   3> All classes are private and getter – setter method are used .
   4> Inheritance is successfully implemented .

3. **LOGIN AND NAVIGATION RULES:-**
   1> Welcome screen is login screen with good graphics .
   2> When admin logins, he will be redirected to login page where he can view all functionalities eligible to him .
   3> When any other users logins, he will be redirected to login page where he can view all functionalities eligible to him and can logout .After any transaction he has done he will be directed to WELCOME "user" PAGE .

4. **DAO LAYER :-**
   1> All the entities has been declared in DAO Package where users can do CRUD operations accordingly.
   2> There are different DAO classes for different modules.

5. **DRY PRINCIPLE :-**
   1> There is no duplicate code in this application and I have reused code in some modules like acceptor and donor details for increase its efficiency .

6. **VALIDATION AND EXCEPTION HANDLING :-**

1> Proper validation has been implemented in login as well as in registration of users .
2> Everywhere exception has been handled to tackle any exception.

7. **GUI:-**
   1> Has designed simple and easy to understand GUI for any new user.
   2> Has implemented images for soothing application.

8. **EXTRA CREDITS :-**
   1. Has implemented CRUD operations in ALL the modules.
   2. Has inserted graphical statics view for users easy interpretation.

D) CONCLUSION:-

        The Blood Bank Management System undertaken as a project is based on Java and JavaFX Technology. The main aim is to develop a software application for blood repository. This project has 4 actors i.e. admin , acceptor, donor and organization . Here all the actors has their own capable properties. We can view the blood available in blood bank in Bar graph which is for good user interface. Hence it provides the complete solution for current blood banks.