**Blood Bank management system**

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**1. Problem Statement**

* This is a desktop application without any graphics. This is a blood bank management system which provides you to donate blood and request for blood. Your system must store all information regarding blood, donor, receiver, hospital etc.

**2. Functional Specification**

* Admin is the person who will take care of all entries regarding adding donor, adding customer, deleting details, updating details, approving requests, etc.
* Donors have right to login and make donation, view previous donations.
* There are only 3 roles in this application namely, Admin, customer, Donor.
* Store all information in separate files. All data must be stored in comma separated file.
* Maintain different files for customer login details.
* Maintain different files for Donor login details.
* Maintain different files for Admin login details.
* Maintain different files for Hospital login details.
* Maintain the donation history of all donors.
* Admin should daily update stock.

**3. Technical Specification:**

* Store all details in comma separated file
* Roles:

1. Admin (Blood Bank Manager)

1.1 Add donor

1.2 Delete donor

1.3 Update donor

1.4 Add receiver

1.5 Delete receiver

1.5 Update receiver

1.7 Manage stock (update)

1.7.1 In stock

1.7.2 In need

2. Donor

2.1 Register

2.2 Login

2.3 View donation history

2.4 Make donation

3. customer

3.1 Register

3.2 Login

3.3 Request for Blood

3.4 Search for blood in stock

3.5 View order History

4. Hospital

4.1 Register

4.2 Login

4.3 Make Order

4.4 Order history

* Maintain following files:

1. customer\_details.txt: store details of customer

Details (ben\_id , name, blood group, Aadhaar, phone number, dob, gender, address)

1. Donor\_details.txt: store details of donor

Details (donor\_id, name, blood group, Aadhaar, phone number, dob, gender, address, disease)

1. Hospital\_details.txt: store details of all Hospitals.

Details (Hospital\_id, name, address, Phone)

1. Admin\_login.txt: store only login\_id and password of admins.
2. Donor\_login.txt: store only login\_id and password of donors.
3. Hospital\_login.txt: store only login\_id and password of hospitals.
4. customer\_login.txt: store only login\_id and password of Beneficiaries
5. blood.txt: store stock of blood

Details (blood\_id, bloodgrp, donor\_id, date\_of\_collection, stock(litres))

1. donor\_history.txt: store details of previous donations.
2. Hospital\_order\_history.txt: store details of previous orders.
3. customer\_history.txt: store details of previous help.
4. Help\_desk.txt: store contact details of blood bank.

* Load data in a STL to store all details and later write in a file.
* Make use of valid data structures wherever required
* Data validation:

Check while entering details (phone number length must be 10, Aadhaar number should be unique, digits are not allowed in the name field, date entered must be valid)