**Application For Blood Bank Management**

Need to prepare a console application for blood bank management for the user registration and donor details tracking.

The application should allow to do below process

# Main Menu:

1. **User Registration**
2. **User Login**
3. **Fetch Donor Details**
4. **Exit**

## User Registration:

On selection of the “User Registration” option from the main menu,

1. Need to get the below details from user for the user registration.
   1. Donor Name
   2. Mobile Number
   3. Blood Group
   4. Age
   5. Last Donation
2. On completion of the user registration, we need to display the Donor Id (auto generation number).

## User Login

On selection of the “User Login” option from the main menu,

1. Ask for the “Donor ID” of the user. Check the “Donor ID” in the user list. If ID does not exist means show invalid user ID.
2. If exist show the below sub menu
   * 1. **Donate Blood**
     2. **Donation History**
     3. **Next Eligible Date**
     4. **Exit**
3. **Donate Blood**

* Get the weight, blood pressure, hemoglobin count from the user check Weight is above 50, bp is below 130 hemoglobin count is above 13.
* Check whether the person’s completed 6 months after donating the blood.
* If both the conditions met, then add the details to the “Donation Details” object and finally add to the list.
* Finally show **Blood donated successfully, Show the donation ID** And print the next eligible date of donation.
* Next eligible date of donation is after 6 months from last time donor donate the blood.

**ii. Donation History**

Show the donation details of the current user using the method by traversing the donation history list.

1. **Next Eligibility Date**

Show the next eligible date for the user (6 months from the date of last donation). **If the user donates 2 times,** last donation must be user recently donated date.

1. **Exit**

Exit and go to the main menu.

## Fetch Donor details:

On selection of the “Fetch Donor Details” option from the main menu,

1. Ask for “**Blood Group**” and check blood group in the Donation details and it should display the donor’s name and phone number and native place.

## Exit

Close the application

## User Registration Class:

User Registration Class should have below properties and methods.

**Properties**:

1. Donor Id (Auto Incremented which is start from UID1001)
2. Donor Name
3. Mobile Number
4. Blood Group
5. Age
6. LastDonationDate

Default details for User Registration class:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DonorID** | **DonarName** | **Mobile** | **BloodGroup** | **Age** | **Last Donation Date** |
| UID1001 | Ravichandran | 8484848 | O\_Positive | 30 | 25/08/2022 |
| UID1002 | Baskaran | 4747447 | AB\_Positive | 30 | 30/09/2022 |

## Donation Class:

Donation Class should have below properties.

Properties:

* Donation ID (Auto increment - DID1001)
* Donor Id
* Donation Date
* Weight
* Blood Pressure
* Hemoglobin Count (above 13.5)
* Blood Group – (Enum – A\_Positive, B\_Positive, O\_Positive, AB\_Positive)

Default Details for Donation details class:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **DonationID** | **DonarID** | **DonationDate** | **Weight** | **BloodPressure** | **HBCount** | **Blood Group** |
| DID1001 | UID1001 | 10/06/2022 | 73 | 120 | 14 | O\_Positive |
| DID1002 | UID1001 | 10/10/2022 | 74 | 120 | 14 | O\_Positive |
| DID1003 | UID1002 | 11/07/2022 | 74 | 120 | 13.6 | AB\_Positive |