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# CS579 C1 Database Management

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# Project Proposal - Blood Donation Management System

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**Project Overview:** The project topic we are picking is a blood donation management system. It is designed to create a database that links the blood bank to patients who need a blood transfusion.

**Project Description:** In reality, the blood bank is not part of the hospital system, thus whenever a patient needs a blood transfusion, a database that contains related information is playing an important role in linking all roles there.

If time allows, the system will have a front end that allows administrators from all blood organizations to add the information of donors, hospitals, and other blood organizations. When the detailed information is updated to the system, administrators can access the system and find blood available in the particular location for the hospital’s patients.

**Detailed Description:**

Administrators from all Blood organizations and hospitals can log in to the system with their usernames and password to find nearby blood organizations for patient.‎

After login, Administrators can add the information about the donor (name, phone number, address, blood ‎type, ‎blood quantity), patient (their name, phone, address, blood type, and medical report), other blood organization (name, phone number, location, and ‎address), hospital (name, phone number, and ‎address). In addition, Administrators can directly ask the donor to donate blood ‎in ‎an emergency. Also, Administrators ‎can find the nearest location and quickly get the ‎‎blood for the patient.‎

Hospitals can add patients(name, phone, address, blood type, and medical report) in the system and find the blood organization for the patient.

After blood donors donate blood, the blood will be sent to the hospital to check for infection, and the hospital will update the blood report in the system.

The system will determine the priority of ‎the patient and provide the ‎‎nearby location with the fastest expiration date blood base ‎on the blood report.

After issuing the blood to ‎the patient the blood ‎report ‎will update with patient name, date of use and add it to the customer profile.‎

The blood report has the donated date, expired date, blood type, usability(no infection), ‎‎quantity, location, organization, hospital name, donor ‎information, and patient information. ‎

**Database Schema:**

**1. User Table**

| Name | Password | E-mail | Phone Number | Address |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

**2. Blood Report Table**

| Donated date | Expired date | Blood type | Usability | Quantity | Location | Organization | Donor name | Customer name |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |

**3. Hospital Table**

| Hospital ID | Name | Location | Phone Number | Address |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

**4. Patient Table**

| Patient ID | Name | Age | Blood type | Blood quantity |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

**5. Donor Table**

| Donor ID | Name | Age | Address | Phone Number | Blood Type |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

**6. Blood Donation Organization Table**

| Blood Donation Organization ID | Name | Location | Phone Number | Address | Blood Bank ID |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

**7. Blood Bank List Table**

| Blood Bank ID | Donor Name | Organization Name | Donor ID | Date(draw & expire) | Quantity |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |

These are the preliminary analysis, the details could be changed and updated along with the project.