***PROBLEM STATEMENT:***

Every city has a blood bank to store blood identified by a unique blood bank number (BNO).A Blood Bank stores blood of various blood groups. Many donors donate blood, each of different blood group/type. A donor may donate blood more than once and he is identified by a donor id (DID), name, sex, age, address and phone number. The blood donated by the donor is characterized by a blood type, code and cost. Since the donor is allowed to donate the blood once in 6 months, date of donating the blood tends to be important .Medical health of the donor is also to be taken into consideration at the time of blood donation.

Before each donor donates his blood, he is required to register himself as a donor with the receptionist who works at the Blood Bank. The receptionist is identified by employee id, name, address and phone number. The Blood Banks receives orders for blood from many hospitals for emergency purposes and other surgical requirements and each blood bank issues the same of required blood type/group. Each blood bank has it’s own blood bank number (BNO) , issues, orders and blood types/groups stored.

The Blood Bank is managed by the blood bank manager who is identified by employee id, name, address and phone number .His name can be further divided in first name and last name. He is responsible for the proper management of the blood bank . The hospitals are identified by name, address and phone number and the unique identification number called as hospital id. On behalf of the patient who is in need of the blood, hospital orders blood from blood bank. Receiver of the blood has a unique patient\_id associated with the particular hospital, name, blood group and patient disease for identification.

Representation of the same is done using an ER diagram.

***ENTITY-ATTRIBUTE TABLE:***

|  |  |
| --- | --- |
| **ENTITY** | **ATTRIBUTES** |
| DONOR | BLOOD GROUP,SEX,ADDRESS,NAME,AGE,PHONE,DONOR\_ID,MEDICAL HEALTH,DATE OF DONATING |
| BLOOD | COST,CODE,BLOOD GROUP |
| BLOOD BANK | ISSUES,ORDERS,BLOOD BANK NO.,BLOOD GROUP |
| BLOOD BANK MANGER | NAME,ADDRESS,PHONE,EMP\_ID,SALARY |
| RECEIVER | NAME,PATEINT ID,PATIENT DISEASE,BLOOD GROUP |
| HOSPITAL | HOSPITAL\_ID,ADDRESS,NAME,PHONE |
| RECEIPTIONIST | EMP\_ID,NAME,ADDRESS,PHONE,SALARY |

***RELATIONAL SCHEMA:***

DONOR

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| BLOOD GROUP | DATE OF DONATING | SEX | DONOR ID | ADDRESS | NAME | MEDICAL HEALTH | AGE | PHONE |

BLOOD

|  |  |  |  |
| --- | --- | --- | --- |
| COST | CODE | BLOOD GROUP | DID |

RECEIPTIONIST:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ADDRESS | PHONE | EMP\_ID | NAME | BNO | SALARY |

BLOOD BANK

|  |  |  |  |
| --- | --- | --- | --- |
| ISSUES | ORDERS | BLOOD BANK NUMBER | BLOOD GROUP |

BLOOD BANK MANAGER

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| EMP\_ID | PHONE | NAME | ADDRESS | BNO | SALARY |

RECEIVER

|  |  |  |  |
| --- | --- | --- | --- |
| NAME | PATIENT DISEASE | BLOOD GROUP | PATIENT\_ID |

HOSPITAL

|  |  |  |  |
| --- | --- | --- | --- |
| HOSPITAL ID | ADDRESS | NAME | PHONE |

ORDERS

|  |  |
| --- | --- |
| HID | BCODE |

ADMITTED

|  |  |
| --- | --- |
| HID | PID |