Blood Donation Database System

Milestone: Implementation in MySQL

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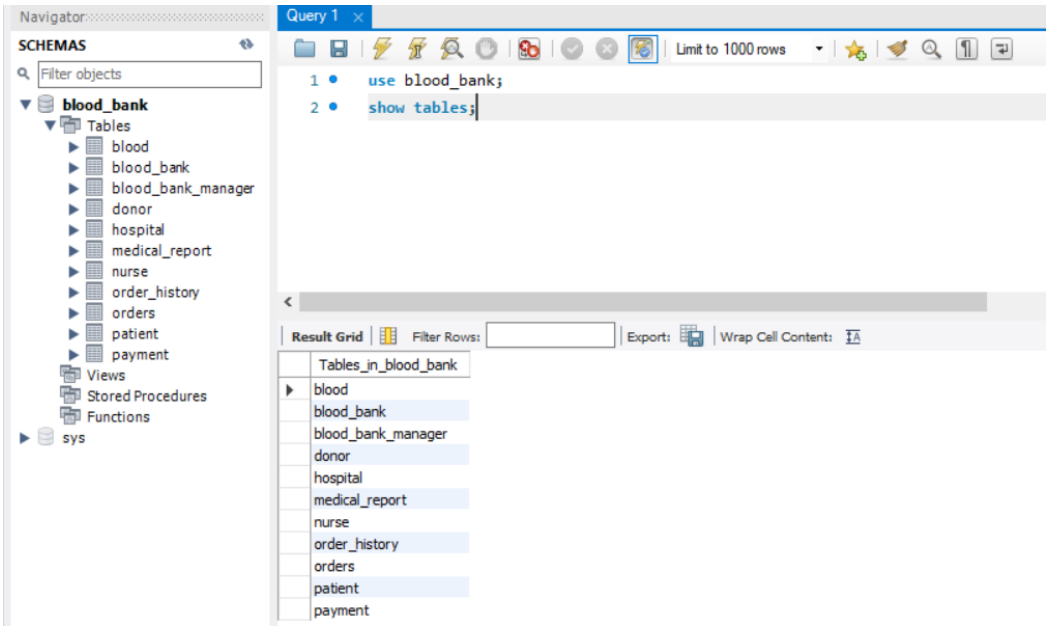
Implementation in MySQL

Summary : We have successfully developed our database schema using the relational model provided for the previous assignment. Blood, blood bank, blood bank manager, donor, hospital, medical report, nurse, order history, orders, patient, and payment are among the 11 tables in this database. When necessary, foreign keys are used to connect the database's tables, which all have primary keys. Additionally, we have added 100 dummy tuples to our database using the filldb(https://filldb.info) website.



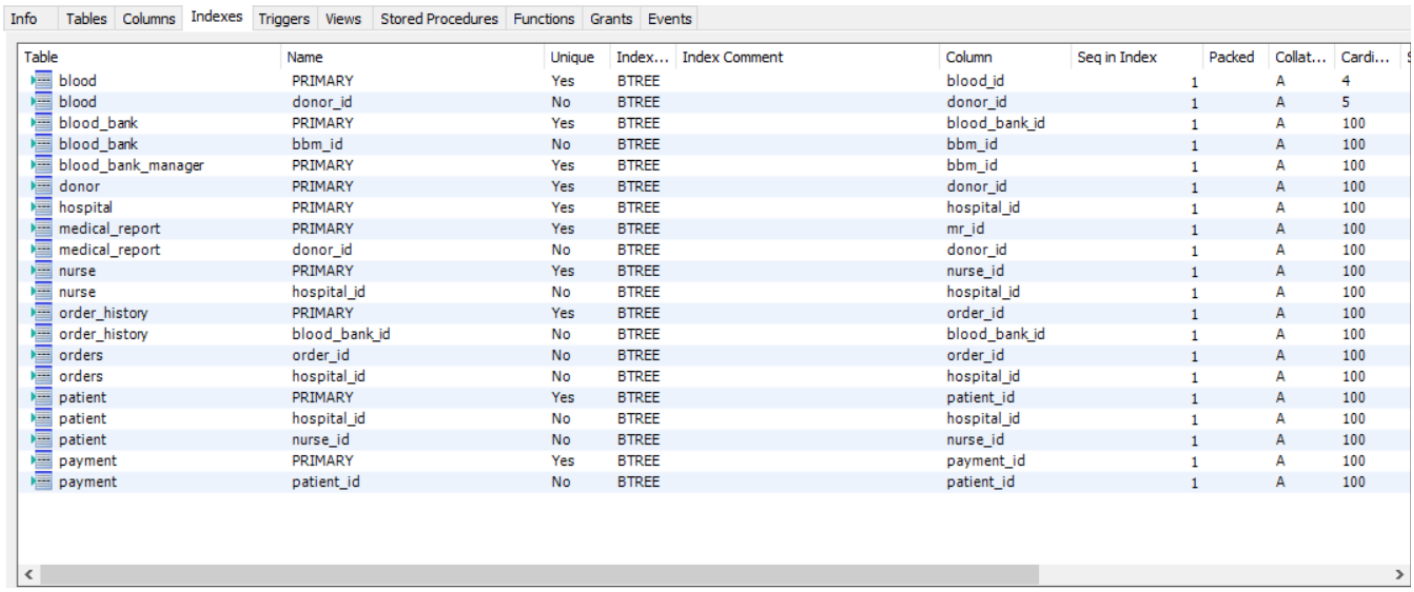


Table	Name	Unique	Index...	Index Comment	Column	Seq in Index	Packed	Collat...	Cardi...
blood	PRIMARY	Yes	BTREE		blood_id	1		A	4
blood	donor_id	No	BTREE		donor_id	1		A	5
blood_bank	PRIMARY	Yes	BTREE		blood_bank_id	1		A	100
blood_bank	bbm_id	No	BTREE		bbm_id	1		A	100
blood_bank_manager	PRIMARY	Yes	BTREE		bbm_id	1		A	100
donor	PRIMARY	Yes	BTREE		donor_id	1		A	100
hospital	PRIMARY	Yes	BTREE		hospital_id	1		A	100
medical_report	PRIMARY	Yes	BTREE		mr_id	1		A	100
medical_report	donor_id	No	BTREE		donor_id	1		A	100
nurse	PRIMARY	Yes	BTREE		nurse_id	1		A	100
nurse	hospital_id	No	BTREE		hospital_id	1		A	100
order_history	PRIMARY	Yes	BTREE		order_id	1		A	100
order_history	blood_bank_id	No	BTREE		blood_bank_id	1		A	100
orders	order_id	No	BTREE		order_id	1		A	100
orders	hospital_id	No	BTREE		hospital_id	1		A	100
patient	PRIMARY	Yes	BTREE		patient_id	1		A	100
patient	hospital_id	No	BTREE		hospital_id	1		A	100
patient	nurse_id	No	BTREE		nurse_id	1		A	100
payment	PRIMARY	Yes	BTREE		payment_id	1		A	100
payment	patient_id	No	BTREE		patient_id	1		A	100

- **DDL (Data Definition Language) used to create our database**.

1. create database blood_bank;

2. use blood_bank;

3. create table Donor(donor_id int(10) primary key auto_increment,name varchar(255),address varchar(255),mobile bigint(12));

4. create table Medical_report(mr_id int(10) primary key auto_increment,temperature_f decimal(10,2),hemoglobin_gdl decimal(10,2),pulse_bm int,donor_id int(10) not null , foreign key(donor_id) references Donor (donor_id));

5. create table Blood(blood_id int(10) primary key auto_increment,blood_type varchar(3) check (blood_type in ('A+','B+','AB+','O+','A-','B-','AB-','O-')), quantity int , date date,donor_id int(10) not null , foreign key(donor_id) references Donor (donor_id));

6. create table Hospital(hospital_id int(10) primary key auto_increment,name varchar(255),address varchar(255),mobile bigint(12));

7. create table Nurse(nurse_id int(10) primary key auto_increment,name varchar(255),age int(10),year_of_experience int(10),hospital_id int(10) not null , foreign key(hospital_id) references Hospital (hospital_id));

8. create table Patient(patient_id int(10) primary key auto_increment,name varchar(255),age int(10),disease varchar(255),address varchar(255),mobile bigint(12),blood_type varchar(3) check (blood_type in ('A+','B+','AB+','O+','A-','B-','AB-','O-')),hospital_id int(10) not null,nurse_id int(10),foreign key(hospital_id) references Hospital (hospital_id),foreign key(nurse_id) references Nurse (nurse_id));

9. create table Payment(payment_id int(10) primary key auto_increment,payment_status boolean, amount int, quantity int,

payment_mode varchar(255),patient_id int(10),foreign key(patient_id) references Patient (patient_id));

10. create table Blood_bank_manager(bbm_id int(10) primary key auto_increment,name varchar(255),address varchar(255),mobile bigint(12));

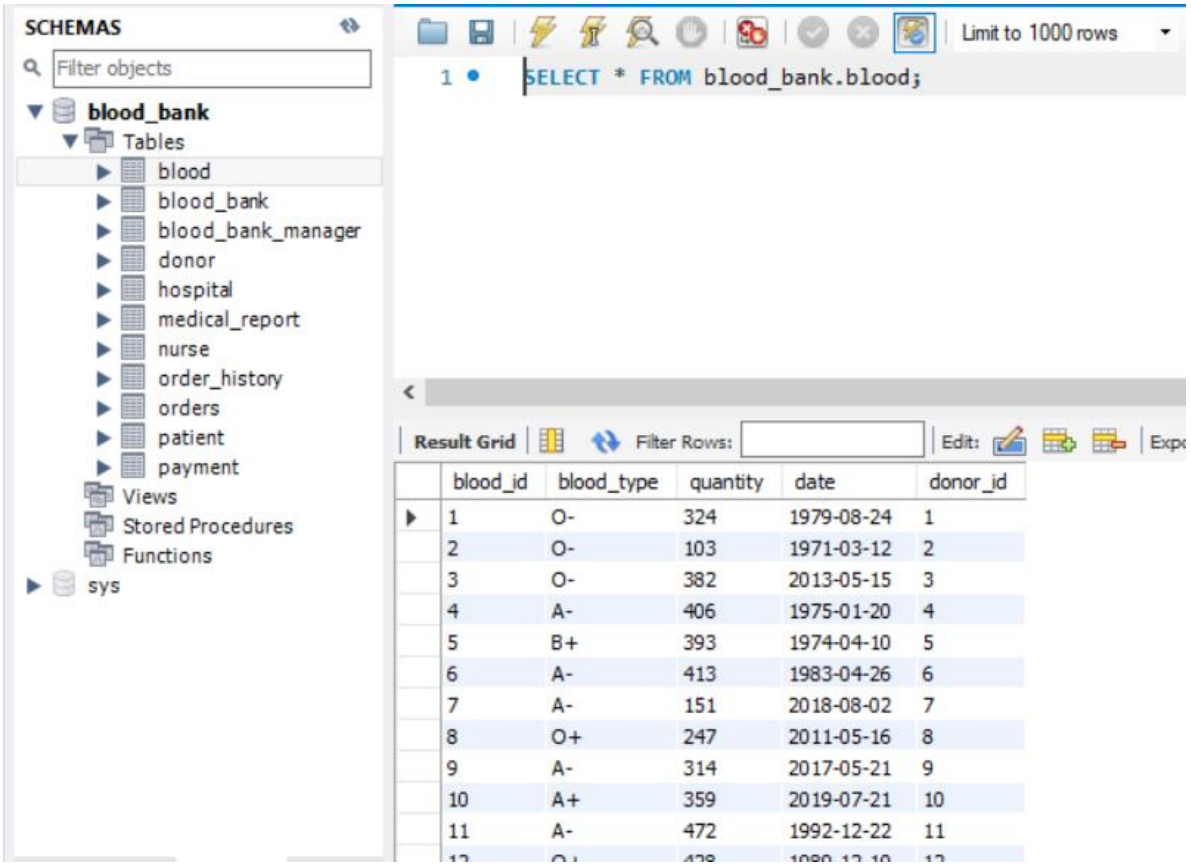
11. create table Blood_bank(blood_bank_id int(10) primary key auto_increment,name varchar(255),address varchar(255),quantity int,blood_type varchar(3) check (blood_type in ('A+','B+','AB+','O+','A-','B-','AB-','O-')),bbm_id int(10) not null,foreign key(bbm_id) references Blood_bank_manager (bbm_id));

12. create table Order_history(order_id int(10) primary key auto_increment,quantity int,blood_type varchar(3) check (blood_type in ('A+','B+','AB+','O+','A-','B-','AB-','O-')),blood_bank_id int(10) not null,foreign key(blood_bank_id) references Blood_bank (blood_bank_id));

13. create table Orders(order_id int(10) not null,hospital_id int(10) not null,foreign key(order_id) references Order_history (order_id),foreign key(hospital_id) references hospital (hospital_id));

- **DML (Data Manipulation Language) on our database**.

1. Selecting all columns from blood table:



2. Selecting distinct names of donor who donated blood of blood_type ‘A+’