P3. Integrity Constraints

By 2047262 (Udit Gupta)

Creating a Database:

```
create database NGO_DB;
Creating Tables
                  CREATE TABLE Members (
                  MembershipID int primary key,
                  Name varchar(100),
                  Gender varchar(10),
                  Designation varchar(100),
                  Mobile_No varchar(20),
                  DOB varchar(50)
                  );
                  CREATE TABLE Donation (
                  DonorID int primary key,
                  Donor_Name varchar(100),
                  Donation_Amount varchar(100),
                  Donation_Date varchar(20)
                  );
                  CREATE TABLE Query (
                  QueryID int primary key,
                  Name varchar(100),
                  Query_Description varchar(100),
                  Query_Date varchar(20)
                  );
                  CREATE TABLE Events (
                  EventID int primary key,
                  Event_Name varchar(100),
                  Event_Description varchar(100),
```

Event_Date varchar(20)

Inserting values into respective tables

"9659487562","07/04/1999");

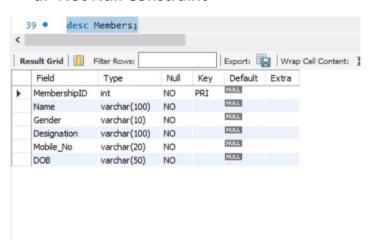
insert into Members values (100,"Udit Gupta", "Male", "President", "7891492201","11/09/1998"); insert into Members values (101,"Mitali Khandelwal", "Female", "Scretary", "78945612312","10/11/2001"); insert into Members values (102,"Sopan Sharma", "Male", "Treasurer", "7661120420","14/05/1998"); insert into Members values (103,"Nishant Jain", "Male", "Member",

Insert into Events values (501,"Rakhi Celebratiob", "Sample", "01/08/2021"); insert into Events values (502,"Independence Day Celebration", "Sample", "15/08/2021");

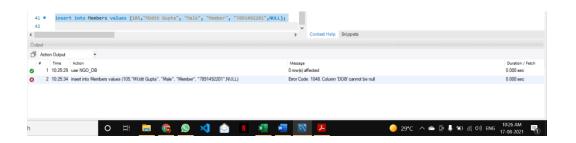
insert into Donation values(1110,"UDit",2000,"15/08/2021"); insert into Donation values(1111,"Mitali",2000,"15/08/2021");

1. NOT NULL - column cannot have a NULL value

a. Not Null Constraint

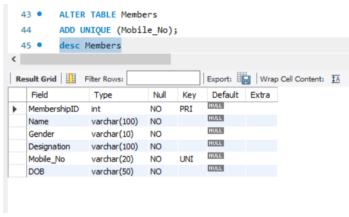


b. Inserting null value to NOT NULL field



2. UNIQUE - all values in a column are different

a. Unique Key Constraint



b. Inserting value to check default constraint



3. PRIMARY KEY - NOT NULL and UNIQUE

a. Primary Key Constraint
Inserting same value for primary key field

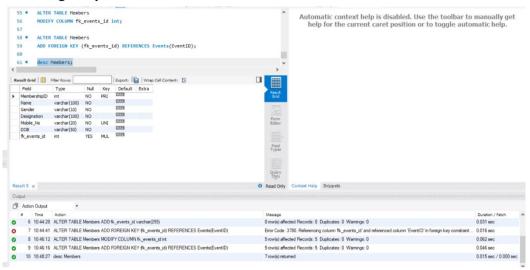


b. Inserting NULL value for primary key field



4. FOREIGN KEY - Uniquely identifies a row/record in another table

a. Foriegn Key Constraint



b. Inserting value that is not referenced by the related table

insert into Members values (106,"MUdit Gupta", "Male", "Member", "7891492101","11/09/1998",504);

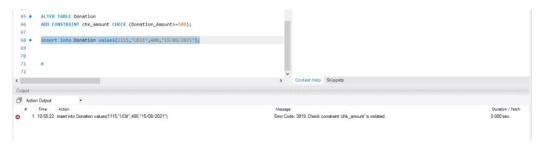


- 5. CHECK all values in a column are in range values (one/many attributes)
 - a. **Declaring Constraint**

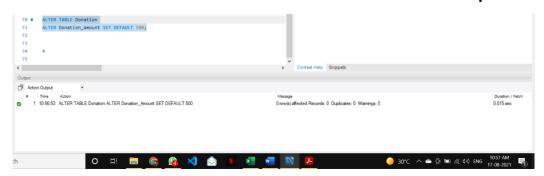
ALTER TABLE Donation

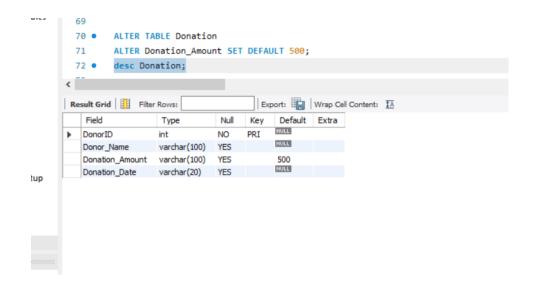
ADD CONSTRAINT chk_amount CHECK (Donation_Amount>=500);

b. #Inserting value that violates check constraint

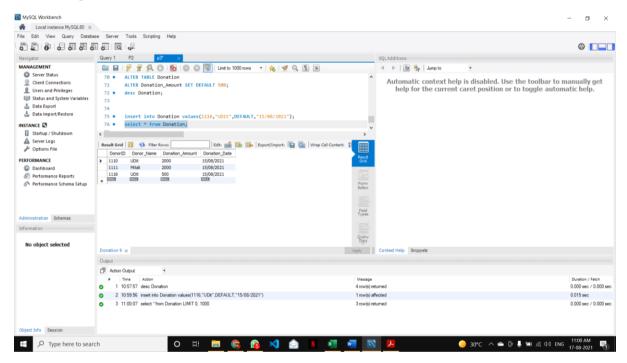


6. DEFAULT - Sets a default value for a column when no value is specified





b. Inserting value to check default constraint



7. auto-increment for a field

