Darius J.M. Simamora
181402063
Data Warehouse dan Bisnis Intelligence
Tugas 1

Module 3 Problems

The problems use the *Customer*, *Facility*, and *Location* tables of the intercollegiate athletic database. The *Customer* table contains clients who initiate event requests. The *Facility* table contains available facilities. The *Location* table contains several locations inside facilities.

The primary keys of the tables are *CustNo* for *Customer*, *FacNo* for *Facility*, and *LocNo* for *Location*.

Customer

custno	custname	address	Internal	contact	phone	city	state	zip
C100	Football	Box 352200	Y	Mary Manager	6857100	Boulder	CO	80309
C101	Men's Basketball	Box 352400	Y	Sally	5431700	Boulder	CO	80309
C103	Baseball	Box 352020	Y	Bill Baseball	5431234	Boulder	CO	80309
C104	Women's Softball	Box 351200	Y	Sue Softball	5434321	Boulder	CO	80309
C105	High School	123	N	Coach Bob	4441234	Louisville	CO	80027

Facility

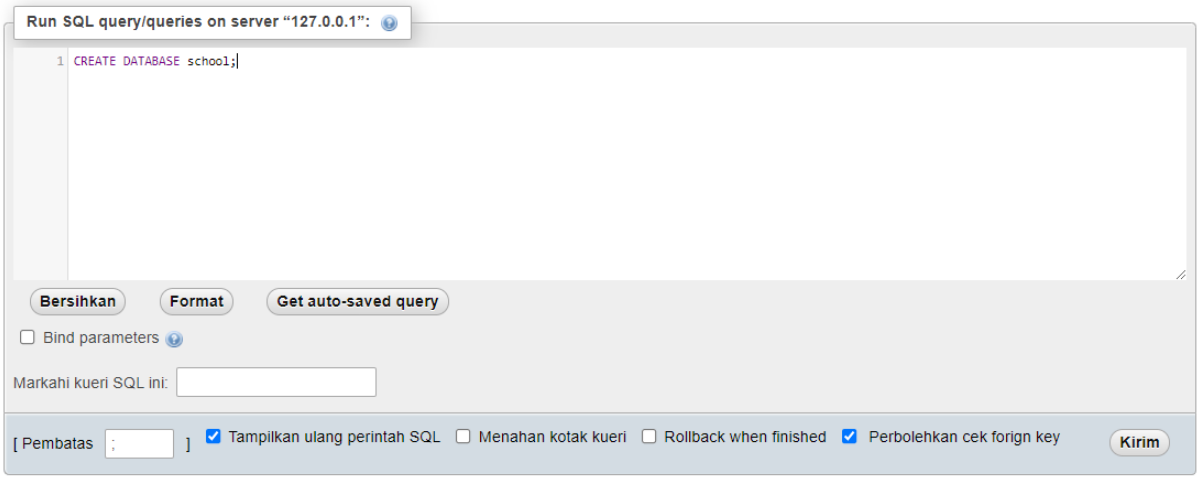
Adm	facname
F100	Football stadium
F101	Basketball arena
F102	Baseball field
F103	Recreation room

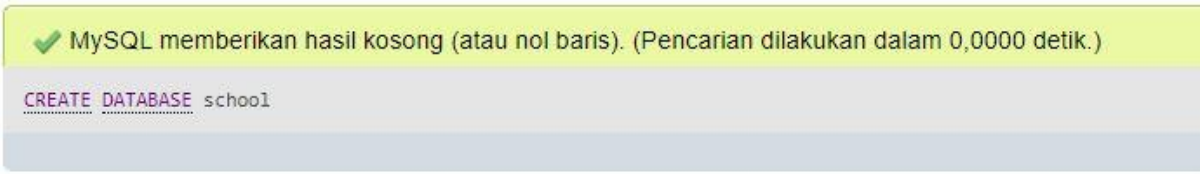
Location

locno	facno	locname
L100	F100	Locker room
L101	F100	Plaza
L102	F100	Vehicle gate
L103	F101	Locker room
L104	F100	Ticket Booth
L105	F101	Gate
L106	F100	Pedestrian

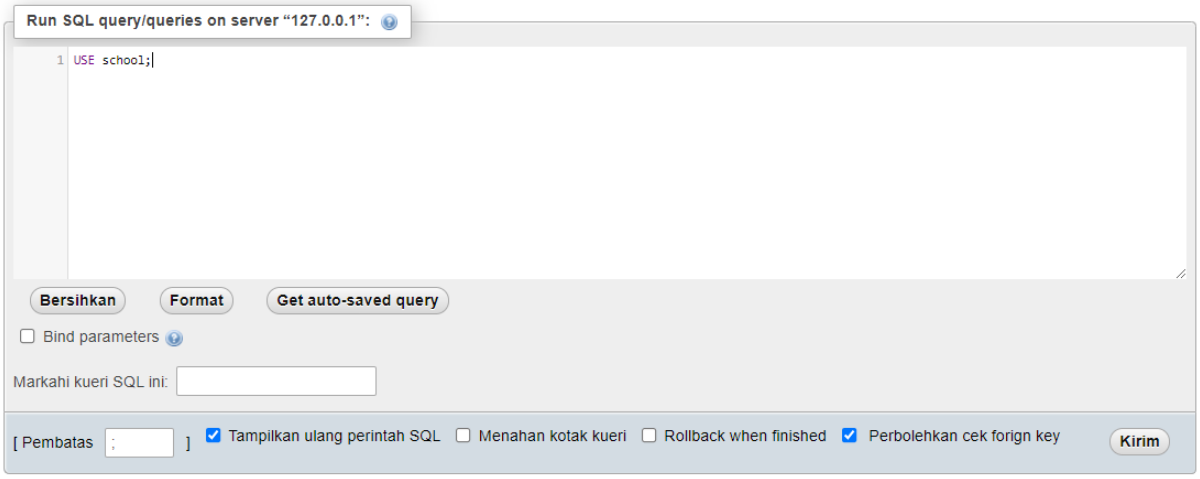
Persiapan Database.

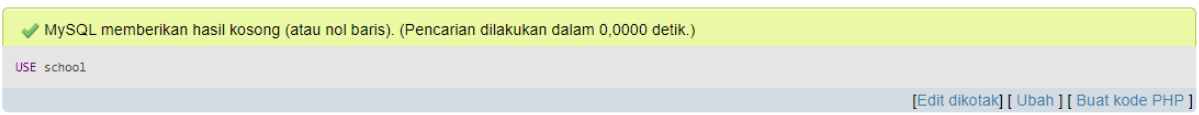
Sebelum menjawab pertanyaan, kita akan terlebih dahulu membuat database. Disini kita akan menggunakan MySQL, untuk itu kita buka PHP My admin dan dibawah ini query yang kita gunakan untuk membuat database. Klik kirim untuk menjalankan query.





Selanjutnya masukkan query *USE school,* untuk menggunakan database school.



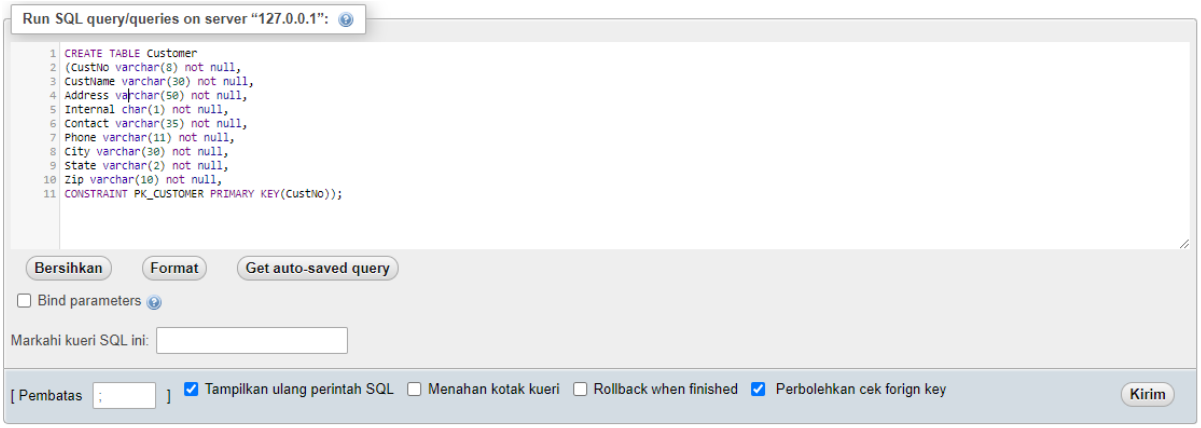


Soal.

1. Write a CREATE TABLE statement for the *Customer* table. Choose data types appropriate for the DBMS used in your course. All columns are required (not null).

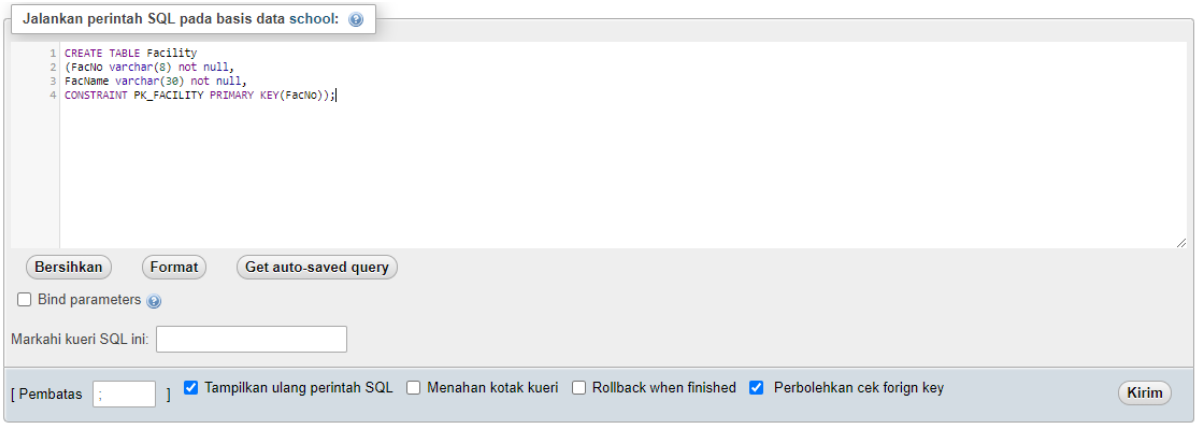
   Jawab:

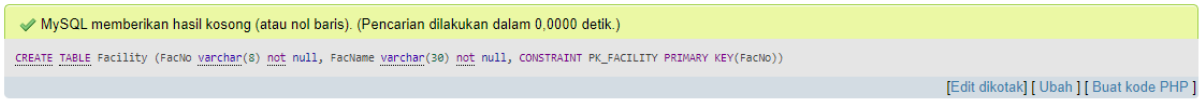
   Dibawah ini query yang kita perlukan



2. Write a CREATE TABLE statement for the *Facility* table. Choose data types appropriate for the DBMS used in your course. All columns are required (not null).

   Jawab:





3. Write a CREATE TABLE statement for the *Location* table. Choose data types appropriate for the DBMS used in your course. *LocName* column is required (not null).

   Jawab:

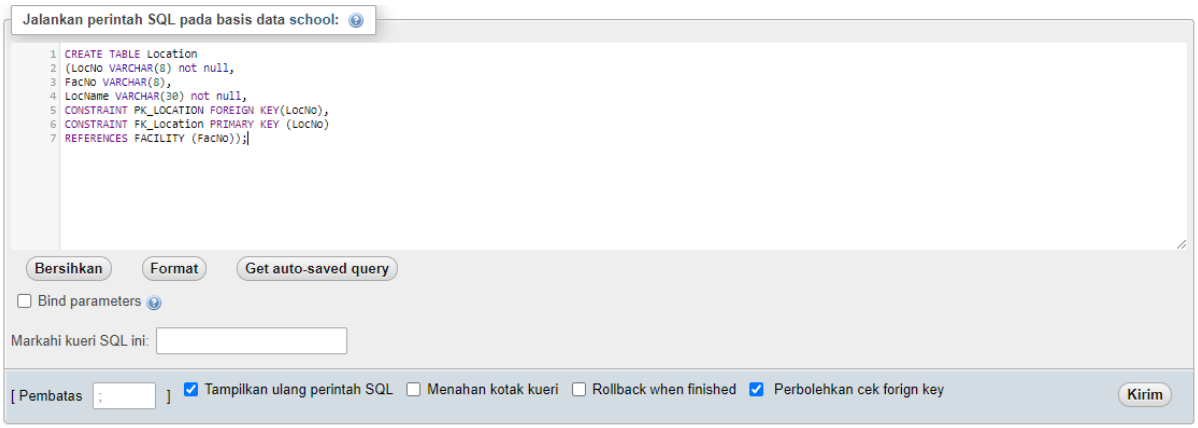
4. Identify the foreign key(s) and 1-M relationship(s) among the *Customer*, *Facility*, and *Location* tables. For each relationship, identify the parent table and the child table.

   Jawab:

   Dapat kita lihat bahwa terdapat satu hubungan 1-M (one to many) yaitu pada tabel Facility (FacNo – PK) dengan tabel Location (FacNo – FK).

5. Extend your CREATE TABLE statement from problem (3) with referential integrity constraints.

   Jawab:



6. From examination of the sample data and your common understanding of scheduling and operation of events, are null values allowed for the foreign key in the *Location* table? Why or why not? Extend the CREATE TABLE statement in problem (5) to enforce the null value restrictions if any.

   Jawab:

   Sejauh yang saya pahami, pada kolom FacNo tidak boleh terdapat nilai kosong (Null). Disebabkan tabel Location serta tabel Facility serta ditambahkannya referential integrity untuk menjaga konsistensi data pada tabel Facility melalui kolom FacNo. Maka jika kolom FacNo bernilai Null akan menyebabkan error. Untuk itu kita perlu membuat batasan not null pada kolom FacNo dalam pembuatan tabel Location.

```
CREATE TABLE Location
(LocNo VARCHAR(8) not null,
FacNo VARCHAR(8), not null,
LocName VARCHAR(30) not null,
CONSTRAINT PK_LOCATION PRIMARY KEY(LocNo),
CONSTRAINT FK_Location FOREIGN KEY (LocNo)
REFERENCES FACILITY (FacNo));
```

7. Extend your CREATE TABLE statement for the *Facility* table (problem 2) with a unique constraint for *FacName*. Use an external named constraint clause for the unique constraint.

   Jawab :