

Nama : Shelli Athaya
Nim : 181402024
Matkul : Data Warehouse & Bisnis Intelligence

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).

Solusion :

```
MariaDB [dwbi1]> tee Tugas1_DWBI.txt
Logging to file 'Tugas1_DWBI.txt'
MariaDB [dwbi1]> create table Customer (
  -> custNo char(11) not null,
  -> custName varchar(100) not null,
  -> address varchar(100) not null,
  -> Internal varchar(2) not null,
  -> Contact varchar(100) not null,
  -> Phone varchar(14) not null,
  -> City varchar(10) not null,
  -> state varchar(10) not null,
  -> zip varchar(10) not null,
  -> CONSTRAINT CustomerPK PRIMARY KEY(custNo));
ERROR 2006 (HY000): MySQL server has gone away
No connection. Trying to reconnect...
Connection id: 51
Current database: dwbi1

Query OK, 0 rows affected, 1 warning (0.037 sec)
```

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).

Solusion :

```
MariaDB [dwbi1]> create table Facility (
  -> facno char(11) not null,
  -> facname varchar(100) not null,
  -> CONSTRAINT FacilityPK PRIMARY KEY(facno));
Query OK, 0 rows affected, 1 warning (0.021 sec)
```

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).

Solusion :

```
MariaDB [dwbi1]> create table Location (  
-> locno char(20) not null,  
-> facno char(20) not null,  
-> locname varchar(100) not null,  
-> CONSTRAINT LocationPK PRIMARY KEY(locno));  
Query OK, 0 rows affected, 1 warning (0.021 sec)
```

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.

Solusion :

Jika kita perhatikan terdapat tiga table yang saling berhubungan yaitu table *Location* yang merupakan parent dari table *Facility*, sedangkan table *customer* tidak memiliki hubungan langsung dengan table *Location* dan table *Facility*. Table *Location* dan Table *Facility* merupakan parent dan table *cutomoter* adalah child table. Table *Location* dengan nama Atribut *facno* merupakan foreign key pada ketiga table tersebut.

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

Solusion :

```
MariaDB [dwbi1]> alter table Location add CONSTRAINT LocationFK FOREIGN KEY (facno) REFERENCES Facility(facno  
) on DELETE CASCADE on UPDATE CASCADE;  
Query OK, 0 rows affected (0.080 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

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.

Solusion :

Karena foreign key tidak berfungsi sebagai identifikasi record yang terdapat dalam table jadi foreign key pada table location bisa dibuat null (tidak diisi). Jika primary key value nya tidak Boleh null (tidak diisi), apabila null (tidak diisi) maka identifikasi Nilai dalam table tersebut gagal dilakukan.

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.

Solusion :

```
MariaDB [dwbi1]> alter table Facility add UNIQUE (facno);  
Query OK, 0 rows affected (0.025 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```