Nama : Nadia Farhani

NIM : 181402015

Kom : C

Data Warehouse dan Bisnis Intelligence

TUGAS 1

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).

```
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
```

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).

```
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 (nots null).

```
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));
```

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:

   Ketiga table tersebut, ada dua table dimana keduanya saling berhubungan. Table tersebut yaitu table *Location* dan *Facility.* Table *Location* adalah parent dari table *Facility.* Table *customer* tidak berhubungan langsung dengan kedua table itu. Table *Location* menjadi parent table, table *Facility* dan table *customer* adalah child table. Foreign key pada ketiga table tersebut ada di table *Location* dan diberi nama atribut *facno.*

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

```
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)
```

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 :

Foreign key pada table location bisa saja null karena foreign key tidak mempunyai fungsi untuk mengidentifikasi record yang ada di dalam table. Tetapi pada primary key nilai (value) yang dipakai tidak boleh NULL(kosong), dan juga record yang dibuat harus terisi nilai. Jika nilai dalam record tersebut bersifat NULL maka tidak bisa mengidentifikasi nilai dalam tabel.

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.