

Assignment 3
Data Manipulation Language 1
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- 1) Tuliskan query untuk membuat database store

```
mysql> create database store;  
Query OK, 1 row affected (0.02 sec)
```

untuk membuat database , seperti biasa kita gunakan create database nama_database;

- 2) Tuliskan query untuk membuat tabel Customer, tabel Product dan Tabel Transaction, dengan struktur sebagai berikut

Tabel Customer

<i>Field Name</i>	Tipe	Panjang Data	Keterangan
customerNumber	varchar	5	NOT NULL, Primary Key
customerName	varchar	255	NOT NULL
city	varchar	100	

Tabel Product

<i>Field Name</i>	Tipe	Panjang Data	Keterangan
productNumber	varchar	5	NOT NULL, Primary Key
productName	varchar	100	NOT NULL
stock	int	3	DEFAULT = 15

Tabel Transaction

<i>Field Name</i>	Tipe	Panjang Data	Keterangan
transactionNumber	varchar	5	NOT NULL, Primary Key
transactionDate	date		
customerNumber	varchar	5	Foreign Key

```
mysql> create table Customer (
  -> customerNumber varchar(5) not null primary key,
  -> customerName varchar(255) not null,
  -> city varchar(100)
  -> );
Query OK, 0 rows affected (0.03 sec)

mysql> create table Product (
  -> productNumber varchar(5) not null primary key,
  -> productName varchar(100) not null,
  -> stock int(3) default 15
  -> );
Query OK, 0 rows affected, 1 warning (0.03 sec)

mysql> create table Transaction (
  -> transactionNumber varchar(5) not null primary key,
  -> transactionDate date,
  -> customerNumber varchar(5),
  -> foreign key (customerNumber) references Customer(customer
Number)
  -> );
Query OK, 0 rows affected (0.04 sec)
```

```
mysql> desc customer;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| customerNumber | varchar(5)    | NO   | PRI | NULL    |       |
| customerName   | varchar(255)  | NO   |     | NULL    |       |
| city           | varchar(100)  | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

```
mysql> desc product;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| productNumber  | varchar(5)    | NO   | PRI | NULL    |       |
| productName    | varchar(100)  | NO   |     | NULL    |       |
| stock          | int           | YES  |     | 15      |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
mysql> desc transaction;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| transactionNumber | varchar(5)    | NO   | PRI | NULL    |       |
| transactionDate   | date          | YES  |     | NULL    |       |
| customerNumber    | varchar(5)    | YES  | MUL | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

- 3) Tuliskan query untuk memasukkan data pada ketiga tabel sesuai dengan data berikut (boleh langsung ditambahkan beberapa baris data sekaligus)

Tabel Customer

customerNumber	customerName	city
C-003	Geneva Electronic	Bandung
C-007	Gama Store	Yogyakarta
C-009	Family Mart	Medan
C-011	Star Store	Bandung

Tabel Product

productNumber	productName	stock
P-100	Monitor 17	15
P-120	Keyboard Ps2	20
P-123	Mouse Ps2	15
P-125	Memory 512	10

Tabel Transaction

transactionNumber	transactionDate	customerNumber
T-001	2019-10-19	C-011
T-002	2020-01-10	C-003
T-003	2020-08-07	C-009
T-004	2020-09-09	C-007

```
mysql> insert into Customer (customerNumber,customerName,city) v
alues
  -> ('c-003','Geneva Electronic','Bandung'),
  -> ('c-007','Game Store','Yogyakarta'),
  -> ('C-009','Family Mart','Medan'),
  -> ('C-011','Star Store','Bandung');
Query OK, 4 rows affected (0.02 sec)
Records: 4  Duplicates: 0  Warnings: 0
```

```
mysql> select * from customer;
+-----+-----+-----+
| customerNumber | customerName | city |
+-----+-----+-----+
| c-003          | Geneva Electronic | Bandung |
| c-007          | Game Store      | Yogyakarta |
| C-009          | Family Mart     | Medan |
| C-011          | Star Store      | Bandung |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> insert into Product (productNumber,productName,stock) values
-> ('p-100','Monitor 17',15),
-> ('p-120','Keyboard Ps2',20),
-> ('P-123','Mouse Ps2',15),
-> ('P-125','Memory 512',10);
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

```
mysql> select * from product;
+-----+-----+-----+
| productNumber | productName | stock |
+-----+-----+-----+
| p-100         | Monitor 17  | 15    |
| p-120         | Keyboard Ps2| 20    |
| P-123         | Mouse Ps2   | 15    |
| P-125         | Memory 512  | 10    |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
mysql> insert into transaction (transactionNumber,transactionDate,
customerNumber) values
-> ('T-001','2019-10-19','c-011'),
-> ('T-002','2020-01-10','C-003'),
-> ('T-003','2020-08-07','C-009'),
-> ('T-004','2020-09-09','C-007');
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

```
mysql> select * from transaction;
+-----+-----+-----+
| transactionNumber | transactionDate | customerNumber |
+-----+-----+-----+
| T-001             | 2019-10-19     | c-011          |
| T-002             | 2020-01-10     | C-003          |
| T-003             | 2020-08-07     | C-009          |
| T-004             | 2020-09-09     | C-007          |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

Setelah membuat table nya , kita bisa melihat datanya dengan menggunakan query select * (memilih semua kolom dan baris) dari suatu database .

- 4) Tampilkan nama *city* dari *Customer* secara unik

```
mysql> select distinct city from customer;
+-----+
| city |
+-----+
| Bandung |
| Yogyakarta |
| Medan |
+-----+
3 rows in set (0.00 sec)
```

Untuk menampilkan nama city yang unik dan dalam konteks ini tidak mendapatkan dua nilai dua kali , maka kita menggunakan distinct sebagai keyword .

- 5) Tampilkan seluruh data *Customer*

```
mysql> select * from customer;
+-----+-----+-----+
| customerNumber | customerName | city |
+-----+-----+-----+
| c-003 | Geneva Electronic | Bandung |
| c-007 | Game Store | Yogyakarta |
| C-009 | Family Mart | Medan |
| C-011 | Star Store | Bandung |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

Seperti yang sebelumnya , kita menggunakan select * nama_tabel

- 6) Tampilkan *productName* dan *stock* dari seluruh data *product*

```
mysql> select productName , stock from product;
+-----+-----+
| productName | stock |
+-----+-----+
| Monitor 17 | 15 |
| Keyboard Ps2 | 20 |
| Mouse Ps2 | 15 |
| Memory 512 | 10 |
+-----+-----+
4 rows in set (0.00 sec)
```

Disini kita menspesifikasikan dua kolom yang ingin kita tampilkan , maka kita menuliskan dua kolom di select .

- 7) Tampilkan *customerName* yang tinggal di kota Bandung

```
mysql> select customerName from customer where city = 'Bandung';
```

customerName
Geneva Electronic
Star Store

```
2 rows in set (0.00 sec)
```

Disini kita menggunakan where sebagai alat untuk menyeleksi dan memilih unsur mana yang ditampilkan di dalam kolom yang diminta

- 8) Tampilkan transactionDate yang dilakukan oleh customer yang memiliki customerNumber C-007

```
mysql> select transactionDate from transaction where customerNumber = 'c-007';
```

transactionDate
2020-09-09

```
1 row in set (0.00 sec)
```

- 9) Tampilkan seluruh data *product* yang memiliki stock 15

```
mysql> select * from products where stock = 15;
ERROR 1146 (42S02): Table 'store.products' doesn't exist
mysql> select * from product where stock = 15;
```

productNumber	productName	stock
p-100	Monitor 17	15
P-123	Mouse Ps2	15

```
2 rows in set (0.00 sec)
```

- 10) Ubahlah *transactionDate* dari *customer* yang memiliki *customerNumber* C-007 menjadi tanggal hari ini

```
mysql> update transaction
      -> set transactionDate = CURRENT_DATE
      -> where customerNumber = 'c-007';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from transaction;
+-----+-----+-----+
| transactionNumber | transactionDate | customerNumber |
+-----+-----+-----+
| T-001            | 2019-10-19      | c-011          |
| T-002            | 2020-01-10      | C-003          |
| T-003            | 2020-08-07      | C-009          |
| T-004            | 2024-09-17      | C-007          |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

Untuk mendapatkan nilai dari tanggal hari ini kita melakukan setting transaction_date menjadi CURRENT_DATE dan juga menspesifikasikan customernumbersnya

- 11) Ubahlah *customerName* menjadi **HappyFamily Mart** dan *city* menjadi **Jakarta** untuk customer yang memiliki *customerNumber* **C-009**

```
mysql> update customer
      -> set customerName = 'HappyFamily Mart' , city = 'Jakarta'
      -> where customerNumber = 'c-009';
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from customer;
+-----+-----+-----+
| customerNumber | customerName      | city          |
+-----+-----+-----+
| c-003          | Geneva Electronic | Bandung       |
| c-007          | Game Store        | Yogyakarta    |
| C-009          | HappyFamily Mart  | Jakarta       |
| C-011          | Star Store        | Bandung       |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

- 12) Tambahkan data *product* berikut menggunakan nilai DEFAULT

productNumber	productName	stock
P-130	NIC D-Link	15

```
mysql> insert into product (productNumber, productName) values
-> ('p-130', 'NIC D-Link');
Query OK, 1 row affected (0.01 sec)

mysql> select * from product;
+-----+-----+-----+
| productNumber | productName | stock |
+-----+-----+-----+
| p-100         | Monitor 17  | 15    |
| p-120         | Keyboard Ps2 | 20    |
| P-123         | Mouse Ps2   | 15    |
| P-125         | Memory 512  | 10    |
| p-130         | NIC D-Link  | 15    |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

- 13) Tambahkan data *transaction* berikut menggunakan tanggal hari ini pada *transactionDate*

transactionNumber	transactionDate	customerNumber
T-005	<i>current_date</i>	C-003
T-006	<i>current_date</i>	C-011

```
mysql> INSERT INTO Transaction (transactionNumber, transactionDate, customerNumber) VALUES
-> ('T-005', CURRENT_DATE, 'C-003'),
-> ('T-006', CURRENT_DATE, 'C-011');
Query OK, 2 rows affected (0.01 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> select * from transaction;
+-----+-----+-----+
| transactionNumber | transactionDate | customerNumber |
+-----+-----+-----+
| T-001            | 2019-10-19     | c-011         |
| T-002            | 2020-01-10     | C-003         |
| T-003            | 2020-08-07     | C-009         |
| T-004            | 2024-09-17     | C-007         |
| T-005            | 2024-09-17     | C-003         |
| T-006            | 2024-09-17     | C-011         |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

- 14) Hapuslah 2 data *transaction* pertama yang diurutkan berdasarkan *transactionNumber*


```
mysql> delete from transaction
      -> order by transactionNumber
      -> LIMIT 2;
Query OK, 2 rows affected (0.01 sec)

mysql> select * from transaction;
+-----+-----+-----+
| transactionNumber | transactionDate | customerNumber |
+-----+-----+-----+
| T-003            | 2020-08-07      | C-009          |
| T-004            | 2024-09-17      | C-007          |
| T-005            | 2024-09-17      | C-003          |
| T-006            | 2024-09-17      | C-011          |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

15) Hapuslah 2 data *transaction* terakhir yang diurutkan berdasarkan *transactionNumber*

```
mysql> delete from transaction
      -> order by transactionNumber desc
      -> LIMIT 2;
Query OK, 2 rows affected (0.01 sec)

mysql> select * from transaction;
+-----+-----+-----+
| transactionNumber | transactionDate | customerNumber |
+-----+-----+-----+
| T-003            | 2020-08-07      | C-009          |
| T-004            | 2024-09-17      | C-007          |
+-----+-----+-----+
2 rows in set (0.00 sec)
```