HOMEWORK 7
Subquery

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SQL DATA:
https://drive.google.com/file/d/104R9ygmzLp00fljhii7D8mCyrk6omiuv/view?usp=sharing

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| academic           |
| classicmodels      |
| coba               |
| homework7          |
| information_schema |
| library            |
| mysql              |
| performance_schema |
| perjajanan         |
| store              |
| studentdata        |
| sys                |
+--------------------+
12 rows in set (0.00 sec)

mysql> use homework7
Database changed
mysql> show tables;
+---------------------+
| Tables_in_homework7 |
+---------------------+
| tb_location         |
| tb_product          |
| tb_type             |
+---------------------+
3 rows in set (0.00 sec)
```

Buatlah query SQL menggunakan *subquery* untuk:

1. Menampilkan kode barang, nama barang beserta jumlahnya yang berada di lokasi "Laboratorium 2 M Informatika"

   select product_code, product_name, total

       -> from tb_product where location_code in

       -> (select location_code from tb_location

       -> where location_name="Laboratorium 2 M Informatika");

```
mysql> select product_code, product_name, total
    -> from tb_product where location_code in
    -> (select location_code from tb_location
    -> where location_name="Laboratorium 2 M Informatika");
+--------------+--------------+-------+
| product_code | product_name | total |
+--------------+--------------+-------+
| AP004        | Papan Tulis  |    11 |
| EK0014       | Komputer     |     8 |
| EK0015       | Printer      |     6 |
| EK0016       | LCD Projector|     2 |
| MM011        | Meja Komputer|    45 |
+--------------+--------------+-------+
5 rows in set (0.00 sec)
```

2. Menampilkan kode barang, nama barang yang berjenis "Alat-alat elektronik" dan seluruh barang yang ada di "Ruang Dosen M Informatika"

   select product_code, product_name

       -> from tb_product where type_code in

       -> (select type_code from tb_type

       -> where type_name="Alat-alat elektronik")

       -> or location_code in

       -> (select location_code from tb_location

       -> where location_name="Ruang Dosen M Informatika");

```
mysql> select product_code, product_name
    -> from tb_product where type_code in
    -> (select type_code from tb_type
    ->  where type_name="Alat-alat elektronik")
    -> or location_code in
    -> (select location_code from tb_location
    -> where location_name="Ruang Dosen M Informatika");
+--------------+--------------+
| product_code | product_name |
+--------------+--------------+
| EK0014       | Komputer     |
| EK0015       | Printer      |
| EK0016       | LCD Projector|
| EK0014       | Komputer     |
| EK0015       | Printer      |
| EK0016       | LCD Projector|
| MM012        | Kursi Hidrolik|
+--------------+--------------+
7 rows in set (0.00 sec)
```

3. Menampilkan kode barang, nama barang dan jumlah barang yang merupakan jenis "Alat-alat elektronik" dan "Mebeler" yang terletak di "Laboratorium 2 M Informatika"

select product_code, product_name, total

    -> from tb_product where type_code in

    -> (select type_code from tb_type

    -> where type_name="Alat-alat elektronik" or type_name="Mebeler")

    -> and location_code in

    -> (select location_code from tb_location

    -> where location_name="Laboratorium 2 M Informatika");

```
mysql> select product_code, product_name, total
    -> from tb_product where type_code in
    -> (select type_code from tb_type
    -> where type_name="Alat-alat elektronik" or type_name="Mebeler")
    -> and location_code in
    -> (select location_code from tb_location
    -> where location_name="Laboratorium 2 M Informatika");
+--------------+---------------+-------+
| product_code | product_name  | total |
+--------------+---------------+-------+
| EK0014       | Komputer      |     8 |
| EK0015       | Printer       |     6 |
| EK0016       | LCD Projector |     2 |
| MM011        | Meja Komputer |    45 |
+--------------+---------------+-------+
4 rows in set (0.00 sec)
```

4. Menampilkan semua informasi barang selain jenis "Mebeler" yang berada di "Laboratorium 2 M Informatika"

select * from tb_product

    -> where type_code not in

    -> (select type_code from tb_type

    -> where type_name = "Mebeler")

    -> and location_code in

    -> (select location_code from tb_location

    -> where location_name = "Laboratorium 2 M Informatika");

```
mysql> select * from tb_product
    -> where type_code not in
    -> (select type_code from tb_type
    -> where type_name = "Mebeler")
    -> and location_code in
    -> (select location_code from tb_location
    -> where location_name = "Laboratorium 2 M Informatika");
+-----------+---------------+--------------+---------------+-------+
| type_code | location_code | product_code | product_name  | total |
+-----------+---------------+--------------+---------------+-------+
| A001      | INFO02        | AP004        | Papan Tulis   |    11 |
| E001      | INFO02        | EK0014       | Komputer      |     8 |
| E001      | INFO02        | EK0015       | Printer       |     6 |
| E001      | INFO02        | EK0016       | LCD Projector |     2 |
+-----------+---------------+--------------+---------------+-------+
4 rows in set (0.01 sec)
```

5. Menambahkan barang dengan nama "Spidol" dengan kode barang "AP005" dan informasi barang lain sama dengan "Papan Tulis" tetapi jumlah barang 2 kali lipat dari jumlah "Papan Tulis"

```
insert into tb_product(type_code, location_code, product_code, product_name,total)
    -> values(
    -> (select type_code from tb_product p where p.product_name="Papan Tulis"),
    -> (select location_code from tb_product p where p.product_name="Papan Tulis"),
    -> "AP005",
    -> "Spidol",
    -> (select p.total*2 from tb_product p where p.product_name="Papan Tulis")
    -> );
```

```
mysql> insert into tb_product(type_code, location_code, product_code, product_name,total)
    -> values(
    -> (select type_code from tb_product p where p.product_name="Papan Tulis"),
    -> (select location_code from tb_product p where p.product_name="Papan Tulis"),
    -> "AP005",
    -> "Spidol",
    -> (select p.total*2 from tb_product p where p.product_name="Papan Tulis")
    -> );
Query OK, 1 row affected (0.00 sec)

mysql> select * from tb_product where product_name="Spidol";
+-----------+---------------+--------------+--------------+-------+
| type_code | location_code | product_code | product_name | total |
+-----------+---------------+--------------+--------------+-------+
| A001      | INFO02        | AP005        | Spidol       |    22 |
+-----------+---------------+--------------+--------------+-------+
1 row in set (0.00 sec)
```

6. Menambahkan "Kabel HDMI" yang akan di tempatkan di "Ruang Dosen M Informatika" dengan kode barang "EK0017", jenis 'E001', dan berjumlah sama dengan seluruh "LCD Projector"

```
insert into tb_product(type_code, location_code, product_code, product_name,total)
    -> values(
    -> "E001",
    -> (select l.location_code from tb_location l where l.location_name="Ruang Dosen
M Informatika"),
    -> "EK0017",
    -> "Kabel HDMI",
    -> (select sum(p.total) from tb_product p where p.product_name="LCD Projector")
-> );
```

```
mysql> insert into tb_product(type_code, location_code, product_code, product_name,total)
    -> values(
    -> "E001",
    -> (select l.location_code from tb_location l where l.location_name="Ruang Dosen M Informatika"),
    -> "EK0017",
    -> "Kabel HDMI",
    -> (select sum(p.total) from tb_product p where p.product_name="LCD Projector")
    -> );
Query OK, 1 row affected (0.00 sec)

mysql> select * from tb_product where product_name = "LCD Projector";
+-----------+---------------+--------------+---------------+-------+
| type_code | location_code | product_code | product_name  | total |
+-----------+---------------+--------------+---------------+-------+
| E001      | INFO01        | EK0016       | LCD Projector |     1 |
| E001      | INFO02        | EK0016       | LCD Projector |     2 |
+-----------+---------------+--------------+---------------+-------+
2 rows in set (0.00 sec)
```

7. Mengubah jumlah "Komputer" yang ada di "Laboratorium 1 M Informatika" sesuai dengan jumlah "Meja Komputer" di ruangan tersebut

update tb_product

    -> set total = (select * from(select p.total

    -> from tb_product p where p.product_name="Meja Komputer"

    -> and p.location_code in (select location_code

    -> from tb_location where location_name="Laboratorium 1 M Informatika")) as temp)

    -> where product_name="Komputer" and location_code in

    -> (select location_code from tb_location

    -> where location_name="Laboratorium 1 M Informatika")

    ->; ;

```
mysql> insert into tb_product(type_code, location_code, product_code, product_name,
total)
    -> values(
    -> "E001",
    -> (select l.location_code from tb_location l where l.location_name="Ruang Dose
n M Informatika"),
    -> "EK0017",
    -> "Kabel HDMI",
    -> (select sum(p.total) from tb_product p where p.product_name="LCD Projector")

    -> );
Query OK, 1 row affected (0.00 sec)

mysql> select * from tb_product where location_code="INFO01";
+-----------+---------------+--------------+---------------+-------+
| type_code | location_code | product_code | product_name  | total |
+-----------+---------------+--------------+---------------+-------+
| E001      | INFO01        | EK0014       | Komputer      |    35 |
| E001      | INFO01        | EK0015       | Printer       |     3 |
| E001      | INFO01        | EK0016       | LCD Projector |     1 |
| M001      | INFO01        | MM011        | Meja Komputer |    35 |
| M001      | INFO01        | MM012        | Kursi Hidrolik|    30 |
+-----------+---------------+--------------+---------------+-------+
5 rows in set (0.00 sec)
```

8. Mengubah seluruh jumlah "Kursi Hidrolik" di setiap ruangan dengan jumlah minimum dari "Meja Komputer"

update tb_product

 -> set total=(select * from(select min(p.total)

 -> from tb_product p where p.product_name="Meja Komputer") as temp)

 -> where product_name="Kursi Hidrolik";

```
mysql> update tb_product
    -> set total=(select * from(select min(p.total)
    -> from tb_product p where p.product_name="Meja Komputer") as temp)
    -> where product_name="Kursi Hidrolik";
Query OK, 2 rows affected (0.00 sec)
Rows matched: 2  Changed: 2  Warnings: 0
mysql> select * from tb_product where product_name="Kursi Hidrolik";
+-----------+---------------+--------------+----------------+-------+
| type_code | location_code | product_code | product_name   | total |
+-----------+---------------+--------------+----------------+-------+
| M001      | INFO01        | MM012        | Kursi Hidrolik |    35 |
| M001      | INFO03        | MM012        | Kursi Hidrolik |    35 |
+-----------+---------------+--------------+----------------+-------+
2 rows in set (0.00 sec)
```

9. Menghapus seluruh data barang yang ada di lokasi "Ruang Dosen M Informatika"

delete from tb_product

 -> where location_code =

 -> (select location_code from tb_location

 -> where location_name="Ruang Dosen M Informatika");

```
mysql> delete from tb_product
    -> where location_code =
    -> (select location_code from tb_location
    -> where location_name="Ruang Dosen M Informatika");
Query OK, 2 rows affected (0.00 sec)

mysql> select * from tb_product where location_code=
    -> (select location_code from tb_location
    -> where location_name="Ruang Dosen M Informatika");
Empty set (0.00 sec)
```

10. Menghapus seluruh data barang di lokasi "Laboratorium 2 M Informatika" yang bukan merupakan jenis "Mebeler"

select * from tb_product where location_code=

    -> (select location_code from tb_location

    -> where location_name="Laboratorium 2 M Informatika");

```
mysql> delete from tb_product
    -> where location_code =
    -> (select location_code from tb_location
    -> where location_name="Laboratorium 2 M Informatika")
    -> and type_code not in
    -> (select type_code from tb_type
    -> where type_name="Mebeler");
Query OK, 5 rows affected (0.00 sec)

mysql> select * from tb_product where location_code=
    -> (select location_code from tb_location
    -> where location_name="Laboratorium 2 M Informatika");
+-----------+---------------+--------------+-----------------+-------+
| type_code | location_code | product_code | product_name    | total |
+-----------+---------------+--------------+-----------------+-------+
| M001      | INFO02        | MM011        | Meja Komputer   |    45 |
+-----------+---------------+--------------+-----------------+-------+
1 row in set (0.00 sec)
```