No: 052
Nama: Arman Nugraha

Jawaban Tugas 2 (MySql)

1. Buatlah tabel nya menggunakan query sql

```
sh-4.4# mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.2.0 MySQL Community Server - GPL

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mvs                |
| mysql              |
| performance_schema |
| sys                |
| test_docker        |
+--------------------+
6 rows in set (0.01 sec)

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

mysql> use task_two;
Database changed
```

```
mysql> create table roles (
    ->     id int primary key auto_increment,
    ->     name varchar(255) not null
    -> ) engine = innodb;
Query OK, 0 rows affected (0.07 sec)

mysql> insert into roles values(null, 'admin'),(null, 'technician'),(null, 'client');
Query OK, 3 rows affected (0.03 sec)
Records: 3  Duplicates: 0  Warnings: 0

mysql> create table users (
    ->     id int primary key auto_increment,
    ->     name varchar(255) not null,
    ->     email varchar(255) unique not null,
    ->     password varchar(255) not null,
    ->     gender char not null,
    ->     photo varchar(255) not null,
    ->     address text not null,
    ->     role int not null,
    ->     foreign key(role) references roles(id) on delete cascade on update cascade
    -> ) engine = innodb;
Query OK, 0 rows affected (0.07 sec)
```

```
mysql> insert into users values
    -> (null, 'Fulan','fulan@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',1),
    -> (null, 'Fulanah','fulanah@gmail.com', MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',2),
    -> (null, 'Ardi','ardi@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',2),
    -> (null, 'Samsudin','samsudin@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',2),
    -> (null, 'Eko','eko@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',2),
    -> (null, 'Sugeng','sugeng@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Alif','alif@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Siti','siti@gmail.com', MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Juminten','juminten@gmail.com', MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Paijo','paijo@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Saifuddin','saifuddin@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Daffa','daffa@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Akbar','akbar@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Rafli','rafli@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
    -> (null, 'Rini','rini@gmail.com', MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3);
Query OK, 15 rows affected (0.01 sec)
Records: 15  Duplicates: 0  Warnings: 0

mysql> create table ac (
    ->     id int primary key auto_increment,
    ->     name varchar(255) not null,
    ->     brand varchar(255) not null,
    ->     pk float not null,
    ->     price int not null
    -> ) engine = innodb;
Query OK, 0 rows affected (0.06 sec)
```

```
mysql> insert into ac values
    -> (null, 'LG-1', 'LG', 0.5,50000),
    -> (null, 'Sharp-2', 'Sharp', 1,60000),
    -> (null, 'Panasonic-3', 'Panasonic', 2,70000),
    -> (null, 'Samsung-4', 'Samsung', 0.5,80000),
    -> (null, 'Daikin-5', 'Daikin', 1,90000),
    -> (null, 'Gree-6', 'Gree', 2,100000),
    -> (null, 'Polytron-7', 'Polytron', 0.5,110000),
    -> (null, 'Electrolux-8', 'Electrolux', 1,120000),
    -> (null, 'Aqua-9', 'Aqua', 2,130000),
    -> (null, 'Midea-10', 'Midea', 0.5,140000),
    -> (null, 'LG-11', 'LG', 1,200000),
    -> (null, 'Sharp-12', 'Sharp', 2,210000),
    -> (null, 'Panasonic-13', 'Panasonic', 0.5,220000),
    -> (null, 'Samsung-14', 'Samsung', 1,230000),
    -> (null, 'Daikin-15', 'Daikin', 2,240000),
    -> (null, 'Gree-16', 'Gree', 0.5,250000),
    -> (null, 'Polytron-17', 'Polytron', 1,260000),
    -> (null, 'Electrolux-18', 'Electrolux', 2,270000),
    -> (null, 'Aqua-19', 'Aqua', 0.5,280000),
    -> (null, 'Midea-20', 'Midea', 1,290000);
Query OK, 20 rows affected (0.02 sec)
Records: 20  Duplicates: 0  Warnings: 0
```

```
mysql> create table services (
    ->     id int primary key auto_increment,
    ->     technician_id int not null,
    ->     client_id int not null,
    ->     ac_id int not null,
    ->     date date not null,
    ->     status varchar(255) not null,
    ->     foreign key (technician_id) references users(id) on delete cascade on update cascade,
    ->     foreign key (client_id) references users(id) on delete cascade on update cascade,
    ->     foreign key (ac_id) references ac(id) on delete cascade on update cascade
    -> ) engine = innodb;
Query OK, 0 rows affected (0.09 sec)

mysql> insert into services values
    -> (null, 2, 6, 1, '2020-06-01', 'finish'),
    -> (null, 3, 7, 2, '2020-05-01', 'finish'),
    -> (null, 4, 8, 3, '2020-06-02', 'finish'),
    -> (null, 5, 9, 4, '2021-03-03', 'finish'),
    -> (null, 2, 6, 5, '2021-12-05', 'finish'),
    -> (null, 3, 7, 6, '2021-12-25', 'finish'),
    -> (null, 4, 10, 7, '2022-01-01', 'finish'),
    -> (null, 5, 11, 8, '2022-02-02', 'finish'),
    -> (null, 2, 6, 9, '2022-04-04', 'finish'),
    -> (null, 3, 7, 10, '2023-05-05', 'on repair'),
    -> (null, 4, 12, 11, '2023-06-06', 'on repair'),
    -> (null, 5, 13, 12, '2023-07-07', 'on repair'),
    -> (null, 2, 6, 13, '2023-08-08', 'paid'),
    -> (null, 3, 7, 14, '2023-09-09', 'paid'),
    -> (null, 4, 14, 15, '2023-10-10', 'unpaid');
Query OK, 15 rows affected (0.01 sec)
Records: 15  Duplicates: 0  Warnings: 0
```

```
create table roles (
    id int primary key auto_increment,
    name varchar(255) not null
) engine = innodb;

insert into roles values(null, 'admin'),(null, 'technician'),(null, 'client');

create table users (
    id int primary key auto_increment,
    name varchar(255) not null,
    email varchar(255) unique not null,
    password varchar(255) not null,
    gender char not null,
    photo varchar(255) not null,
    address text not null,
    role int not null,
    foreign key(role) references roles(id) on delete cascade on update cascade
) engine = innodb;

insert into users values
(null, 'Fulan','fulan@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',1),
(null, 'Fulanah','fulanah@gmail.com',
MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',2),
(null, 'Ardi','ardi@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',2),
(null, 'Samsudin','samsudin@gmail.com',
MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',2),
(null, 'Eko','eko@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',2),
(null, 'Sugeng','sugeng@gmail.com',
MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
(null, 'Alif','alif@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',3),
(null, 'Siti','siti@gmail.com', MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',3),
(null, 'Juminten','juminten@gmail.com',
MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
(null, 'Paijo','paijo@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',3),
(null, 'Saifuddin','saifuddin@gmail.com',
MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
(null, 'Daffa','daffa@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',3),
(null, 'Akbar','akbar@gmail.com',
MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl. Cisitu Indah VI no 6',3),
(null, 'Rafli','rafli@gmail.com', MD5('password'),'L','https://lorem.ipsum/dolor.png','Jl.
Cisitu Indah VI no 6',3),
(null, 'Rini','rini@gmail.com', MD5('password'),'P','https://lorem.ipsum/dolor.png','Jl.
```

```
Cisitu Indah VI no 6',3);

create table ac (
    id int primary key auto_increment,
    name varchar(255) not null,
    brand varchar(255) not null,
    pk float not null,
    price int not null
) engine = innodb;

insert into ac values
(null, 'LG-1', 'LG', 0.5,50000),
(null, 'Sharp-2', 'Sharp', 1,60000),
(null, 'Panasonic-3', 'Panasonic', 2,70000),
(null, 'Samsung-4', 'Samsung', 0.5,80000),
(null, 'Daikin-5', 'Daikin', 1,90000),
(null, 'Gree-6', 'Gree', 2,100000),
(null, 'Polytron-7', 'Polytron', 0.5,110000),
(null, 'Electrolux-8', 'Electrolux', 1,120000),
(null, 'Aqua-9', 'Aqua', 2,130000),
(null, 'Midea-10', 'Midea', 0.5,140000),
(null, 'LG-11', 'LG', 1,200000),
(null, 'Sharp-12', 'Sharp', 2,210000),
(null, 'Panasonic-13', 'Panasonic', 0.5,220000),
(null, 'Samsung-14', 'Samsung', 1,230000),
(null, 'Daikin-15', 'Daikin', 2,240000),
(null, 'Gree-16', 'Gree', 0.5,250000),
(null, 'Polytron-17', 'Polytron', 1,260000),
(null, 'Electrolux-18', 'Electrolux', 2,270000),
(null, 'Aqua-19', 'Aqua', 0.5,280000),
(null, 'Midea-20', 'Midea', 1,290000);

create table services (
    id int primary key auto_increment,
    technician_id int not null,
    client_id int not null,
    ac_id int not null,
    date date not null,
    status varchar(255) not null,
    foreign key (technician_id) references users(id) on delete cascade on update
cascade,
    foreign key (client_id) references users(id) on delete cascade on update cascade,
    foreign key (ac_id) references ac(id) on delete cascade on update cascade
) engine = innodb;

insert into services values
(null, 2, 6, 1, '2020-06-01', 'finish'),
(null, 3, 7, 2, '2020-05-01', 'finish'),
(null, 4, 8, 3, '2020-06-02', 'finish'),
(null, 5, 9, 4, '2021-03-03', 'finish'),
```

```
(null, 2, 6, 5, '2021-12-05', 'finish'),
(null, 3, 7, 6, '2021-12-25', 'finish'),
(null, 4, 10, 7, '2022-01-01', 'finish'),
(null, 5, 11, 8, '2022-02-02', 'finish'),
(null, 2, 6, 9, '2022-04-04', 'finish'),
(null, 3, 7, 10, '2023-05-05', 'on repair'),
(null, 4, 12, 11, '2023-06-06', 'on repair'),
(null, 5, 13, 12, '2023-07-07', 'on repair'),
(null, 2, 6, 13, '2023-08-08', 'paid'),
(null, 3, 7, 14, '2023-09-09', 'paid'),
(null, 4, 14, 15, '2023-10-10', 'unpaid');
```

2. Tampilkan jumlah perbaikan yang sudah dibayar

```
mysql> select count(*) as paid from services where status = 'paid';
+------+
| paid |
+------+
|    2 |
+------+
1 row in set (0.00 sec)
```

```
select count(*) as paid from services where status = 'paid';
```

3. Tampilkan tahun beserta jumlah perbaikan yang dilakukan pada tahun tersebut

```
mysql> select extract(year from date) as year, count(id) as total from services group by extract(year from date);
+------+-------+
| year | total |
+------+-------+
| 2020 |     3 |
| 2021 |     3 |
| 2022 |     3 |
| 2023 |     6 |
+------+-------+
4 rows in set (0.00 sec)
```

```
select extract(year from date) as year, count(id) as total from services group by extract(year from date);
```

4. Tampilkan data client yang tidak pernah melakukan perbaikan ac

```
mysql> select users.id, users.name, roles.name as role_name from users left join services on users.id = services.client_id join roles on users.role = roles.id where role
= 3 and services.id is null;
+----+------+-----------+
| id | name | role_name |
+----+------+-----------+
| 15 | Rini | client    |
+----+------+-----------+
1 row in set (0.00 sec)
```

```
select users.id, users.name, roles.name as role_name from users left join services on users.id = services.client_id join roles on users.role = roles.id where role= 3 and services.id is null;
```

5. Tampilkan data client beserta jumlah perbaikan yang dilakukan, urutkan berdasarkan perbaikan terbanyak

```
mysql> select users.id, users.name, roles.name as role_name, count(services.id) as total_service from users join services on users.id = services.client_id join roles on u
sers.role = roles.id where role = 3 group by users.id order by total_service DESC;
+----+-----------+-----------+---------------+
| id | name      | role_name | total_service |
+----+-----------+-----------+---------------+
|  6 | Sugeng    | client    |             4 |
|  7 | Alif      | client    |             4 |
|  8 | Siti      | client    |             1 |
|  9 | Juminten  | client    |             1 |
| 10 | Paijo     | client    |             1 |
| 11 | Saifuddin | client    |             1 |
| 12 | Daffa     | client    |             1 |
| 13 | Akbar     | client    |             1 |
| 14 | Rafli     | client    |             1 |
+----+-----------+-----------+---------------+
9 rows in set (0.00 sec)
```

```
select users.id, users.name, roles.name as role_name, count(services.id) as total_service from users join services on users.id = services.client_id join roles on users.role = roles.id where role = 3 group by users.id order by total_service DESC;
```

6. Tampilkan data technician beserta jumlah uang yang diperoleh, urutkan berdasarkan perolehan terbanyak

```
mysql> select users.id, users.name, roles.name as role_name, SUM(ac.price) as income  from users join services on users.id = services.technician_id join roles on users.ro
le = roles.id join ac on services.ac_id = ac.id where role = 2 and services.status != 'unpaid' group by users.id order by income DESC;
+----+----------+------------+--------+
| id | name     | role_name  | income |
+----+----------+------------+--------+
|  3 | Ardi     | technician | 530000 |
|  2 | Fulanah  | technician | 490000 |
|  5 | Eko      | technician | 410000 |
|  4 | Samsudin | technician | 380000 |
+----+----------+------------+--------+
4 rows in set (0.00 sec)
```

```
select users.id, users.name, roles.name as role_name, SUM(ac.price) as income from users join services on users.id = services.technician_id join roles on users.role = roles.id join ac on services.ac_id = ac.id where role = 2 and services.status != 'unpaid' group by users.id order by income DESC;
```