# LAPORAN

# PRAKTEK BASIS DATA

# CASE & IFNULL

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**TEKNIK KOMPUTER - 2B**

**SEMESTER 3**

**JURUSAN TEKNOLOGI INFORMASI**

**PROGRAM STUDI TEKNIK KOMPUTER**

**POLITEKNIK NEGERI PADANG**

**2021**

## A. DASAR TEORI

CONTROL FLOW FUNCTION memmungkinakan kita menambahkan if-then-else ke query SQL tanpa menggunakan kode procedural. Fungsi aliran control yang paling umum digunakan:

- IF
- CASE
- IFNULL
- NULLIF

Fungsi IF() digunakan untuk Mengembalikan nilai berdasarkan kondisi yang diberikan atau untuk menampilkan nilai percabangan dari sebuah kondisi atau expression.

Struktur:

- IF(kondisi_logika, ekspresi1, ekspresi2);
- IF(kondisis, aksi1(IF(kon2,aksi2,IF(kond3,kond4))))

Fungsi CASE() digunakan untuk menampilkan nilai tertentu berdasarkan syarat-syarat atau kondisi yang digunakan. Fungsi ini mirip dengan perintah IF..ELSE IF..ELSE IF..ELSE pada sebuah bahasa pemrograman.

Struktur 1;

```
CASE variabel_kondisi/nilai
WHEN nilai THEN statement1
WHEn nilai2 THEN statement2
ELSE
  statements_else
END
```

Struktur 2; (lebih global)

```
CASE
WHEN nilai THEN statement1
WHEn nilai2 THEN statement2
ELSE
  statements_else
END
```

Fungsi IFNULL() digunakan untuk mengembalikan sebuah nilai tertentu pada suatu kolom yang bernilai Null.

Struktur:

♠ IFNULL(statements1, statements2)

## B. ALAT DAN BAHAN

1. PC/Laptop
2. Software XAMPP Control Panel

## C. LANGKAH KERJA

1. Jalankan XAMPP

**FUNGSI IF ()**

2. Tampilkan 25 namaproduk, jenis produk serta penjelasan dengan ketentuan:

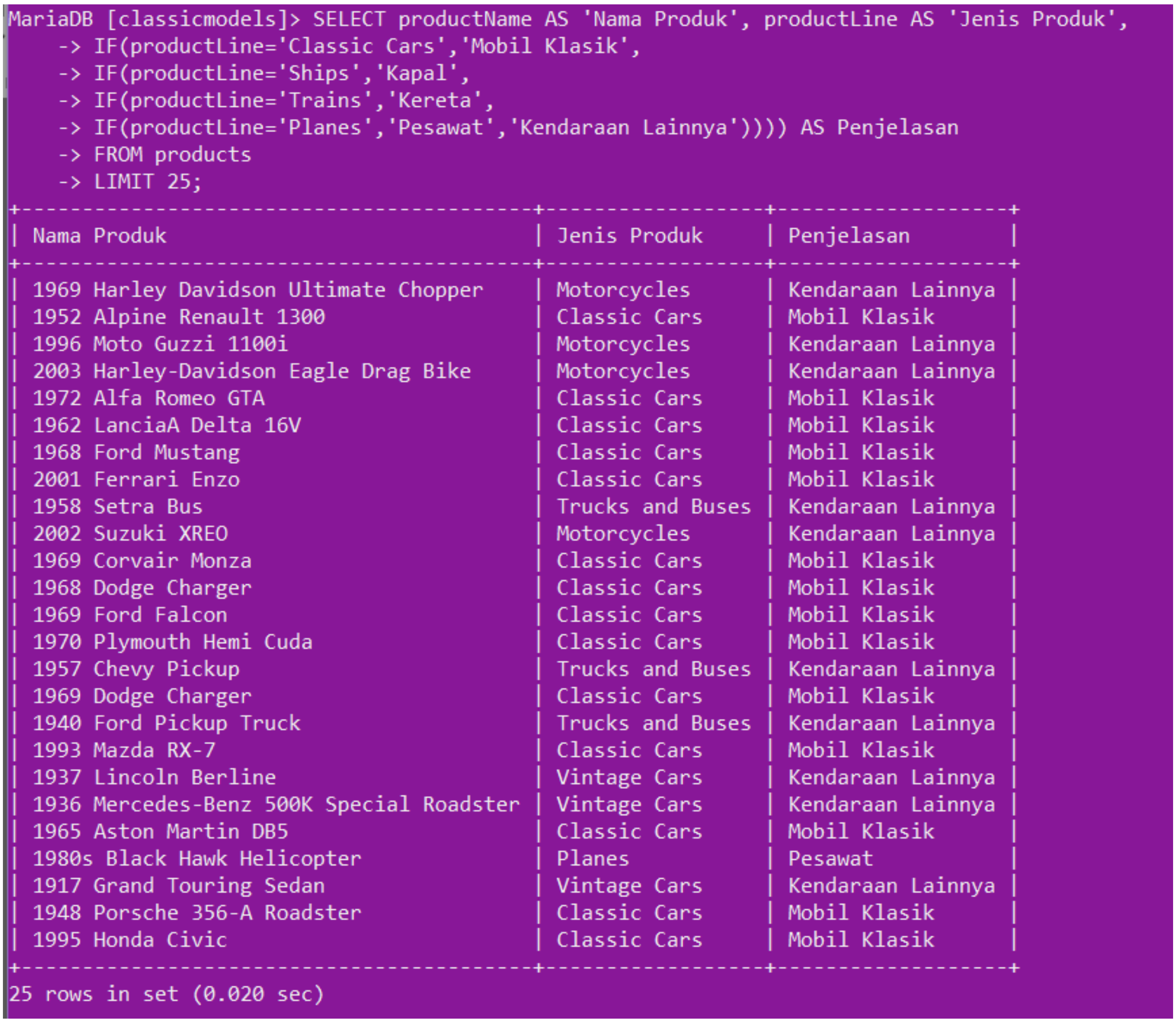
Productline classsic cars -- mobil klasik

trains -- kereta

ships -- kapal

planes-- pesawat

selebihnya : kendaraan lainnya



```
MariaDB [classicmodels]> SELECT productName AS 'Nama Produk', productLine AS 'Jenis Produk',
    -> IF(productLine='Classic Cars','Mobil Klasik',
    -> IF(productLine='Ships','Kapal',
    -> IF(productLine='Trains','Kereta',
    -> IF(productLine='Planes','Pesawat','Kendaraan Lainnya')))) AS Penjelasan
    -> FROM products
    -> LIMIT 25;
+------------------------------------------+------------------+-------------------+
| Nama Produk                              | Jenis Produk     | Penjelasan        |
+------------------------------------------+------------------+-------------------+
| 1969 Harley Davidson Ultimate Chopper    | Motorcycles      | Kendaraan Lainnya |
| 1952 Alpine Renault 1300                 | Classic Cars     | Mobil Klasik      |
| 1996 Moto Guzzi 1100i                    | Motorcycles      | Kendaraan Lainnya |
| 2003 Harley-Davidson Eagle Drag Bike     | Motorcycles      | Kendaraan Lainnya |
| 1972 Alfa Romeo GTA                      | Classic Cars     | Mobil Klasik      |
| 1962 LanciaA Delta 16V                   | Classic Cars     | Mobil Klasik      |
| 1968 Ford Mustang                        | Classic Cars     | Mobil Klasik      |
| 2001 Ferrari Enzo                        | Classic Cars     | Mobil Klasik      |
| 1958 Setra Bus                           | Trucks and Buses | Kendaraan Lainnya |
| 2002 Suzuki XREO                         | Motorcycles      | Kendaraan Lainnya |
| 1969 Corvair Monza                       | Classic Cars     | Mobil Klasik      |
| 1968 Dodge Charger                       | Classic Cars     | Mobil Klasik      |
| 1969 Ford Falcon                         | Classic Cars     | Mobil Klasik      |
| 1970 Plymouth Hemi Cuda                  | Classic Cars     | Mobil Klasik      |
| 1957 Chevy Pickup                        | Trucks and Buses | Kendaraan Lainnya |
| 1969 Dodge Charger                       | Classic Cars     | Mobil Klasik      |
| 1940 Ford Pickup Truck                   | Trucks and Buses | Kendaraan Lainnya |
| 1993 Mazda RX-7                          | Classic Cars     | Mobil Klasik      |
| 1937 Lincoln Berline                     | Vintage Cars     | Kendaraan Lainnya |
| 1936 Mercedes-Benz 500K Special Roadster | Vintage Cars     | Kendaraan Lainnya |
| 1965 Aston Martin DB5                    | Classic Cars     | Mobil Klasik      |
| 1980s Black Hawk Helicopter              | Planes           | Pesawat           |
| 1917 Grand Touring Sedan                 | Vintage Cars     | Kendaraan Lainnya |
| 1948 Porsche 356-A Roadster              | Classic Cars     | Mobil Klasik      |
| 1995 Honda Civic                         | Classic Cars     | Mobil Klasik      |
+------------------------------------------+------------------+-------------------+
25 rows in set (0.020 sec)
```

**FUNGSI CASE ()**

3. Tampilkan 25 namaproduk, jenis produk serta penjelasan dengan ketentuan:

   Productline classsic cars -- mobil klasik

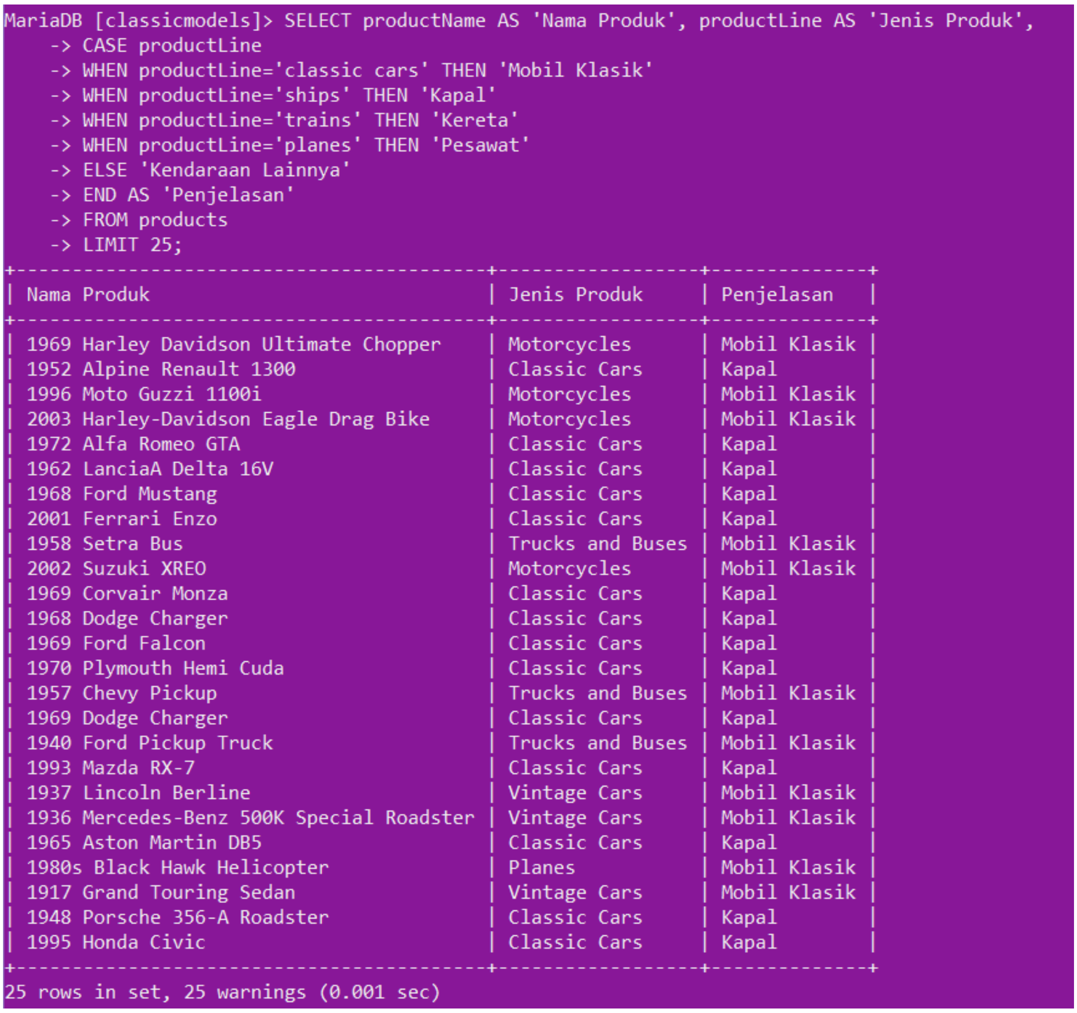
   trains -- kereta

   ships -- kapal

   planes-- pesawat

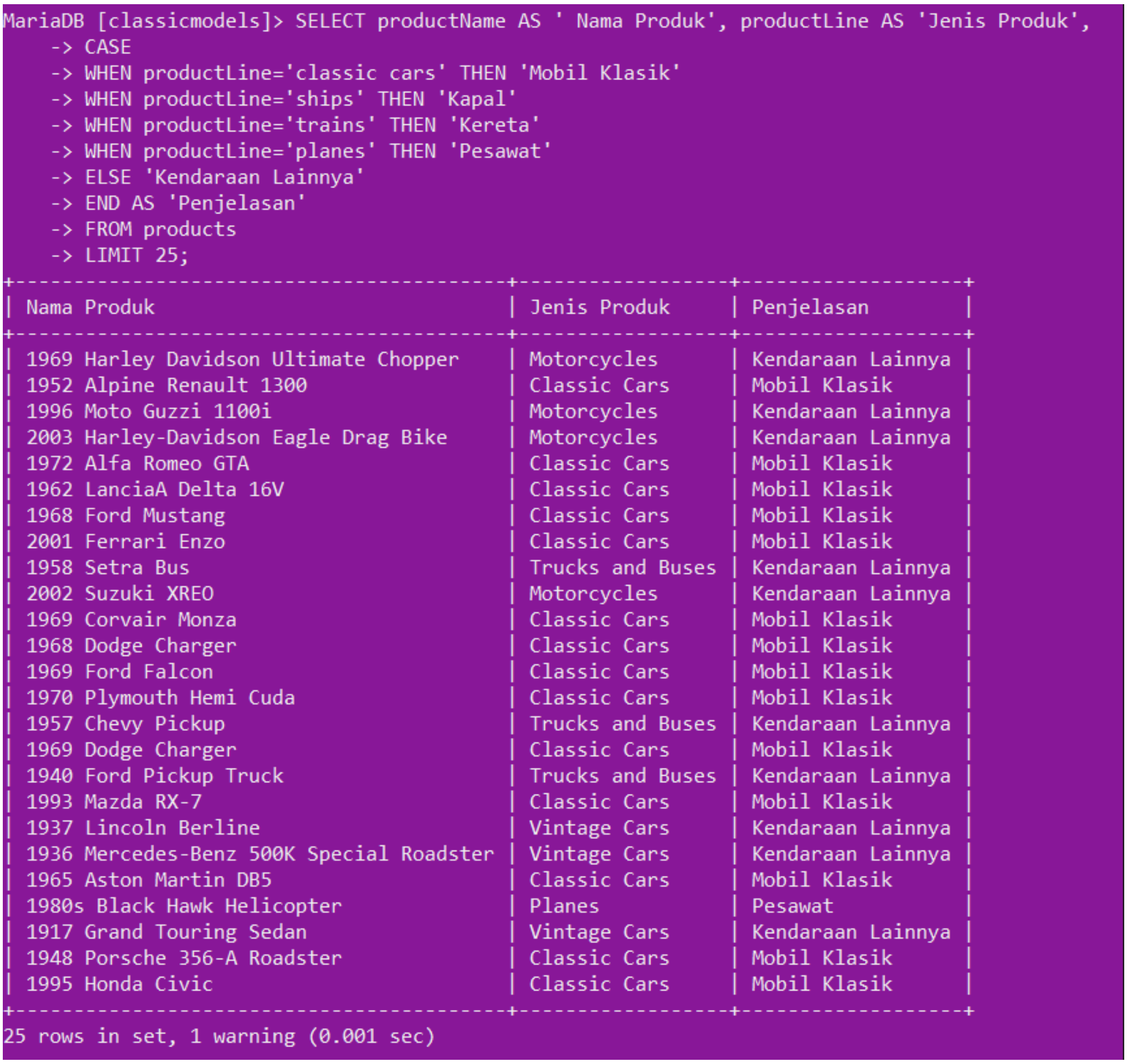
   selebihnya : kendaraan lainnya

Struktur 1:



```
MariaDB [classicmodels]> SELECT productName AS 'Nama Produk', productLine AS 'Jenis Produk',
    -> CASE productLine
    -> WHEN productLine='classic cars' THEN 'Mobil Klasik'
    -> WHEN productLine='ships' THEN 'Kapal'
    -> WHEN productLine='trains' THEN 'Kereta'
    -> WHEN productLine='planes' THEN 'Pesawat'
    -> ELSE 'Kendaraan Lainnya'
    -> END AS 'Penjelasan'
    -> FROM products
    -> LIMIT 25;
+------------------------------------------+------------------+--------------+
| Nama Produk                              | Jenis Produk     | Penjelasan   |
+------------------------------------------+------------------+--------------+
| 1969 Harley Davidson Ultimate Chopper    | Motorcycles      | Mobil Klasik |
| 1952 Alpine Renault 1300                 | Classic Cars     | Kapal        |
| 1996 Moto Guzzi 1100i                    | Motorcycles      | Mobil Klasik |
| 2003 Harley-Davidson Eagle Drag Bike     | Motorcycles      | Mobil Klasik |
| 1972 Alfa Romeo GTA                      | Classic Cars     | Kapal        |
| 1962 LanciaA Delta 16V                   | Classic Cars     | Kapal        |
| 1968 Ford Mustang                        | Classic Cars     | Kapal        |
| 2001 Ferrari Enzo                        | Classic Cars     | Kapal        |
| 1958 Setra Bus                           | Trucks and Buses | Mobil Klasik |
| 2002 Suzuki XREO                         | Motorcycles      | Mobil Klasik |
| 1969 Corvair Monza                       | Classic Cars     | Kapal        |
| 1968 Dodge Charger                       | Classic Cars     | Kapal        |
| 1969 Ford Falcon                         | Classic Cars     | Kapal        |
| 1970 Plymouth Hemi Cuda                  | Classic Cars     | Kapal        |
| 1957 Chevy Pickup                        | Trucks and Buses | Mobil Klasik |
| 1969 Dodge Charger                       | Classic Cars     | Kapal        |
| 1940 Ford Pickup Truck                   | Trucks and Buses | Mobil Klasik |
| 1993 Mazda RX-7                          | Classic Cars     | Kapal        |
| 1937 Lincoln Berline                     | Vintage Cars     | Mobil Klasik |
| 1936 Mercedes-Benz 500K Special Roadster | Vintage Cars     | Mobil Klasik |
| 1965 Aston Martin DB5                    | Classic Cars     | Kapal        |
| 1980s Black Hawk Helicopter              | Planes           | Mobil Klasik |
| 1917 Grand Touring Sedan                 | Vintage Cars     | Mobil Klasik |
| 1948 Porsche 356-A Roadster              | Classic Cars     | Kapal        |
| 1995 Honda Civic                         | Classic Cars     | Kapal        |
+------------------------------------------+------------------+--------------+
25 rows in set, 25 warnings (0.001 sec)
```

Struktur 2:



```
MariaDB [classicmodels]> SELECT productName AS ' Nama Produk', productLine AS 'Jenis Produk',
    -> CASE
    -> WHEN productLine='classic cars' THEN 'Mobil Klasik'
    -> WHEN productLine='ships' THEN 'Kapal'
    -> WHEN productLine='trains' THEN 'Kereta'
    -> WHEN productLine='planes' THEN 'Pesawat'
    -> ELSE 'Kendaraan Lainnya'
    -> END AS 'Penjelasan'
    -> FROM products
    -> LIMIT 25;
+------------------------------------------+------------------+-------------------+
| Nama Produk                              | Jenis Produk     | Penjelasan        |
+------------------------------------------+------------------+-------------------+
| 1969 Harley Davidson Ultimate Chopper    | Motorcycles      | Kendaraan Lainnya |
| 1952 Alpine Renault 1300                 | Classic Cars     | Mobil Klasik      |
| 1996 Moto Guzzi 1100i                    | Motorcycles      | Kendaraan Lainnya |
| 2003 Harley-Davidson Eagle Drag Bike     | Motorcycles      | Kendaraan Lainnya |
| 1972 Alfa Romeo GTA                      | Classic Cars     | Mobil Klasik      |
| 1962 LanciaA Delta 16V                   | Classic Cars     | Mobil Klasik      |
| 1968 Ford Mustang                        | Classic Cars     | Mobil Klasik      |
| 2001 Ferrari Enzo                        | Classic Cars     | Mobil Klasik      |
| 1958 Setra Bus                           | Trucks and Buses | Kendaraan Lainnya |
| 2002 Suzuki XREO                         | Motorcycles      | Kendaraan Lainnya |
| 1969 Corvair Monza                       | Classic Cars     | Mobil Klasik      |
| 1968 Dodge Charger                       | Classic Cars     | Mobil Klasik      |
| 1969 Ford Falcon                         | Classic Cars     | Mobil Klasik      |
| 1970 Plymouth Hemi Cuda                  | Classic Cars     | Mobil Klasik      |
| 1957 Chevy Pickup                        | Trucks and Buses | Kendaraan Lainnya |
| 1969 Dodge Charger                       | Classic Cars     | Mobil Klasik      |
| 1940 Ford Pickup Truck                   | Trucks and Buses | Kendaraan Lainnya |
| 1993 Mazda RX-7                          | Classic Cars     | Mobil Klasik      |
| 1937 Lincoln Berline                     | Vintage Cars     | Kendaraan Lainnya |
| 1936 Mercedes-Benz 500K Special Roadster | Vintage Cars     | Kendaraan Lainnya |
| 1965 Aston Martin DB5                    | Classic Cars     | Mobil Klasik      |
| 1980s Black Hawk Helicopter              | Planes           | Pesawat           |
| 1917 Grand Touring Sedan                 | Vintage Cars     | Kendaraan Lainnya |
| 1948 Porsche 356-A Roadster              | Classic Cars     | Mobil Klasik      |
| 1995 Honda Civic                         | Classic Cars     | Mobil Klasik      |
+------------------------------------------+------------------+-------------------+
25 rows in set, 1 warning (0.001 sec)
```

4. Tampilkan seluruh data orderdetails dengan yang harga satuan minimal 200 dengan urutan field

   nomor order(orderNumber),

   kode produk(productCode),

   banyak order(quantityordered),

   ket_order,

   harga(priceEach)

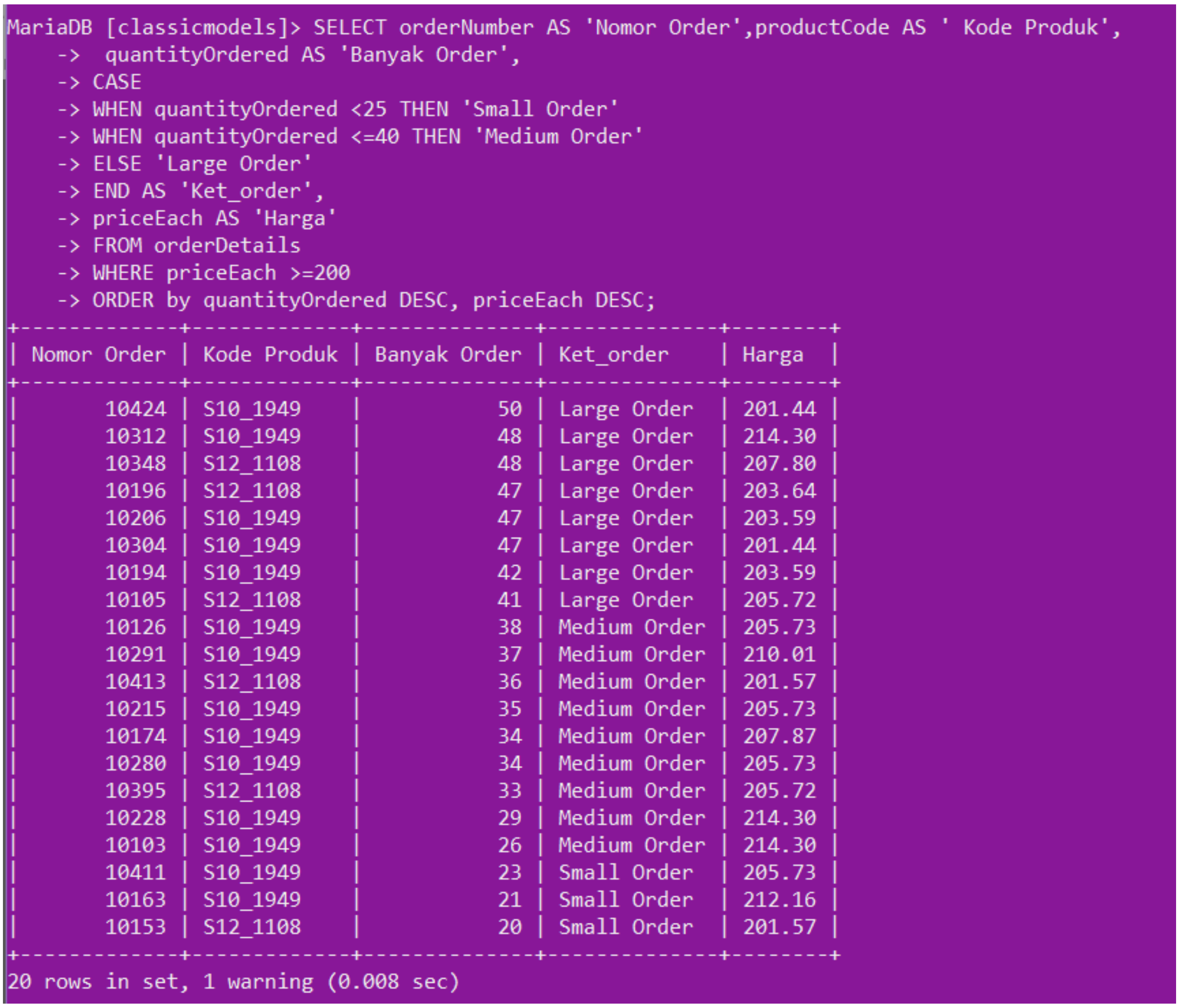
dimana ket_order diperolah dari quantityordered dengan ketentuan

quantityordered <25 : small order

25-40 : medium order

>40 ; large order

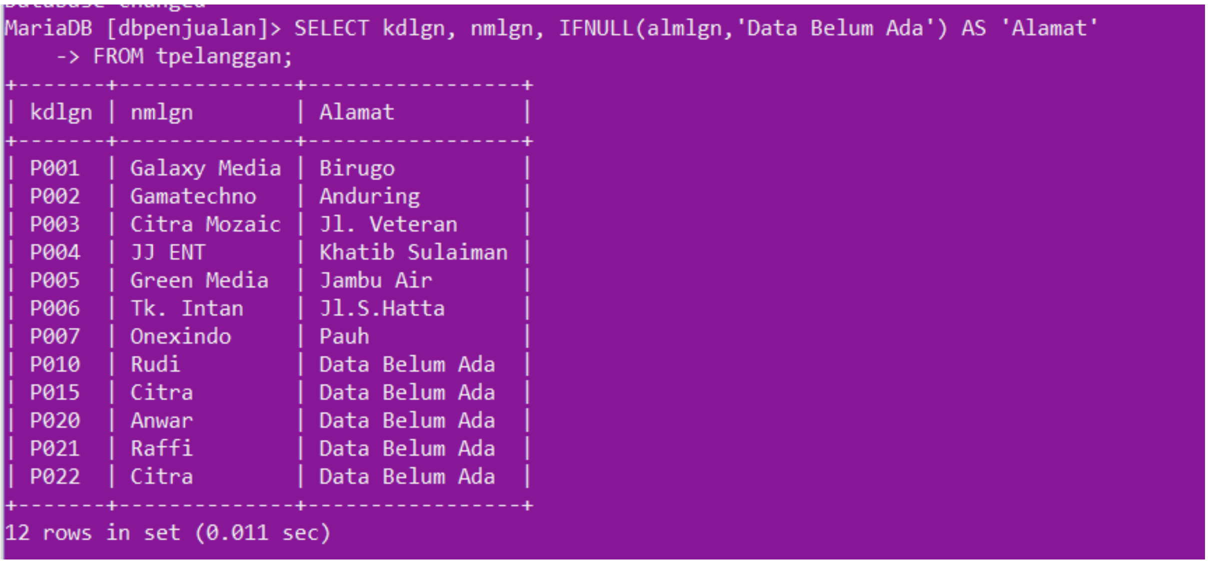
urutkan berdasarkan quantityordered tertinggi



```
MariaDB [classicmodels]> SELECT orderNumber AS 'Nomor Order',productCode AS ' Kode Produk',
    ->  quantityOrdered AS 'Banyak Order',
    -> CASE
    -> WHEN quantityOrdered <25 THEN 'Small Order'
    -> WHEN quantityOrdered <=40 THEN 'Medium Order'
    -> ELSE 'Large Order'
    -> END AS 'Ket_order',
    -> priceEach AS 'Harga'
    -> FROM orderDetails
    -> WHERE priceEach >=200
    -> ORDER by quantityOrdered DESC, priceEach DESC;
+-------------+-------------+--------------+--------------+--------+
| Nomor Order | Kode Produk | Banyak Order | Ket_order    | Harga  |
+-------------+-------------+--------------+--------------+--------+
|       10424 | S10_1949    |           50 | Large Order  | 201.44 |
|       10312 | S10_1949    |           48 | Large Order  | 214.30 |
|       10348 | S12_1108    |           48 | Large Order  | 207.80 |
|       10196 | S12_1108    |           47 | Large Order  | 203.64 |
|       10206 | S10_1949    |           47 | Large Order  | 203.59 |
|       10304 | S10_1949    |           47 | Large Order  | 201.44 |
|       10194 | S10_1949    |           42 | Large Order  | 203.59 |
|       10105 | S12_1108    |           41 | Large Order  | 205.72 |
|       10126 | S10_1949    |           38 | Medium Order | 205.73 |
|       10291 | S10_1949    |           37 | Medium Order | 210.01 |
|       10413 | S12_1108    |           36 | Medium Order | 201.57 |
|       10215 | S10_1949    |           35 | Medium Order | 205.73 |
|       10174 | S10_1949    |           34 | Medium Order | 207.87 |
|       10280 | S10_1949    |           34 | Medium Order | 205.73 |
|       10395 | S12_1108    |           33 | Medium Order | 205.72 |
|       10228 | S10_1949    |           29 | Medium Order | 214.30 |
|       10103 | S10_1949    |           26 | Medium Order | 214.30 |
|       10411 | S10_1949    |           23 | Small Order  | 205.73 |
|       10163 | S10_1949    |           21 | Small Order  | 212.16 |
|       10153 | S12_1108    |           20 | Small Order  | 201.57 |
+-------------+-------------+--------------+--------------+--------+
20 rows in set, 1 warning (0.008 sec)
```

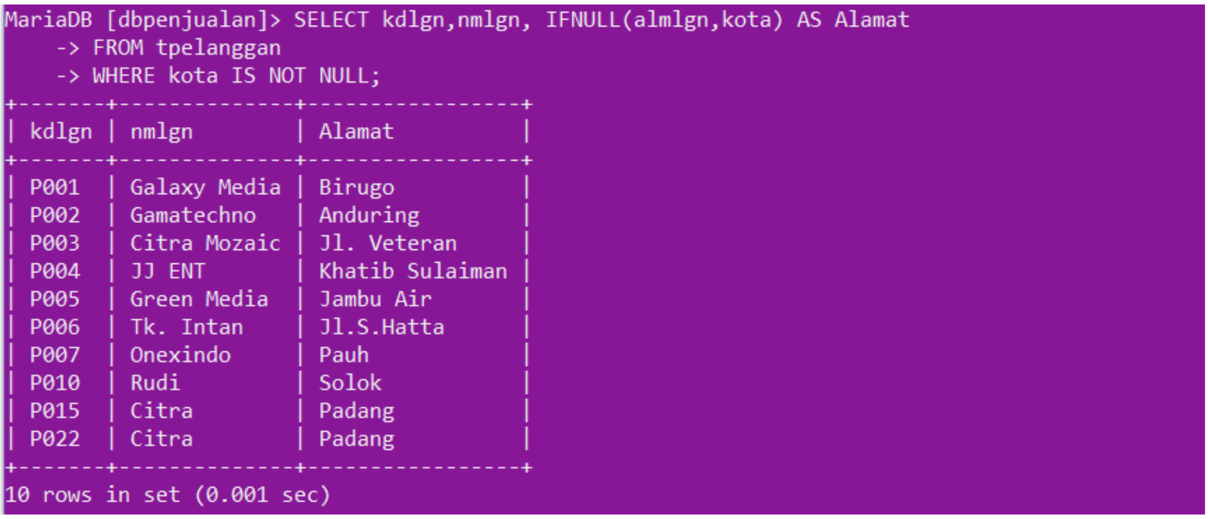
## FUNGSI IFNULL ()

5. Tampilkan data pelanggan terdiri dari  kode, nama, dan alamat. Jika alamat masih kosong, isikan dengan kalimat "Data Belum Ada"



```
MariaDB [dbpenjualan]> SELECT kdlgn, nmlgn, IFNULL(almlgn,'Data Belum Ada') AS 'Alamat'
    -> FROM tpelanggan;
+-------+--------------+-----------------+
| kdlgn | nmlgn        | Alamat          |
+-------+--------------+-----------------+
| P001  | Galaxy Media | Birugo          |
| P002  | Gamatechno   | Anduring        |
| P003  | Citra Mozaic | Jl. Veteran     |
| P004  | JJ ENT       | Khatib Sulaiman |
| P005  | Green Media  | Jambu Air       |
| P006  | Tk. Intan    | Jl.S.Hatta      |
| P007  | Onexindo     | Pauh            |
| P010  | Rudi         | Data Belum Ada  |
| P015  | Citra        | Data Belum Ada  |
| P020  | Anwar        | Data Belum Ada  |
| P021  | Raffi        | Data Belum Ada  |
| P022  | Citra        | Data Belum Ada  |
+-------+--------------+-----------------+
12 rows in set (0.011 sec)
```

6. Tampilkan data pelanggan yang tidak memiliki kota terdiri dari kode, nama, dan alamat(jika alamat kosong, tampilkan data kota sebagai alamat)



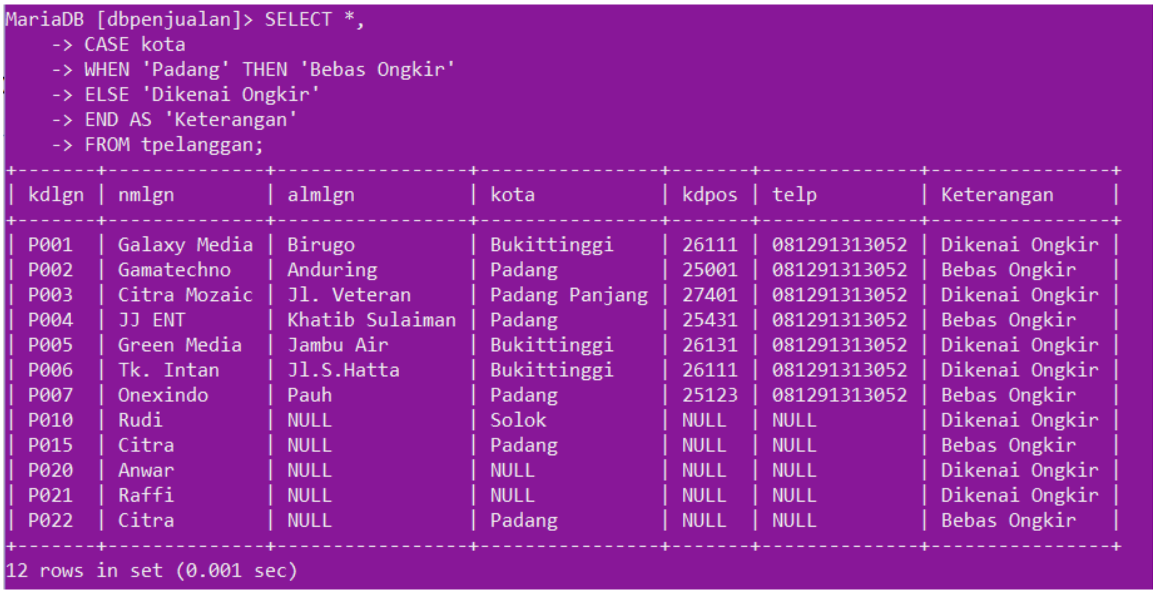
```
MariaDB [dbpenjualan]> SELECT kdlgn,nmlgn, IFNULL(almlgn,kota) AS Alamat
    -> FROM tpelanggan
    -> WHERE kota IS NOT NULL;
+-------+--------------+-----------------+
| kdlgn | nmlgn        | Alamat          |
+-------+--------------+-----------------+
| P001  | Galaxy Media | Birugo          |
| P002  | Gamatechno   | Anduring        |
| P003  | Citra Mozaic | Jl. Veteran     |
| P004  | JJ ENT       | Khatib Sulaiman |
| P005  | Green Media  | Jambu Air       |
| P006  | Tk. Intan    | Jl.S.Hatta      |
| P007  | Onexindo     | Pauh            |
| P010  | Rudi         | Solok           |
| P015  | Citra        | Padang          |
| P022  | Citra        | Padang          |
+-------+--------------+-----------------+
10 rows in set (0.001 sec)
```

## D. TUGAS DAN PEMBAHASAN

**(CASE)**

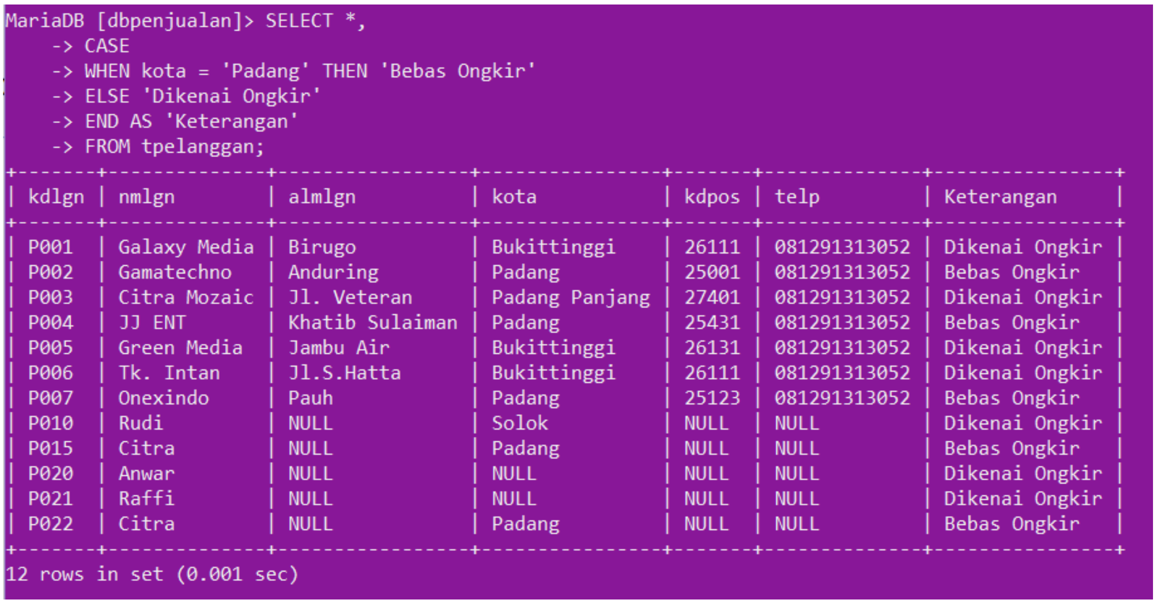
1. Jika ongkos kirim seorang pelanggan dikategorikan berdasarkan jarak lokasi tempat tinggal dengan toko yang berada di Padang. Jika pelanggan berada di Padang maka bebas ongkos kirim. Namun jika diluar Padang akan dikenai ongkos kirim. Tampilkan seluruh data pelanggan beserta keterangan apakah bebas ongkos kirim atau tidak.

Struktur 1:



```
MariaDB [dbpenjualan]> SELECT *,
    -> CASE kota
    -> WHEN 'Padang' THEN 'Bebas Ongkir'
    -> ELSE 'Dikenai Ongkir'
    -> END AS 'Keterangan'
    -> FROM tpelanggan;
+-------+--------------+-----------------+----------------+-------+--------------+----------------+
| kdlgn | nmlgn        | almlgn          | kota           | kdpos | telp         | Keterangan     |
+-------+--------------+-----------------+----------------+-------+--------------+----------------+
| P001  | Galaxy Media | Birugo          | Bukittinggi    | 26111 | 081291313052 | Dikenai Ongkir |
| P002  | Gamatechno   | Anduring        | Padang         | 25001 | 081291313052 | Bebas Ongkir   |
| P003  | Citra Mozaic | Jl. Veteran     | Padang Panjang | 27401 | 081291313052 | Dikenai Ongkir |
| P004  | JJ ENT       | Khatib Sulaiman | Padang         | 25431 | 081291313052 | Bebas Ongkir   |
| P005  | Green Media  | Jambu Air       | Bukittinggi    | 26131 | 081291313052 | Dikenai Ongkir |
| P006  | Tk. Intan    | Jl.S.Hatta      | Bukittinggi    | 26111 | 081291313052 | Dikenai Ongkir |
| P007  | Onexindo     | Pauh            | Padang         | 25123 | 081291313052 | Bebas Ongkir   |
| P010  | Rudi         | NULL            | Solok          | NULL  | NULL         | Dikenai Ongkir |
| P015  | Citra        | NULL            | Padang         | NULL  | NULL         | Bebas Ongkir   |
| P020  | Anwar        | NULL            | NULL           | NULL  | NULL         | Dikenai Ongkir |
| P021  | Raffi        | NULL            | NULL           | NULL  | NULL         | Dikenai Ongkir |
| P022  | Citra        | NULL            | Padang         | NULL  | NULL         | Bebas Ongkir   |
+-------+--------------+-----------------+----------------+-------+--------------+----------------+
12 rows in set (0.001 sec)
```

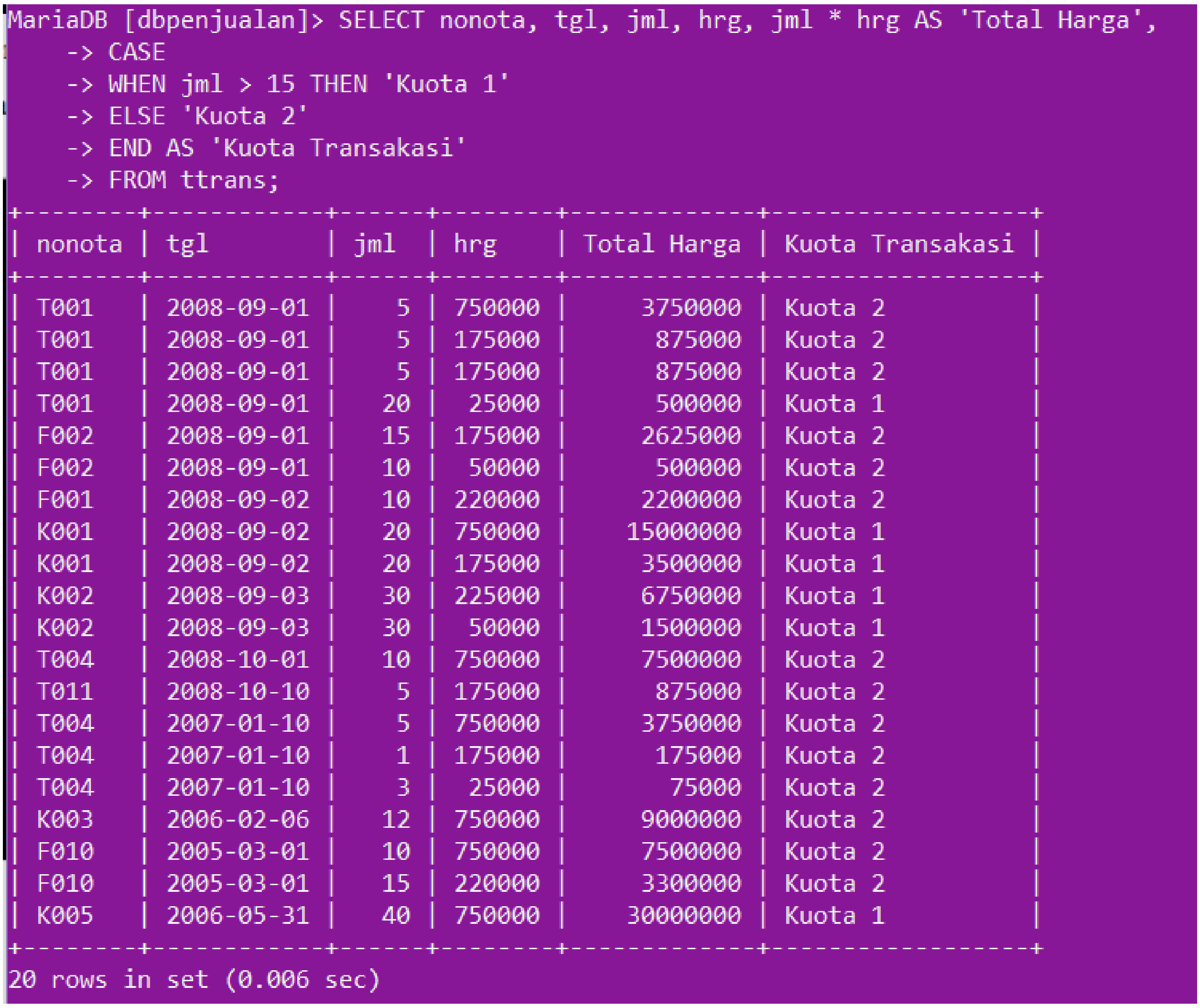
Struktur 2:



```
MariaDB [dbpenjualan]> SELECT *,
    -> CASE
    -> WHEN kota = 'Padang' THEN 'Bebas Ongkir'
    -> ELSE 'Dikenai Ongkir'
    -> END AS 'Keterangan'
    -> FROM tpelanggan;
+-------+--------------+-----------------+----------------+-------+--------------+----------------+
| kdlgn | nmlgn        | almlgn          | kota           | kdpos | telp         | Keterangan     |
+-------+--------------+-----------------+----------------+-------+--------------+----------------+
| P001  | Galaxy Media | Birugo          | Bukittinggi    | 26111 | 081291313052 | Dikenai Ongkir |
| P002  | Gamatechno   | Anduring        | Padang         | 25001 | 081291313052 | Bebas Ongkir   |
| P003  | Citra Mozaic | Jl. Veteran     | Padang Panjang | 27401 | 081291313052 | Dikenai Ongkir |
| P004  | JJ ENT       | Khatib Sulaiman | Padang         | 25431 | 081291313052 | Bebas Ongkir   |
| P005  | Green Media  | Jambu Air       | Bukittinggi    | 26131 | 081291313052 | Dikenai Ongkir |
| P006  | Tk. Intan    | Jl.S.Hatta      | Bukittinggi    | 26111 | 081291313052 | Dikenai Ongkir |
| P007  | Onexindo     | Pauh            | Padang         | 25123 | 081291313052 | Bebas Ongkir   |
| P010  | Rudi         | NULL            | Solok          | NULL  | NULL         | Dikenai Ongkir |
| P015  | Citra        | NULL            | Padang         | NULL  | NULL         | Bebas Ongkir   |
| P020  | Anwar        | NULL            | NULL           | NULL  | NULL         | Dikenai Ongkir |
| P021  | Raffi        | NULL            | NULL           | NULL  | NULL         | Dikenai Ongkir |
| P022  | Citra        | NULL            | Padang         | NULL  | NULL         | Bebas Ongkir   |
+-------+--------------+-----------------+----------------+-------+--------------+----------------+
12 rows in set (0.001 sec)
```

2. Tampilkan nonota, tgl, kdbrg, jml, hrg, total_hrg(jml*hrg) dan kuota transaksi. Dengan ketentuan : tulis kuota 1 jika jumlah minimal barang adalah 15 dan selebihnya tulis kuota 2.

Struktur 2:

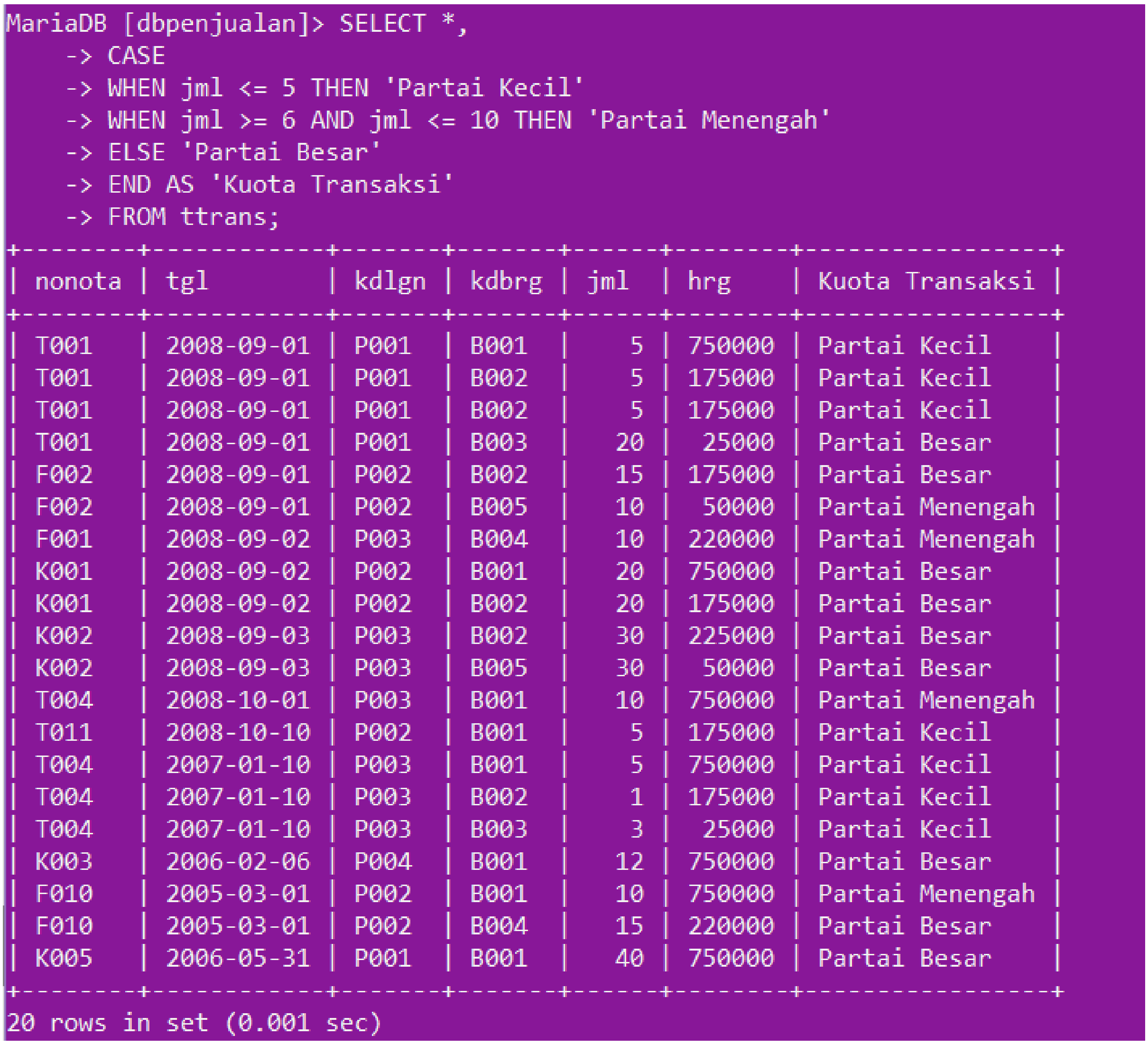


```
MariaDB [dbpenjualan]> SELECT nonota, tgl, jml, hrg, jml * hrg AS 'Total Harga',
    -> CASE
    -> WHEN jml > 15 THEN 'Kuota 1'
    -> ELSE 'Kuota 2'
    -> END AS 'Kuota Transakasi'
    -> FROM ttrans;
+--------+------------+------+--------+-------------+------------------+
| nonota | tgl        | jml  | hrg    | Total Harga | Kuota Transakasi |
+--------+------------+------+--------+-------------+------------------+
| T001   | 2008-09-01 |    5 | 750000 |     3750000 | Kuota 2          |
| T001   | 2008-09-01 |    5 | 175000 |      875000 | Kuota 2          |
| T001   | 2008-09-01 |    5 | 175000 |      875000 | Kuota 2          |
| T001   | 2008-09-01 |   20 |  25000 |      500000 | Kuota 1          |
| F002   | 2008-09-01 |   15 | 175000 |     2625000 | Kuota 2          |
| F002   | 2008-09-01 |   10 |  50000 |      500000 | Kuota 2          |
| F001   | 2008-09-02 |   10 | 220000 |     2200000 | Kuota 2          |
| K001   | 2008-09-02 |   20 | 750000 |    15000000 | Kuota 1          |
| K001   | 2008-09-02 |   20 | 175000 |     3500000 | Kuota 1          |
| K002   | 2008-09-03 |   30 | 225000 |     6750000 | Kuota 1          |
| K002   | 2008-09-03 |   30 |  50000 |     1500000 | Kuota 1          |
| T004   | 2008-10-01 |   10 | 750000 |     7500000 | Kuota 2          |
| T011   | 2008-10-10 |    5 | 175000 |      875000 | Kuota 2          |
| T004   | 2007-01-10 |    5 | 750000 |     3750000 | Kuota 2          |
| T004   | 2007-01-10 |    1 | 175000 |      175000 | Kuota 2          |
| T004   | 2007-01-10 |    3 |  25000 |       75000 | Kuota 2          |
| K003   | 2006-02-06 |   12 | 750000 |     9000000 | Kuota 2          |
| F010   | 2005-03-01 |   10 | 750000 |     7500000 | Kuota 2          |
| F010   | 2005-03-01 |   15 | 220000 |     3300000 | Kuota 2          |
| K005   | 2006-05-31 |   40 | 750000 |    30000000 | Kuota 1          |
+--------+------------+------+--------+-------------+------------------+
20 rows in set (0.006 sec)
```

3. Tampilkan semua data transaksi, dan kuota transaksi dengan ketentuan, jika jumlah barang maksimum 5 maka dikategorikan sebagai partai kecil. Jika jumlah barang 6-10 maka dikategorikan sebagai partai menengah. Dan jika jumlah barang lebih dari 10, maka dikategorikan sebagai partai besar.

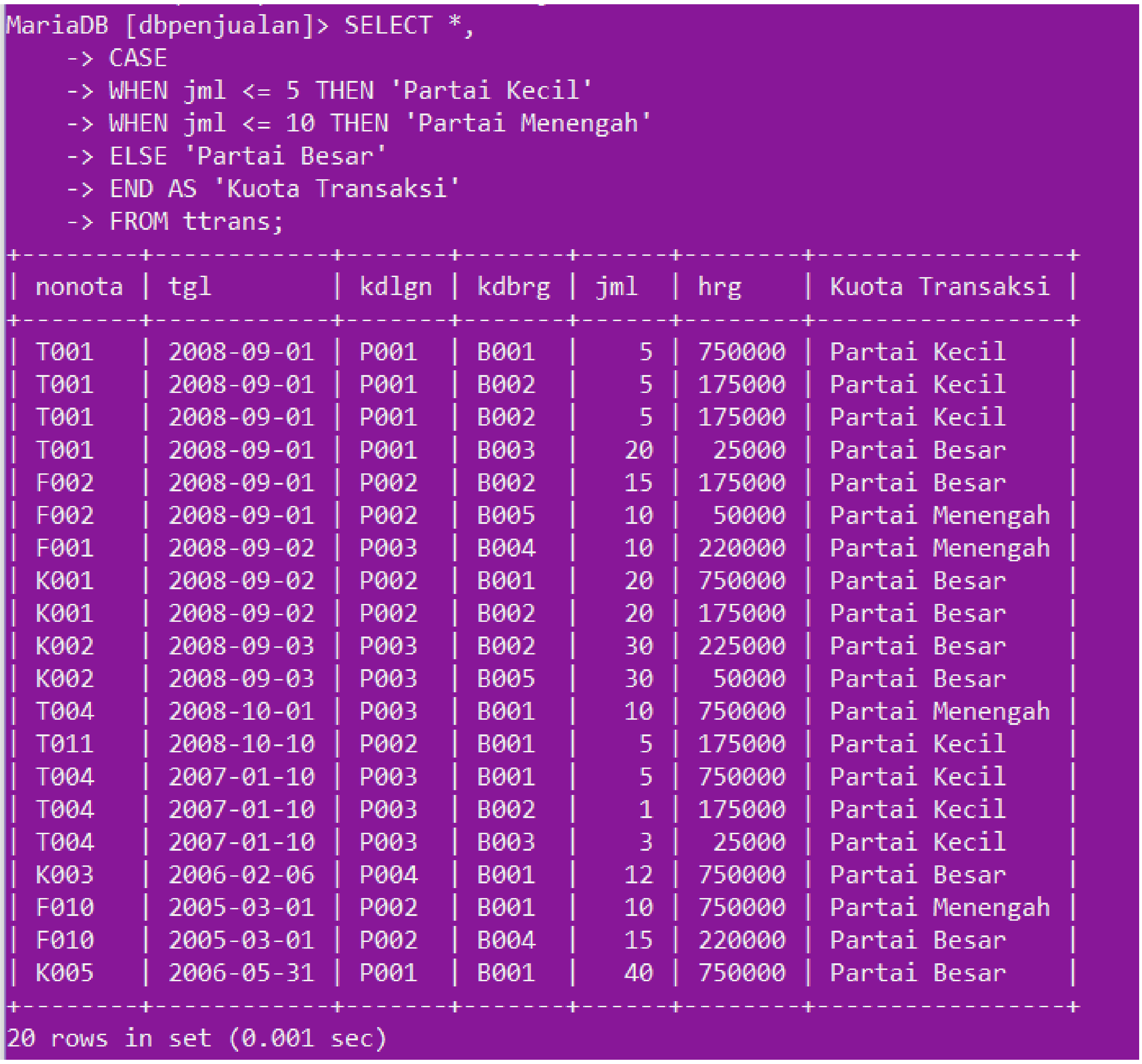
Struktur 2:

Cara 1:



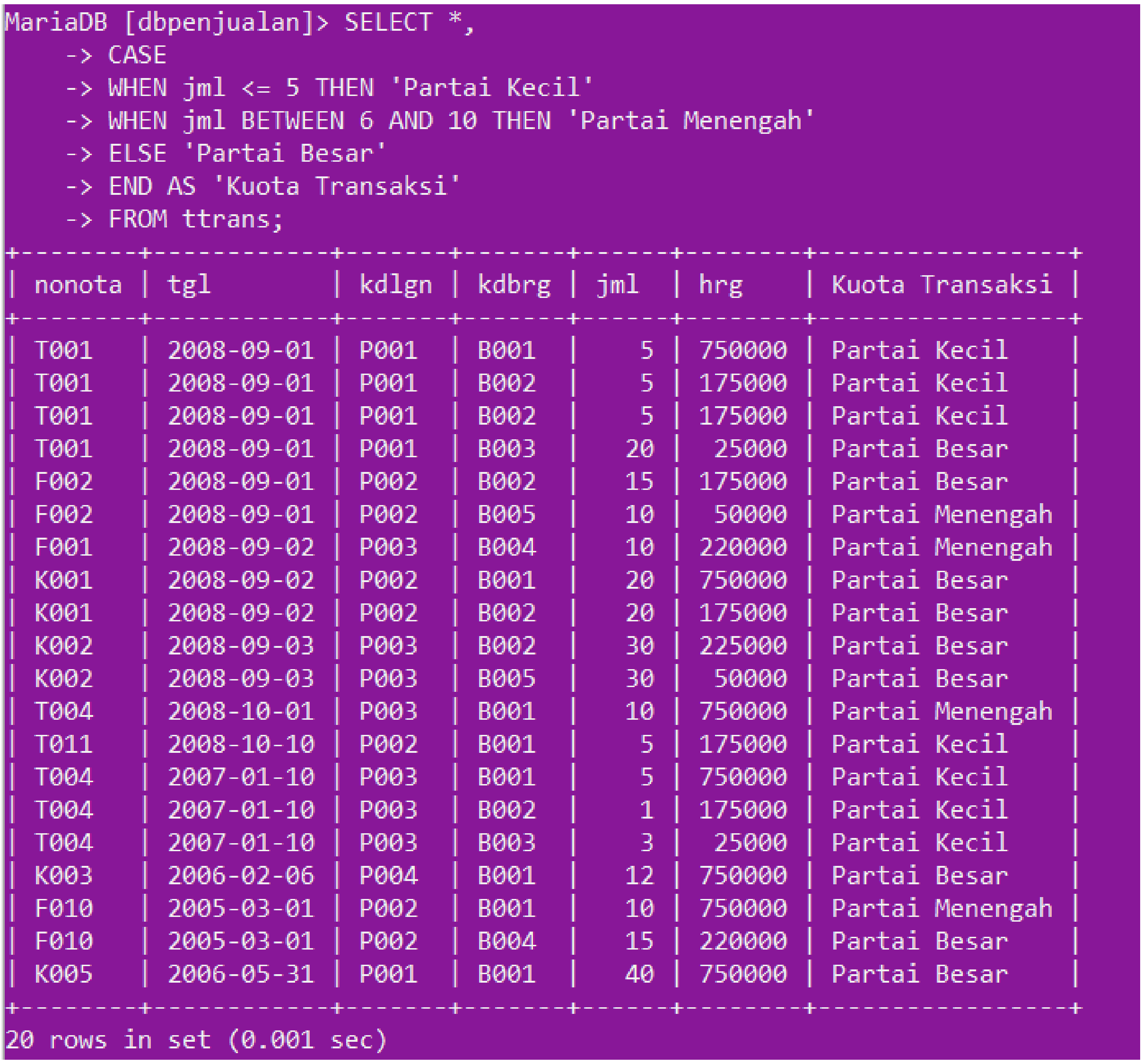
```
MariaDB [dbpenjualan]> SELECT *,
    -> CASE
    -> WHEN jml <= 5 THEN 'Partai Kecil'
    -> WHEN jml >= 6 AND jml <= 10 THEN 'Partai Menengah'
    -> ELSE 'Partai Besar'
    -> END AS 'Kuota Transaksi'
    -> FROM ttrans;
+--------+------------+-------+-------+------+--------+-----------------+
| nonota | tgl        | kdlgn | kdbrg | jml  | hrg    | Kuota Transaksi |
+--------+------------+-------+-------+------+--------+-----------------+
| T001   | 2008-09-01 | P001  | B001  |    5 | 750000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B002  |    5 | 175000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B002  |    5 | 175000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B003  |   20 |  25000 | Partai Besar    |
| F002   | 2008-09-01 | P002  | B002  |   15 | 175000 | Partai Besar    |
| F002   | 2008-09-01 | P002  | B005  |   10 |  50000 | Partai Menengah |
| F001   | 2008-09-02 | P003  | B004  |   10 | 220000 | Partai Menengah |
| K001   | 2008-09-02 | P002  | B001  |   20 | 750000 | Partai Besar    |
| K001   | 2008-09-02 | P002  | B002  |   20 | 175000 | Partai Besar    |
| K002   | 2008-09-03 | P003  | B002  |   30 | 225000 | Partai Besar    |
| K002   | 2008-09-03 | P003  | B005  |   30 |  50000 | Partai Besar    |
| T004   | 2008-10-01 | P003  | B001  |   10 | 750000 | Partai Menengah |
| T011   | 2008-10-10 | P002  | B001  |    5 | 175000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B001  |    5 | 750000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B002  |    1 | 175000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B003  |    3 |  25000 | Partai Kecil    |
| K003   | 2006-02-06 | P004  | B001  |   12 | 750000 | Partai Besar    |
| F010   | 2005-03-01 | P002  | B001  |   10 | 750000 | Partai Menengah |
| F010   | 2005-03-01 | P002  | B004  |   15 | 220000 | Partai Besar    |
| K005   | 2006-05-31 | P001  | B001  |   40 | 750000 | Partai Besar    |
+--------+------------+-------+-------+------+--------+-----------------+
20 rows in set (0.001 sec)
```

Cara 2:



```
MariaDB [dbpenjualan]> SELECT *,
    -> CASE
    -> WHEN jml <= 5 THEN 'Partai Kecil'
    -> WHEN jml <= 10 THEN 'Partai Menengah'
    -> ELSE 'Partai Besar'
    -> END AS 'Kuota Transaksi'
    -> FROM ttrans;
+--------+------------+-------+-------+------+--------+-----------------+
| nonota | tgl        | kdlgn | kdbrg | jml  | hrg    | Kuota Transaksi |
+--------+------------+-------+-------+------+--------+-----------------+
| T001   | 2008-09-01 | P001  | B001  |    5 | 750000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B002  |    5 | 175000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B002  |    5 | 175000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B003  |   20 |  25000 | Partai Besar    |
| F002   | 2008-09-01 | P002  | B002  |   15 | 175000 | Partai Besar    |
| F002   | 2008-09-01 | P002  | B005  |   10 |  50000 | Partai Menengah |
| F001   | 2008-09-02 | P003  | B004  |   10 | 220000 | Partai Menengah |
| K001   | 2008-09-02 | P002  | B001  |   20 | 750000 | Partai Besar    |
| K001   | 2008-09-02 | P002  | B002  |   20 | 175000 | Partai Besar    |
| K002   | 2008-09-03 | P003  | B002  |   30 | 225000 | Partai Besar    |
| K002   | 2008-09-03 | P003  | B005  |   30 |  50000 | Partai Besar    |
| T004   | 2008-10-01 | P003  | B001  |   10 | 750000 | Partai Menengah |
| T011   | 2008-10-10 | P002  | B001  |    5 | 175000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B001  |    5 | 750000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B002  |    1 | 175000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B003  |    3 |  25000 | Partai Kecil    |
| K003   | 2006-02-06 | P004  | B001  |   12 | 750000 | Partai Besar    |
| F010   | 2005-03-01 | P002  | B001  |   10 | 750000 | Partai Menengah |
| F010   | 2005-03-01 | P002  | B004  |   15 | 220000 | Partai Besar    |
| K005   | 2006-05-31 | P001  | B001  |   40 | 750000 | Partai Besar    |
+--------+------------+-------+-------+------+--------+-----------------+
20 rows in set (0.001 sec)
```

Cara 3:



```
MariaDB [dbpenjualan]> SELECT *,
    -> CASE
    -> WHEN jml <= 5 THEN 'Partai Kecil'
    -> WHEN jml BETWEEN 6 AND 10 THEN 'Partai Menengah'
    -> ELSE 'Partai Besar'
    -> END AS 'Kuota Transaksi'
    -> FROM ttrans;
+--------+------------+-------+-------+------+--------+-----------------+
| nonota | tgl        | kdlgn | kdbrg | jml  | hrg    | Kuota Transaksi |
+--------+------------+-------+-------+------+--------+-----------------+
| T001   | 2008-09-01 | P001  | B001  |    5 | 750000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B002  |    5 | 175000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B002  |    5 | 175000 | Partai Kecil    |
| T001   | 2008-09-01 | P001  | B003  |   20 |  25000 | Partai Besar    |
| F002   | 2008-09-01 | P002  | B002  |   15 | 175000 | Partai Besar    |
| F002   | 2008-09-01 | P002  | B005  |   10 |  50000 | Partai Menengah |
| F001   | 2008-09-02 | P003  | B004  |   10 | 220000 | Partai Menengah |
| K001   | 2008-09-02 | P002  | B001  |   20 | 750000 | Partai Besar    |
| K001   | 2008-09-02 | P002  | B002  |   20 | 175000 | Partai Besar    |
| K002   | 2008-09-03 | P003  | B002  |   30 | 225000 | Partai Besar    |
| K002   | 2008-09-03 | P003  | B005  |   30 |  50000 | Partai Besar    |
| T004   | 2008-10-01 | P003  | B001  |   10 | 750000 | Partai Menengah |
| T011   | 2008-10-10 | P002  | B001  |    5 | 175000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B001  |    5 | 750000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B002  |    1 | 175000 | Partai Kecil    |
| T004   | 2007-01-10 | P003  | B003  |    3 |  25000 | Partai Kecil    |
| K003   | 2006-02-06 | P004  | B001  |   12 | 750000 | Partai Besar    |
| F010   | 2005-03-01 | P002  | B001  |   10 | 750000 | Partai Menengah |
| F010   | 2005-03-01 | P002  | B004  |   15 | 220000 | Partai Besar    |
| K005   | 2006-05-31 | P001  | B001  |   40 | 750000 | Partai Besar    |
+--------+------------+-------+-------+------+--------+-----------------+
20 rows in set (0.001 sec)
```

4. Toko memberikan aturan diskon bertingkat dengan ketentuan sbb:

   - Jika jumlah barang dibawah 10, diskon 5%

   - Jika jumlah barang 10 - 20, diskon 10%

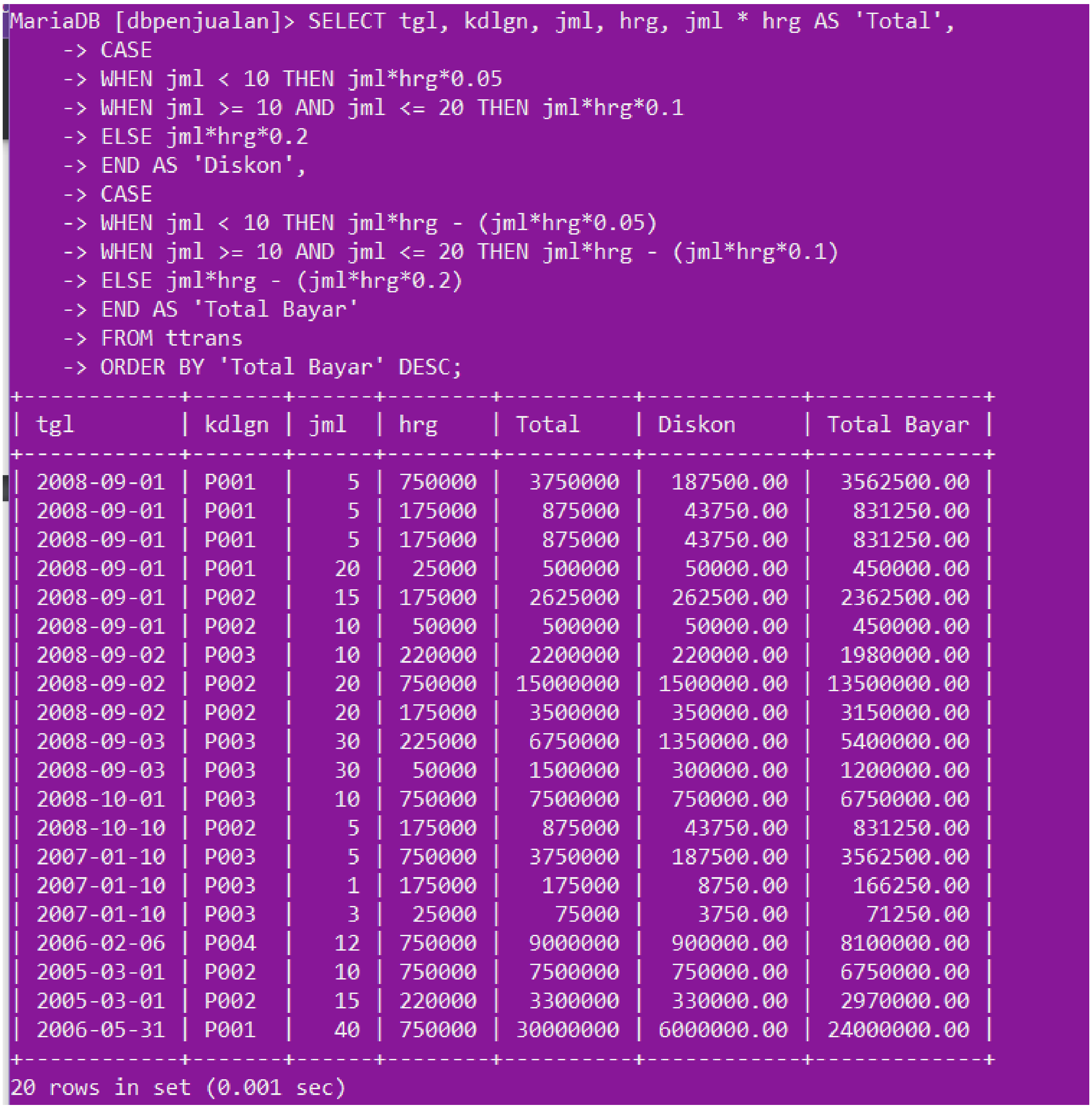
   - Jika jumlah diatas 20, diskon 20%

Diskon diberikan dari total harga keseluruhan.

Tampilkan tanggal transaksi, kode pelanggan, jml, hrg, total(jml*hrg), besaran diskon, total bayar setelah dikurangi diskon. Urutkan dari transaksi dengan pembayaran tertinggi.

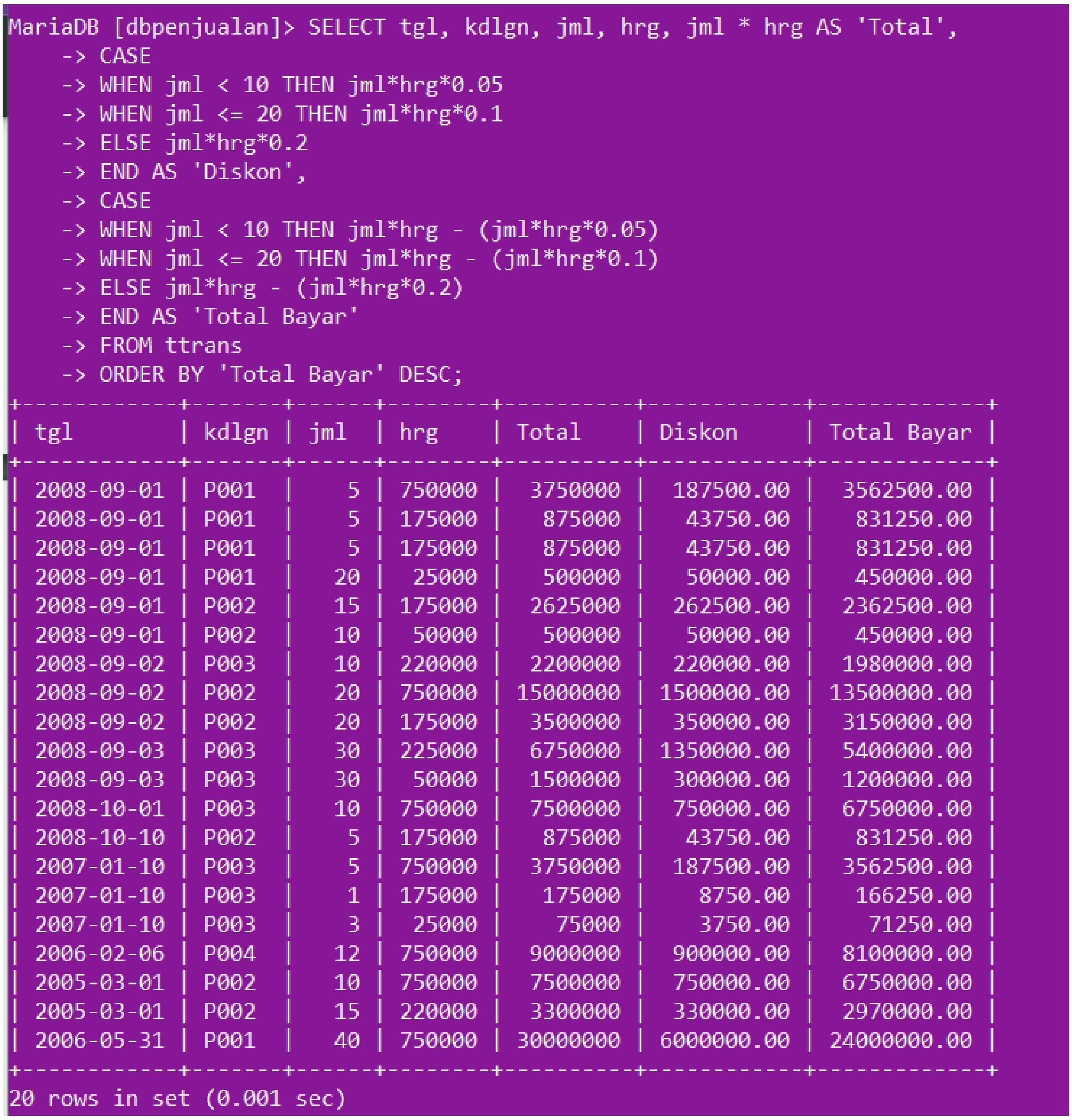
Struktur 2:

Cara 1:



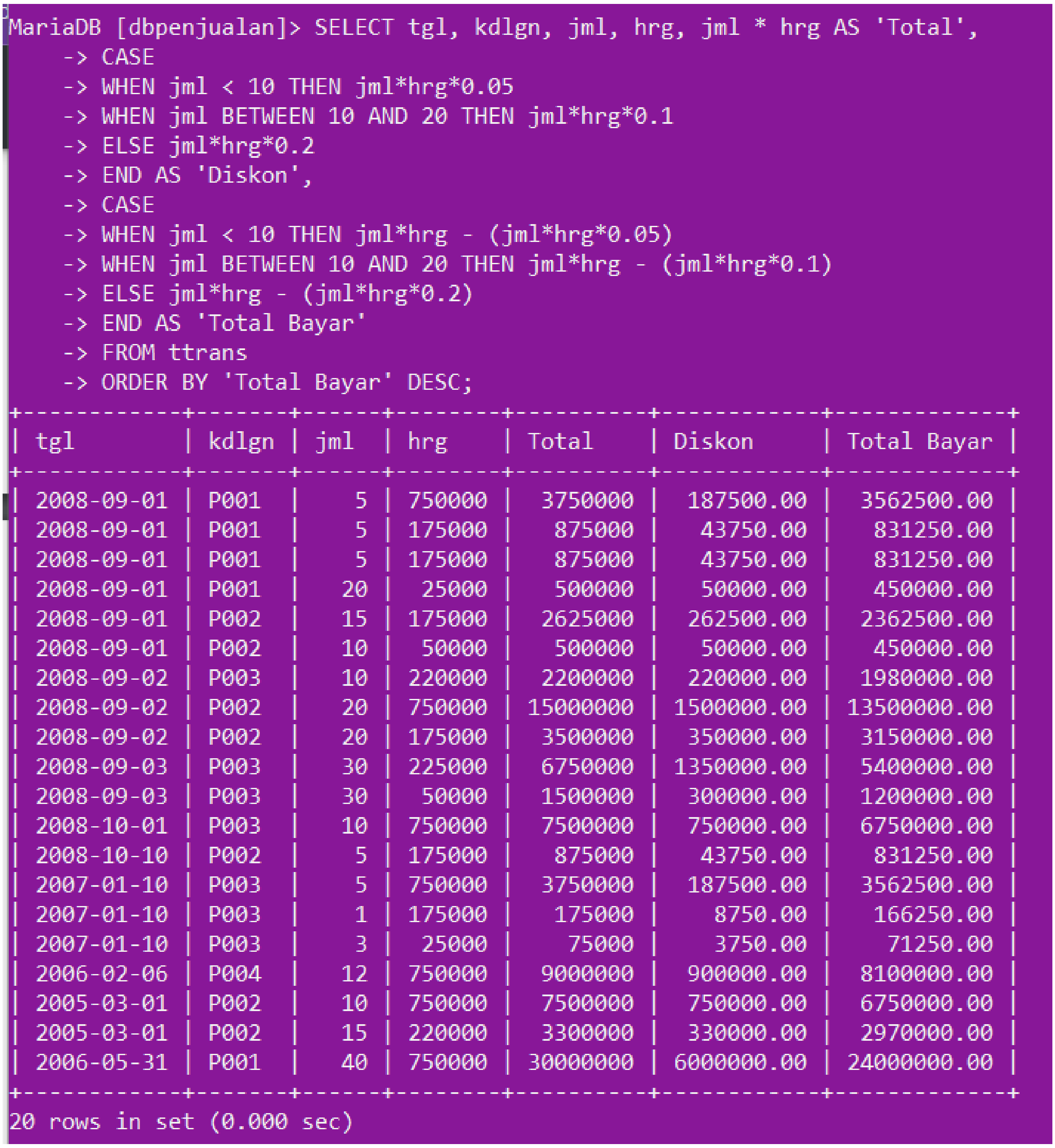
```
MariaDB [dbpenjualan]> SELECT tgl, kdlgn, jml, hrg, jml * hrg AS 'Total',
    -> CASE
    -> WHEN jml < 10 THEN jml*hrg*0.05
    -> WHEN jml >= 10 AND jml <= 20 THEN jml*hrg*0.1
    -> ELSE jml*hrg*0.2
    -> END AS 'Diskon',
    -> CASE
    -> WHEN jml < 10 THEN jml*hrg - (jml*hrg*0.05)
    -> WHEN jml >= 10 AND jml <= 20 THEN jml*hrg - (jml*hrg*0.1)
    -> ELSE jml*hrg - (jml*hrg*0.2)
    -> END AS 'Total Bayar'
    -> FROM ttrans
    -> ORDER BY 'Total Bayar' DESC;
+------------+-------+------+--------+----------+------------+-------------+
| tgl        | kdlgn | jml  | hrg    | Total    | Diskon     | Total Bayar |
+------------+-------+------+--------+----------+------------+-------------+
| 2008-09-01 | P001  |    5 | 750000 |  3750000 |  187500.00 |  3562500.00 |
| 2008-09-01 | P001  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2008-09-01 | P001  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2008-09-01 | P001  |   20 |  25000 |   500000 |   50000.00 |   450000.00 |
| 2008-09-01 | P002  |   15 | 175000 |  2625000 |  262500.00 |  2362500.00 |
| 2008-09-01 | P002  |   10 |  50000 |   500000 |   50000.00 |   450000.00 |
| 2008-09-02 | P003  |   10 | 220000 |  2200000 |  220000.00 |  1980000.00 |
| 2008-09-02 | P002  |   20 | 750000 | 15000000 | 1500000.00 | 13500000.00 |
| 2008-09-02 | P002  |   20 | 175000 |  3500000 |  350000.00 |  3150000.00 |
| 2008-09-03 | P003  |   30 | 225000 |  6750000 | 1350000.00 |  5400000.00 |
| 2008-09-03 | P003  |   30 |  50000 |  1500000 |  300000.00 |  1200000.00 |
| 2008-10-01 | P003  |   10 | 750000 |  7500000 |  750000.00 |  6750000.00 |
| 2008-10-10 | P002  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2007-01-10 | P003  |    5 | 750000 |  3750000 |  187500.00 |  3562500.00 |
| 2007-01-10 | P003  |    1 | 175000 |   175000 |    8750.00 |   166250.00 |
| 2007-01-10 | P003  |    3 |  25000 |    75000 |    3750.00 |    71250.00 |
| 2006-02-06 | P004  |   12 | 750000 |  9000000 |  900000.00 |  8100000.00 |
| 2005-03-01 | P002  |   10 | 750000 |  7500000 |  750000.00 |  6750000.00 |
| 2005-03-01 | P002  |   15 | 220000 |  3300000 |  330000.00 |  2970000.00 |
| 2006-05-31 | P001  |   40 | 750000 | 30000000 | 6000000.00 | 24000000.00 |
+------------+-------+------+--------+----------+------------+-------------+
20 rows in set (0.001 sec)
```

Cara 2:



```
MariaDB [dbpenjualan]> SELECT tgl, kdlgn, jml, hrg, jml * hrg AS 'Total',
    -> CASE
    -> WHEN jml < 10 THEN jml*hrg*0.05
    -> WHEN jml <= 20 THEN jml*hrg*0.1
    -> ELSE jml*hrg*0.2
    -> END AS 'Diskon',
    -> CASE
    -> WHEN jml < 10 THEN jml*hrg - (jml*hrg*0.05)
    -> WHEN jml <= 20 THEN jml*hrg - (jml*hrg*0.1)
    -> ELSE jml*hrg - (jml*hrg*0.2)
    -> END AS 'Total Bayar'
    -> FROM ttrans
    -> ORDER BY 'Total Bayar' DESC;
+------------+-------+------+--------+----------+------------+-------------+
| tgl        | kdlgn | jml  | hrg    | Total    | Diskon     | Total Bayar |
+------------+-------+------+--------+----------+------------+-------------+
| 2008-09-01 | P001  |    5 | 750000 |  3750000 |  187500.00 |  3562500.00 |
| 2008-09-01 | P001  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2008-09-01 | P001  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2008-09-01 | P001  |   20 |  25000 |   500000 |   50000.00 |   450000.00 |
| 2008-09-01 | P002  |   15 | 175000 |  2625000 |  262500.00 |  2362500.00 |
| 2008-09-01 | P002  |   10 |  50000 |   500000 |   50000.00 |   450000.00 |
| 2008-09-02 | P003  |   10 | 220000 |  2200000 |  220000.00 |  1980000.00 |
| 2008-09-02 | P002  |   20 | 750000 | 15000000 | 1500000.00 | 13500000.00 |
| 2008-09-02 | P002  |   20 | 175000 |  3500000 |  350000.00 |  3150000.00 |
| 2008-09-03 | P003  |   30 | 225000 |  6750000 | 1350000.00 |  5400000.00 |
| 2008-09-03 | P003  |   30 |  50000 |  1500000 |  300000.00 |  1200000.00 |
| 2008-10-01 | P003  |   10 | 750000 |  7500000 |  750000.00 |  6750000.00 |
| 2008-10-10 | P002  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2007-01-10 | P003  |    5 | 750000 |  3750000 |  187500.00 |  3562500.00 |
| 2007-01-10 | P003  |    1 | 175000 |   175000 |    8750.00 |   166250.00 |
| 2007-01-10 | P003  |    3 |  25000 |    75000 |    3750.00 |    71250.00 |
| 2006-02-06 | P004  |   12 | 750000 |  9000000 |  900000.00 |  8100000.00 |
| 2005-03-01 | P002  |   10 | 750000 |  7500000 |  750000.00 |  6750000.00 |
| 2005-03-01 | P002  |   15 | 220000 |  3300000 |  330000.00 |  2970000.00 |
| 2006-05-31 | P001  |   40 | 750000 | 30000000 | 6000000.00 | 24000000.00 |
+------------+-------+------+--------+----------+------------+-------------+
20 rows in set (0.001 sec)
```

Cara 3:

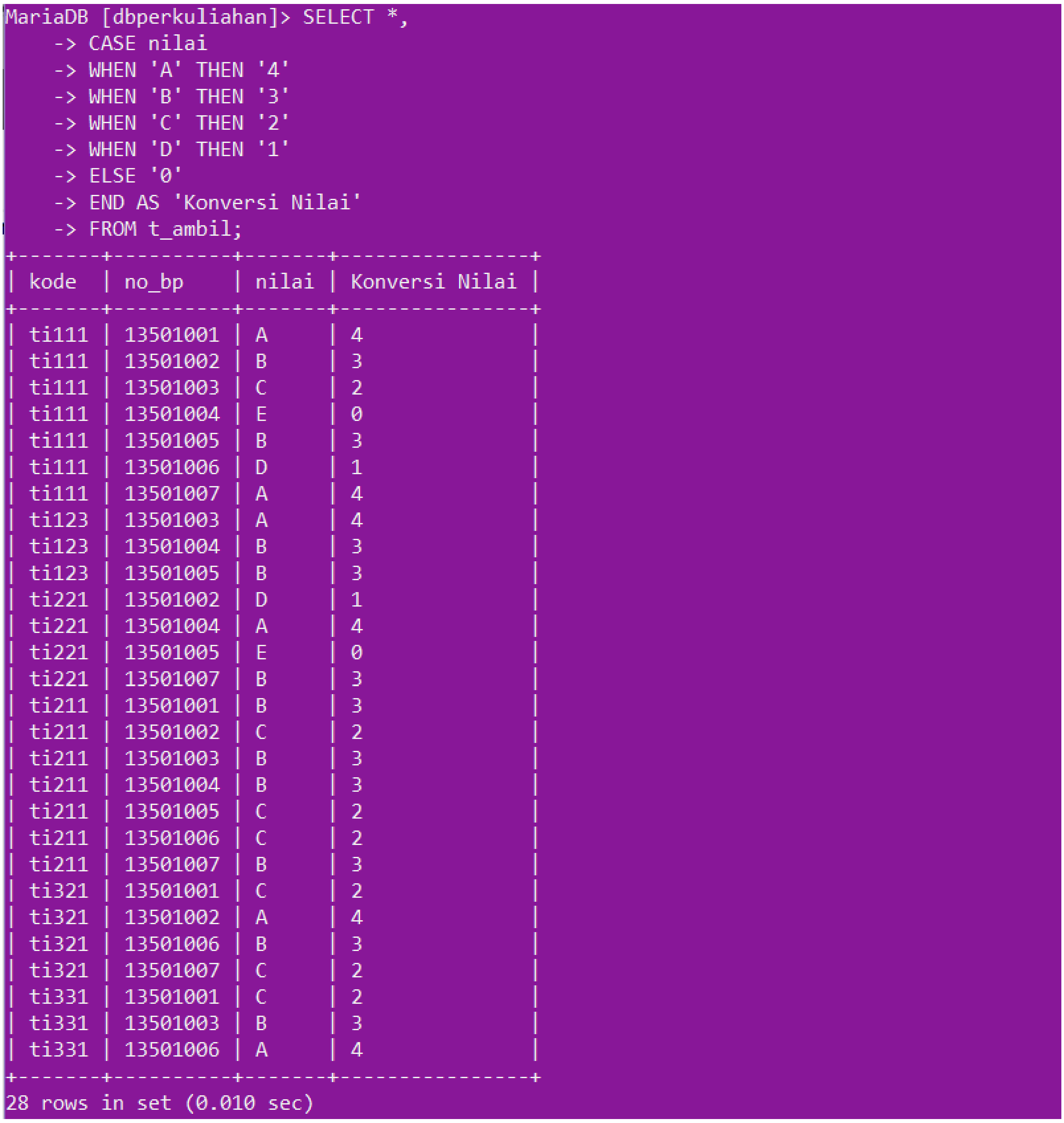


```
MariaDB [dbpenjualan]> SELECT tgl, kdlgn, jml, hrg, jml * hrg AS 'Total',
    -> CASE
    -> WHEN jml < 10 THEN jml*hrg*0.05
    -> WHEN jml BETWEEN 10 AND 20 THEN jml*hrg*0.1
    -> ELSE jml*hrg*0.2
    -> END AS 'Diskon',
    -> CASE
    -> WHEN jml < 10 THEN jml*hrg - (jml*hrg*0.05)
    -> WHEN jml BETWEEN 10 AND 20 THEN jml*hrg - (jml*hrg*0.1)
    -> ELSE jml*hrg - (jml*hrg*0.2)
    -> END AS 'Total Bayar'
    -> FROM ttrans
    -> ORDER BY 'Total Bayar' DESC;
+------------+-------+------+--------+----------+------------+-------------+
| tgl        | kdlgn | jml  | hrg    | Total    | Diskon     | Total Bayar |
+------------+-------+------+--------+----------+------------+-------------+
| 2008-09-01 | P001  |    5 | 750000 |  3750000 |  187500.00 |  3562500.00 |
| 2008-09-01 | P001  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2008-09-01 | P001  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2008-09-01 | P001  |   20 |  25000 |   500000 |   50000.00 |   450000.00 |
| 2008-09-01 | P002  |   15 | 175000 |  2625000 |  262500.00 |  2362500.00 |
| 2008-09-01 | P002  |   10 |  50000 |   500000 |   50000.00 |   450000.00 |
| 2008-09-02 | P003  |   10 | 220000 |  2200000 |  220000.00 |  1980000.00 |
| 2008-09-02 | P002  |   20 | 750000 | 15000000 | 1500000.00 | 13500000.00 |
| 2008-09-02 | P002  |   20 | 175000 |  3500000 |  350000.00 |  3150000.00 |
| 2008-09-03 | P003  |   30 | 225000 |  6750000 | 1350000.00 |  5400000.00 |
| 2008-09-03 | P003  |   30 |  50000 |  1500000 |  300000.00 |  1200000.00 |
| 2008-10-01 | P003  |   10 | 750000 |  7500000 |  750000.00 |  6750000.00 |
| 2008-10-10 | P002  |    5 | 175000 |   875000 |   43750.00 |   831250.00 |
| 2007-01-10 | P003  |    5 | 750000 |  3750000 |  187500.00 |  3562500.00 |
| 2007-01-10 | P003  |    1 | 175000 |   175000 |    8750.00 |   166250.00 |
| 2007-01-10 | P003  |    3 |  25000 |    75000 |    3750.00 |    71250.00 |
| 2006-02-06 | P004  |   12 | 750000 |  9000000 |  900000.00 |  8100000.00 |
| 2005-03-01 | P002  |   10 | 750000 |  7500000 |  750000.00 |  6750000.00 |
| 2005-03-01 | P002  |   15 | 220000 |  3300000 |  330000.00 |  2970000.00 |
| 2006-05-31 | P001  |   40 | 750000 | 30000000 | 6000000.00 | 24000000.00 |
+------------+-------+------+--------+----------+------------+-------------+
20 rows in set (0.000 sec)
```

5. Buat query yang menampilkan data ambil(db perkuliahan) kemudian terjemahkan nilai huruf sbb:

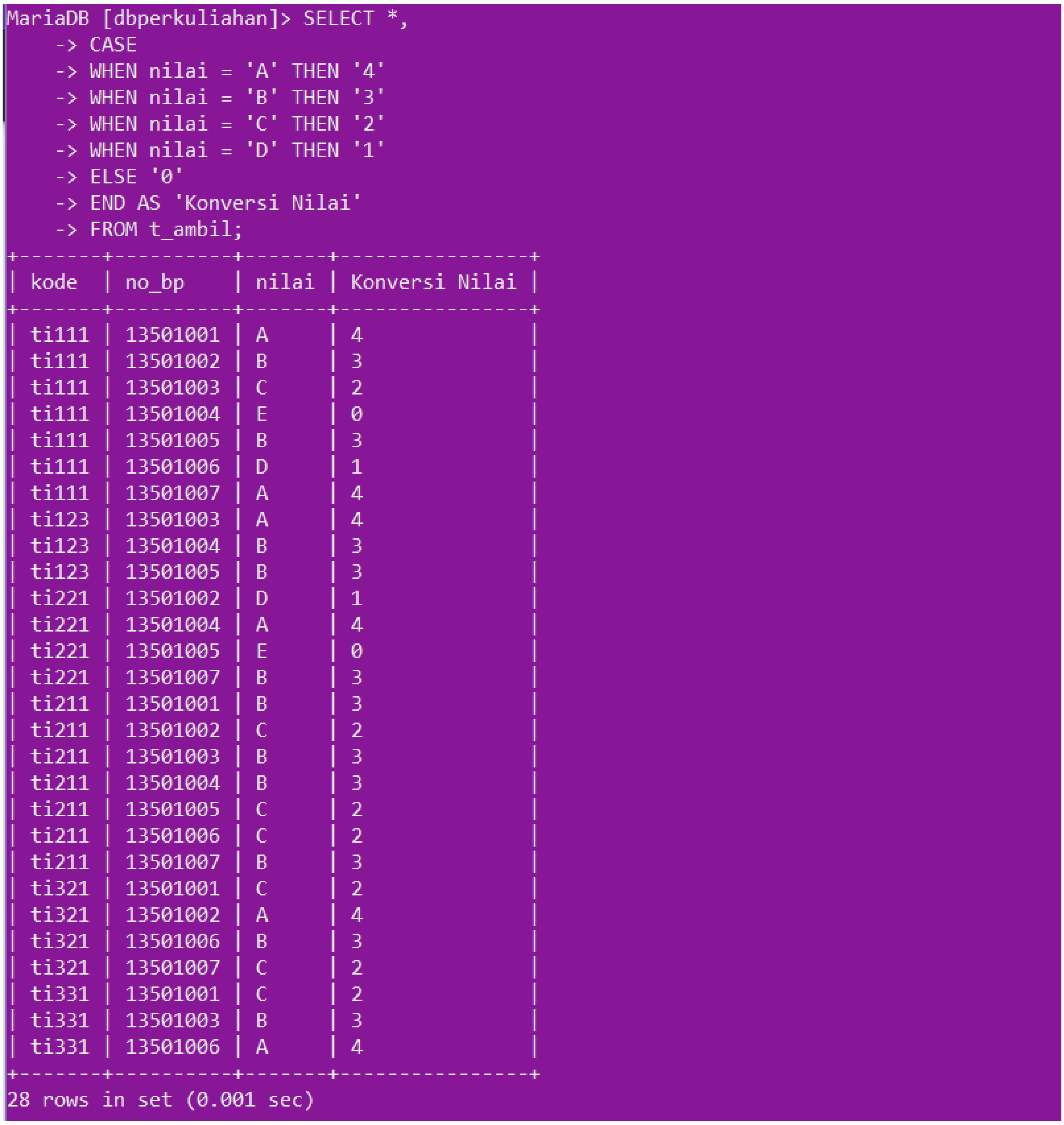
   A=4, B=3, C=2, D=1, E=0

Struktur 1:



```
MariaDB [dbperkuliahan]> SELECT *,
    -> CASE nilai
    -> WHEN 'A' THEN '4'
    -> WHEN 'B' THEN '3'
    -> WHEN 'C' THEN '2'
    -> WHEN 'D' THEN '1'
    -> ELSE '0'
    -> END AS 'Konversi Nilai'
    -> FROM t_ambil;
+-------+----------+-------+----------------+
| kode  | no_bp    | nilai | Konversi Nilai |
+-------+----------+-------+----------------+
| ti111 | 13501001 | A     | 4              |
| ti111 | 13501002 | B     | 3              |
| ti111 | 13501003 | C     | 2              |
| ti111 | 13501004 | E     | 0              |
| ti111 | 13501005 | B     | 3              |
| ti111 | 13501006 | D     | 1              |
| ti111 | 13501007 | A     | 4              |
| ti123 | 13501003 | A     | 4              |
| ti123 | 13501004 | B     | 3              |
| ti123 | 13501005 | B     | 3              |
| ti221 | 13501002 | D     | 1              |
| ti221 | 13501004 | A     | 4              |
| ti221 | 13501005 | E     | 0              |
| ti221 | 13501007 | B     | 3              |
| ti211 | 13501001 | B     | 3              |
| ti211 | 13501002 | C     | 2              |
| ti211 | 13501003 | B     | 3              |
| ti211 | 13501004 | B     | 3              |
| ti211 | 13501005 | C     | 2              |
| ti211 | 13501006 | C     | 2              |
| ti211 | 13501007 | B     | 3              |
| ti321 | 13501001 | C     | 2              |
| ti321 | 13501002 | A     | 4              |
| ti321 | 13501006 | B     | 3              |
| ti321 | 13501007 | C     | 2              |
| ti331 | 13501001 | C     | 2              |
| ti331 | 13501003 | B     | 3              |
| ti331 | 13501006 | A     | 4              |
+-------+----------+-------+----------------+
28 rows in set (0.010 sec)
```

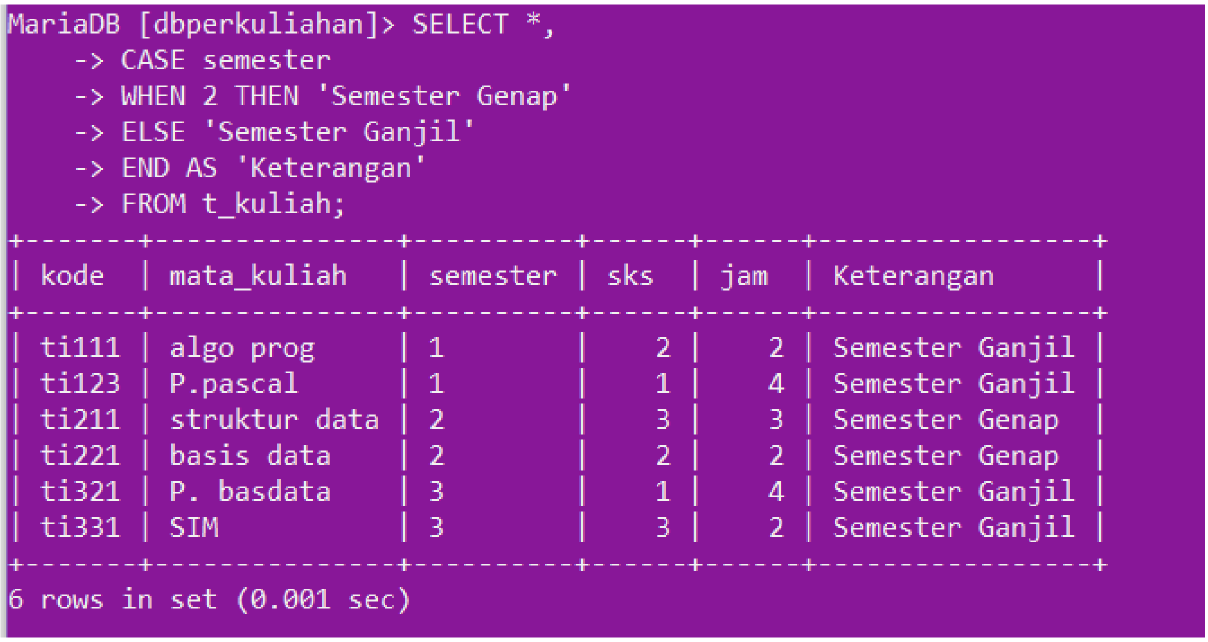
Struktur 2:



```
MariaDB [dbperkuliahan]> SELECT *,
    -> CASE
    -> WHEN nilai = 'A' THEN '4'
    -> WHEN nilai = 'B' THEN '3'
    -> WHEN nilai = 'C' THEN '2'
    -> WHEN nilai = 'D' THEN '1'
    -> ELSE '0'
    -> END AS 'Konversi Nilai'
    -> FROM t_ambil;
+-------+----------+-------+----------------+
| kode  | no_bp    | nilai | Konversi Nilai |
+-------+----------+-------+----------------+
| ti111 | 13501001 | A     | 4              |
| ti111 | 13501002 | B     | 3              |
| ti111 | 13501003 | C     | 2              |
| ti111 | 13501004 | E     | 0              |
| ti111 | 13501005 | B     | 3              |
| ti111 | 13501006 | D     | 1              |
| ti111 | 13501007 | A     | 4              |
| ti123 | 13501003 | A     | 4              |
| ti123 | 13501004 | B     | 3              |
| ti123 | 13501005 | B     | 3              |
| ti221 | 13501002 | D     | 1              |
| ti221 | 13501004 | A     | 4              |
| ti221 | 13501005 | E     | 0              |
| ti221 | 13501007 | B     | 3              |
| ti211 | 13501001 | B     | 3              |
| ti211 | 13501002 | C     | 2              |
| ti211 | 13501003 | B     | 3              |
| ti211 | 13501004 | B     | 3              |
| ti211 | 13501005 | C     | 2              |
| ti211 | 13501006 | C     | 2              |
| ti211 | 13501007 | B     | 3              |
| ti321 | 13501001 | C     | 2              |
| ti321 | 13501002 | A     | 4              |
| ti321 | 13501006 | B     | 3              |
| ti321 | 13501007 | C     | 2              |
| ti331 | 13501001 | C     | 2              |
| ti331 | 13501003 | B     | 3              |
| ti331 | 13501006 | A     | 4              |
+-------+----------+-------+----------------+
28 rows in set (0.001 sec)
```

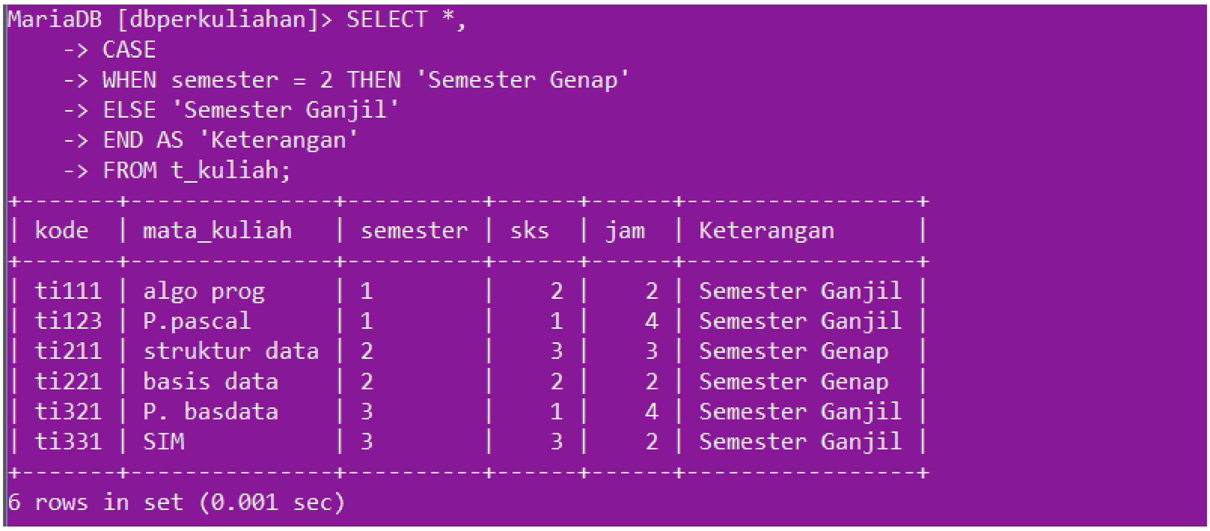
6. tampilkan data t_kuliah, tambahkan kolom keterangan semester yang berisikan ganjil atau genap.

Struktur 1:



```
MariaDB [dbperkuliahan]> SELECT *,
    -> CASE semester
    -> WHEN 2 THEN 'Semester Genap'
    -> ELSE 'Semester Ganjil'
    -> END AS 'Keterangan'
    -> FROM t_kuliah;
+-------+---------------+----------+-----+-----+-----------------+
| kode  | mata_kuliah   | semester | sks | jam | Keterangan      |
+-------+---------------+----------+-----+-----+-----------------+
| ti111 | algo prog     | 1        |   2 |   2 | Semester Ganjil |
| ti123 | P.pascal      | 1        |   1 |   4 | Semester Ganjil |
| ti211 | struktur data | 2        |   3 |   3 | Semester Genap  |
| ti221 | basis data    | 2        |   2 |   2 | Semester Genap  |
| ti321 | P. basdata    | 3        |   1 |   4 | Semester Ganjil |
| ti331 | SIM           | 3        |   3 |   2 | Semester Ganjil |
+-------+---------------+----------+-----+-----+-----------------+
6 rows in set (0.001 sec)
```

Struktur 2:



```
MariaDB [dbperkuliahan]> SELECT *,
    -> CASE
    -> WHEN semester = 2 THEN 'Semester Genap'
    -> ELSE 'Semester Ganjil'
    -> END AS 'Keterangan'
    -> FROM t_kuliah;
+-------+---------------+----------+-----+-----+-----------------+
| kode  | mata_kuliah   | semester | sks | jam | Keterangan      |
+-------+---------------+----------+-----+-----+-----------------+
| ti111 | algo prog     | 1        |   2 |   2 | Semester Ganjil |
| ti123 | P.pascal      | 1        |   1 |   4 | Semester Ganjil |
| ti211 | struktur data | 2        |   3 |   3 | Semester Genap  |
| ti221 | basis data    | 2        |   2 |   2 | Semester Genap  |
| ti321 | P. basdata    | 3        |   1 |   4 | Semester Ganjil |
| ti331 | SIM           | 3        |   3 |   2 | Semester Ganjil |
+-------+---------------+----------+-----+-----+-----------------+
6 rows in set (0.001 sec)
```

7. Dari database classicmodels, tampilkan 15 full name kontak customers yang tinggal di USA berupa huruf kapital (gabungan firstname dan lastname), city dan state customers dan penjelasan dari state dengan ketentuan :

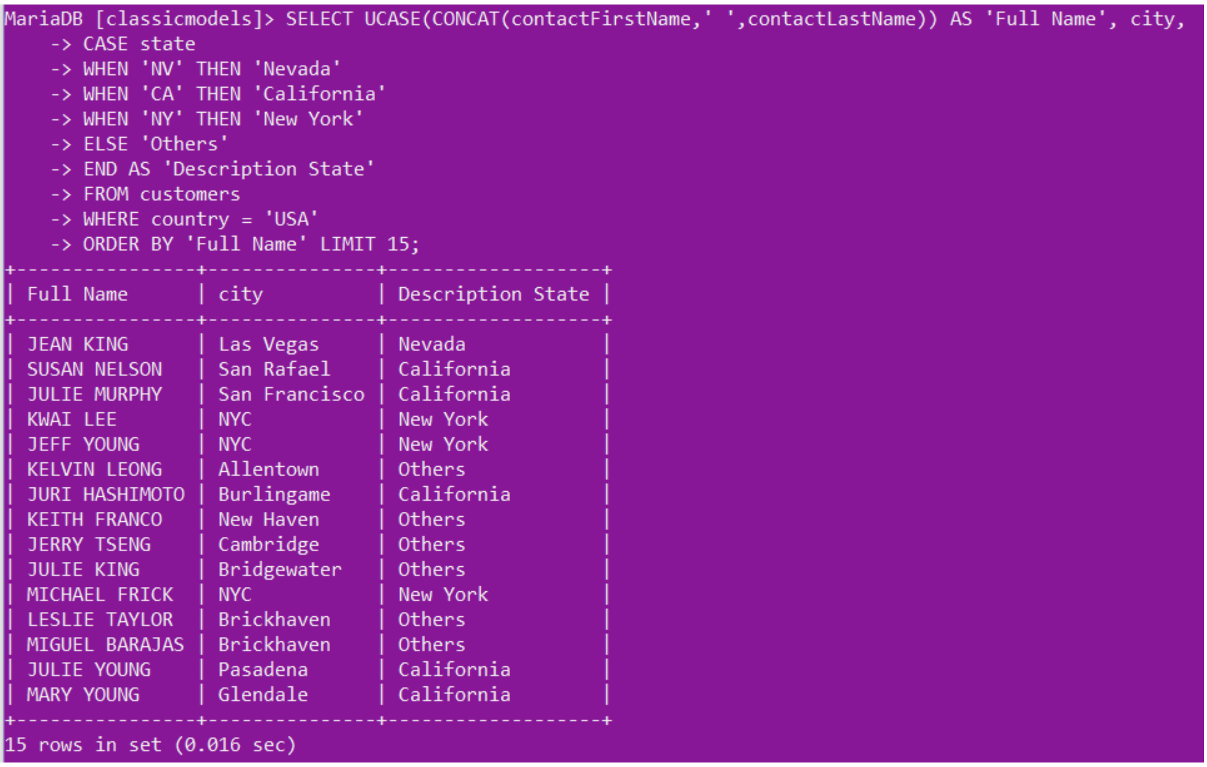
   NV = Nevada

   CA = California

   NY = New York

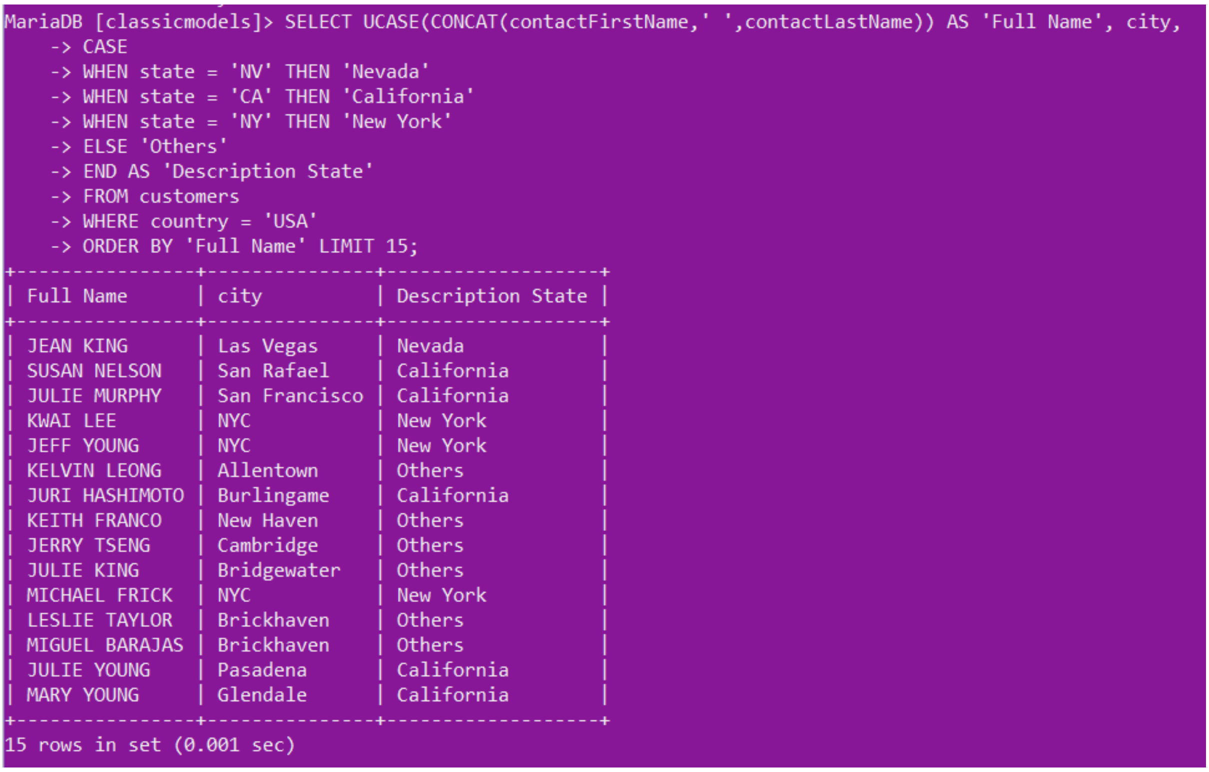
Selain ketiga state itu berikan keterangan 'others'. Urutkan berdasarkan full name

Struktur 1:



```
MariaDB [classicmodels]> SELECT UCASE(CONCAT(contactFirstName,' ',contactLastName)) AS 'Full Name', city,
    -> CASE state
    -> WHEN 'NV' THEN 'Nevada'
    -> WHEN 'CA' THEN 'California'
    -> WHEN 'NY' THEN 'New York'
    -> ELSE 'Others'
    -> END AS 'Description State'
    -> FROM customers
    -> WHERE country = 'USA'
    -> ORDER BY 'Full Name' LIMIT 15;
+----------------+---------------+-------------------+
| Full Name      | city          | Description State |
+----------------+---------------+-------------------+
| JEAN KING      | Las Vegas     | Nevada            |
| SUSAN NELSON   | San Rafael    | California        |
| JULIE MURPHY   | San Francisco | California        |
| KWAI LEE       | NYC           | New York          |
| JEFF YOUNG     | NYC           | New York          |
| KELVIN LEONG   | Allentown     | Others            |
| JURI HASHIMOTO | Burlingame    | California        |
| KEITH FRANCO   | New Haven     | Others            |
| JERRY TSENG    | Cambridge     | Others            |
| JULIE KING     | Bridgewater   | Others            |
| MICHAEL FRICK  | NYC           | New York          |
| LESLIE TAYLOR  | Brickhaven    | Others            |
| MIGUEL BARAJAS | Brickhaven    | Others            |
| JULIE YOUNG    | Pasadena      | California        |
| MARY YOUNG     | Glendale      | California        |
+----------------+---------------+-------------------+
15 rows in set (0.016 sec)
```

Struktur 2:

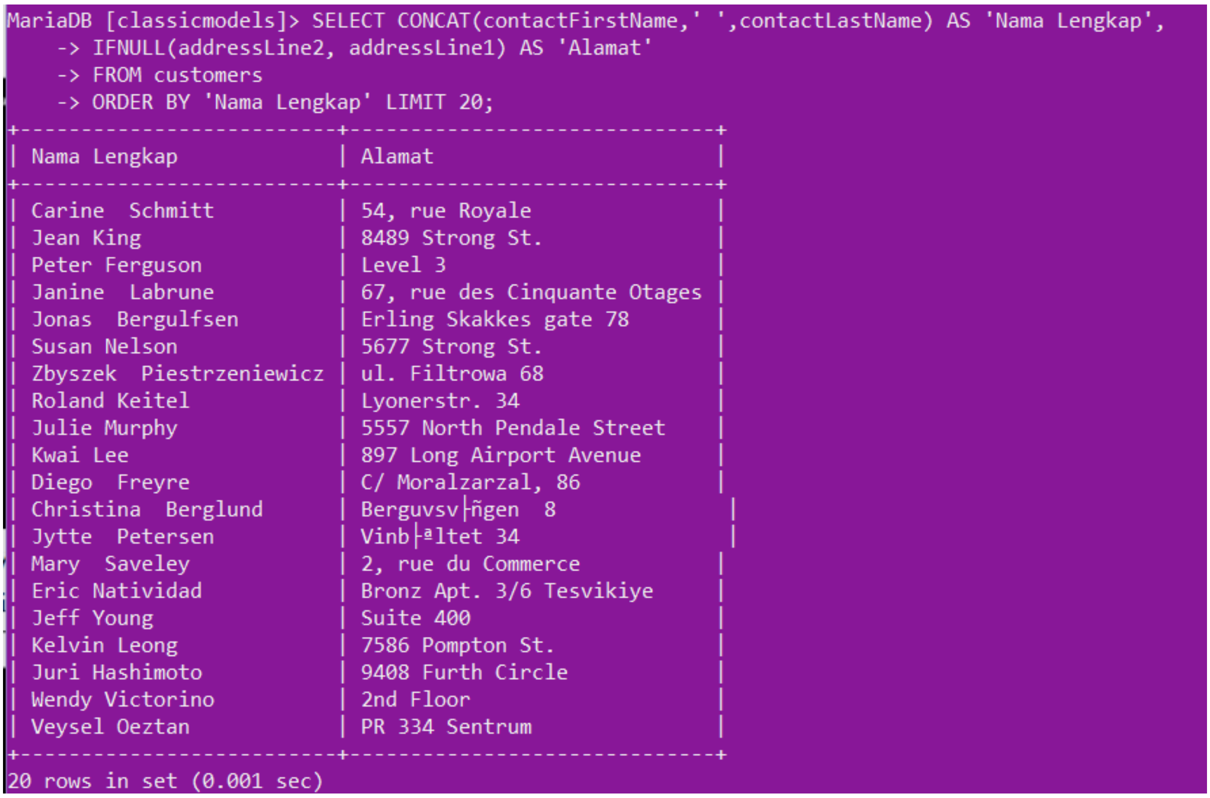


```
MariaDB [classicmodels]> SELECT UCASE(CONCAT(contactFirstName,' ',contactLastName)) AS 'Full Name', city,
    -> CASE
    -> WHEN state = 'NV' THEN 'Nevada'
    -> WHEN state = 'CA' THEN 'California'
    -> WHEN state = 'NY' THEN 'New York'
    -> ELSE 'Others'
    -> END AS 'Description State'
    -> FROM customers
    -> WHERE country = 'USA'
    -> ORDER BY 'Full Name' LIMIT 15;
+----------------+---------------+-------------------+
| Full Name      | city          | Description State |
+----------------+---------------+-------------------+
| JEAN KING      | Las Vegas     | Nevada            |
| SUSAN NELSON   | San Rafael    | California        |
| JULIE MURPHY   | San Francisco | California        |
| KWAI LEE       | NYC           | New York          |
| JEFF YOUNG     | NYC           | New York          |
| KELVIN LEONG   | Allentown     | Others            |
| JURI HASHIMOTO | Burlingame    | California        |
| KEITH FRANCO   | New Haven     | Others            |
| JERRY TSENG    | Cambridge     | Others            |
| JULIE KING     | Bridgewater   | Others            |
| MICHAEL FRICK  | NYC           | New York          |
| LESLIE TAYLOR  | Brickhaven    | Others            |
| MIGUEL BARAJAS | Brickhaven    | Others            |
| JULIE YOUNG    | Pasadena      | California        |
| MARY YOUNG     | Glendale      | California        |
+----------------+---------------+-------------------+
15 rows in set (0.001 sec)
```

**(IFNULL)**

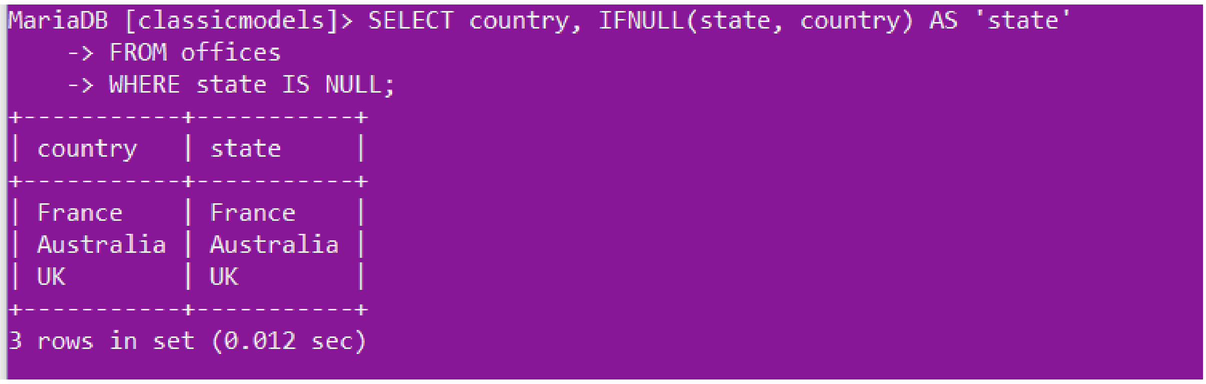
1. Tampilkan 20 data customer yang terdiri dari namalengkap(gabungan contactFirstname dan contactLastname), alamat (diambil dari addressline2, jika tidak ada baru addressline1). Urutkan berdasarkan nama lengkap

   NB:fungsi CONCAT



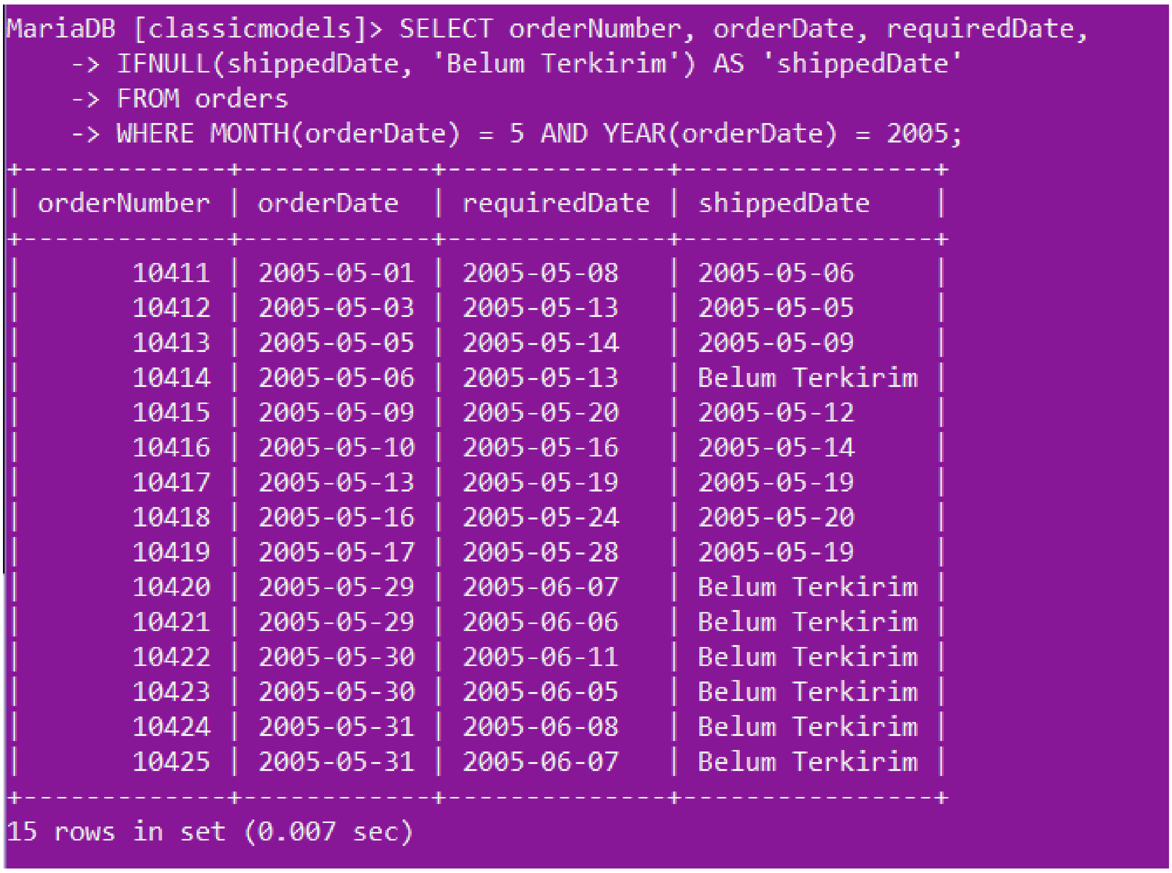
```
MariaDB [classicmodels]> SELECT CONCAT(contactFirstName,' ',contactLastName) AS 'Nama Lengkap',
    -> IFNULL(addressLine2, addressLine1) AS 'Alamat'
    -> FROM customers
    -> ORDER BY 'Nama Lengkap' LIMIT 20;
+--------------------------+------------------------------+
| Nama Lengkap             | Alamat                       |
+--------------------------+------------------------------+
| Carine  Schmitt          | 54, rue Royale               |
| Jean King                | 8489 Strong St.              |
| Peter Ferguson           | Level 3                      |
| Janine  Labrune          | 67, rue des Cinquante Otages |
| Jonas  Bergulfsen        | Erling Skakkes gate 78       |
| Susan Nelson             | 5677 Strong St.              |
| Zbyszek  Piestrzeniewicz | ul. Filtrowa 68              |
| Roland Keitel            | Lyonerstr. 34                |
| Julie Murphy             | 5557 North Pendale Street    |
| Kwai Lee                 | 897 Long Airport Avenue      |
| Diego  Freyre            | C/ Moralzarzal, 86           |
| Christina  Berglund      | Berguvsv├ñgen  8              |
| Jytte  Petersen          | Vinb├ªltet 34                 |
| Mary  Saveley            | 2, rue du Commerce           |
| Eric Natividad           | Bronz Apt. 3/6 Tesvikiye     |
| Jeff Young               | Suite 400                    |
| Kelvin Leong             | 7586 Pompton St.             |
| Juri Hashimoto           | 9408 Furth Circle            |
| Wendy Victorino          | 2nd Floor                    |
| Veysel Oeztan            | PR 334 Sentrum               |
+--------------------------+------------------------------+
20 rows in set (0.001 sec)
```

2. Tampilkan Country dan state pada tabel offices. untuk state yang memiliki nilai NULL, ganti dengan nilai country.tampilkan hanya state yang tidak memiliki data



```
MariaDB [classicmodels]> SELECT country, IFNULL(state, country) AS 'state'
    -> FROM offices
    -> WHERE state IS NULL;
+-----------+-----------+
| country   | state     |
+-----------+-----------+
| France    | France    |
| Australia | Australia |
| UK        | UK        |
+-----------+-----------+
3 rows in set (0.012 sec)
```

3. Tampilkan ordernumber, orderdate,requreddate, shippeddate dari tabel order. untuk shippeddate yang nilainya NULL ganti dengan 'belum terkirim'. tampilkan hanya untuk



```
MariaDB [classicmodels]> SELECT orderNumber, orderDate, requiredDate,
    -> IFNULL(shippedDate, 'Belum Terkirim') AS 'shippedDate'
    -> FROM orders
    -> WHERE MONTH(orderDate) = 5 AND YEAR(orderDate) = 2005;
+-------------+------------+--------------+----------------+
| orderNumber | orderDate  | requiredDate | shippedDate    |
+-------------+------------+--------------+----------------+
|       10411 | 2005-05-01 | 2005-05-08   | 2005-05-06     |
|       10412 | 2005-05-03 | 2005-05-13   | 2005-05-05     |
|       10413 | 2005-05-05 | 2005-05-14   | 2005-05-09     |
|       10414 | 2005-05-06 | 2005-05-13   | Belum Terkirim |
|       10415 | 2005-05-09 | 2005-05-20   | 2005-05-12     |
|       10416 | 2005-05-10 | 2005-05-16   | 2005-05-14     |
|       10417 | 2005-05-13 | 2005-05-19   | 2005-05-19     |
|       10418 | 2005-05-16 | 2005-05-24   | 2005-05-20     |
|       10419 | 2005-05-17 | 2005-05-28   | 2005-05-19     |
|       10420 | 2005-05-29 | 2005-06-07   | Belum Terkirim |
|       10421 | 2005-05-29 | 2005-06-06   | Belum Terkirim |
|       10422 | 2005-05-30 | 2005-06-11   | Belum Terkirim |
|       10423 | 2005-05-30 | 2005-06-05   | Belum Terkirim |
|       10424 | 2005-05-31 | 2005-06-08   | Belum Terkirim |
|       10425 | 2005-05-31 | 2005-06-07   | Belum Terkirim |
+-------------+------------+--------------+----------------+
15 rows in set (0.007 sec)
```

## E. REFERENSI

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