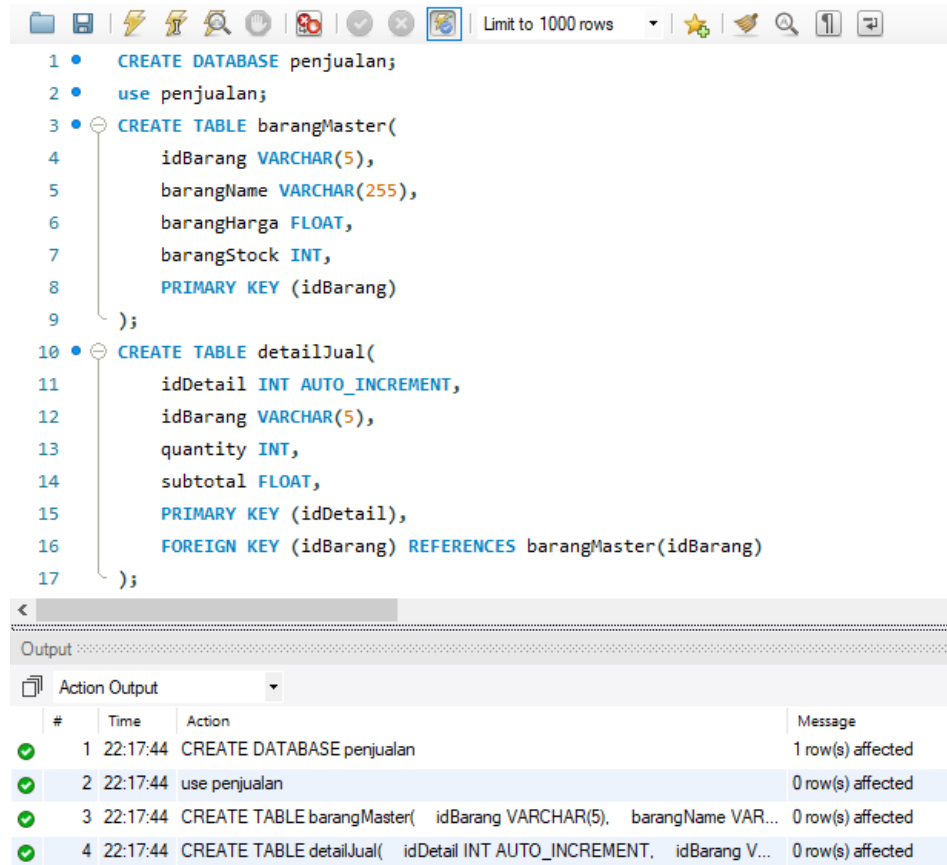


Nama : Ade Hikmat Pauji Ridwan

NPM : 22552011130

1. DDL

a. Create DB use DB and Create table



The screenshot displays a database management interface with a SQL editor and an output window. The SQL editor contains the following commands:

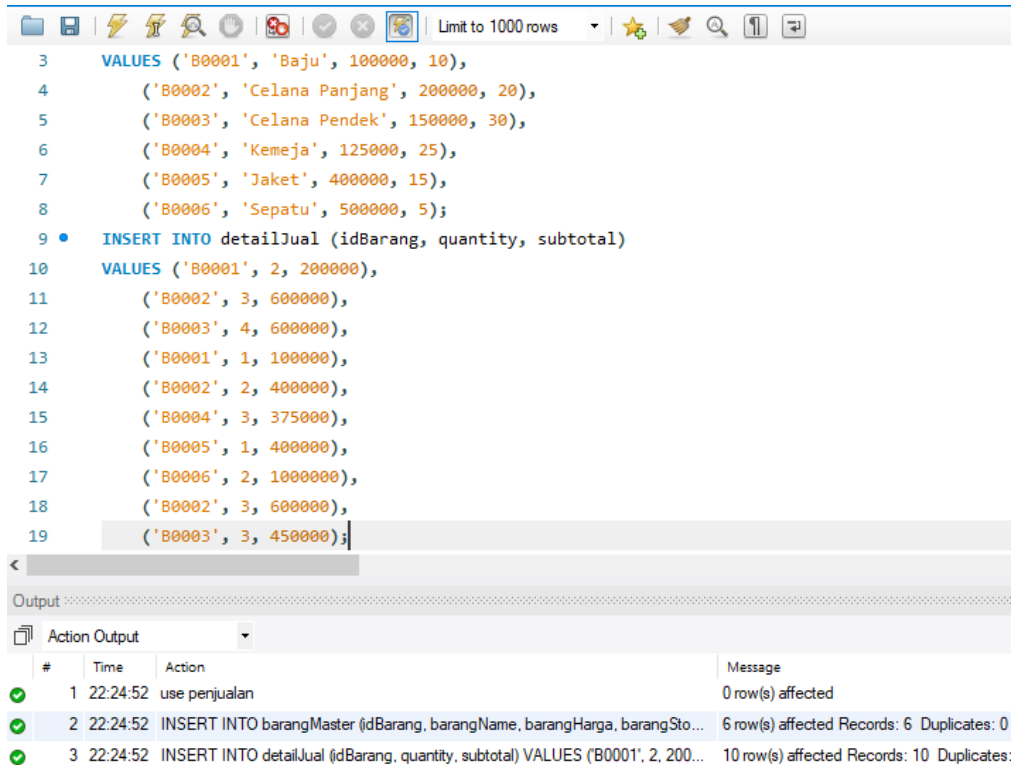
```
1 • CREATE DATABASE penjualan;
2 • use penjualan;
3 • CREATE TABLE barangMaster(
4     idBarang VARCHAR(5),
5     barangName VARCHAR(255),
6     barangHarga FLOAT,
7     barangStock INT,
8     PRIMARY KEY (idBarang)
9 );
10 • CREATE TABLE detailJual(
11     idDetail INT AUTO_INCREMENT,
12     idBarang VARCHAR(5),
13     quantity INT,
14     subtotal FLOAT,
15     PRIMARY KEY (idDetail),
16     FOREIGN KEY (idBarang) REFERENCES barangMaster(idBarang)
17 );
```

The output window, titled "Output", shows the execution results of these commands:

| # | Time | Action | Message |
|-----|----------|---|-------------------|
| ✓ 1 | 22:17:44 | CREATE DATABASE penjualan | 1 row(s) affected |
| ✓ 2 | 22:17:44 | use penjualan | 0 row(s) affected |
| ✓ 3 | 22:17:44 | CREATE TABLE barangMaster(idBarang VARCHAR(5), barangName VAR... | 0 row(s) affected |
| ✓ 4 | 22:17:44 | CREATE TABLE detailJual(idDetail INT AUTO_INCREMENT, idBarang V... | 0 row(s) affected |

2. DML

a. Insert Data



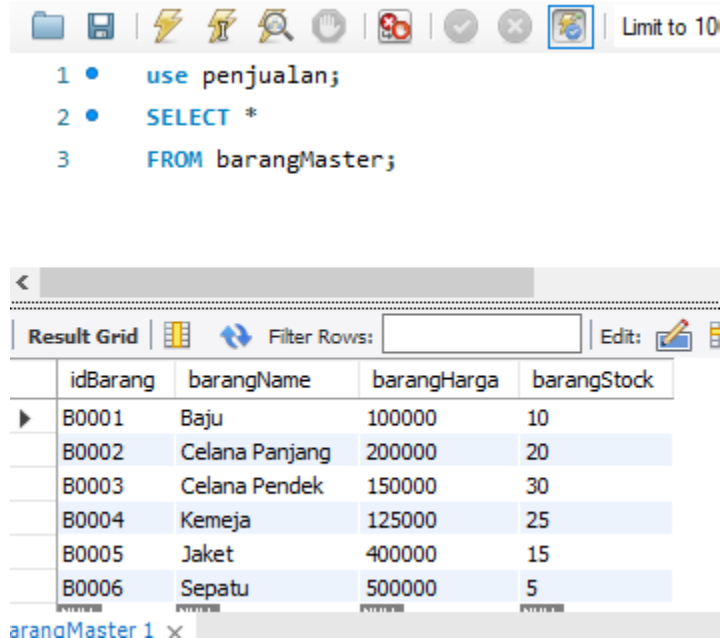
The screenshot shows the SQL Developer interface. The top toolbar includes icons for file operations, execution, and search. The SQL script is as follows:

```
3 VALUES ('B0001', 'Baju', 100000, 10),
4 ('B0002', 'Celana Panjang', 200000, 20),
5 ('B0003', 'Celana Pendek', 150000, 30),
6 ('B0004', 'Kemeja', 125000, 25),
7 ('B0005', 'Jaket', 400000, 15),
8 ('B0006', 'Sepatu', 500000, 5);
9 • INSERT INTO detailJual (idBarang, quantity, subtotal)
10 VALUES ('B0001', 2, 200000),
11 ('B0002', 3, 600000),
12 ('B0003', 4, 600000),
13 ('B0001', 1, 100000),
14 ('B0002', 2, 400000),
15 ('B0004', 3, 375000),
16 ('B0005', 1, 400000),
17 ('B0006', 2, 1000000),
18 ('B0002', 3, 600000),
19 ('B0003', 3, 450000);
```

The Output window shows the following messages:

| # | Time | Action | Message |
|---|----------|--|--|
| 1 | 22:24:52 | use penjualan | 0 row(s) affected |
| 2 | 22:24:52 | INSERT INTO barangMaster (idBarang, barangName, barangHarga, barangSto... | 6 row(s) affected Records: 6 Duplicates: 0 |
| 3 | 22:24:52 | INSERT INTO detailJual (idBarang, quantity, subtotal) VALUES ('B0001', 2, 200... | 10 row(s) affected Records: 10 Duplicates: |

1. Buat Query untuk menampilkan seluruh data master barang



The screenshot shows the SQL Developer interface. The top toolbar includes icons for file operations, execution, and search. The SQL query is as follows:

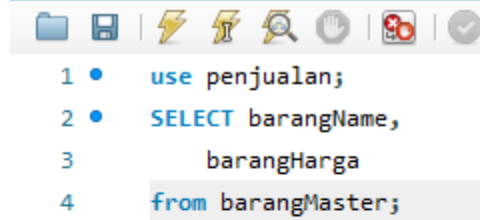
```
1 • use penjualan;
2 • SELECT *
3 FROM barangMaster;
```

The Result Grid shows the following data:

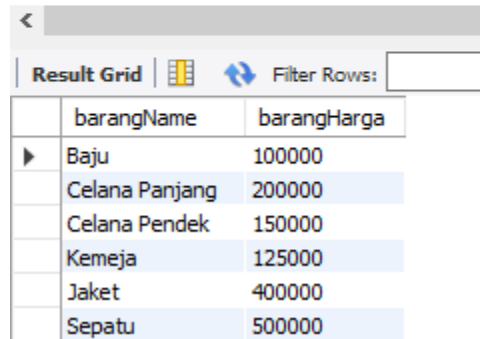
| | idBarang | barangName | barangHarga | barangStock |
|---|----------|----------------|-------------|-------------|
| ▶ | B0001 | Baju | 100000 | 10 |
| | B0002 | Celana Panjang | 200000 | 20 |
| | B0003 | Celana Pendek | 150000 | 30 |
| | B0004 | Kemeja | 125000 | 25 |
| | B0005 | Jaket | 400000 | 15 |
| | B0006 | Sepatu | 500000 | 5 |

The bottom of the window shows the title bar: aranoMaster 1 x

2. Buat Query untuk menampilkan kolom barangName dan barangHarga



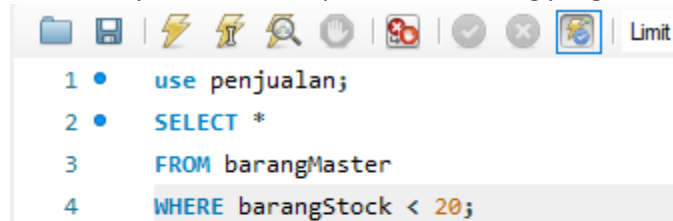
```
1 • use penjualan;  
2 • SELECT barangName,  
3     barangHarga  
4 • from barangMaster;
```



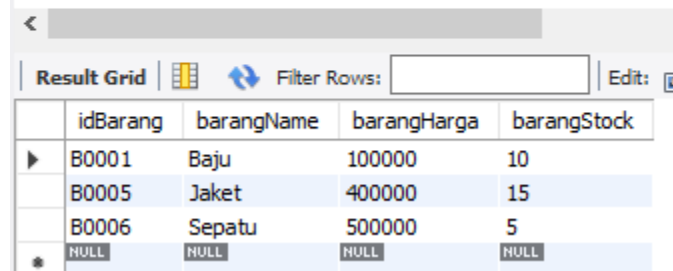
Result Grid | Filter Rows:

| | barangName | barangHarga |
|---|----------------|-------------|
| ▶ | Baju | 100000 |
| | Celana Panjang | 200000 |
| | Celana Pendek | 150000 |
| | Kemeja | 125000 |
| | Jaket | 400000 |
| | Sepatu | 500000 |

3. Buat Query untuk menampilkan data barang yang stocknya dibawah 20



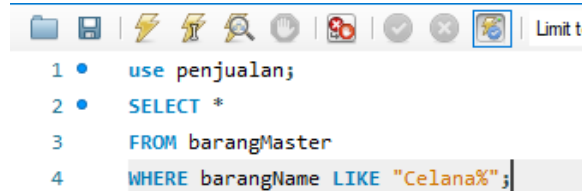
```
1 • use penjualan;  
2 • SELECT *  
3     FROM barangMaster  
4 • WHERE barangStock < 20;
```



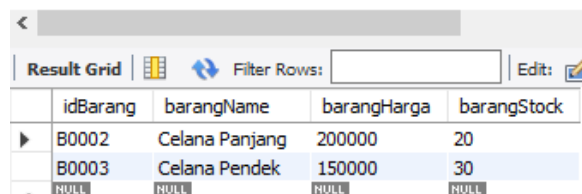
Result Grid | Filter Rows: | Edit:

| | idBarang | barangName | barangHarga | barangStock |
|---|----------|------------|-------------|-------------|
| ▶ | B0001 | Baju | 100000 | 10 |
| | B0005 | Jaket | 400000 | 15 |
| | B0006 | Sepatu | 500000 | 5 |
| * | NULL | NULL | NULL | NULL |

4. Buat Query untuk menampilkan semua jenis celana



```
1 • use penjualan;  
2 • SELECT *  
3     FROM barangMaster  
4 • WHERE barangName LIKE "Celana%";
```



Result Grid | Filter Rows: | Edit:

| | idBarang | barangName | barangHarga | barangStock |
|---|----------|----------------|-------------|-------------|
| ▶ | B0002 | Celana Panjang | 200000 | 20 |
| | B0003 | Celana Pendek | 150000 | 30 |
| ▲ | NULL | NULL | NULL | NULL |

5. Buat Query untuk menambahkan barang baru pada barangMaster

```
1 • use penjualan;  
2 • INSERT INTO barangMaster (idBarang, barangName, barangHarga, barangStock)  
3   VALUES ('B0007', 'Kaus Kaki', 30000, 10);  
4 • SELECT * FROM barangMaster WHERE idBarang = "B0007";
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Con

| | idBarang | barangName | barangHarga | barangStock |
|---|----------|------------|-------------|-------------|
| ▶ | B0007 | Kaus Kaki | 30000 | 10 |
| ✱ | NULL | NULL | NULL | NULL |

6. Buat Query untuk menampilkan barang yang stocknya antara 20 sampai 30

```
1 • use penjualan;  
2 • SELECT *  
3   FROM barangMaster  
4   WHERE barangStock BETWEEN 20 AND 30;
```

Result Grid | Filter Rows: | Edit:

| | idBarang | barangName | barangHarga | barangStock |
|---|----------|----------------|-------------|-------------|
| ▶ | B0002 | Celana Panjang | 200000 | 20 |
| | B0003 | Celana Pendek | 150000 | 30 |
| | B0004 | Kemeja | 125000 | 25 |

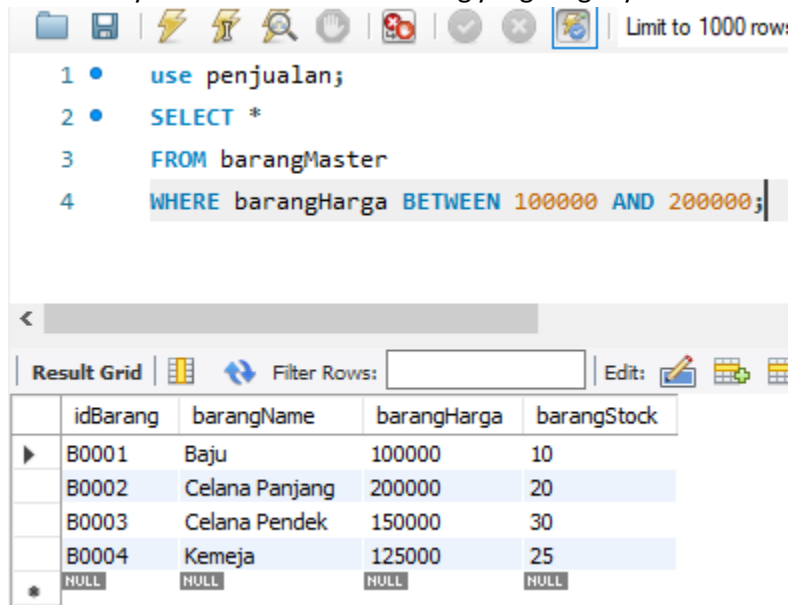
7. Buat Query untuk mengurutkan harga barang dari yang paling mahal sampai paling murah

```
1 • use penjualan;  
2 • SELECT *  
3   FROM barangMaster  
4   ORDER BY barangHarga DESC;
```

Result Grid | Filter Rows: | Edit:

| | idBarang | barangName | barangHarga | barangStock |
|---|----------|----------------|-------------|-------------|
| ▶ | B0006 | Sepatu | 500000 | 5 |
| | B0005 | Jaket | 400000 | 15 |
| | B0002 | Celana Panjang | 200000 | 20 |
| | B0003 | Celana Pendek | 150000 | 30 |
| | B0004 | Kemeja | 125000 | 25 |
| | B0001 | Baju | 100000 | 10 |
| | B0007 | Kaus Kaki | 30000 | 10 |

8. Buat Query untuk menentukan barang yang harganya antara 100000 sampai 200000



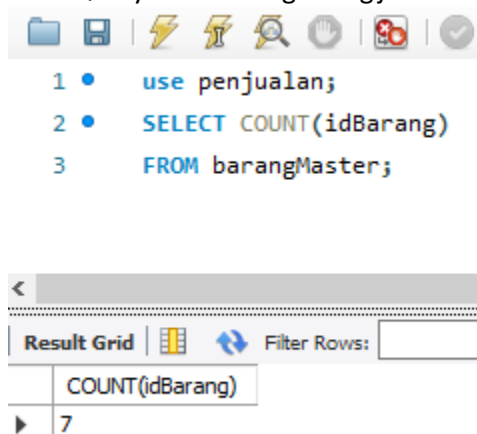
The screenshot shows a SQL query editor with the following code:

```
1 • use penjualan;  
2 • SELECT *  
3 FROM barangMaster  
4 WHERE barangHarga BETWEEN 100000 AND 200000;
```

Below the query editor is a result grid showing the following data:

| | idBarang | barangName | barangHarga | barangStock |
|---|----------|----------------|-------------|-------------|
| ▶ | B0001 | Baju | 100000 | 10 |
| | B0002 | Celana Panjang | 200000 | 20 |
| | B0003 | Celana Pendek | 150000 | 30 |
| | B0004 | Kemeja | 125000 | 25 |
| * | NULL | NULL | NULL | NULL |

9. Buat Query untuk menghitung jumlah data barang master



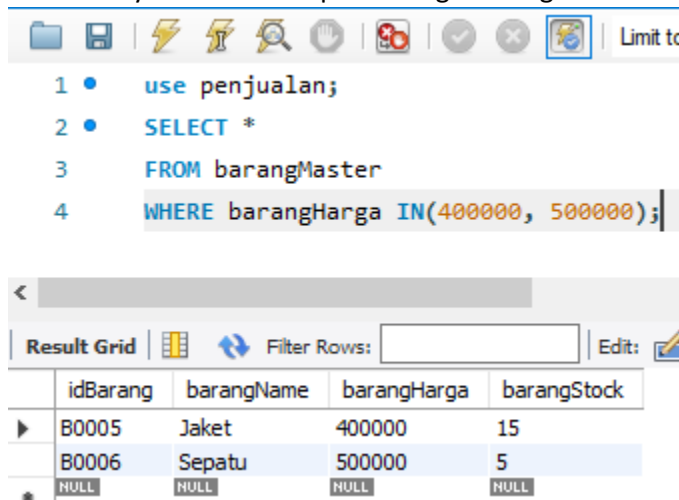
The screenshot shows a SQL query editor with the following code:

```
1 • use penjualan;  
2 • SELECT COUNT(idBarang)  
3 FROM barangMaster;
```

Below the query editor is a result grid showing the following data:

| | COUNT(idBarang) |
|---|-----------------|
| ▶ | 7 |

10. Buat Query untuk menampilkan harga barang 400000 dan 500000



The screenshot shows a SQL query editor with the following code:

```
1 • use penjualan;  
2 • SELECT *  
3 FROM barangMaster  
4 WHERE barangHarga IN(400000, 500000);
```

Below the query editor is a result grid showing the following data:

| | idBarang | barangName | barangHarga | barangStock |
|---|----------|------------|-------------|-------------|
| ▶ | B0005 | Jaket | 400000 | 15 |
| | B0006 | Sepatu | 500000 | 5 |
| * | NULL | NULL | NULL | NULL |

11. Buat Query untuk menentukan rata2 harga barang

```
1 • use penjualan;  
2 • SELECT AVG(barangHarga) as average  
3 • from barangMaster;
```

| | | |
|-------------|--------------|-----|
| Result Grid | Filter Rows: | Exp |
| average | | |
| 215000 | | |

12. Buat Query untuk menampilkan detiljual kolom idbarang dan subtotal

```
1 • use penjualan;  
2 • SELECT idBarang,  
3 • subtotal  
4 • from detailJual;
```

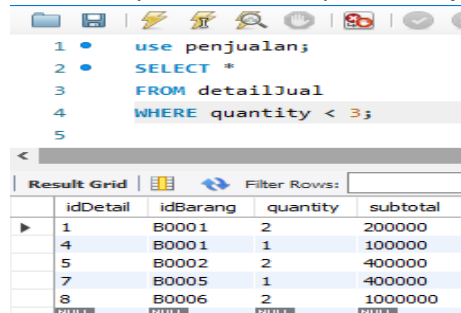
| | |
|-------------|--------------|
| Result Grid | Filter Rows: |
| idBarang | subtotal |
| B0001 | 200000 |
| B0002 | 600000 |
| B0003 | 600000 |

13. Buat Query untuk menambahkan detiljual yang baru

```
1 • use penjualan;  
2 • INSERT INTO detailJual (idBarang, quantity, subtotal)  
3 • VALUES ('B0001', 3, 300000);  
4 • select * from detailJual order by idDetail DESC limit 1;  
5
```

| | | | |
|-------------|--------------|----------|-------------|
| Result Grid | Filter Rows: | Edit: | Export/Impo |
| idDetail | idBarang | quantity | subtotal |
| 13 | B0001 | 3 | 300000 |

14. Buat Query untuk menampilkan detiljual dengan quantity dibawah 3

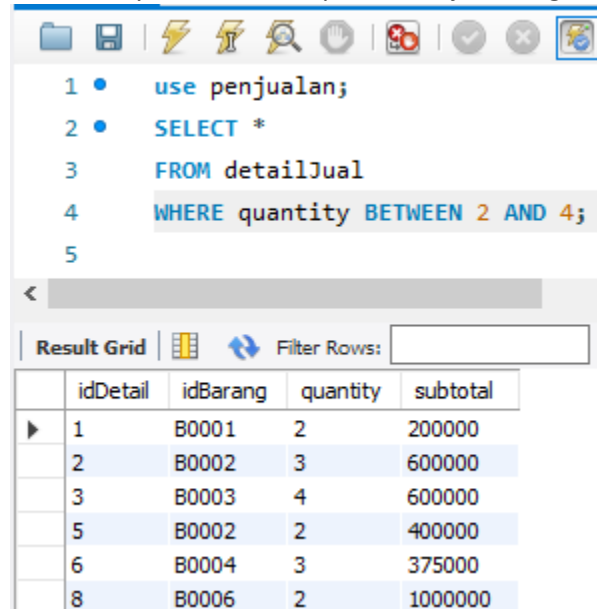


```
1 • use penjualan;  
2 • SELECT *  
3 FROM detailJual  
4 WHERE quantity < 3;  
5
```

Result Grid

| | idDetail | idBarang | quantity | subtotal |
|---|----------|----------|----------|----------|
| ▶ | 1 | B0001 | 2 | 200000 |
| | 4 | B0001 | 1 | 100000 |
| | 5 | B0002 | 2 | 400000 |
| | 7 | B0005 | 1 | 400000 |
| | 8 | B0006 | 2 | 1000000 |

15. Buat Query untuk menampilkan detiljual dengan quantity antara 2 dan 4

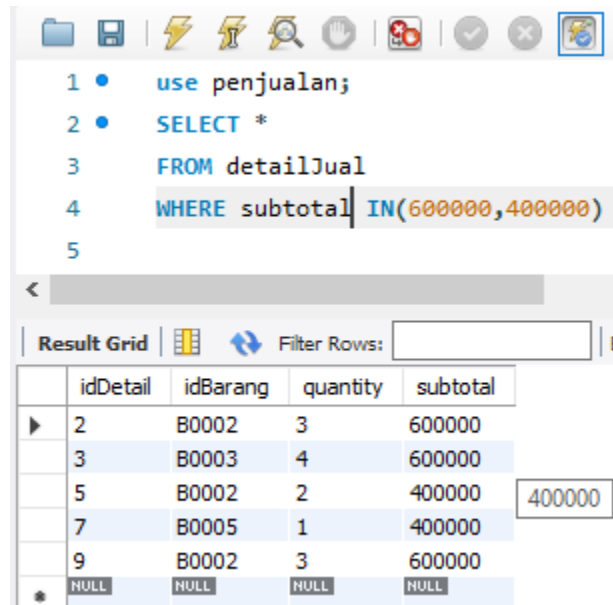


```
1 • use penjualan;  
2 • SELECT *  
3 FROM detailJual  
4 WHERE quantity BETWEEN 2 AND 4;  
5
```

Result Grid

| | idDetail | idBarang | quantity | subtotal |
|---|----------|----------|----------|----------|
| ▶ | 1 | B0001 | 2 | 200000 |
| | 2 | B0002 | 3 | 600000 |
| | 3 | B0003 | 4 | 600000 |
| | 5 | B0002 | 2 | 400000 |
| | 6 | B0004 | 3 | 375000 |
| | 8 | B0006 | 2 | 1000000 |

16. Buat Query untuk nemapilkan segala jenis subtotal dengan subtotal 600000 atau 400000

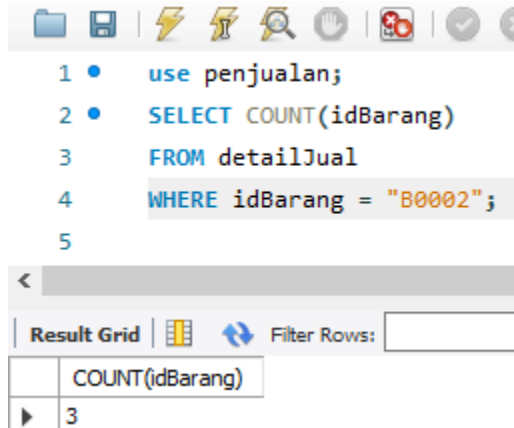


```
1 • use penjualan;  
2 • SELECT *  
3 FROM detailJual  
4 WHERE subtotal IN(600000,400000)  
5
```

Result Grid

| | idDetail | idBarang | quantity | subtotal |
|---|----------|----------|----------|----------|
| ▶ | 2 | B0002 | 3 | 600000 |
| | 3 | B0003 | 4 | 600000 |
| | 5 | B0002 | 2 | 400000 |
| | 7 | B0005 | 1 | 400000 |
| | 9 | B0002 | 3 | 600000 |
| * | NULL | NULL | NULL | NULL |

17. Buat Query untuk menghitung jumlah pembelian untuk jenis barang B0002



```

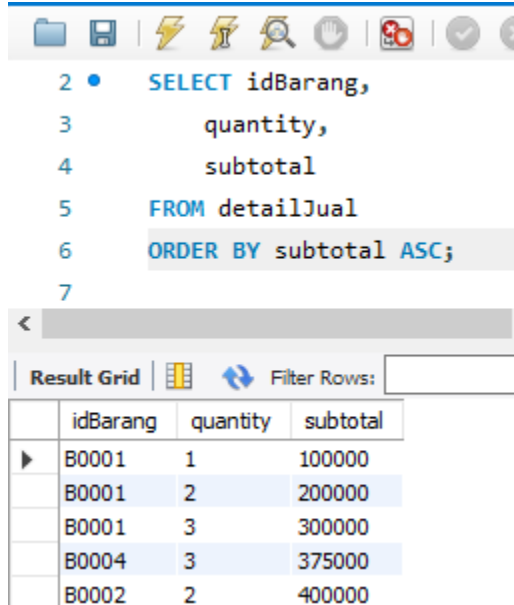
1 • use penjualan;
2 • SELECT COUNT(idBarang)
3   FROM detailJual
4  WHERE idBarang = "B0002";
5

```

Result Grid

| COUNT(idBarang) |
|-----------------|
| 3 |

18. Buat Query untuk menampilkan detiljual urutkan idbarang, quantity dan berikutnya subtotal dari yang paling kecil



```

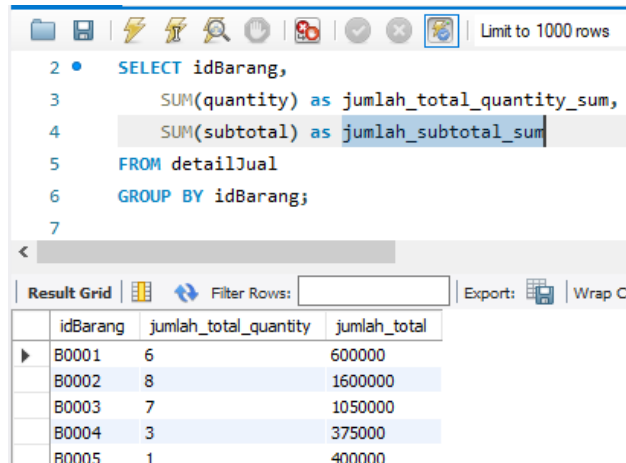
2 • SELECT idBarang,
3         quantity,
4         subtotal
5   FROM detailJual
6  ORDER BY subtotal ASC;
7

```

Result Grid

| idBarang | quantity | subtotal |
|----------|----------|----------|
| B0001 | 1 | 100000 |
| B0001 | 2 | 200000 |
| B0001 | 3 | 300000 |
| B0004 | 3 | 375000 |
| B0002 | 2 | 400000 |

19. Buat Query untuk menampilkan group by barangID , jumlah total quantity dan jumlah total sum



```

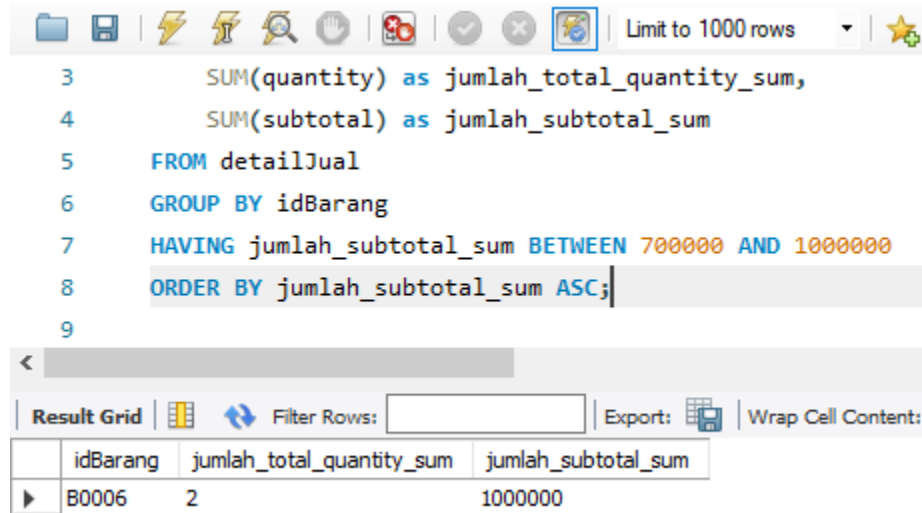
2 • SELECT idBarang,
3         SUM(quantity) as jumlah_total_quantity_sum,
4         SUM(subtotal) as jumlah_subtotal_sum
5   FROM detailJual
6  GROUP BY idBarang;
7

```

Result Grid

| idBarang | jumlah_total_quantity | jumlah_total |
|----------|-----------------------|--------------|
| B0001 | 6 | 600000 |
| B0002 | 8 | 1600000 |
| B0003 | 7 | 1050000 |
| B0004 | 3 | 375000 |
| B0005 | 1 | 400000 |

20. Buat Query Groupby dan Having menggunakan column detailjual dan jelaskan



```
3      SUM(quantity) as jumlah_total_quantity_sum,  
4      SUM(subtotal) as jumlah_subtotal_sum  
5  FROM detailJual  
6  GROUP BY idBarang  
7  HAVING jumlah_subtotal_sum BETWEEN 700000 AND 1000000  
8  ORDER BY jumlah_subtotal_sum ASC;  
9
```

Result Grid

| | idBarang | jumlah_total_quantity_sum | jumlah_subtotal_sum |
|---|----------|---------------------------|---------------------|
| ▶ | B0006 | 2 | 1000000 |

Query HAVING ini sifatnya sama seperti kondisi WHERE dan hanya bisa digunakan bersamaan dengan query GROUP BY.