

PERTEMUAN IV - Join

Untuk dapat mencapai kompetensi mata kuliah, mahasiswa harus mencapai kompetensi-kompetensi dasar sebagai berikut:

1. Mampu menguasai penggunaan perintah SQL *SELECT* dalam menampilkan data dari DBMS dan kemampuan yang dimiliki oleh perintah SQL *SELECT*.
2. Mampu menggunakan fungsi-fungsi Agregat dan operasi-operasi aritmatika dan logika di dalam perintah SQL *SELECT*.
3. Mampu menggunakan perintah *JOIN* untuk menggabungkan data dari beberapa tabel.

Kerjakan latihan berikut, dan tuliskan jawabannya ke depan:

1. Menampilkan informasi product dan category

	category	product	stok	selling_price
1	Fashions & Accessories	Snapback Hat NY	50	140000.00
2	Fashions & Accessories	Roberto Cavalli Sunglass	100	165000.00
3	Fashions & Accessories	Porsche Design Sunglass	25	275000.00
4	Fashions & Accessories	Giorgio Armani Wallet	50	150000.00
5	Fashions & Accessories	Levi's Design Wallet	50	175000.00

2. Menampilkan jumlah product untuk masing-masing category

	category	amount
1	Beauty	5
2	Clothes	10
3	Fashions & Accessories	10
4	Health	3
5	Household	6
6	Kitchen	5

3. Menampilkan jumlah product untuk masing-masing category yang jumlahnya barangnya > 5

	category	amount
1	Clothes	10
2	Fashions & Accessories	10
3	Household	6

4. Menampilkan data supplier dan total stok product yang dipasoknya

	supplier	phone	address	total_stok
1	Couple9	NULL	Jakarta	250
2	Essential Store	NULL	Jakarta	170
3	G&R Collection	NULL	Semarang	175
4	Homy Collections	NULL	Medan	105
5	Lennansa Beauty	NULL	Jakarta	30

5. Menampilkan data supplier dan total pembelian product yang harus dibayarkan kepada supplier

	supplier	phone	address	total_purchase
1	Couple9	NULL	Jakarta	26500000.00
2	Essential Store	NULL	Jakarta	55750000.00
3	G&R Collection	NULL	Semarang	29375000.00
4	Homy Collections	NULL	Medan	106050000.00
5	Lennansa Beauty	NULL	Jakarta	10650000.00

6. Menampilkan informasi customer berikut nota jualnya

	customer	order_id	date
1	Putri Kharisma	20160301-00001	2016-03-01 00:00:00.000
2	Nurafni Oktaviani	20160301-00002	2016-03-01 00:00:00.000
3	Bagus Nur Hakim	20160301-00003	2016-03-01 00:00:00.000
4	Yudha Adisaputra	20160302-00001	2016-03-02 00:00:00.000
5	Ervina Jayanti	20160302-00002	2016-03-02 00:00:00.000

7. Menampilkan informasi customer, nota, berikut item notanya

	customer	order_id	date	product_id	amount	selling_price	sub_total
1	Putri Kharisma	20160301-00001	2016-03-01 00:00:00.000	CG-001-IT000007	1	135000.00	135000.00
2	Putri Kharisma	20160301-00001	2016-03-01 00:00:00.000	CG-003-IT000023	1	199000.00	199000.00
3	Putri Kharisma	20160301-00001	2016-03-01 00:00:00.000	CG-003-IT000025	1	245000.00	245000.00
4	Nurafni Oktaviani	20160301-00002	2016-03-01 00:00:00.000	CG-005-IT000032	1	140000.00	140000.00
5	Bagus Nur Hakim	20160301-00003	2016-03-01 00:00:00.000	CG-001-IT000005	1	175000.00	175000.00

8. Menampilkan informasi customer, nota, berikut item notanya

	customer	order_id	date	product	amount	selling_price	sub_total
1	Putri Kharisma	20160301-00001	2016-03-01 00:00:00.000	Vintage Models NCK	1	135000.00	135000.00
2	Putri Kharisma	20160301-00001	2016-03-01 00:00:00.000	Manicure Set 777	1	199000.00	199000.00
3	Putri Kharisma	20160301-00001	2016-03-01 00:00:00.000	Naked 3 Palette	1	245000.00	245000.00
4	Nurafni Oktaviani	20160301-00002	2016-03-01 00:00:00.000	Shoes Hanging	1	140000.00	140000.00
5	Bagus Nur Hakim	20160301-00003	2016-03-01 00:00:00.000	Levi's Design Wallet	1	175000.00	175000.00

9. Menampilkan informasi customer, nota, berikut item notanya yang terjual antara tanggal 2 sd 5 maret 2016

	customer	order_id	date	category	product	amount	selling_price	sub_total
1	Yudha Adisaputra	20160302-00001	2016-03-02 00:00:00.000	Clothes	Pieter Sweater	1	140000.00	140000.00
2	Ervina Jayanti	20160302-00002	2016-03-02 00:00:00.000	Kitchen	Vicenza Dining Set	1	450000.00	450000.00
3	Aulia Luthfi Anna	20160303-00001	2016-03-03 00:00:00.000	Beauty	Babyliss Pro Curl	1	689000.00	689000.00
4	Aulia Luthfi Anna	20160303-00001	2016-03-03 00:00:00.000	Beauty	NXY Soft Matte Lip Cream	2	130000.00	260000.00
5	Aulia Luthfi Anna	20160303-00001	2016-03-03 00:00:00.000	Beauty	Rosemary Essential Oil	1	60000.00	60000.00
6	Aliany Milawaty	20160304-00001	2016-03-04 00:00:00.000	Clothes	Sweater Tribal Gazilo	1	105000.00	105000.00
7	Aliany Milawaty	20160304-00001	2016-03-04 00:00:00.000	Clothes	Jadore Blouse	1	159000.00	159000.00
8	Ichzam Rusmana	20160304-00002	2016-03-04 00:00:00.000	Fashions & Accessories	Roberto Cavalli Sunglass	1	165000.00	165000.00
9	Meilia	20160305-00001	2016-03-05 00:00:00.000	Fashions & Accessories	Rosy Net Silver NCK	1	150000.00	150000.00
10	Meilia	20160305-00001	2016-03-05 00:00:00.000	Fashions & Accessories	Lady Crystal NCK	1	170000.00	170000.00

10. Menampilkan total pembelian masing-masing customer

	customer	total
1	Abinaya Basupati	300000.00
2	Aliany Milawaty	264000.00
3	Aulia Luthfi Anna	2859000.00
4	Bagus Nur Hakim	855000.00
5	Ervina Jayanti	740000.00

11. Menampilkan total penjualan masing-masing customer yang total penjualannya di atas customer
Sukma Tri Setia

	customer	total
1	Aulia Luthfi Anna	2859000.00
2	Bagus Nur Hakim	855000.00
3	Ervina Jayanti	740000.00
4	Nurafni Oktaviani	403000.00
5	Putri Kharisma	579000.00

12. Jalankan 2 query di bawah ini dan jelaskan mengapa hasil outputnya berbeda.

Query 1:

```
SELECT Categories.description as category,  
Products.name as product, Products.purchasing_price, Products.selling_price  
FROM Products LEFT JOIN Categories  
ON Products.category_id = Categories.category_id  
ORDER BY Categories.description
```

Query 2:

```
SELECT Categories.description as category,  
Products.name as product, Products.purchasing_price, Products.selling_price  
FROM Products RIGHT JOIN Categories  
ON Products.category_id = Categories.category_id  
ORDER BY Categories.description
```

13. Jelaskan mengapa query di bawah ini terdapat kesalahan dan bagaimana cara menanggulangnya supaya tidak terjadi kesalahan

```
SELECT p.order_id, p.date, c.customer_id, c.name as customer,  
pi.product_id, i.name as product, pi.amount  
FROM Orders p JOIN Customers c JOIN OrderItems pi JOIN Products i  
ON p.customer_id = c.customer_id  
ON p.order_id = pi.order_id  
ON pi.product_id = i.product_id  
ORDER BY date DESC
```