Processing Multiple Tables

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Tipe-tipenya

```
Join -> Proses penggabungan data dari 2 buah tabel atau lebih. Tetapi akan melakukan
join apa adanya. Tidak melihat jumlah row disisi source ataupun destination.

Equal-Join -> Akan memastikan bahwa data yang akan ditampilkan sesuai dengan key
(penyamaan ID) pada tabel utama ataupun tabel kedua. PK dan FK.
```

1. Contoh Penggunaan *Join*

```
select c.customerid,customername,orderid from customer_t c join order_t;
```

```
mysql> select c.customerid,customername,orderid from customer_t c join order_t;
+------------+----------------------+---------+
| customerid | customername         | orderid |
+------------+----------------------+---------+
|          1 | Contemporary Casuals |    1001 |
|          2 | Value Furniture      |    1001 |
|          3 | Home Furnishings     |    1001 |
|          4 | Eastern Furniture    |    1001 |
|          5 | Impressions          |    1001 |
|          6 | Furniture Galery     |    1001 |
|          7 | Period Furniture     |    1001 |
|          8 | Calfornia Classics   |    1001 |
|          1 | Contemporary Casuals |    1006 |
|          2 | Value Furniture      |    1006 |
|          3 | Home Furnishings     |    1006 |
|          4 | Eastern Furniture    |    1006 |
|          5 | Impressions          |    1006 |
|          6 | Furniture Galery     |    1006 |
|          7 | Period Furniture     |    1006 |
|          8 | Calfornia Classics   |    1006 |
|          1 | Contemporary Casuals |    1007 |
|          2 | Value Furniture      |    1007 |
|          3 | Home Furnishings     |    1007 |
|          4 | Eastern Furniture    |    1007 |
|          5 | Impressions          |    1007 |
|          6 | Furniture Galery     |    1007 |
|          7 | Period Furniture     |    1007 |
|          8 | Calfornia Classics   |    1007 |
|          1 | Contemporary Casuals |    1002 |
|          2 | Value Furniture      |    1002 |
|          3 | Home Furnishings     |    1002 |
|          4 | Eastern Furniture    |    1002 |
|          5 | Impressions          |    1002 |
|          6 | Furniture Galery     |    1002 |
|          7 | Period Furniture     |    1002 |
```

```
|          8 | Calfornia Classics   |    1002 |
|          1 | Contemporary Casuals |    1008 |
|          2 | Value Furniture      |    1008 |
|          3 | Home Furnishings     |    1008 |
|          4 | Eastern Furniture    |    1008 |
|          5 | Impressions          |    1008 |
|          6 | Furniture Galery     |    1008 |
|          7 | Period Furniture     |    1008 |
|          8 | Calfornia Classics   |    1008 |
|          1 | Contemporary Casuals |    1010 |
|          2 | Value Furniture      |    1010 |
|          3 | Home Furnishings     |    1010 |
|          4 | Eastern Furniture    |    1010 |
|          5 | Impressions          |    1010 |
|          6 | Furniture Galery     |    1010 |
|          7 | Period Furniture     |    1010 |
|          8 | Calfornia Classics   |    1010 |
|          1 | Contemporary Casuals |    1003 |
|          2 | Value Furniture      |    1003 |
|          3 | Home Furnishings     |    1003 |
|          4 | Eastern Furniture    |    1003 |
|          5 | Impressions          |    1003 |
|          6 | Furniture Galery     |    1003 |
|          7 | Period Furniture     |    1003 |
|          8 | Calfornia Classics   |    1003 |
|          1 | Contemporary Casuals |    1009 |
|          2 | Value Furniture      |    1009 |
|          3 | Home Furnishings     |    1009 |
|          4 | Eastern Furniture    |    1009 |
|          5 | Impressions          |    1009 |
|          6 | Furniture Galery     |    1009 |
|          7 | Period Furniture     |    1009 |
|          8 | Calfornia Classics   |    1009 |
|          1 | Contemporary Casuals |    1004 |
|          2 | Value Furniture      |    1004 |
|          3 | Home Furnishings     |    1004 |
|          4 | Eastern Furniture    |    1004 |
|          5 | Impressions          |    1004 |
|          6 | Furniture Galery     |    1004 |
|          7 | Period Furniture     |    1004 |
|          8 | Calfornia Classics   |    1004 |
|          1 | Contemporary Casuals |    1005 |
|          2 | Value Furniture      |    1005 |
|          3 | Home Furnishings     |    1005 |
|          4 | Eastern Furniture    |    1005 |
|          5 | Impressions          |    1005 |
|          6 | Furniture Galery     |    1005 |
|          7 | Period Furniture     |    1005 |
|          8 | Calfornia Classics   |    1005 |
+------------+----------------------+---------+
80 rows in set (0.00 sec)
```

2. Contoh Penggunaan Equal-Join

2.1. Contoh menggunakan *inner join*

```
select c.customerid,customername,orderid from customer_t c inner join order_t o on
c.customerid=o.customerid;
```

```
mysql> select c.customerid,customername,orderid from customer_t c inner join order_t o
on c.customerid=o.customerid;
+------------+----------------------+---------+
| customerid | customername         | orderid |
+------------+----------------------+---------+
|          1 | Contemporary Casuals |    1001 |
|          1 | Contemporary Casuals |    1006 |
|          1 | Contemporary Casuals |    1007 |
|          2 | Value Furniture      |    1002 |
|          2 | Value Furniture      |    1008 |
|          2 | Value Furniture      |    1010 |
|          3 | Home Furnishings     |    1003 |
|          3 | Home Furnishings     |    1009 |
|          4 | Eastern Furniture    |    1004 |
|          5 | Impressions          |    1005 |
+------------+----------------------+---------+
10 rows in set (0.01 sec)
```

```
select c.customerid,customername,orderid from customer_t c inner join order_t o on
c.customerid=o.customerid where customername="Home Furnishings";
```

```
mysql> select c.customerid,customername,orderid from customer_t c inner join order_t o
on c.customerid=o.customerid where customername="Home Furnishings";
+------------+------------------+---------+
| customerid | customername     | orderid |
+------------+------------------+---------+
|          3 | Home Furnishings |    1003 |
|          3 | Home Furnishings |    1009 |
+------------+------------------+---------+
2 rows in set (0.00 sec)
```

```
select c.customerid,customername,orderid from customer_t c , order_t o where
c.customerid=o.customerid;
```

2.2. Contoh menggunakan *where*

```
mysql> select c.customerid,customername,orderid from customer_t c , order_t o where
c.customerid=o.customerid;
```

```
mysql> select c.customerid,customername,orderid from customer_t c , order_t o where
c.customerid=o.customerid;
+------------+----------------------+---------+
| customerid | customername         | orderid |
+------------+----------------------+---------+
|          1 | Contemporary Casuals |    1001 |
|          1 | Contemporary Casuals |    1006 |
|          1 | Contemporary Casuals |    1007 |
|          2 | Value Furniture      |    1002 |
|          2 | Value Furniture      |    1008 |
|          2 | Value Furniture      |    1010 |
|          3 | Home Furnishings     |    1003 |
|          3 | Home Furnishings     |    1009 |
|          4 | Eastern Furniture    |    1004 |
|          5 | Impressions          |    1005 |
+------------+----------------------+---------+
10 rows in set (0.00 sec)
```

Contoh jika dipersempit

```
mysql> select c.customerid,customername,orderid from customer_t c , order_t o where
c.customerid=o.customerid and customername="Home Furnishings";
+------------+------------------+---------+
| customerid | customername     | orderid |
+------------+------------------+---------+
|          3 | Home Furnishings |    1003 |
|          3 | Home Furnishings |    1009 |
+------------+------------------+---------+
2 rows in set (0.00 sec)
```

3. Latihan

- Coba tampilkan prod desc, prod finish, prod std price dan order quantity dari tabel product_t dan orderline

```
select ProductDescription,ProductFinish,ProductStandardPrice,OrderedQuantity from
product_t p inner join orderline_t o on p.ProductID=o.ProductID;
```

```
mysql> select ProductDescription,ProductFinish,ProductStandardPrice,OrderedQuantity
from product_t p inner join orderline_t o on p.ProductID=o.ProductID;
+----------------------+--------------+----------------------+-----------------+
| ProductDescription   | ProductFinish | ProductStandardPrice | OrderedQuantity |
+----------------------+--------------+----------------------+-----------------+
| End Table            | Cherry        |               175.00 |               2 |
| End Table            | Cherry        |               175.00 |               3 |
| Coffe Table          | Natural Ash   |               200.00 |               2 |
| Coffe Table          | Natural Ash   |               200.00 |               2 |
| Computer Desk        | Natural Ash   |               375.00 |               5 |
| Computer Desk        | Natural Ash   |               375.00 |               3 |
| Computer Desk        | Natural Ash   |               375.00 |               3 |
| Entertainment Center | Natural Maple |               650.00 |               1 |
| Entertainment Center | Natural Maple |               650.00 |               4 |
| Entertainment Center | Natural Maple |               650.00 |               1 |
| Entertainment Center | Natural Maple |               650.00 |               2 |
| Writters Desk        | Cherry        |               325.00 |               2 |
| 8-Drawer Desk        | White Ash     |               759.00 |               2 |
| Dinning Table        | Natural Ash   |               800.00 |               2 |
| Dinning Table        | Natural Ash   |               800.00 |               3 |
| Computer Desk        | Walnut        |               250.00 |               2 |
| Computer Desk        | Walnut        |               250.00 |               3 |
| Computer Desk        | Walnut        |               250.00 |              10 |
+----------------------+--------------+----------------------+-----------------+
18 rows in set (0.01 sec)
```

Contoh jika dipersempit

```
mysql> select ProductDescription,ProductFinish,ProductStandardPrice,OrderedQuantity
from product_t p inner join orderline_t o on p.ProductID=o.ProductID where
ProductStandardPrice > 300 and ProductStandardPrice < 700;
+----------------------+--------------+----------------------+-----------------+
| ProductDescription   | ProductFinish | ProductStandardPrice | OrderedQuantity |
+----------------------+--------------+----------------------+-----------------+
| Computer Desk        | Natural Ash   |               375.00 |               5 |
| Computer Desk        | Natural Ash   |               375.00 |               3 |
| Computer Desk        | Natural Ash   |               375.00 |               3 |
| Entertainment Center | Natural Maple |               650.00 |               1 |
| Entertainment Center | Natural Maple |               650.00 |               4 |
| Entertainment Center | Natural Maple |               650.00 |               1 |
| Entertainment Center | Natural Maple |               650.00 |               2 |
| Writters Desk        | Cherry        |               325.00 |               2 |
+----------------------+--------------+----------------------+-----------------+
8 rows in set (0.00 sec)
```

- Coba tampilkan prod desc, prod std price dari tabel product_t dan orderline dan digroupkan berdasarkan product description

```
mysql> select ProductDescription,sum(ProductStandardPrice) total from product_t p
inner join orderline_t o on p.Product               group by ProductDescription;
+----------------------+---------+
| ProductDescription   | total   |
+----------------------+---------+
| 8-Drawer Desk        |  759.00 |
| Coffe Table          |  400.00 |
| Computer Desk        | 1875.00 |
| Dinning Table        | 1600.00 |
| End Table            |  350.00 |
| Entertainment Center | 2600.00 |
| Writters Desk        |  325.00 |
+----------------------+---------+
7 rows in set (0.00 sec)
```

```
mysql> select ProductDescription,sum(ProductStandardPrice) total from product_t p
inner join orderline_t o on p.ProductID=o.ProductID group by ProductDescription having
sum(ProductStandardPrice)<900;
```

```
mysql> select ProductDescription,sum(ProductStandardPrice) total from product_t p
inner join orderline_t o on p.ProductID=o.ProductID group by ProductDescription having
sum(ProductStandardPrice)<900;
+--------------------+--------+
| ProductDescription | total  |
+--------------------+--------+
| 8-Drawer Desk      | 759.00 |
| Coffe Table        | 400.00 |
| End Table          | 350.00 |
| Writters Desk      | 325.00 |
+--------------------+--------+
4 rows in set (0.00 sec)
```

- Tampilkan data dari 3 tabel secara bebas. Yaitu Cust tabel, Order tabel dan Order Line tabel

```
mysql> select CustomerName,OrderDate,OrderedQuantity from customer_t c inner join
order_t o on c.CustomerID=o.CustomerID inner join orderline_t ol on
o.OrderID=ol.OrderID;
+----------------------+---------------------+-----------------+
| CustomerName         | OrderDate           | OrderedQuantity |
+----------------------+---------------------+-----------------+
| Contemporary Casuals | 2018-06-26 20:14:45 |               2 |
| Contemporary Casuals | 2018-06-26 20:14:45 |               2 |
| Contemporary Casuals | 2018-06-26 20:14:45 |               1 |
| Contemporary Casuals | 2018-06-26 20:14:45 |               1 |
| Contemporary Casuals | 2018-06-26 20:14:45 |               2 |
| Contemporary Casuals | 2018-06-26 20:14:45 |               2 |
| Contemporary Casuals | 2018-06-26 20:14:45 |               3 |
| Contemporary Casuals | 2018-06-26 20:14:45 |               2 |
| Value Furniture      | 2018-06-26 20:14:45 |               5 |
| Value Furniture      | 2018-06-26 20:14:45 |               3 |
| Value Furniture      | 2018-06-26 20:14:45 |               3 |
| Value Furniture      | 2018-06-26 20:14:45 |              10 |
| Home Furnishings     | 2018-06-26 20:14:45 |               3 |
| Home Furnishings     | 2018-06-26 20:14:45 |               2 |
| Home Furnishings     | 2018-06-26 20:14:45 |               3 |
| Eastern Furniture    | 2018-06-26 20:14:45 |               2 |
| Eastern Furniture    | 2018-06-26 20:14:45 |               2 |
| Impressions          | 2018-06-26 20:14:45 |               4 |
+----------------------+---------------------+-----------------+
18 rows in set (0.00 sec)
```

- Tampilkan nama customer, alamat cust, tanggal pesan, prod finish, prod std price. Batasi datanya yang order quantity lebih besar dari 5

```
mysql> select
CustomerName,CustomerAddress,OrderDate,ProductFinish,ProductStandardPrice,orderedquant
ity from Customer_T c inner join Order_T o on c.CustomerID=o.CustomerID
    -> inner join orderline_t ol on o.orderid=ol.orderid
    -> inner join product_t p on ol.productid=p.productid
    -> where orderedquantity > 5;
```

```
mysql> select
CustomerName,CustomerAddress,OrderDate,ProductFinish,ProductStandardPrice,orderedquant
ity from Customer_T c inner join Order_T o on c.CustomerID=o.CustomerID
    -> inner join orderline_t ol on o.orderid=ol.orderid
    -> inner join product_t p on ol.productid=p.productid
    -> where orderedquantity > 5;

+----------------+---------------------+---------------------+--------------
+----------------------+-----------------+
| CustomerName    | CustomerAddress      | OrderDate           | ProductFinish |
ProductStandardPrice | orderedquantity |
+----------------+---------------------+---------------------+--------------
+----------------------+-----------------+
| Value Furniture | 15145 S. W. 17th St. | 2018-06-26 20:14:45 | Walnut        |
250.00 |              10 |
+----------------+---------------------+---------------------+--------------
+----------------------+-----------------+
1 row in set (0.00 sec)
```