

SQL TEST

| transactions | | | | | |
|--------------|--------------------|-----------------|-------------------------|---------------|---------------|
| <i>Id</i> | <i>customer_id</i> | <i>order_id</i> | <i>transaction_date</i> | <i>status</i> | <i>vendor</i> |
| 1 | 422818 | TEST000001 | 2018-01-01 00:00:10 | SHIPPED | Vendor A |
| 2 | 181820 | TEST000002 | 2018-01-01 00:10:10 | SHIPPED | Vendor A |
| 3 | 999019 | TEST000003 | 2018-01-02 03:18:01 | CANCELLED | Vendor A |
| 4 | 1923192 | TEST000004 | 2018-02-04 05:00:00 | CANCELLED | Vendor C |
| 5 | 645532 | TEST000005 | 2018-02-10 16:00:10 | SHIPPED | Vendor C |
| 6 | 1101011 | TEST000006 | 2018-02-11 11:00:11 | SHIPPED | Vendor C |
| 7 | 1020000 | TEST000007 | 2018-02-10 00:00:00 | SHIPPED | Vendor D |
| 8 | 40111234 | TEST000008 | 2018-03-11 06:30:11 | SHIPPED | Vendor D |
| 9 | 1923192 | TEST000009 | 2018-03-12 10:00:11 | CANCELLED | Vendor B |
| 10 | 1101011 | TEST000010 | 2018-03-12 15:30:12 | SHIPPED | Vendor B |
| 11 | 999019 | TEST000011 | 2018-03-15 12:30:45 | CANCELLED | Vendor A |
| 12 | 645532 | TEST000012 | 2018-04-01 09:30:22 | SHIPPED | Vendor A |
| 13 | 650013 | TEST000013 | 2018-04-01 10:50:37 | SHIPPED | Vendor C |
| 14 | 777734 | TEST000014 | 2018-04-02 13:45:19 | SHIPPED | Vendor D |

PART 1

From the table above, write the SQL query to (using **MySQL** syntax):

1. Show list of transactions occurring in February 2018 with SHIPPED status.
2. Show list of transactions occurring from midnight to 9 AM
3. Show a list of only the last transactions from each vendor
4. Show a list of only the second last transactions from each vendor
5. Count the transactions from each vendor with the status CANCELLED per day
6. Show a list of customers who made more than 1 SHIPPED purchases
7. Show the total transactions (volume) and category of each vendors by following these criteria:
 - a. *Superb*: More than 2 SHIPPED and 0 CANCELLED transactions
 - b. *Good*: More than 2 SHIPPED and 1 or more CANCELLED transactions
 - c. *Normal*: other than Superb and Good criteria

Order the vendors by the best category (Superb, Good, Normal), then by the biggest transaction volume

| Vendor | Category | Total Transaction |
|----------|----------|-------------------|
| Vendor D | Superb | 3 |
| ... | ... | ... |

8. Group the transactions by hour of *transaction_date*

| Hour of the Day | Total Transaction |
|-----------------|-------------------|
| 00 | 3 |
| 03 | 1 |
| 05 | 1 |
| ... | ... |

9. Group the transactions by day and statuses as the example below

| Date | SHIPPED | CANCELLED | PROCESSING |
|------------|---------|-----------|------------|
| 2018-01-01 | 2 | 0 | 0 |
| 2018-01-02 | 0 | 1 | 0 |
| 2018-02-04 | 0 | 1 | 0 |
| ... | ... | | |

10. Calculate the average, minimum and maximum of days interval of each transaction (how many days from one transaction to the next)

| Average Interval | Minimum Interval | Maximum Interval |
|------------------|------------------|------------------|
| ... day(s) | ... day(s) | ... day(s) |

| transaction_details | | | | |
|---------------------|---------------|-------------------------------|-----------------|--------------|
| <i>Id</i> | <i>trx_id</i> | <i>product_name</i> | <i>quantity</i> | <i>price</i> |
| 1 | 1 | Beng beng | 100 | 6000 |
| 2 | 1 | Taro | 80 | 5500 |
| 3 | 2 | Beng Beng | 70 | 6000 |
| 4 | 2 | Taro | 41 | 5500 |
| 5 | 2 | Indomie Kari Ayam | 12 | 3000 |
| 6 | 2 | Indomie Ayam Bawang | 20 | 3100 |
| 7 | 3 | Indomie Ayam Bawang | 30 | 3200 |
| 8 | 3 | Indomie Kari Ayam | 90 | 3300 |
| 9 | 3 | Taro | 100 | 5500 |
| 10 | 4 | Beng Beng | 40 | 6000 |
| 11 | 5 | Teh Sariwangi Murni | 50 | 8000 |
| 12 | 6 | Indomie Kari Ayam | 10 | 3000 |
| 13 | 6 | Indomie Ayam Bawang | 8 | 3100 |
| 14 | 6 | Teh Sariwangi Murni | 80 | 8000 |
| 15 | 6 | Teh Hijau Cap Kepala Djenggot | 15 | 9500 |
| 16 | 7 | Coki-coki | 70 | 1000 |
| 17 | 8 | Bakmi Mewah | 1500 | 13000 |

The new table, “transaction_details” contains the details of purchased item of each transaction in “transactions” table.

PART 2

In reference to both tables, write an SQL query to:

1. Show the sum of the total value of the products shipped along with the Distributor Commissions (2% of the total product value if total quantity is 100 or less, 4% of the total product value if total quantity sold is more than 100)

| Product Name | Value (quantity x price) | Distributor Commission |
|--------------|--------------------------|------------------------|
| Taro | x.000.000 | x.000 |
| Beng Beng | x.000.000 | x.000 |
| ... | ... | ... |

2. Show total quantity of “Indomie (all variant)” shipped within February 2018

| |
|----------------|
| total_quantity |
| xxx |

3. For each product, show the ID of the last transaction which contained that particular product

| Product Name | Last Transaction ID |
|--------------|---------------------|
| Beng beng | 4 |
| Coki-Coki | 7 |
| ... | ... |