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MySQL Lab Delivery

1. Get the first 5 products of category "meat"sorted by description

```
mysql> select * from products
    -> where category = "meat"
    -> order by (description)
    -> limit 5;


+----+----------+--------------------+
| id | category | description        |
+----+----------+--------------------+
| 14 | meat     |  roast chicken     |
| 96 | meat     | Beef Flat Iron Steak |
| 97 | meat     | Chevere Logs       |
| 22 | meat     | Chicken - Breast   |
| 56 | meat     | Cornish Hen        |
+----+----------+--------------------+
```

2. Which products contain Beers?

```
mysql> select * from products
    -> where lower(description) like '%beer%';


+----+----------+------------------+
| id | category | description      |
+----+----------+------------------+
| 29 | spirits  | Beer - Moosehead |
| 33 | spirit   | Beer - Blue Light |
+----+----------+------------------+
```

3. Get all products details of all items in the catalog

```
mysql> select *
    -> from products
    -> natural join stock
    -> limit 5;


+----+----------+--------------+----------+
| id | category | description  | quantity |
```

```
+----+----------+--------------+----------+
|  1 | soda     | mountain dew |       50 |
|  2 | dairy    | skimmed milk |       87 |
|  3 | spirits  | rhein        |        2 |
|  4 | dairy    | milk         |       63 |
|  5 | Cleaning | soap-2       |       46 |
+----+----------+--------------+----------+
```

4. Get the 5 customers that have purchased more products in stock

```
mysql> select custId, sum(quant) as 'total'
    -> from orders
    -> group by (custId)
    -> order by (total) desc
    -> limit 5;


+--------+-------+
| custId | total |
+--------+-------+
|     12 |   498 |
|     72 |   407 |
|     67 |   390 |
|     68 |   379 |
|      5 |   357 |
+--------+-------+
```

5. Get the providers for the customers of the last query

```
mysql> select custId, sum(quant) as 'total', providers.name
    -> from orders
    -> join providers on (orders.custId = providers.id)
    -> group by custId
    -> order by total desc
    -> limit 5;


+--------+-------+-------------+
| custId | total | name        |
+--------+-------+-------------+
|     46 |   491 | Jabberbean  |
|     75 |   434 | Skimia      |
|     78 |   422 | Eazzy       |
|     52 |   393 | Twitterwire |
|      9 |   362 | Meezzy      |
+--------+-------+-------------+
```

6. How many providers have products in stock?

```
mysql> select count(distinct providers.name)
    -> from providers
    -> join orders on (orders.provId = providers.id)
    -> join products on (orders.prodId = products.id)
    -> join stock on (products.id = stock.id);


+-------------------------------+
| count(distinct providers.name) |
+-------------------------------+
|                            80 |
+-------------------------------+
```

7. Which is the average purchased quantity of products in stock?

We get different outputs if we query in MariaDB and in mysql. In MariaDB the results are sorted by prodId.

```
mysql> select prodId, avg(quant) as 'average'
    -> from orders
    -> group by (prodId)
    -> limit 5;


+--------+---------+
| prodId | average |
+--------+---------+
|     30 | 39.6667 |
|     61 | 43.5000 |
|     27 | 45.8333 |
|     97 | 35.0000 |
|      7 | 74.6667 |
+--------+---------+


MariaDB [orders]> select prodId, avg(quant) as 'average'
              -> from orders
              -> group by (prodId)
              -> limit 5;


+--------+---------+
| prodId | average |
+--------+---------+
|      1 | 27.4286 |
|      2 | 50.0000 |
```

```
|        3 | 85.5000 |
|        4 | 34.0000 |
|        5 | 25.6667 |
+--------+---------+
```

8. Is there any city in common between providers and customers?

```
mysql> select distinct customers.city
    -> from customers
    -> join providers on (customers.city = providers.city);


+--------+
| city   |
+--------+
| Krakow |
+--------+
```

9. Is there any product with the double of quantity in different orders?

```
mysql> select orders.id, orders.quant, orders2.id, orders2.quant
    -> from orders join orders as orders2
    -> on (orders.quant = 2*orders2.quant and orders.prodId = orders2.prodId);


+-----+-------+-----+-------+
| id  | quant | id  | quant |
+-----+-------+-----+-------+
| 165 |    64 |  32 |    32 |
| 266 |    14 |  56 |     7 |
|  59 |    40 |  96 |    20 |
| 292 |    54 | 103 |    27 |
| 161 |     0 | 161 |     0 |
| 181 |    66 | 168 |    33 |
| 226 |    86 | 199 |    43 |
|  92 |    22 | 207 |    11 |
| 257 |    56 | 237 |    28 |
| 269 |    44 | 245 |    22 |
|  21 |    16 | 253 |     8 |
|  24 |    16 | 253 |     8 |
| 258 |     0 | 258 |     0 |
| 297 |    34 | 262 |    17 |
| 283 |     0 | 283 |     0 |
+-----+-------+-----+-------+
```

10. Can you find the total number of customers for each city?

```
mysql> select city, count(city)
    -> from orders
    -> join customers on (orders.custId = customers.id)
    -> group by city limit 5;

+---------------+-------------+
| city          | count(city) |
+---------------+-------------+
| Huazhai       |           6 |
| Peabiru       |          11 |
| Moulay Yacoub |           1 |
| Decatur       |           4 |
| Darnah        |           2 |
+---------------+-------------+
```