

# **PARALLEL AND DISTRIBUTED SYSTEMS**

## **DELIVERY 2 – MYSQL LAB EXERCISE**

**AUTHORS:** ARTEM RESHETNIKOV & LAWRENCE ASAMOAH ADU-  
GYAMFI

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

Answer:

```
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 |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

2. Which products contain Beers?

Answer:

```
select * from products where description like "%beer%";
```

```
+-----+-----+-----+
| id | category | description |
+-----+-----+-----+
| 29 | spirits  | Beer - Moosehead |
| 33 | spirit    | Beer - Blue Light |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

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

Answer:

```
select * from products limit 5;
```

```
+-----+-----+-----+
| id | category | description |
+-----+-----+-----+
| 24 | Bread     | Bagel - Ched Chs Presliced |
| 34 | bread     | Bread Base - Gold Formel |
| 46 | bread     | Bread - Raisin Walnut Oval |
| 47 | bread     | Bag - Bread |
| 69 | bread     | Plaintain |
+-----+-----+-----+
5 rows in set (0.00 sec)
```

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

**Answer:**

select customers.id, orders.quant from customers, orders, products, stock where stock.id=products.id and products.id=orders.prodId and customers.id=orders.custId order by orders.quant desc limit 5;

id	quant
13	99
78	99
77	99
4	98
77	98

5 rows in set (0.00 sec)

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

**Answer:**

select customers.id as CUSTOMER\_ID, orders.quant, orders.provId as PROVIDER\_ID from customers,orders,products,stock,providers where orders.prodId=products.id and products.id=stock.id and customers.id=orders.custId and orders.provId=providers.id order by quant desc limit 5;

CUSTOMER_ID	quant	PROVIDER_ID
13	99	89
78	99	1
77	99	60
4	98	35
77	98	91

5 rows in set (0.01 sec)

## 6. How many providers have products in stock?

**Answer:**

select count(distinct providers.id) from orders,providers,products,stock where providers.id=orders.prodId and orders.prodId=products.id and products.id=stock.id;

```
+-----+
| count(distinct providers.id) |
+-----+
|                               89 |
+-----+
1 row in set (0.01 sec)
```

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

**Answer:**

select avg(stock.quantity) from stock, orders where stock.id=orders.prodId;

```
+-----+
| avg(stock.quantity) |
+-----+
|                    51.4781 |
+-----+
1 row in set (0.00 sec)
```

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

**Answer:**

select providers.id, providers.city, customers.id, customers.city from customers, providers where customers.city=providers.city ;

```
+-----+-----+-----+-----+
| id | city | id | city |
+-----+-----+-----+-----+
| 28 | Krakow | 5 | Krakow |
| 36 | Krakow | 5 | Krakow |
| 46 | Krakow | 5 | Krakow |
| 78 | Krakow | 5 | Krakow |
| 82 | Krakow | 5 | Krakow |
+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

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

Answer:

select o1.id as o1\_id, o1.prodId, o1.quant as o1\_quant, o2.id as o2\_id, o2.quant as o2\_quant from  
orders o1, orders o2 where o1.quant = 2\*o2.quant and o1.prodId=o2.prodId;

o1_id	prodId	o1_quant	o2_id	o2_quant
123	47	16	57	8
247	28	16	105	8
6	65	12	174	6
263	27	34	245	17

4 rows in set (0.01 sec)

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

Answer:

select count(id), city from customers group by(city);

count(id)	city
1	?abbar
1	A? ?urrah
1	Akim Swedru
1	Atsipópoulon
1	Avaré
1	Avignon
1	Banjar Penyalin
1	Banjaranyar
1	Barrio San Luis
1	Beixin
1	Bellavista
1	Benevides
1	Boluo
1	Butiá
1	Charleston