QUESTION: 01

```sql
1    -- 1) Which product has the highest price? Only return a single row.
2  • select product_name from products
3    where price=(select max(price) from products);
4    -- OR
5  • select product_name,price from products
6    order by price desc
7    limit 1;
8
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

product_name	price
Choclate Cake	70

QUESTION: 02

```sql
9     -- 2)  Which customer has made the most orders?
10  • select * from order_items;
11  • select concat(first_name," ",last_name) As Customer_name,count(o.order_id) As total_order
12    from customers c
13    join orders o on o.customer_id=c.customer_id
14    group by Customer_name,c.customer_id
15    order by total_order desc
16    limit 3;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Customer_name	total_order
John Doe	2
Jane Smith	2
Bob Johnson	2

QUESTION: 03

```
18      -- 3) What's the total revenue per product?
19 ●    select * from products;
20 ●    select product_name,sum(price*quantity) As revenue
21      from products p
22      join order_items ot on ot.product_id=p.product_id
23      group by product_name
24      order by revenue desc;
25
```

esult Grid | ⊞ | ↻ Filter Rows: [   ] | Export: 🖫 | Wrap Cell Content

product_name	revenue
Choclate Cake	420
Hot dog	330
Roast Chicken	210
Coke	195
Sausage	180
Chicken Wing	160
French Fries	150

QUESTION: 04

```
26      -- 4) Find the orders and revenue trend
27
28 ●    select order_date,count(o.order_id)As orders,sum(price*quantity) As revenue
29      from orders o
30      join order_items otm on otm.order_id=o.order_id
31      join products p on otm.product_id=p.product_id
32      group by order_date
33      order by order_date desc;
34
```

Result Grid | ⊞ | ↻ Filter Rows: [   ] | Export: 🖫 | Wrap Cell Content: 𝚤A

order_date	orders	revenue
2023-05-16	2	340
2023-05-15	2	225
2023-05-14	2	145
2023-05-13	2	185
2023-05-12	2	80
2023-05-11	2	275
2023-05-10	2	285

QUESTION: 05

```sql
35      -- 5) Find the first order (by date) for each customer.
36  • ⊖ WITH first_orders AS (
37      SELECT CONCAT(first_name,' ',last_name) AS customer_name,product_name,
38      DENSE_RANK() OVER(PARTITION BY first_name,last_name ORDER BY order_date) AS rnk
39      FROM customers c
40      JOIN orders o
41      ON c.customer_id=o.customer_id
42      JOIN order_items oi
43      ON o.order_id=oi.order_id
44      JOIN products p
45      ON p.product_id=oi.product_id)
46      SELECT customer_name,GROUP_CONCAT(product_name) AS first_order_product
47      FROM first_orders
48      WHERE rnk=1
49      GROUP BY customer_name;
50
```

Result Grid | ▦ Filter Rows: [   ] | Export: ▤ | Wrap Cell Content: ‡A

customer_name	first_order_product
Alice Brown	Donut,SandWich
Bob Johnson	Pizza,Chicken Wing
Charlie Davis	Roast Chicken,Chines Rice
Eva Fisher	Noodles,French Fries
George Harris	Hot dog,Sausage

QUESTION: 06

```sql
50
51     -- 6) Find the top 3 customers who have ordered the most distinct products
52  ●⊖ with customer As (
53     select concat(first_name,"",last_name) as customerName,count(distinct(product_id)) as unique_product
54     from customers c
55     join orders o on o.customer_id=c.customer_id
56     join order_items oi on oi.order_id=o.order_id
57     group by customerName)
58     select customerName,unique_product,DENSE_RANK() OVER(ORDER BY unique_product DESC) AS rnk
59     FROM customer;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ΞA

customerName	unique_product	rnk
BobJohnson	3	1
JaneSmith	3	1
JohnDoe	3	1
AliceBrown	2	2
CharlieDavis	2	2
EvaFisher	2	2
GeorgeHarris	2	2
IvyJones	2	2
KevinMiller	2	2
LilyNelson	2	2
OliverPatterson	2	2
QuinnRoberts	2	2
SophiaThomas	2	2

QUESTION: 07

```sql
60
61     -- 7) Which product has been bought the highest & least in terms of quantity?
62  ●⊖ with product_totals as (
63     select product_name,sum(quantity) as total_qty
64     from products p
65     join order_items oi on oi.product_id=p.product_id
66     group by product_name
67     )
68     select
69        (select product_name from product_totals order by total_qty desc limit 1) as Most_order_product,
70        (SELECT product_name FROM product_totals ORDER BY total_qty ASC LIMIT 1) AS least_ordered_product;
71
72
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: ΞA

Most_order_product	least_ordered_product
Burger	Donut