

Table 1: Products

| product_id | product_name | price | category_id |
|------------|--------------|-------|-------------|
| 1 | iPhone | 999 | 1 |
| 2 | Samsung | 899 | 1 |
| 3 | LG | 699 | 1 |
| 4 | Dell | 799 | 2 |
| 5 | HP | 599 | 2 |
| 6 | Lenovo | 699 | 2 |
| 7 | Nike | 149 | 3 |
| 8 | Adidas | 129 | 3 |
| 9 | Puma | 109 | 3 |

Table 2: Categories

| category_id | category_name |
|-------------|---------------|
| 1 | Mobile |
| 2 | Laptop |
| 3 | Shoes |

Table 3: Orders

| order_id | customer_name | product_id | quantity | order_date |
|----------|---------------|------------|----------|--------------|
| 1 | John Smith | 1 | 2 | '2022-01-01' |
| 2 | Lisa Jones | 4 | 1 | '2022-01-02' |
| 3 | Mike Brown | 7 | 3 | '2022-01-03' |
| 4 | Sarah Lee | 2 | 1 | '2022-01-04' |
| 5 | Tom Davis | 3 | 4 | '2022-01-05' |

```
CREATE TABLE Employees ( emp_id INT PRIMARY KEY, first_name VARCHAR(50) NOT
NULL, last_name VARCHAR(50) NOT NULL, department_id INT NOT NULL, hire_date DATE
NOT NULL, salary DECIMAL(10, 2) NOT NULL, CONSTRAINT fk_department FOREIGN
KEY (department_id) REFERENCES Departments(dept_id) );
```

```
CREATE TABLE Departments ( dept_id INT PRIMARY KEY, dept_name VARCHAR(50) NOT
NULL );
```

```
CREATE TABLE Orders ( order_id INT PRIMARY KEY, emp_id INT NOT NULL, order_date
DATE NOT NULL, total_amount DECIMAL(10, 2) NOT NULL, CONSTRAINT fk_employee
FOREIGN KEY (emp_id) REFERENCES Employees(emp_id) );
```

The Employees table has a foreign key constraint on the department_id column, referencing the Departments table's primary key. The Orders table has a foreign key constraint on the emp_id column, referencing the Employees table's primary key.

1. How many products do we have in the mobile category?
2. What is the name of the most expensive product?
3. What is the name of the cheapest product?
4. What is the average price of products in the laptop category?
5. What is the total quantity of all orders?
6. What is the total amount of all orders?
7. What is the name of the customer who made the largest order?
8. What is the name of the customer who made the smallest order?
9. What is the total quantity of each product sold?
10. What is the total amount of revenue generated by each product?
11. What is the name of the customer who bought the most quantity of products?
12. What is the name of the customer who bought the least quantity of products?
13. What is the total quantity of products sold in the mobile category?
14. What is the total quantity of products sold in the laptop category?
15. What is the total quantity of products sold in the shoes category?
16. What is the total revenue generated by products sold in the mobile category?
17. What is the total revenue generated by products sold in the laptop category?
18. What is the total revenue generated by products sold in the shoes category?
19. What is the name of the customer who bought the most expensive product?
20. What is the name of the customer who bought the cheapest product?
21. What is the name of the customer who made the first order?
22. What is the name of the customer who made the last order?
23. What is the name of the customer who made the order on '2022-01-03'?
24. What is the name of the customer who ordered the product with ID 3?
25. What is the average quantity of products sold per order?