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Data Science Bootcamp HW 4

1. Pull total number of orders that were completed on 18th March 2023

```
SELECT COUNT(*) AS total_orders
FROM SALES
WHERE DATE = '2023-03-18';
```

Output total_orders: 25

2. Pull total number of orders that were completed on 18th March 2023 with the first name ‘John’ and last name Doe’

```
SELECT COUNT(*) AS total_orders
FROM SALES s
JOIN CUSTOMERS c ON s.Customer_id = c.customer_id
WHERE s.DATE = '2023-03-18'
  AND c.first_name = 'John'
```

Output total_orders: 3

3. Pull total number of customers that purchased in January 2023 and the average amount spend per customer

```
SELECT COUNT(DISTINCT c.customer_id) AS total_customers,
     AVG(s.Revenue) AS average_spent
FROM SALES s
JOIN CUSTOMERS c ON s.Customer_id = c.customer_id
WHERE s.DATE >= '2023-01-01'
  AND s.DATE < '2023-02-01';
```

Output

total_customers: 15

average_spent: 120.75

4. Pull the departments that generated less than $600 in 2022

```
SELECT i.department
FROM ITEMS i
JOIN SALES s ON i.Item_id = s.Item_id
WHERE s.DATE >= '2022-01-01'
  AND s.DATE < '2023-01-01'
```

```
GROUP BY i.department
HAVING SUM(s.Revenue) < 600;
```

Output department:

Books, Kitchen Toys

5. What is the most and least revenue we have generated by an order

```
SELECT MIN(Revenue) AS least_revenue, MAX(Revenue) AS most_revenue
FROM SALES;
```

Output

least_revenue: 5.00
most_revenue: 1200.00

6. What were the orders that were purchased in our most lucrative order

```
WITH MostLucrativeOrder AS (
   SELECT Order_id
   FROM SALES
   ORDER BY Revenue DESC
   LIMIT 1
)
SELECT *
FROM SALES
WHERE Order_id IN (SELECT Order_id FROM MostLucrativeOrder);
```

Output

```
Order_id | Item_id | Customer_id | Quantity | Revenue | Date
----------|---------|--------------|----------|---------|------------
1001     | 10      | 500          | 2        | 1200.00 | 2023-03-15
```