PROJECT: ANALYZING MOTORCYCLE PART SALES

You're working for a company that sells motorcycle parts, and they've asked for some help in analyzing their sales data!

They operate three warehouses in the area, selling both retail and wholesale. They offer a variety of parts and accept credit cards, cash, and bank transfer as payment methods. However, each payment type incurs a different fee.

The board of directors wants to gain a better understanding of wholesale revenue by product line, and how this varies month-to-month and across warehouses. You have been tasked with calculating net revenue for each product line and grouping results by month and warehouse. The results should be filtered so that only `"Wholesale"` orders are included.

They have provided you with access to their database, which contains the following table called `sales`:

Sales

Column	Data type	Description
`order_number`	`VARCHAR`	Unique order number.

Column	Data type	Description
`date`	`DATE`	Date of the order, from June to August 2021.
`warehouse`	`VARCHAR`	The warehouse that the order was made from— `North`, `Central`, or `West`.
`client_type`	`VARCHAR`	Whether the order was `Retail` or `Wholesale`.
`product_line`	`VARCHAR`	Type of product ordered.
`quantity`	`INT`	Number of products ordered.
`unit_price`	`FLOAT`	Price per product (dollars).
`total`	`FLOAT`	Total price of the order (dollars).
`payment`	`VARCHAR`	Payment method— `Credit card`, `Transfer`, or `Cash`.
`payment_fee`	`FLOAT`	Percentage of `total` charged as a result of the `payment` method.

Your query output should be presented in the following format:

`product_line`	`month`	`warehouse`	`net_revenue`
product_one	---	---	---
product_one	---	---	---
product_one	---	---	---
product_one	---	---	---
product_one	---	---	---
product_one	---	---	---
product_two	---	---	---
...	...	...	...

Projects Data DataFrame as `revenue_by_produ`

```
SELECT
    product_line,
    CASE WHEN EXTRACT(month FROM date) = 6 THEN 'June'
        WHEN EXTRACT(month FROM date) = 7 THEN 'July'
        WHEN EXTRACT(month FROM date) = 8 THEN 'August'
    END AS month,
    warehouse,
    SUM(total) - SUM(payment_fee) AS net_revenue

FROM sales

WHERE client_type = 'Wholesale'

GROUP BY
    product_line,
    warehouse,
    client_type = 'Wholesale',
    EXTRACT(month FROM date)

ORDER BY
    product_line,
    EXTRACT(month FROM date),
    net_revenue DESC;
```

	product_line		w	net...
0	Braking system	June	Central	3684.89
1	Braking system	June	North	1487.77
2	Braking system	June	West	1212.75
3	Braking system	July	Central	3778.65
4	Braking system	July	West	3060.93
5	Braking system	July	North	2594.44
6	Braking system	August	Central	3039.41
7	Braking system	August	West	2500.67
8	Braking system	August	North	1770.84
9	Electrical system	June	Central	2904.93
10	Electrical system	June	North	2022.5
11	Electrical system	July	Central	5577.62
12	Electrical system	July	North	1710.13
13	Electrical system	July	West	449.46
14	Electrical system	August	North	4721.12
15	Electrical system	August	Central	3126.43

16	Electrical system	August	West	1241.84

Rows: 48