Use JOINs and UNIONs to answer the following questions:

1. Which region saw the most returned items? For what reasons?

SQL query:

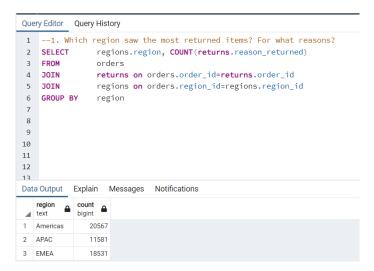
SELECT regions.region, COUNT(returns.reason_returned)

FROM orders

JOIN returns on orders.order_id=returns.order_id

JOIN regions on orders.region_id=regions.region_id

GROUP BY region



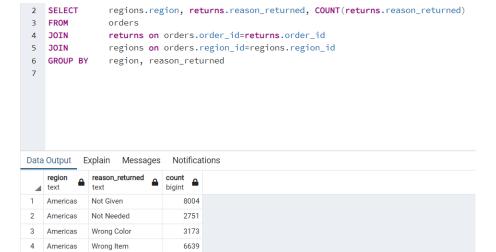
SELECT regions.region, returns.reason returned, COUNT(returns.reason returned)

FROM orders

JOIN returns on orders.order_id=returns.order_id

JOIN regions on orders.region_id=regions.region_id

GROUP BY region, reason_returned



Answer: Americas region sees the most return, and most returns reason are not given by customers.

2. What product was returned most often?

SQL query:

SELECT product_name, COUNT(returns.reason_returned)

FROM orders

JOIN returns on orders.order_id=returns.order_id

JOIN products on orders.product_id=products.product_id

GROUP BY product_name

ORDER BY 2 DESC



Answer: Staples are most returned item.

3. Which of our "top vendors" (3M, Apple, Avery, Cisco, Epson, Hewlett-Packard (HP, Hewlett Packard), Logitech, Panasonic, Samsung, and Xerox) saw the most returns?

SQL query:

```
SELECT top_vendor, COUNT(returns)

FROM (

SELECT DISTINCT(order_id) as returns, product_name,

CASE WHEN product_name ilike '%3M%' THEN '3M'

when product_name ilike '%Apple%' then 'Apple'

when product_name ilike '%Avery%' then 'Avery'

when product_name ilike '%Cisco%' then 'Cisco'

when product_name ilike '%Epson%' then 'Epson'

when product_name ilike '%HP%' then 'Hewlett-Packard'

when product_name ilike '%Hewlett%' then 'Hewlett-Packard'

when product_name ilike '%Logitech%' then 'Logitech'
```

when product_name ilike '%Panasonic%' then 'Panasonic' when product_name ilike '%Samsung%' then 'Samsung' when product_name ilike '%Xerox%' then 'Xerox' else 'other' END AS top_vendor

FROM (

SELECT returns.order_id, products.product_name

FROM orders

JOIN returns on orders.order_id=returns.order_id

JOIN products on orders.product_id=products.product_id) AS TEMP) AS TEMP

GROUP BY top_vendor

ORDER BY 2 DESC

Answer: Avery is the vendor with most returns among top vendors.



4. Which product is most profitable with the consumer segment?

SQL query:

SELECT distinct(product_name), sum(profit) as total_profit

FROM orders

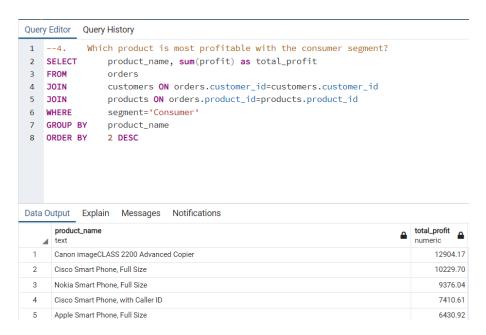
JOIN customers ON orders.customer_id=customers.customer_id

JOIN products ON orders.product_id=products.product_id

WHERE segment='Consumer'

GROUP BY product_name

ORDER BY 2 DESC



Answer: Canon imageCLASS 2200 Advanced Copier is the most profitable product in consumer segments.