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/\*

Use JOINs and UNIONs to answer the following questions:

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

2. What product was returned most often?

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?

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

\*/

1.

WITH ReturnCounts AS (

SELECT rg.region, r.reason\_returned, COUNT(\*) AS count\_per\_reason\_returned

FROM orders AS o

JOIN Returns AS r ON o.order\_id = r.order\_id

JOIN Regions AS rg ON o.region\_id = rg.region\_id

GROUP BY rg.region, r.reason\_returned

)

SELECT region, reason\_returned, count\_per\_reason\_returned

FROM ReturnCounts

WHERE (region, count\_per\_reason\_returned) IN (

SELECT region, MAX(count\_per\_reason\_returned)

FROM ReturnCounts

GROUP BY region

)

ORDER BY count\_per\_reason\_returned DESC;

Answer

"Americas" "Not Given" 8004

"EMEA" "Not Given" 7034

"APAC" "Not Given" 4398

2.

SELECT rg.region, r.reason\_returned, COUNT(\*) AS count\_per\_reason\_returned

FROM orders AS o

JOIN Returns AS r ON o.order\_id = r.order\_id

JOIN Regions AS rg ON o.region\_id = rg.region\_id

GROUP BY rg.region, r.reason\_returned

HAVING COUNT(\*) = (

SELECT MAX(return\_count)

FROM (

SELECT rg.region, COUNT(\*) AS return\_count

FROM orders AS o

JOIN Returns AS r ON o.order\_id = r.order\_id

JOIN Regions AS rg ON o.region\_id = rg.region\_id

GROUP BY rg.region

) AS MaxReturnCount

)

ORDER BY count\_per\_reason\_returned DESC;

Answer

"Staples" 281

3.

SELECT vendor, COUNT(\*) AS return\_counts

FROM (

SELECT

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 '%Hewlett%' OR product\_name ILIKE '%HP%' 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'

END AS vendor

FROM products

JOIN orders ON orders.product\_id = products.product\_id

JOIN returns ON orders.order\_id = returns.order\_id

) AS categorized\_products

GROUP BY vendor

HAVING vendor IS NOT NULL

ORDER BY return\_counts DESC;

Answer

"Avery" 1896

"Xerox" 1197

"Logitech" 765

"Samsung" 703

"Hewlett-Packard" 601

"Apple" 547

"Cisco" 442

"Panasonic" 311

"Epson" 307

"3M" 55

4.

SELECT o.product\_id, product\_name ,SUM (profit) as total\_profit

FROM orders AS o

JOIN products AS p ON o.product\_id=p.product\_id

JOIN customers AS c ON o.customer\_id=c.customer\_id

WHERE segment = 'Consumer'

GROUP BY o.product\_id,product\_name

ORDER BY total\_profit desc

LIMIT 1;

Answer

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