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DAD-220

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1. **Write SQL commands** that capture specific, usable datathat can be used in your analysis.
2. **Analyze the results of queries** to identify specific information that can be presented in your summary.  
   1. Sales by region:
      1. Analyze sales data by state to determine where the company has the largest customer base.

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EXPLAINATION:

SELECT State, count(DISTINCT Customers.CustomerID)

AS Customer\_Base from Customers, Orders

WHERE Orders.CustomerID=Customers.CustomerID

GROUP BY State ORDER BY Customer\_Base DESC

LIMIT 5;

The company that has the largest customer base is in Massachusetts with 982 customers.

* + 1. Analyze the data to determine the top three products sold in the United States.

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EXPLAINATION:

SELECT COUNT(\*) AS PRODUCT\_SALES\_NUMBER, Orders.SKU AS PRODUCT\_SKU,

Orders.Description AS PRODUCT\_DESCRIPTION

FROM Orders

GROUP BY PRODUCT\_SKU

ORDER BY PRODUCT\_SALES\_NUMBER DESC

LIMIT 3;

The top three products are, with the first one being BAS-B8-1 C= 8385, the second isENT-48-40F= 6186, the last one is ENT-48-10F= 4329. They are in order by most products sold and how many they sold.

* + 1. Analyze the data to determine the top three products sold in the southeastern region of the United States.  
       - Southeastern states to include in your analysis: Virginia, North Carolina, South Carolina, and Georgia

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EXPLAINATION:

SELECT COUNT(\*) AS PRODUCT\_SALES\_NUMBER, Orders.SKU AS PRODUCT\_SKU,

Orders.Description AS PRODUCT\_DESCRIPTION

FROM Orders INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID

WHERE UPPER(state) IN ('VIRGINIA', 'NORTH CAROLINA', 'SOUTH CAROLINA', 'GEORGIA')

GROUP BY PRODUCT\_SKU

ORDER BY PRODUCT\_SALES\_NUMBER DESC

LIMIT 3;

The top three products that are sold in the southeastern region are; BAS-48-1 C= 504, ENT-48-40F= 337, BAS-08-1 C= 257.

* 1. Returns by region:
     1. Analyze the data to determine the top three products returned in the United States.

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EXPLAINATION:

SELECT COUNT(\*) AS RETURNED\_AMOUNT, Orders.SKU AS PRODUCT\_SKU,

Orders.Description AS PRODUCT\_DESCRIPTION

FROM Orders INNER JOIN RMA ON Orders.OrderID = RMA.OrderID

WHERE UPPER(Status) = 'COMPLETE'

GROUP BY PRODUCT\_SKU

ORDER BY RETURNED\_AMOUNT DESC

LIMIT 3;

The top three products returned in the United States are the BAS-48-1 C, ENT-48-40F, and the ENT-48-10F.

* + 1. Analyze the data to determine the top three products returned in the northwestern region of the United States.  
       - Northwestern states to include in your analysis: Washington, Oregon, Idaho, and Montana

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EXPLAINATION:

SELECT COUNT(\*) AS RETURNED\_AMOUNT, Orders.SKU AS PRODUCT\_SKU,

Orders.Description AS PRODUCT\_DESCRIPTION

FROM Orders INNER JOIN RMA ON Orders.OrderID = RMA.OrderID INNER JOIN

Customers ON Orders.CustomerID = Customers.CustomerID

WHERE UPPER(State) IN ('Washington', 'Oregon', 'Idaho', 'Montana')

AND UPPER(Status) = 'COMPLETE'

GROUP BY PRODUCT\_SKU

ORDER BY RETURNED\_AMOUNT DESC

LIMIT 3;

The top three products that are returned in the Northwestern region are; BAS-48-1 C= 628, ENT-48-40F= 473, BAS-08-1 C= 344.

1. **Write a report** to the Quantigration product manager that explains your findings in a way nontechnical stakeholders can digest and use.  
   1. This report should include an effective summary of the analysis of the captured data.  
      1. Sales data by region: Provide a well-written summary of your analysis on Part A.
      2. Returns data by region: Provide a well-written summary of your analysis of Part B.

Based on my analysis using the SELECT and COUNT commands, I discovered that although the company serves customers in various states, Massachusetts boasts the largest customer base, totaling 3985 customers. Furthermore, the top-selling products in the United States are BAS-B8-1 C, ENT-48-40F, and ENT-48-10F. Additionally, within the Southeast region, encompassing states like North Carolina, South Carolina, Virginia, and Georgia, the most popular products are BAS-48-1 C, ENT-48-40F, and BAS-08-1 C.