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DAD 220

Assignment 5-3

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.

A screenshot of a computer program

Description automatically generated

Code used:

SELECT Customers.state AS STATE, COUNT(\*) AS PRODUCT\_SALES\_NUMBER

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

GROUP BY STATE

ORDER BY PRODUCT\_SALES\_NUMBER DESC

LIMIT 20;

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

A screenshot of a computer program

Description automatically generated

Code used:

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

FROM Orders

GROUP BY PRODUCT\_SKU

ORDER BY PRODUCT\_SALES\_NUMBER DESC

LIMIT 5;

* + 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

A computer screen shot of a black screen

Description automatically generated

Code used:

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

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 5;

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

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Description automatically generated

Code used:

SELECT COUNT(\*) AS RETURN\_NUMBER, Orders.SKU AS SKU

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

GROUP BY SKU

ORDER BY RETURN\_NUMBER DESC;

* + 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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Description automatically generated

Code used:

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

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;

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.

According to the reports, sales are doing well in all the states without a big difference from the highest number of sales in Massachusetts, being 982, and the lowest state of Louisiana with sales being 800. The top product being sold is the BAS-48-1 C, which is leading the other products in sales by approximately 2000. This product also has the leading sales numbers in the Southeastern region of Virginia, North Carolina, South Carolina, and Georgia.

* + 1. Returns data by region: Provide a well-written summary of your analysis of Part B.

The product BAS-48-1 C has the leading sales numbers with 8385 sold but has a high return number of 8282. Seeing this data we can keep selling the product BAS-48-1 C because of its high demand, but need to minimize the return number which will lead to more profit for the company. We can focus on the Northwestern region first to minimize the return numbers for product BAS-48-1. If we can lower the return numbers from 682 down to the next leading returned item at 473, then continue to do the same for t he other regions we will save the company a lot of money.