Write a detailed summary of your analysis of the items below. Prepare your summary for nontechnical stakeholders. Use the list below to guide the structure and organization of your report.

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.
         * According to the data on the table the state that has the largest customer base is Massachusetts with a total of 982.

A screenshot of a computer screen

Description automatically generated

SELECT State, COUNT(\*)

FROM Customers

GROUP BY State

ORDER BY COUNT(\*) DESC LIMIT 10;

* + 1. Analyze the data to determine the top three products sold in the United States.
       - The top three products sold in the united states by SKU would be BAS-48-1 C with a total 8385, ENT-48-40F with a total of 6186, and ENT-48-10F with a total of 4329. In respective these products are Basic Switch 10/100/1000 BaseT 48 port, Enterprise Switch 40GigE SFP+ 48 port, and Enterprise Switch 10GigE SFP+ 48 port.

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Description automatically generated

SELECT Orders.SKU, COUNT(\*)

FROM Orders

GROUP BY Orders.SKU

ORDER BY COUNT(\*) DESC

LIMIT 3;

* + 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
       - The top three products sold in the south eastern region according to the table would be BAS-48-1 C with 504, ENT-48-40F with 337, and BAS-08-1 C with 257.

A screen shot of a computer

Description automatically generated

SELECT Orders.SKU, COUNT(\*)

FROM Orders

INNER JOIN Customers ON Orders.CustomerID = Customers.CustomerID

WHERE Customers.State IN ('North Carolina', 'South Carolina', 'Georgia', 'Virginia')

GROUP BY Orders.SKU

ORDER BY COUNT(\*) DESC;

* 1. Returns by region:
     1. Analyze the data to determine the top three products returned in the United States.
        + The top three products that were returned in the united states are BAS-48-1 C with 8282, ENT-48-40F with 6118, and ENT-48-10F with 4287.

A black and white screen with numbers and letters

Description automatically generated

SELECT Orders.SKU, COUNT(\*)

FROM Orders

INNER JOIN RMA ON RMA. OrderID = Orders.Order ID

GROUP BY Orders.SKU

ORDER BY COUNT(\*) 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
       - The top three products returned in the northwestern region are BAS-48-1 C with 697, ENT-48-40F with 534, and BAS-08-1 C with 379.

A screenshot of a black screen

Description automatically generated

SELECT Orders.SKU, COUNT(\*) FROM Customers

INNER JOIN Orders ON Customers. CustomerID = Orders. CustomerID

INNER JOIN RMA ON Orders. OrderID = RMA. OrderID

WHERE Customers. State IN ('Washington', 'Oregon', 'Idaho', 'Montana')

GROUP BY Orders.SKU

ORDER BY COUNT(\*) 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.
         * Analysis of Sales Data by State: The analysis of sales data by state reveals key insights into the distribution of our customer base. Massachusetts stands out as the state with the largest customer base, boasting a total of 982 customers.

Top Three Products Sold in the United States: Upon analyzing the data, we identified the top three products sold in the United States. These are:

**BAS-48-1 C:** Basic Switch 10/100/1000 BaseT 48 port - 8385 units

**ENT-48-40F:** Enterprise Switch 40GigE SFP+ 48 port - 6186 units

**ENT-48-10F:** Enterprise Switch 10GigE SFP+ 48 port - 4329 units

Top Three Products Sold in the Southeastern Region: Focusing on the southeastern states (Virginia, North Carolina, South Carolina, and Georgia), the top three products sold are:

**BAS-48-1 C:** Basic Switch 10/100/1000 BaseT 48 port - 504 units

**ENT-48-40F:** Enterprise Switch 40GigE SFP+ 48 port - 337 units

**BAS-08-1 C:** Basic Switch 10/100 BaseT 8 port - 257 units

In conclusion, The sales data analysis tells us where our customers are and which products they like the most. In Massachusetts, we have the most customers, with 982 people. The top three products everyone likes in the whole United States are BAS-48-1 C, ENT-48-40F, and ENT-48-10F. These are like the coolest products we sell. And when we look at states like Virginia, North Carolina, South Carolina, and Georgia, people there really like BAS-48-1 C, ENT-48-40F, and BAS-08-1 C. So, if we want to sell more, we can focus on these products in these places.

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

Top Three Products Returned in the United States: Examining returns data, the top three products returned in the United States are:

**BAS-48-1 C:** Basic Switch 10/100/1000 BaseT 48 port - 8282 units

**ENT-48-40F:** Enterprise Switch 40GigE SFP+ 48 port - 6118 units

**ENT-48-10F:** Enterprise Switch 10GigE SFP+ 48 port - 4287 units

Top Three Products Returned in the Northwestern Region: Considering the northwestern states (Washington, Oregon, Idaho, and Montana), the top three returned products are:

**BAS-48-1 C:** Basic Switch 10/100/1000 BaseT 48 port - 697 units

**ENT-48-40F:** Enterprise Switch 40GigE SFP+ 48 port - 534 units

**BAS-08-1 C:** Basic Switch 10/100 BaseT 8 port - 379 units

So for my conclusion, Sometimes people buy things and then return them. The returns data analysis shows us that in the whole United States, the products that people return the most are BAS-48-1 C, ENT-48-40F, and ENT-48-10F. We need to figure out why this happens, so maybe we can make these products better. In states like Washington, Oregon, Idaho, and Montana, people return BAS-48-1 C, ENT-48-40F, and BAS-08-1 C a lot. We should try to make things better so that people don't want to return them. By looking at both sales and returns, we can make plans to sell more and make our customers happier. We just need to keep watching and changing our plans when we need to.