# DAD 220 Project Two Template

## Overview

Review the scenario for this activity in the guidelines and rubric. Then complete the steps below as you work through the directions for this activity. Replace the bracketed text with your screenshots and responses to the prompts. Size each screenshot and its explanation to fit approximately one-quarter of the page with the description written below the screenshot. Review the Template Screenshot Example linked in the guidelines and rubric for this assignment to see an example of how screenshots for your assignment should look.

## RMA Report

Write a report to respond to the manager’s requests. In the report, you should complete the following actions:

* Summarize the data you’ve been working with.
* Identify key information that will help the company streamline operations.

Your report should explain your findings in a way nontechnical stakeholders can understand and use.

Use the steps below to capture the required data and produce the analysis report.

1. Begin by writing SQL commands to **capture** specific **usable data** for your analysis. You already preloaded the data you need into Codio.
2. Specifically, the product manager wants you to complete the following analysis:
   1. **Analyze** the number of **returns by state** and describe findings to include in your report.

A screenshot of a computer

Description automatically generated

I used my QuatigrationUpdates database to start my analysis. The first query I did was to find the number of returns by state. I used the Collaborator.State to get the State column from Collaborator table. I used COUNT(\*) AS Number\_of\_Returns to get the number of rows for each group by State and renamed that column as Number\_of\_Returns. FROM RMA table. I used JOIN to join RMA table with Orders table where the OrderID in RMA matched the OrderID in Order. I also used JOIN to join the Order table with the Collaborators table where the CustomerId in Orders matched the CustomerID in Collaborator. I used GROUP BY to group the results by State from the Collaborator table. Finally, I used ORDER BY to group the results by Number\_of\_Returns in descending order.

A screenshot of a computer

Description automatically generated

For this query I used Orders.Description AS Product\_Type to get the Description field from the Orders table and rename it to Product\_Type . I used COUNT(RMA.RMAID) AS Number\_of\_Returns to get the number of RMAID entries in the RMA table for each product type and renamed it as Number\_of\_Returns. I used (COUNT(RMA.RMAID) / (SELECT COUNT(\*) FROM RMA) \* 100) AS Percentage\_of\_Returns. COUNT(RMA.RMAID) let me get the number of returns for each product type. (SELECT COUNT(\*) FROM RMA) let me get the total number of returns in the RMA table. COUNT(RMA.RMAID) / (SELECT COUNT(\*) FROM RMA) \* 100 let me find out the percentage of the total returns of each product type. That column got named as Percentage\_of\_Returns.

FROM RMA table. I used JOIN to join Orders ON RMA.OrderID = Orders.OrderID to join the RMA table with the Orders table where the OrderID in RMA matched the OrderID in Orders. Then I used GROUP BY Orders.Descripton to group the results from the Orders table by description. Finally, I used ORDER BY to group the results by Percentage\_of\_Returns in descending order.

1. Write a report to clearly **summarize** your RMA **data analysis** for stakeholders. When you summarize the results, consider the following questions:
   1. How does the data provide the product manager with usable information?
   2. What are the potential flaws in the data that has been presented?
   3. Are there any limitations on your conclusions or any other ways of looking at your findings that you haven’t considered? Clearly communicate your findings to stakeholders.

Report on RMA Data Analysis for Quantigration

This report will be used to analyze the Return Merchandise Authorizations (RMAs) received by Quantigration. It will help to identify trends in returns by state and product type. This report will help improve operations and customer satisfaction. The data analyzed uses three tables, Collaborator, Orders, and RMA. Each table contains information about customers, orders, and returns. The analysis by state shows returns rates across different states, with Massachusetts showing the highest number of returns at 972. States like Arkansas, Oregon, and West Virginia also show high return rates. Understanding the reasons behind these returns will help address region-specific issues and improve customer satisfaction.

Analysis of Returns by Product Type

The analysis of Returns by Product Type show the return rates by product type, with "Basic Switch 10/100/1000 BaseT 48 port" having the highest return rate at 22.05%. Other products like "Enterprise Switch 40GigE SFP+ 48 port" and "Enterprise Switch 10GigE SFP+ 48 port" also contribute largely to the overall returns. Products like "Basic Switch 10/100/1000 BaseT 24 port" show a lower return rate. This could mean there is a higher customer satisfaction or lower sales volume. High-return product types like the "Basic Switch 10/100/1000 BaseT 48 port," need to be addressed, because there could be quality control issues. We need to gather customer feedback in states with high return rates, like Massachusetts and Arkansas, and find out what problems are happening in those areas. It would be beneficial to add more customer support roles in high-return states where our teams are better able to identify problems and make a better experience for our customers.

Recommendations

1. Quality Control for High-Return Products: Implement better quality control measures for high-return product types to lower return rates.
2. Customer Feedback is needed in High-Return States: Gather feedback from customers in states with high return rates to identify and address specific issues.
3. Targeted Support and Services: Provide better customer support and services in states with high return rates to improve overall satisfaction and reduce returns.

The analysis offers valuable insights into return patterns. This gives Quantigration knowledge of how to streamline operations, reduce return rates, and enhance customer satisfaction. They can use this information to address known issues and implementing strategies to optimize processes and improve overall performance. The data provides the product manager with actionable insights into return trends by state and product type. This information will help them make decisions regarding quality control measures, customer feedback initiatives, and targeted support efforts. Potential flaws in the data include incomplete or inaccurate information regarding reasons for returns, which may limit the ability to address specific issues. While the analysis identifies significant trends, it may not account for seasonal trends that can impact return rates. Exploring additional data sources or conducting qualitative research could show us more customer preferences and behaviors that could impact return rate and quality trends.