

RMA Report

[illegible]

I analyzed the QuantigationUpdates RMA data to find out where most product returns are coming from. By linking the RMA, Orders, and Collaborators tables, I was able to break down returns by customer state. Massachusetts stood out with the highest number of returns at 972, followed closely by Arkansas with 844 returns and Oregon with 840. Overall, return counts were fairly consistent across most states, typically landing between 700 and 800 returns. The lowest number of returns is 702 from South Carolina. South Carolina has the lowest amount of returns at 702.

Code Project File Edit Find View Tools Education Help Node version Project Index (static) Configure... KDW1606612122

Filetree x

KDW16066121222

DAD-220 SQL Lab Envir...

DAD-220 SQL Lab Environment

- mysqlcomplexdatabase
- u
- settings
- requirements
- FileMaintenanceRecords.csv
- HRandSEmployee.csv
- mysqlcomplexdatabase.sql
- order.csv
- order_in_flow.csv
- order_outputnew.csv
- README.md
- max.csv

```

terminal terminal terminal x terminal
Utah 745
Oklahoma 751
Maine 748
Illinois 747
Nevada 745
Michigan 744
Ohio 735
Kansas 725
Nebraska 723
Georgia 719
Colorado 718
New Jersey 711
South Carolina 702

48 rows in set (0.31 sec)

mysql> SELECT Orders.Description, COUNT(*) AS Num_Returns, (COUNT(*) / (SELECT COUNT(*) FROM RMA) * 100) AS percent_of_returns FROM RMA JOIN Orders ON
RMA.OrderID = Orders.OrderID GROUP BY Orders.Description ORDER BY percent_of_returns DESC;

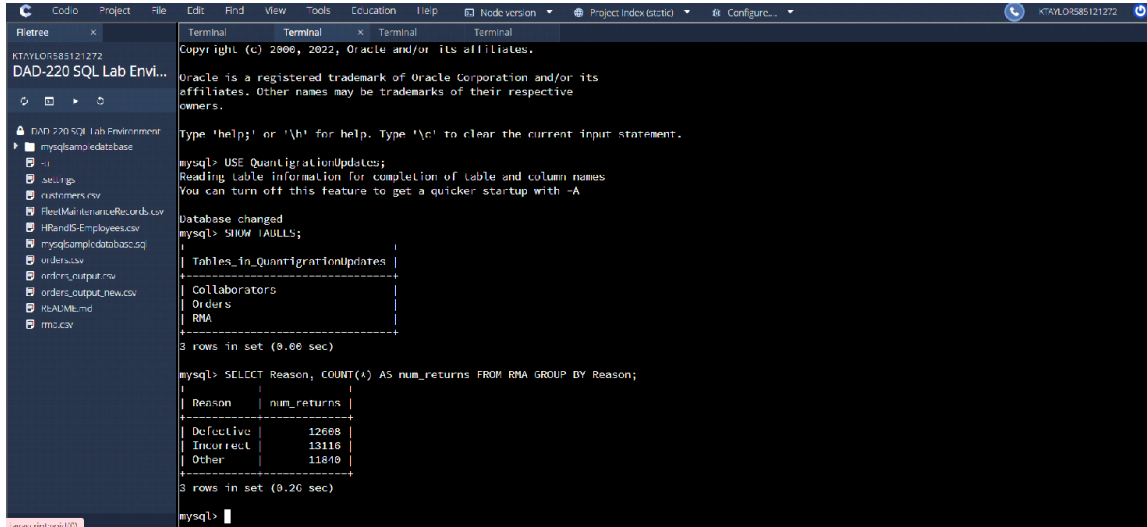
+-----+-----+-----+
| Description | Num_Returns | percent_of_returns |
+-----+-----+-----+
| Basic Switch 10/100/1000 BaseT 48 port | 8282 | 22.0477 |
| Enterprise Switch 40GigE SFP+ 48 port | 6118 | 16.2869 |
| Enterprise Switch 10GigE SFP+ 48 port | 4287 | 11.4125 |
| Basic Switch 10/100/1000 BaseT 8 port | 4246 | 11.3834 |
| Enterprise Switch 10GigE SFP+ 24 port | 4231 | 11.2634 |
| Advanced Switch 10 Giga Copper/Fiber 44 port copper | 4124 | 10.5786 |
| Advanced Switch 10GigE Copper 24 port | 4122 | 10.3733 |
| Enterprise Switch 40GigE SFP+ 24 port | 2121 | 5.6464 |
| Basic Switch 10/100/1000 BaseT 24 port | 33 | 0.8879 |

9 rows in set (0.11 sec)

mysql>
  
```

I analyzed the percentage of returns by product type. The "Basic Switch 10/100/1000 Base T 48 port" had the highest share of returns, making up about 22% of all returns. Following that, the "Enterprise Switch 40GigE SFP+ 48 port" accounted for roughly 16% of returns, and the "Enterprise Switch 10GigE SFP+ 48 port" made up

about 11%. Several other models, like the "Basic Switch 8 port" and "Enterprise Switch 24 port," each contributed around 11% as well. In contrast, the "Basic Switch 24 port" had the lowest return rate at less than 1%. Overall, returns were heavily concentrated around a few specific switch models.



```
mysql> USE QuantigrationUpdates;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> SHOW TABLES;
+-----+
| Tables_in_QuantigrationUpdates |
+-----+
| collaborators                    |
| Orders                           |
| RMA                              |
+-----+
3 rows in set (0.06 sec)

mysql> SELECT Reason, COUNT(*) AS num_returns FROM RMA GROUP BY Reason;
+-----+-----+
| Reason | num_returns |
+-----+-----+
| Defective | 12688 |
| Incorrect | 13116 |
| Other | 11840 |
+-----+-----+
3 rows in set (0.20 sec)

mysql>
```

I analyzed the reasons for product returns and found that the most common reason was "Incorrect," with 13,116 returns. This was closely followed by "Defective" items, which accounted for 12,608 returns. The remaining 11,840 returns were categorized under "Other" reasons.

Product Return Analysis

This report analyzes the QuantigrationUpdates return data, focusing on the reasons behind returns, geographical trends, and specific product models that are most frequently returned.

Key Findings

1. Why Customers Return Products

- Defective: 12,608 returns (33.6%)
- Incorrect: 13,116 returns (34.9%)
- Other: 11,840 returns (31.5%)

The primary reasons for returns are related to product defects and incorrect orders, which should be addressed to reduce future returns.

2. Where Returns are Coming From

- Massachusetts has the highest number of returns with 972, followed closely by Arkansas (844) and Oregon (840).
- Other states, like West Virginia and Alabama, also show significant return numbers, while South Carolina has the fewest returns at 702.

These trends suggest a potential regional focus for product quality improvement and customer support.

3. What Products are Returned the Most

- Basic Switch 10/100/1000 BaseT 48 port: 8,282 returns (22.05% of total returns)
- Enterprise Switch 40GigE SFP+ 48 port: 6,118 returns (16.29%)
- Enterprise Switch 10GigE SFP+ 48 port: 4,287 returns (11.41%)
- Other notable products, such as Basic Switch 8 port and Enterprise Switch 10GigE 24 port, also contributed significant returns.

These products contribute to a large portion of returns and should be investigated for possible design or quality improvements.

Recommendations and Next Steps

To address the high volume of returns, I recommend focusing on two key areas: fulfillment accuracy and product quality. Since the majority of returns are due to incorrect shipments and defective items, the company should revisit its order packing and verification processes to reduce fulfillment errors. Implementing double check systems or barcode scans before dispatch could help catch mistakes early.

In terms of product quality, nearly half of all returns are tied to just three switch models, with the Basic Switch 10/100/1000 BaseT 48 port leading at 22% of total returns. This indicates the need for a closer look at the design, production, and quality assurance practices related to these products. Targeted testing or redesign may be necessary to reduce defects.

Lastly, return volume varies slightly by region, with Massachusetts, Arkansas, and Oregon reporting the highest numbers. These areas may benefit from further investigation to understand whether specific distribution centers, customer segments, or service issues are contributing to the elevated return rates. Outreach efforts, such as customer surveys or proactive support, could help uncover root causes and improve satisfaction in these regions.