

Summer Bernotas

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Intro to Structured Databases

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Analysis Summary

After analyzing all of the data, I found that Massachusetts, Arkansas, and Oregon were the top three states that held the greatest number of returns. This was determined by grouping together the provided information and sorting the orders into groups by state. Below is a screenshot of this analysis.

```
mysql> SELECT Collaborator.State AS State, COUNT(*)
-> FROM Orders
-> INNER JOIN RMA
-> ON Orders.OrderID = RMA.OrderID
-> INNER JOIN Collaborator
-> ON Collaborator.CustomerID = Orders.CustomerID
-> GROUP BY State
-> Order BY Count(*) DESC;
```

State	COUNT(*)
Massachusetts	972
Arkansas	844
Oregon	840
West Virginia	837
Alabama	836
Connecticut	822
Idaho	822
Mississippi	821
Tennessee	819
Delaware	811
Kentucky	809
Montana	808
Wisconsin	807
New Mexico	807
Iowa	804
Indiana	802
Pennsylvania	802
South Dakota	797
Minnesota	794
Louisiana	794
Wyoming	786
Vermont	785
Hawaii	783
New York	782
Washington	781
Missouri	777
Arizona	775
North Dakota	774
North Carolina	773
Maryland	767
Florida	765
California	764
Rhode Island	764
New Hampshire	764
Texas	755
Utah	755

I was then able to find that Product SKU BAS-48-1C, ENT-58-40F, and ENT-48-10F were the top three products to be returned by percentage. This was done by grouping together the products and counting them with a conversion of percentage from the information given to me. Below is a screenshot of this finding.

```
Terminal x Guide
mysql> SELECT SKU, Description, COUNT(*) * 100 / (SELECT COUNT(*)
-> FROM Orders
-> INNER JOIN RMA
-> ON Orders.OrderID = RMA.OrderID) AS Percentage
-> FROM Orders
-> INNER JOIN RMA
-> ON Orders.OrderID = RMA.OrderID
-> GROUP BY SKU
-> ORDER BY Percentage DESC\G
***** 1. row *****
SKU: BAS-48-1 C
Description: Basic Switch 10/100/1000 BaseT 48 port
Percentage: 22.0465
***** 2. row *****
SKU: ENT-48-40F
Description: Enterprise Switch 40GigE SFP+ 48 port
Percentage: 16.2860
***** 3. row *****
SKU: ENT-48-10F
Description: Enterprise Switch 10GigE SFP+ 48 port
Percentage: 11.4119
***** 4. row *****
SKU: BAS-08-1 C
Description: Basic Switch 10/100/1000 BaseT 8 port
Percentage: 11.3081
***** 5. row *****
SKU: ENT-24-10F
Description: Enterprise Switch 10GigE SFP+ 24 Port
Percentage: 11.2628
***** 6. row *****
SKU: ADV-48-10F
Description: Advanced Switch 10 GigE Copper/Fiber 44 port coppe
Percentage: 10.9780
***** 7. row *****
SKU: ADV-24-10C
Description: Advanced Switch 10GigE Copper 24 port
Percentage: 10.9727
***** 8. row *****
SKU: ENT-24-40F
Description: Enterprise Switch 40GigE SFP+ 24 port
Percentage: 5.6461
***** 9. row *****
SKU: BAS-24-1 C
Description: Basic Switch 10/100/1000 BaseT 24 port
Percentage: 0.0878
9 rows in set (0.08 sec)

mysql>
```

The data analyzed here may provide usable information to the product manager by making him and the team more aware of what is being returned due to defective products. As some products are being returned at such a higher percentage, it allows the team to focus on what might be going wrong in production and watch out for these issues with future sales. This analysis also provides vital information on returns by state. This could allow the team and managers to focus on products being produced and shipped out in states with a higher return rate and help lessen these numbers. Although this data may help significantly in those areas, it is wise to stay aware of potential flaws in the data that was presented. This meaning that some information may have gotten lost in the database, causing these numbers to be incorrect. It is also always possible that human error can affect the analysis of this information whether it be orders that were not entered into the system, incorrect information for orders or customers, etc. In regard to limitations on my conclusions, I must say that it is possible to try to pull information more accurately than what I have done but from my own finding, combing the information in this given format was what I thought would be the best for finding this specific information.