Summer Bernotas

Professor Craig

Intro to Structures Databases

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Analyzing Queries

A. Sales by region:
   i. Analyze sales data by state to determine where the company has the largest customer base.

```
mysql> SELECT State, COUNT(*)
    -> FROM Customers
    -> GROUP BY State
    -> ORDER BY COUNT(*) DESC;
+----------------+----------+
| State          | COUNT(*) |
+----------------+----------+
| Massachusetts  |      982 |
| Arkansas       |      854 |
| West Virginia  |      843 |
| Oregon         |      842 |
| Idaho          |      838 |
| Alabama        |      838 |
| Mississippi    |      834 |
| Tennessee      |      831 |
| Connecticut    |      830 |
| Delaware       |      824 |
| Wisconsin      |      822 |
| Montana        |      820 |
| Kentucky       |      819 |
| New Mexico     |      818 |
| Pennsylvania   |      814 |
| Iowa           |      814 |
| Indiana        |      811 |
| South Dakota   |      807 |
| Minnesota      |      801 |
| Louisiana      |      800 |
| Wyoming        |      795 |
| New York       |      793 |
| Vermont        |      793 |
| Hawaii         |      792 |
| Washington     |      791 |
| North Carolina |      786 |
| Arizona        |      784 |
| Missouri       |      782 |
| Maryland       |      777 |
| North Dakota   |      776 |
| Florida        |      773 |
| Rhode Island   |      773 |
| New Hampshire  |      772 |
| California     |      771 |
| Michigan       |      761 |
| Maine          |      760 |
```

ii. Analyze the data to determine the top three products sold in the United States.

```
mysql> SELECT Orders.SKU, COUNT(*)
    -> FROM Orders
    -> GROUP BY Orders.SKU
    -> ORDER BY COUNT(*) DESC;
+------------+----------+
| SKU        | COUNT(*) |
+------------+----------+
| BAS-48-1 C |     8385 |
| ENT-48-40F |     6186 |
| ENT-48-10F |     4329 |
| BAS-08-1 C |     4285 |
| ENT-24-10F |     4275 |
| ADV-24-10C |     4178 |
| ADV-48-10F |     4174 |
| ENT-24-40F |     2152 |
| BAS-24-1 C |       34 |
+------------+----------+
9 rows in set (0.02 sec)

mysql>
```

iii. Analyze the data to determine the top three products sold in the southeastern region of the United States.

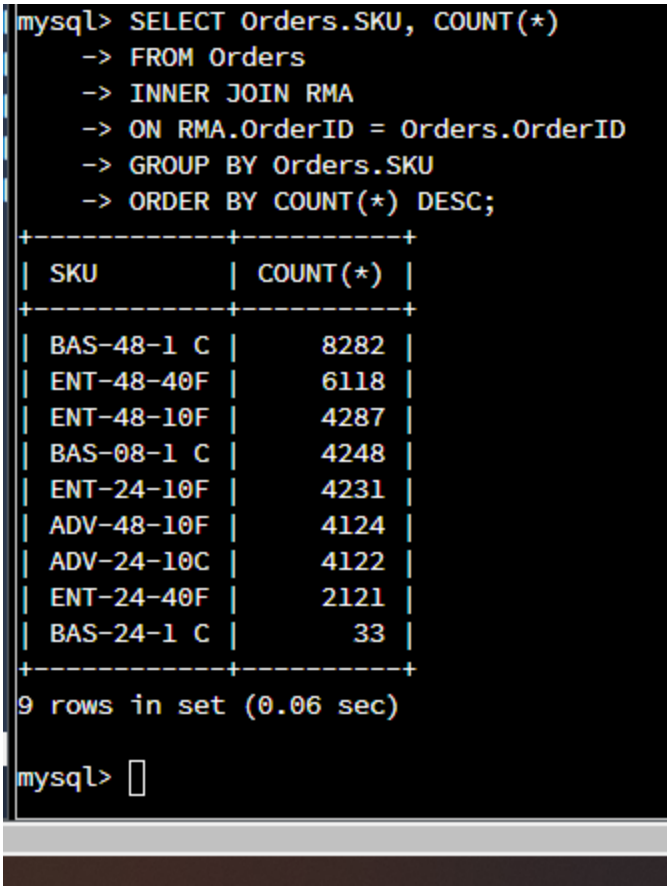
- Southeastern states to include in your analysis: Virginia, North Carolina, South Carolina, and Georgia

```
mysql> SELECT Orders.SKU, COUNT(*)
    -> FROM Orders
    -> INNER JOIN Customers
    -> ON Orders.CustomerID = Customers.CustomerID
    -> WHERE Customers.State IN ('Virginia', 'North Carolina', 'South Carolina', 'Georgia')
    -> GROUP BY Orders.SKU
    -> ORDER BY COUNT(*) DESC;
+------------+----------+
| SKU        | COUNT(*) |
+------------+----------+
| BAS-48-1 C |      504 |
| ENT-48-40F |      337 |
| BAS-08-1 C |      257 |
| ADV-48-10F |      256 |
| ENT-48-10F |      247 |
| ADV-24-10C |      243 |
| ENT-24-10F |      235 |
| ENT-24-40F |      143 |
| BAS-24-1 C |        1 |
+------------+----------+
9 rows in set (0.02 sec)

mysql>
```

B. Returns by region:

i. Analyze the data to determine the top three products returned in the United States.



```
mysql> SELECT Orders.SKU, COUNT(*)
    -> FROM Orders
    -> INNER JOIN RMA
    -> ON RMA.OrderID = Orders.OrderID
    -> GROUP BY Orders.SKU
    -> ORDER BY COUNT(*) DESC;
+------------+----------+
| SKU        | COUNT(*) |
+------------+----------+
| BAS-48-1 C |     8282 |
| ENT-48-40F |     6118 |
| ENT-48-10F |     4287 |
| BAS-08-1 C |     4248 |
| ENT-24-10F |     4231 |
| ADV-48-10F |     4124 |
| ADV-24-10C |     4122 |
| ENT-24-40F |     2121 |
| BAS-24-1 C |       33 |
+------------+----------+
9 rows in set (0.06 sec)

mysql>
```

ii. 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