SaleCo Data Warehouse Ad-Hoc Queries

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MSDS 420 Sec58

Database Systems and Data Preparation

SCORE: 58

1. Write and execute the SQL command to list the total sales by region and customer. Your output should be sorted by region and customer.

```
Select      reg_id, cus_code, sum(sale_units*sale_price) as totalsales
From        dwdaysalesfact natural join dwcustomer
            natural join dwregion
group by    reg_id, cus_code
order by    reg_id, cus_code;
```

```
reg_id | cus_code | totalsales
--------+----------+------------
     1 |    10012 |     287.91
     1 |    10013 |      64.32
     2 |    10014 |     494.71
     2 |    10019 |      39.95
     3 |    10010 |     180.26
     3 |    10011 |     130.89
     3 |    10015 |     325.82
     3 |    10016 |     179.22
     4 |    10017 |     419.66
     4 |    10018 |     129.32
```

Use the full attributes of all relevant for the key customer info, for better look and interpretation of the output. This input I have given earlier. (-2)

2. Write and execute the SQL command to list the total sales by customer, month, and product.

```
select      cus_code, tm_month, p_code, sum(sale_units*sale_price) as totalsales
from        dwdaysalesfact natural join dwcustomer
            natural join dwtime
group by    cus_code, tm_month, p_code
order by    cus_code, tm_month, p_code;
```

```
cus_code | tm_month |  p_code  | totalsales
----------+----------+----------+------------
   10010 |       10 | 13-Q2/P2 |      74.95
   10010 |       10 | 23109-HB |      19.90
   10010 |       10 | 54778-2T |      14.97
   10010 |       10 | PVC23DRT |      70.44
   10011 |       10 | 2232/QTY |     109.92
   10011 |       10 | SM-18277 |      20.97
   10012 |        9 | SM-18277 |      20.97
   10012 |       10 | 23109-HB |       9.95
   10012 |       10 | 89-WRE-Q |     256.99
   10013 |       10 | 13-Q2/P2 |      29.98
   10013 |       10 | 54778-2T |       4.99
   10013 |       10 | PVC23DRT |      29.35
   10014 |        9 | 13-Q2/P2 |      14.99
   10014 |        9 | 2232/QTY |     109.92
   10014 |        9 | 23109-HB |       9.95
   10014 |       10 | WR3/TT3  |     359.85
```

```
10015 |      9 | 2238/QPD |    38.95
10015 |      9 | 23109-HB |     9.95
10015 |      9 | 54778-2T |     9.98
10015 |      9 | 89-WRE-Q |   256.99
10015 |     10 | 23109-HB |     9.95
10016 |      9 | 13-Q2/P2 |   104.93
10016 |      9 | 1546-QQ2 |    39.95
10016 |      9 | 54778-2T |     4.99
10016 |      9 | PVC23DRT |    29.35
10017 |      9 | 13-Q2/P2 |    14.99
10017 |      9 | 23109-HB |    29.85
10017 |      9 | 54778-2T |    14.97
10017 |      9 | WR3/TT3  |   359.85
10018 |      9 | 2238/QPD |    38.95
10018 |      9 | 23109-HB |     9.95
10018 |      9 | 54778-2T |     9.98
10018 |      9 | PVC23DRT |    70.44
10019 |      9 | 1546-QQ2 |    39.95
```

3. Write and execute the SQL command to list the total sales by customer and by product.

```
select      cus_code, p_code, sum(sale_units*sale_price) as totalsales
from        dwdaysalesfact natural join dwcustomer
group by    cus_code, p_code
order by    cus_code, p_code;
```

```
cus_code |  p_code  | totalsales
----------+----------+------------
   10010 | 13-Q2/P2 |     74.95
   10010 | 23109-HB |     19.90
   10010 | 54778-2T |     14.97
   10010 | PVC23DRT |     70.44
   10011 | 2232/QTY |    109.92
   10011 | SM-18277 |     20.97
   10012 | 23109-HB |      9.95
   10012 | 89-WRE-Q |    256.99
   10012 | SM-18277 |     20.97
   10013 | 13-Q2/P2 |     29.98
   10013 | 54778-2T |      4.99
   10013 | PVC23DRT |     29.35
   10014 | 13-Q2/P2 |     14.99
   10014 | 2232/QTY |    109.92
   10014 | 23109-HB |      9.95
   10014 | WR3/TT3  |    359.85
   10015 | 2238/QPD |     38.95
   10015 | 23109-HB |     19.90
   10015 | 54778-2T |      9.98
   10015 | 89-WRE-Q |    256.99
```

```
10016 | 13-Q2/P2 |    104.93
10016 | 1546-QQ2 |     39.95
10016 | 54778-2T |      4.99
10016 | PVC23DRT |     29.35
10017 | 13-Q2/P2 |     14.99
10017 | 23109-HB |     29.85
10017 | 54778-2T |     14.97
10017 | WR3/TT3  |    359.85
10018 | 2238/QPD |     38.95
10018 | 23109-HB |      9.95
10018 | 54778-2T |      9.98
10018 | PVC23DRT |     70.44
10019 | 1546-QQ2 |     39.95
```

4. Write and execute the SQL command to list the total sales by month and product category. Your output should be sorted by month and product category.

```
select      tm_month, p_category, sum(sale_units*sale_price) as totalsales
from        dwdaysalesfact natural join dwproduct
            natural join dwtime
group by    tm_month, p_category
order by    tm_month, p_category;
```

```
tm_month | p_category | totalsales
----------+------------+------------
       9 | CAT1       |    174.83
       9 | CAT2       |    446.81
       9 | CAT3       |    537.54
       9 | CAT4       |     80.67
      10 | CAT1       |    124.89
      10 | CAT2       |    366.91
      10 | CAT3       |    459.64
      10 | CAT4       |     60.77
```

5. Write and execute the SQL command to list the number of product sales (number of rows) and total sales by month. Your output should be sorted by month.

```
select      tm_month, count(*) as numOfProducts, sum(sale_units*sale_price) as totalsales
from        dwdaysalesfact natural join dwtime
group by    tm_month
order by    tm_month;
```

```
tm_month | numofproducts | totalsales
----------+---------------+------------
       9 |            23 |    1239.85
      10 |            13 |    1012.21
```

6. Write and execute the SQL command to list the number of product sales and total sales by month and product category. Your output should be sorted by month and product category.

```
select      tm_month, p_category, count(*) as numOfProducts, sum(sale_units*sale_price) as
            totalsales
from        dwdaysalesfact natural join dwproduct
            natural join dwtime
group by    tm_month, p_category
order by    tm_month, p_category;
```

```
tm_month | p_category | numofproducts | totalsales
----------+------------+---------------+------------
       9 | CAT1       |             8 |     174.83
       9 | CAT2       |             4 |     446.81
       9 | CAT3       |             5 |     537.54
       9 | CAT4       |             6 |      80.67
      10 | CAT1       |             4 |     124.89
      10 | CAT2       |             2 |     366.91
      10 | CAT3       |             3 |     459.64
      10 | CAT4       |             4 |      60.77
```

7. Write and execute the SQL command to list the number of product sales (number of rows) and total sales by month, product category, and product. Your output should be sorted by month, product category and product.

```
select      tm_month, p_category, p_code, count(*) as numOfProducts,
            sum(sale_units*sale_price) as totalsales
from        dwdaysalesfact natural join dwtime
            natural join dwproduct
group by    tm_month, p_category, p_code
order by    tm_month, p_category, p_code;
```

```
tm_month | p_category |  p_code  | numofproducts | totalsales
----------+------------+----------+---------------+------------
       9 | CAT1       | 13-Q2/P2 |             4 |     134.91
       9 | CAT1       | 54778-2T |             4 |      39.92
       9 | CAT2       | 1546-QQ2 |             2 |      79.90
       9 | CAT2       | 2232/QTY |             1 |     109.92
       9 | CAT2       | 89-WRE-Q |             1 |     256.99
       9 | CAT3       | 2238/QPD |             2 |      77.90
       9 | CAT3       | PVC23DRT |             2 |      99.79
       9 | CAT3       | WR3/TT3  |             1 |     359.85
       9 | CAT4       | 23109-HB |             5 |      59.70
       9 | CAT4       | SM-18277 |             1 |      20.97
      10 | CAT1       | 13-Q2/P2 |             2 |     104.93
      10 | CAT1       | 54778-2T |             2 |      19.96
      10 | CAT2       | 2232/QTY |             1 |     109.92
```

10	CAT2	89-WRE-Q	1	256.99
10	CAT3	PVC23DRT	2	99.79
10	CAT3	WR3/TT3	1	359.85
10	CAT4	23109-HB	3	39.80
10	CAT4	SM-18277	1	20.97