




Sales Trend Analysis Using Aggregations

By Mayank Shukla



Question 1. Use `EXTRACT(MONTH FROM order_date)` for month.

```
13
14 # Question 1. Use EXTRACT(MONTH FROM order_date) for month.
15 • select month(date) as Month_Number from Sales;
16
```

Result Grid |  Filter Rows: | Export:  | Wrap Cell Content: 

| | Month_Number |
|---|--------------|
| ▶ | 1 |
| | 1 |
| | 6 |
| | 6 |
| | 6 |
| | 12 |
| | 3 |
| | 6 |
| | 6 |
| | 6 |
| | 6 |
| | 7 |
| | 8 |
| | 9 |
| | 10 |

Question 2. GROUP BY year/month.

By Month : -

```
16
17 # Question 2. GROUP BY year/month.
18
19 -- Month
20 • Select Month(Date) as Month, count(*) as Month_Count from Sales
21 Group By month(Date);
22
```

| | Month | Month_Count |
|---|-------|-------------|
| ▶ | 1 | 35 |
| | 6 | 70 |
| | 12 | 103 |
| | 3 | 34 |
| | 7 | 34 |
| | 8 | 35 |
| | 9 | 70 |
| | 10 | 140 |
| | 2 | 35 |
| | 11 | 70 |
| | 4 | 34 |
| | 5 | 35 |




By Year : -

```
22
23 -- Year
24 • Select Year(Date) as Year, count(*) as Year_Count from Sales
25 Group By Year(Date);
26
```

| | Year | Year_Count |
|---|------|------------|
| ▶ | 2014 | 520 |
| | 2013 | 175 |

Question 3. Use SUM() for revenue.




```
26
27 # Question 3. Use SUM() for revenue.
28 • Select Sum(Sales) as Revenue from Sales;
29
```

Result Grid |  Filter Rows: | Export:  | Wrap Cell Content: 

| | Revenue |
|---|-----------|
| ▶ | 117870425 |

Question 4. COUNT(DISTINCT Product) for volume.



```
29
30 # Question 4. COUNT(DISTINCT Product) for volume.
31 • Select count(Distinct Product) as count from Sales;
32
```

Result Grid |  Filter Rows: | Export:  | Wrap Cell Content: 

| | count |
|---|-------|
| ▶ | 6 |

Question 5. Use ORDER BY for sorting.

```
32
33 # Question 5. Use ORDER BY for sorting.
34 • Select * from Sales
35 Order By Sales Desc;
36
```

Result Grid   Filter Rows: Export:  Wrap Cell Content: 

| | Segment | Country | Product | Discount Band | Units Sold | Manufacturing Price | Sale Price | Gross Sales | Discounts | Sales | COGS | Profit | Date |
|---|----------------|--------------------------|-----------|---------------|------------|---------------------|------------|-------------|-----------|---------|--------|--------|------------|
| ▶ | Government | United States of America | Paseo | Low | 3450 | 10 | 350 | 1207500 | 48300 | 1159200 | 897000 | 262200 | 2014-07-01 |
| | Small Business | Canada | Montana | Medium | 3802.5 | 5 | 300 | 1140750 | 102667.5 | 1038083 | 950625 | 87458 | 2014-04-01 |
| | Small Business | Canada | Velo | Medium | 3793.5 | 120 | 300 | 1138050 | 102424.5 | 1035626 | 948375 | 87251 | 2014-07-01 |
| | Government | Germany | Velo | Low | 2966 | 120 | 350 | 1038100 | 20762 | 1017338 | 771160 | 246178 | 2013-10-01 |
| | Government | Germany | Amarilla | Low | 2966 | 260 | 350 | 1038100 | 20762 | 1017338 | 771160 | 246178 | 2013-10-01 |
| | Government | Germany | Velo | Low | 2877 | 120 | 350 | 1006950 | 20139 | 986811 | 748020 | 238791 | 2014-10-01 |
| | Government | Germany | VTT | Low | 2877 | 250 | 350 | 1006950 | 20139 | 986811 | 748020 | 238791 | 2014-10-01 |
| | Government | Canada | Carretera | Low | 2852 | 3 | 350 | 998200 | 19964 | 978236 | 741520 | 236716 | 2014-12-01 |
| | Government | Canada | Paseo | Low | 2852 | 10 | 350 | 998200 | 19964 | 978236 | 741520 | 236716 | 2014-12-01 |
| | Government | France | Amarilla | None | 2750 | 260 | 350 | 962500 | \$- | 962500 | 715000 | 247500 | 2014-02-01 |
| | Government | France | Amarilla | Medium | 2876 | 260 | 350 | 1006600 | 70462 | 936138 | 747760 | 188378 | 2014-09-01 |
| | Small Business | United States of America | Paseo | High | 3495 | 10 | 300 | 1048500 | 125820 | 922680 | 873750 | 48930 | 2014-01-01 |

Question 6. Limit results for specific time periods.

```
37 # Question 6. Limit results for specific time periods.  
38 • Select * from Sales  
39 Where Date Between '2014-01-01' And '2014-06-01'  
40 Limit 10;  
41
```

| | Segment | Country | Product | Discount Band | Units Sold | Manufacturing Price | Sale Price | Gross Sales | Discounts | Sales | COGS | Profit | Date |
|---|------------------|---------|-----------|---------------|------------|---------------------|------------|-------------|-----------|-------|-------|--------|------------|
| ▶ | Government | Canada | Carretera | None | 1618.5 | 3 | 20 | 32370 | \$- | 32370 | 16185 | 16185 | 2014-01-01 |
| | Government | Germany | Carretera | None | 1321 | 3 | 20 | 26420 | \$- | 26420 | 13210 | 13210 | 2014-01-01 |
| | Midmarket | France | Carretera | None | 2178 | 3 | 15 | 32670 | \$- | 32670 | 21780 | 10890 | 2014-06-01 |
| | Midmarket | Germany | Carretera | None | 888 | 3 | 15 | 13320 | \$- | 13320 | 8880 | 4440 | 2014-06-01 |
| | Midmarket | Mexico | Carretera | None | 2470 | 3 | 15 | 37050 | \$- | 37050 | 24700 | 12350 | 2014-06-01 |
| | Midmarket | Germany | Montana | None | 921 | 5 | 15 | 13815 | \$- | 13815 | 9210 | 4605 | 2014-03-01 |
| | Channel Partners | Canada | Montana | None | 2518 | 5 | 12 | 30216 | \$- | 30216 | 7554 | 22662 | 2014-06-01 |
| | Government | France | Montana | None | 1899 | 5 | 20 | 37980 | \$- | 37980 | 18990 | 18990 | 2014-06-01 |
| | Channel Partners | Germany | Montana | None | 1545 | 5 | 12 | 18540 | \$- | 18540 | 4635 | 13905 | 2014-06-01 |
| | Midmarket | Mexico | Montana | None | 2470 | 5 | 15 | 37050 | \$- | 37050 | 24700 | 12350 | 2014-06-01 |