Sales Trend Analysis

```sql
 3      -- Convert from string to DATE
 4  •   ALTER TABLE orders
 5      MODIFY Order_Date DATE;
 6
 7      -- 1.Extract month from order_date
 8  •   SELECT EXTRACT(MONTH FROM Order_Date) AS month FROM orders;
 9
10      -- 2.Extract year from order_date
11  •   SELECT EXTRACT(YEAR FROM Order_Date) AS year FROM orders;
```

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

year	month	total_revenue	total_orders
2024	1	14548.32	31
2024	2	10803.37	29
2024	3	12849.24	31
2024	4	12451.69	30
2024	5	8455.49	31
2024	6	7384.55	30
2024	7	6797.08	31
2024	8	7278.11	27

```sql
14      -- 3. Monthly revenue and order volume
15  •   SELECT
16          year,
17          month,
18          ROUND(SUM(Amount), 2) AS total_revenue,
19          COUNT(DISTINCT `Transaction_ID`) AS total_orders
20      FROM orders
21      GROUP BY year, month
22      ORDER BY year, month;
```

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

year	month	total_revenue	total_orders
2024	1	14548.32	31
2024	2	10803.37	29
2024	3	12849.24	31
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2024	6	7384.55	30
2024	7	6797.08	31
2024	8	7278.11	27

```
24      -- 4. Top 5 products by total revenue
25  •   SELECT
26          Product_name,
27          ROUND(SUM(Amount), 2) AS total_revenue
28      FROM orders
29      GROUP BY Product_name
30      ORDER BY total_revenue DESC
31      LIMIT 5;
32
```

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

Product_name	total_revenue
Canon EOS R5 Camera	3899.99
LG OLED TV	2599.98
MacBook Pro 16-inch	2499.99
Apple MacBook Pro 16-inch	2399
iPhone 14 Pro	1999.98

```
33      -- 5. Revenue by region
34  •   SELECT
35          Region,
36          ROUND(SUM(Amount), 2) AS total_revenue,
37          COUNT(DISTINCT `Transaction_ID`) AS total_orders
38      FROM orders
39      GROUP BY Region
40      ORDER BY total_revenue DESC;
41
```

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

Region	total_revenue	total_orders
North America	36844.34	80
Asia	22455.45	80
Europe	21268.06	80

```sql
42      -- 6. Monthly revenue by product category
43 •    SELECT
44          year,
45          month,
46          Product_Category,
47          ROUND(SUM(Amount), 2) AS total_revenue
48      FROM orders
49      GROUP BY year, month, Product_Category
50      ORDER BY year, month, total_revenue DESC;
```

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

year	month	Product_Category	total_revenue
2024	1	Electronics	7999.9
2024	1	Home Appliances	2169.94
2024	1	Clothing	1789.84
2024	1	Sports	1579.83
2024	1	Beauty Products	699.95
2024	1	Books	308.86
2024	2	Sports	2993.87
2024	2	Electronics	2899.88
2024	2	Home Appliances	2869.92
2024	2	Clothing	1284.81

```sql
52      -- 7. Revenue by payment method
53 •    SELECT
54          Payment_Method,
55          ROUND(SUM(Amount), 2) AS total_revenue,
56          COUNT(DISTINCT `Transaction_ID`) AS total_orders
57      FROM orders
58      GROUP BY Payment_Method
59      ORDER BY total_revenue DESC;
60
```

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

Payment_Method	total_revenue	total_orders
Credit Card	51170.86	120
PayPal	21268.06	80
Debit Card	8128.93	40

```sql
61    -- 8. Best-selling product each month
62 •  SELECT
63        year,
64        month,
65        Product_name,
66        ROUND(SUM(Amount), 2) AS monthly_revenue
67    FROM orders
68    GROUP BY year, month, Product_name
69    ORDER BY year, month, monthly_revenue DESC;
```

year	month	Product_name	monthly_revenue
2024	1	MacBook Pro 16-inch	2499.99
2024	1	iPhone 14 Pro	1999.98
2024	1	Samsung Galaxy Tab S8	1499.98
2024	1	Blueair Classic 480i	1199.98
2024	1	Garmin Forerunner 945	999.98
2024	1	Sony WH-1000XM4 Headphones	699.98
2024	1	Babolat Pure Drive Tennis Racket	599.97
2024	1	Nike Air Force 1	539.94
2024	1	Dyson V11 Vacuum	499.99
2024	1	North Face Down Jacket	499.98

```sql
71    -- 9. Average order value per month
72 •  SELECT
73        year,
74        month,
75        ROUND(SUM(Amount) / COUNT(DISTINCT `Transaction_ID`), 2) AS avg_order_value
76    FROM orders
77    GROUP BY year, month
78    ORDER BY year, month;
```

year	month	avg_order_value
2024	1	469.3
2024	2	372.53
2024	3	414.49
2024	4	415.06
2024	5	272.76
2024	6	246.15
2024	7	219.26
2024	8	269.56

```sql
80    -- 10. Highest revenue day
81 •  SELECT
82        Order_Date,
83        ROUND(SUM(Amount), 2) AS total_revenue
84    FROM orders
85    GROUP BY Order_Date
86    ORDER BY total_revenue DESC
87    LIMIT 1;
88
```

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

Order_Date	total_revenue
2024-04-12	3899.99

```sql
89    -- 11. Total units sold by category
90 •  SELECT
91        Product_Category,
92        SUM(Units_Sold) AS total_units_sold
93    FROM orders
94    GROUP BY Product_Category
95    ORDER BY total_units_sold DESC;
96
```

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

Product_Category	total_units_sold
Clothing	145
Books	114
Sports	88
Electronics	66
Home Appliances	59
Beauty Products	46

```sql
97     -- 12. Revenue by region and category
98  •  SELECT
99         Region,
100        Product_Category,
101        ROUND(SUM(Amount), 2) AS total_revenue
102    FROM orders
103    GROUP BY Region, Product_Category
104    ORDER BY Region, total_revenue DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: $\overline{I}A$

Region	Product_Category	total_revenue
Asia	Sports	14326.52
Asia	Clothing	8128.93
Europe	Home Appliances	18646.16
Europe	Beauty Products	2621.9
North America	Electronics	34982.41
North America	Books	1861.93