```sql
use prectise;
select * from sales_data;


-- ⚙ Task 1: Group Sales Data by Product Category
-- Objective: Group the sales data by product category to analyze performance.
select `Product Category`,count(`Product Category`) as category_count
from sales_data
group by `Product Category`
order by Category_count;
```

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

Transaction ID	Date	Product Category	Product Name	Units Sold	Unit Price	Total Revenue	Region	Payment Method
10001	2024-01-01	Electronics	iPhone 14 Pro	2	999.99	1999.98	North America	Credit Card
10002	2024-01-02	Home Appliances	Dyson V11 Vacuum	1	499.99	499.99	Europe	PayPal
10003	2024-01-03	Clothing	Levi's 501 Jeans	3	69.99	209.97	Asia	Debit Card
10004	2024-01-04	Books	The Da Vinci Code	4	15.99	63.96	North America	Credit Card
10005	2024-01-05	Beauty Products	Neutrogena Skincare Set	1	89.99	89.99	Europe	PayPal
10006	2024-01-06	Sports	Wilson Evolution Basketball	5	29.99	149.95	Asia	Credit Card
10007	2024-01-07	Electronics	MacBook Pro 16-inch	1	2499.99	2499.99	North America	Credit Card
10008	2024-01-08	Home Appliances	Blueair Classic 480i	2	599.99	1199.98	Europe	PayPal
10009	2024-01-09	Clothing	Nike Air Force 1	6	89.99	539.94	Asia	Debit Card
10010	2024-01-10	Books	Dune by Frank Herbert	2	25.99	51.98	North America	Credit Card
10011	2024-01-11	Beauty Products	Chanel No. 5 Perfume	1	129.99	129.99	Europe	PayPal
10012	2024-01-12	Sports	Babolat Pure Drive Tennis ...	3	199.99	599.97	Asia	Credit Card
10013	2024-01-13	Electronics	Samsung Galaxy Tab S8	2	749.99	1499.98	North America	Credit Card
10014	2024-01-14	Home Appliances	Keurig K-Elite Coffee Maker	1	189.99	189.99	Europe	PayPal

```
11
12      -- ⚙ Task 2: Calculate Total Revenue per Product
13      -- Objective: Calculate the total revenue generated by each product.
14 •    select `product name`,sum(`total revenue`)as total_revenue
15      from sales_data
16      group by `product name`;
17
```

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

product name	total_revenue
iPhone 14 Pro	1999.98
Dyson V11 Vacuum	499.99
Levi's 501 Jeans	209.97
The Da Vinci Code	63.96
Neutrogena Skincare Set	89.99
Wilson Evolution Basketball	149.95
MacBook Pro 16-inch	2499.99
Blueair Classic 480i	1199.98
Nike Air Force 1	539.94
Dune by Frank Herbert	71.96
Chanel No. 5 Perfume	129.99
Babolat Pure Drive Tennis ...	599.97
Samsung Galaxy Tab S8	1499.98
Keurig K-Elite Coffee Maker	529.97
North Face Down Jacket	499.98
Salt, Fat, Acid, Heat by S...	107.97

```sql
-- ⚙ Task 3: Count the Number of Orders per Product Category
-- Objective: Determine the number of orders placed for each product category.
select `product category`,count(`Transaction ID`) as no_of_order
from sales_data
group by `product category`;
```

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

product category	no_of_order
Electronics	40
Home Appliances	40
Clothing	40
Books	40
Beauty Products	40
Sports	40

```
24    -- Task 4: Identify Top 5 Products by Revenue
25    -- Objective: Identify the top 5 products that generated the highest revenue.
26    select `product name`,round(sum(`total revenue`)) as revenue
27    from sales_data
28    group by `product name`
29    order by revenue desc
30    limit 5;
31
```

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

product name	revenue
Canon EOS R5 Camera	3900
LG OLED TV	2600
MacBook Pro 16-inch	2500
Apple MacBook Pro 16-inch	2399
iPhone 14 Pro	2000

```sql
-- Task 5: Calculate Average Order Value per Product Category
-- Objective: Calculate the average order value for each product category.
select `product category`,ROUND(SUM(`Total Revenue`) /
COUNT(DISTINCT `Transaction ID`), 2) as avg_order_value
from sales_data
group by `product category`
order by avg_order_value desc;
```

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

product category	avg_order_value
Electronics	874.56
Home Appliances	466.15
Sports	358.16
Clothing	203.22
Beauty Products	65.55
Books	46.55

```sql
-- Task 6: Count Distinct Customers per Product Category
-- Objective: Determine the number of unique customers who purchased each product category.
select `product category`, count(distinct `transaction id`) as unique_customer
from sales_data
group by `product category`;
```

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

product category	unique_customer
Beauty Products	40
Books	40
Clothing	40
Electronics	40
Home Appliances	40
Sports	40

```sql
-- Task 7: Calculate Total Revenue for Each Month
-- Objective: Calculate the total revenue generated in each month.
select extract(month from date) as Month,round(sum(`total revenue`)) as total_revenue
from sales_data
group by Month;
```

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

Month	total_revenue
1	14548
2	10803
3	12849
4	12452
5	8455
6	7385
7	6797
8	7278

```sql
-- Task 8: Count the Number of Orders per Month
-- Objective: Determine the number of orders placed in each month.

select extract(month from date) as Month,
count(`Transaction ID`) as No_of_orders
from sales_data
group by Month;

-- Task 9: Calculate Total Revenue for Each Region
```

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

Month	No_of_orders
1	31
2	29
3	31
4	30
5	31
6	30
7	31
8	27

```sql
-- 🔧 Task 9: Calculate Total Revenue for Each Region
-- Objective: Calculate the total revenue generated in each region.

select region,round(sum(`total revenue`)) as total_revenue
from sales_data
```

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

region	total_revenue
North America	36844
Europe	21268
Asia	22455

```sql
-- 🧩 Task 10: Identify the Product with the Highest Revenue
-- Objective: Identify the product that generated the highest revenue.
select `Product Name`,round(sum(`total revenue`))
as Highest_revenue
from sales_data
group by `Product Name`
order by Highest_revenue desc
limit 1;
```

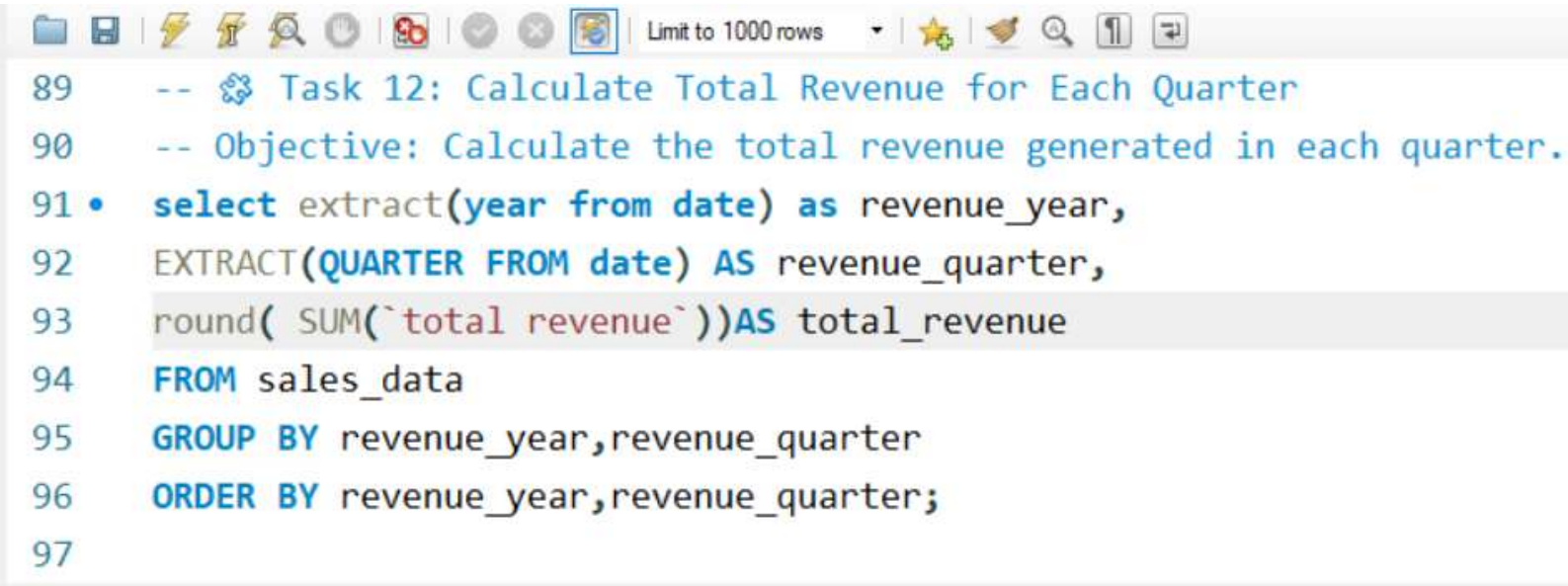
Result Grid | Filter Rows: | Export: | Wrap Cell Content: | Fetch rows:

Product Name	Highest_revenue
Canon EOS R5 Camera	3900

```sql
-- 🔹 Task 11: Calculate the Number of Orders per Payment Method
-- Objective: Determine the number of orders placed using each payment method.
select `payment method`,count(`transaction id`)
as  No_of_Payment_Method
from sales_data
group by `payment method`
order by No_of_Payment_Method desc;
```

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

payment method	No_of_Payment_Method
Credit Card	120
PayPal	80
Debit Card	40



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

revenue_year	revenue_quarter	total_revenue
2024	1	38201
2024	2	28292
2024	3	14075

```sql
-- 🔧 Task 13: Monthly Revenue and Order Volume
-- Objective: Calculate the total revenue and the number of unique orders for each month.
select extract(year from `date`) as year,
extract(month from `Date`) as month,
round(sum(`total revenue`),2) as total_revenue,
count(distinct `transaction id`) as unique_orders
from sales_data
group by year,month
order by year,month;
```

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

year	month	total_revenue	unique_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