Analysis Report On Retail Orders

1. find the Top 10 highest revenue-generating products

```sql
-- select * from df_orders
select Product_Id, SUM(cost_price) as sales
from df_orders
group by Product_Id
order by sales desc limit 10
```

Product_Id	sales
TEC-CO-10004722	53870.00
OFF-BI-10003527	23090.00
FUR-CH-10002024	18850.00
TEC-MA-10002412	18110.00
OFF-BI-10001359	17010.00
TEC-MA-10001127	16800.00
OFF-BI-10000545	16290.00
OFF-BI-10004995	15700.00
TEC-CO-10001449	15520.00
OFF-SU-10000151	15110.00

2. find the top 5 highest-selling products in each region

```sql
select * from df_orders
select Product_Id, SUM(cost_price) as sales
from df_orders
group by Product_Id
order by sales desc limit 10

select distinct region from df_orders

with cte as(
select region,Product_Id, SUM(cost_price) as sales
from df_orders
group by region, Product_Id)
select * from (
select *
,row_number() over(partition by region order by sales desc) as rn
from cte ) A where rn<=5
```

Result Grid | Filter Rows: | Export:

region	Product_Id	sales	rn
Central	TEC-CO-10004722	14000.00	1
Central	TEC-MA-10000822	12390.00	2
Central	OFF-BI-10001120	10040.00	3
Central	OFF-BI-10000545	9060.00	4
Central	OFF-BI-10004995	7280.00	5
East	TEC-CO-10004722	26850.00	1
East	TEC-MA-10001047	12160.00	2
East	FUR-BO-10004834	10200.00	3
East	OFF-BI-10001359	7590.00	4
East	TEC-CO-10001449	6960.00	5
South	TEC-MA-10002412	18110.00	1
South	TEC-MA-10001127	10360.00	2
South	TEC-MA-10004125	7280.00	3
South	OFF-BI-10001359	7110.00	4
South	OFF-BI-10003527	6290.00	5
West	TEC-CO-10004722	13020.00	1
West	OFF-SU-10000151	11690.00	2
West	FUR-CH-10001215	9040.00	3
West	FUR-CH-10003973	7100.00	4
West	TEC-AC-10003832	7050.00	5

3. find month-over-month growth comparison for 2022 and 2023 sales eg:2022 vs Jan 2023

```
with cte as (
select year(Order_Date) as orderyear, month(Order_Date) as ordermonth,
sum(cost_price) as sales
from df_orders
group by year(Order_Date),  month(Order_Date)
-- order by year(Order_Date),  month(Order_Date)
)
select ordermonth
,sum(case when orderyear=2022 then sales else 0 end)as sales_2022
,sum(case when orderyear=2023  then sales else 0 end)as sales_2023
from cte
group by ordermonth
order by ordermonth
```

ordermonth	sales_2022	sales_2023
1	85620.00	80360.00
2	80990.00	116570.00
3	73030.00	74870.00
4	86650.00	101540.00
5	72360.00	78260.00
6	85870.00	62790.00
7	71230.00	82400.00
8	93040.00	79380.00
9	72250.00	69980.00
10	109280.00	108440.00
11	76460.00	68910.00
12	87190.00	93220.00

4. for each category which month had the highest sales.

category	new_year_month	sales	rn
Furniture	202210	39460.00	1
Office Supplies	202302	39990.00	1
Technology	202210	46060.00	1

```sql
-- select * from df_orders
with cte as(
SELECT category, DATE_FORMAT(Order_Date, '%Y%m') AS new_year_month, sum(cost_price) as sales
FROM df_orders
group by category,DATE_FORMAT(Order_Date, '%Y%m')
order by category,DATE_FORMAT(Order_Date, '%Y%m')
)
select * from(
SELECT *,
ROW_NUMBER() OVER (PARTITION BY category ORDER BY sales DESC) AS rn
FROM
cte
) a where rn=1
```

5. which sub-category had the highest growth by profit in 2023 compared to 2022

Sub_Category	sales_2022	sales_2023	Sales_Growth
Appliances	58660.00	34770.00	40.726219
Copiers	73310.00	56550.00	22.861820
Tables	100990.00	79780.00	21.002079
Envelopes	8160.00	6510.00	20.220588
Furnishings	43580.00	37180.00	14.685636