

```
select * from df_orders
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```
--find top 10 highest reveue generating products
select top 10 product_id,sum(sale_price) as sales
from df_orders
group by product_id
order by sales desc
```

```
--find top 5 highest selling products in each region
```

```
with cte as (
select region, product_id,sum(sale_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
```

```
--find month over month growth comparison for 2022 and 2023 sales eg : jan 2022 vs jan 2023
```

```
with cte as (
select year(order_date) as order_year, month(order_date) as order_month,
sum(sale_price) as sales
from df_orders
group by year(order_date), month(order_date)
--order by year(order_date), month(order_date)
)
select order_month,
sum(case when order_year = 2022 then sales else 0 end) as sales_2022,
sum(case when order_year = 2023 then sales else 0 end) as sales_2023
from cte
group by order_month
order by order_month
```

```
--for each category which month had highest sales
```

```
with cte as(
select category, format(order_date,'yyyyMM') as order_year_month,
sum(sale_price) as sales
from df_orders
group by category, format(order_date,'yyyyMM')
--order by category, format(order_date,'yyyyMM') not allowed in sub-query
)
select * from (
select *,
row_number() over(partition by category order by sales desc) as rn
from cte
) a
where rn =1
```

```
--which sub category had highest growth by profit in 2023 compare to 2022
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```

with cte as (
select sub_category, year(order_date) as order_year,
sum(sale_price) as sales
from df_orders
group by sub_category, year(order_date)
--order by year(order_date), month(order_date)
)
, cte2 as (
select sub_category,
sum(case when order_year = 2022 then sales else 0 end) as sales_2022,
sum(case when order_year = 2023 then sales else 0 end) as sales_2023
from cte
group by sub_category
)
select top 1 *,
(sales_2023-sales_2022)*100/sales_2022
from cte2
order by (sales_2023-sales_2022)*100/sales_2022 desc

```

```

/*--create table df_orders(
    [order_id] int primary key,
    [order_date] date,
    [ship_mode] varchar (20),
    [segment] varchar (20),
    [country] varchar (20),
    [city] varchar (20),
    [state] varchar (20),
    [postal_code] varchar (20),
    [region] varchar (20),
    [category] varchar (20),
    [sub_category] varchar (20),
    [product_id] varchar (20),
    [quantity] int,
    [discount] decimal(7,2),
    [sale_price] decimal(7,2),
    [profit] decimal(7,2)

--)*/

```