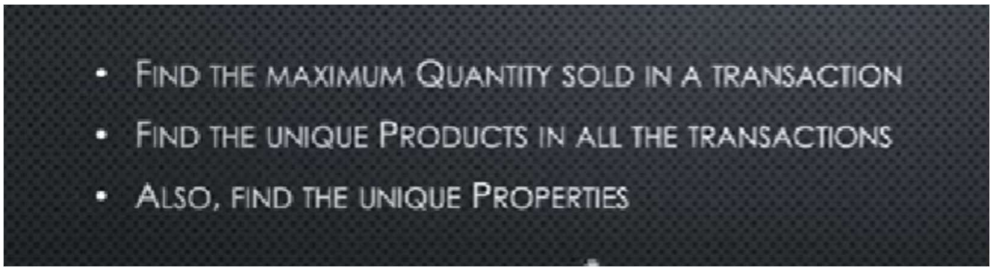
PART-1



QUERY- 1 : Find the maximum quantity sold in a transaction?

```
select
max(quantity) as maximum_quantity
from tr_orderdetails;
```

QUERY- 2: Find unique products in all the transactions?

```
select distinct productname as unique_product
 from tr_products;
```

QUERY- 3: Find the uniqe properties?

```
select distinct(Prop_ID) as unique_property
 from tr_propertyinfo;
```

PART- 2

QUERY- - 1: Find The category that has maximum products?

```
with Max_Product_Category as(select ProductCategory , max(ProductID) as MaxProducts , Rank()
over(order by max(ProductID) desc)as rnk
 from tr_products
group by ProductCategory
 order by MaxProducts Desc)
 Select ProductCategory , MaxProducts
 from  Max_Product_Category
 where rnk = 1;
```

QUERY- - 2: Find the state where Most stores are present ?

```
select PropertyState,City_Count from(select PropertyState, Count(*) as City_Count,
Rank() over(order by count(*) desc) as rnk
from tr_propertyinfo
group by PropertyState
order by City_Count Desc) t
where t.rnk <2 ;
```

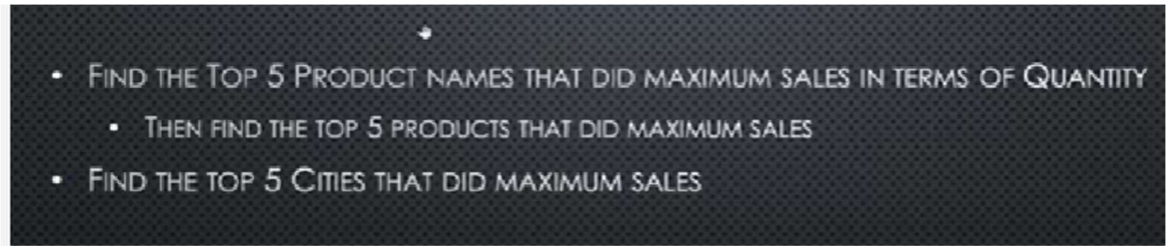
QUERY- 3 : Find the top 5 product ids that did maximum sales in terms of quantity?

```
With Top5_Product_id as(Select ProductID  , count(Quantity) as Total_Quantity,
 Dense_Rank() Over(Order by Count(Quantity) Desc) as rnk
 from tr_orderdetails
 group by ProductID
 order by Total_Quantity Desc )
 select ProductID,Total_Quantity
 from Top5_Product_id
 where rnk < 6
order  by ProductID asc ;
```

QUERY- - 4 : Top 5 Propery_ID that did maximum sales in terms of quantity?

```
with top5_property as(select PropertyID , count(Quantity) as Max_Quantity ,
Dense_Rank() Over(order by count(Quantity) desc) as rnk
from tr_orderdetails
group by PropertyID
order by Max_Quantity desc)
select PropertyID , Max_Quantity
from top5_Property
where rnk<6
order by Max_Quantity desc;
```

PART-3



QUERY- -1: Find Top5 product names that did max sales in terms of quantity?

```
with Top5_ProductName as (select ProductName,count(Quantity) as Total_Quantity,
Dense_Rank() over(order by count(Quantity) desc) as rnk from tr_products p
join tr_orderdetails o
```

```
on p.ProductID = o.ProductID
group by ProductName)
select ProductName , total_Quantity
from Top5_ProductName
where rnk<6;
```

QUERY- -2: Top 5 cities that did maximum sales?

```
with Top5_Cities as(select PropertyCity, (concat(sum(Price * Quantity),"$")) as Sales,
rank() over(order by Sum(Price * Quantity) desc ) as rnk
from tr_propertyinfo p
join tr_orderdetails o
on p.Prop_ID = o.PropertyID
join tr_Products as pr
on o.ProductID = pr.ProductID
group by PropertyCity)
select PropertyCity , Sales
from Top5_Cities
where rnk<6 ;
```

Query- 1 :Top5 Product in Each of the city?

```
WITH product_total_quantity AS (
  SELECT
    p.ProductName,
    pf.PropertyCity,
    SUM(o.Price * o.Quantity) AS total_quantity
  FROM
    tr_orderdetails o
    JOIN tr_products p ON o.ProductID = p.ProductID
    JOIN tr_propertyinfo pf ON o.PropertyID = pf.Prop_ID
  GROUP BY
    p.ProductName, pf.PropertyCity)
SELECT
  ProductName,
  PropertyCity,
  total_quantity,
  RANK() OVER (PARTITION BY PropertyCity ORDER BY total_quantity DESC) AS rnk
FROM
  product_total_quantity
ORDER BY
```

PropertyCity, rnk;