```sql
--Measures

--Num of orders
select COUNT (o.orderID) as [Num of orders]
from [dbo].[Order] o
```

Results | Messages

	Num of orders
1	213334

```sql
--Total sales
select SUM (o.[Total sales])  as [Total sales]
from [dbo].[Order] o
```

Results | Messages

	Total sales
1	2085734042

```sql
--Num of Organizations
select COUNT (org.Organization_ID) as [Num Of Organizations]
from Organization org
```

	Num Of Organizations
1	8436

```sql
--Num of products
select COUNT (p.ProductID) as [Num of Products]
from Product p
```

	Num of Products
1	240

```sql
--Units sold
select SUM (o.[Total sales]) as [Units sold]
from [dbo].[Order] o
```

	Units sold
1	2085734042

Query executed successfully.

```sql
--  Best 10 Costumors
select top 10 org.Organization_ID,org.Organization_Name ,COUNT(o.OrderID)
as [Num Of Orders]
from [dbo].[Order] o join  Organization org
on org.Organization_ID = o.organizationID
group by org.Organization_Name ,org.Organization_ID
order by[Num Of Orders] desc
```

Results | Messages

	Organization_ID	Organization_Name	Num Of Orders
1	318	Weber Ltd Pharmaceutical Ltd	375
2	692	Nolan, DuBuque and Schultz	367
3	608	Spinka, Schowalter and Conn	365
4	618	Armstrong Inc Pharma Plc	364
5	472	Mann-Waelchi Pharma Plc	362
6	249	D'Amore and Sons Pharmacy	362
7	442	D'Amore and Sons Pharm	361
8	524	Gulgowski-Vandervort Pharm	360
9	328	Marquardt-Ryan Pharm	359
10	719	Boyer and Sons Pharmaceutical Ltd	356

```sql
--Germany VS Poland in sales

Select c.Country ,SUM(o.[Total sales]) as [Total sales]
from [dbo].[Order] o join Organization org
on o.organizationID= org.Organization_ID
join Address ad
on ad.AddressID=org.Organization_ID
join country c
on c.CountryID = ad.countryID
group by c.Country
```

Results | Messages

	Country	Total sales
1	Germany	1836944062
2	Poland	242505744

```sql
--sales Over Years
select o.Year,SUM(o.[Total sales]) as [Total sales]
from [dbo].[Order] o
group by o.Year
```

115 %

Results | Messages

	Year	Total sales
1	2017	513909686
2	2018	700639415
3	2019	429808238
4	2020	441376703

```sql
-- Year Filter PROC
create or alter proc year_filter
@Year int
as
select o.Year ,
SUM(o.[Total sales]) as [Total sales],
COUNT (o.orderID) as [Num of orders],
SUM (o.[Total sales]) as[Units sold]
from [dbo].[Order] o
group by o.Year
having @year =o.Year

year_filter @year=2018
```

Results | Messages

	Year	Total sales	Num of orders	Units sold
1	2018	700639415	82192	700639415

```sql
-- Trendy products (n)
CREATE OR ALTER FUNCTION [Top N Sales Products] (@n INT)
RETURNS TABLE
AS
RETURN
(
    SELECT *
    FROM (
        SELECT p.ProductID,
               p.ProductName,
               SUM(od.[Total sales]) AS [Total Sales],
               RANK() OVER (ORDER BY SUM(od.[Total sales]) DESC) AS
Salesrank
        FROM product p
        JOIN [dbo].[order] od ON od.productID = p.productID
        GROUP BY p.ProductID, p.ProductName
    ) AS rank_view
    WHERE rank_view.Salesrank <= @n
);
select * from [Top N Sales Products] (10)
```

115 %

Results | Messages

	ProductID	ProductName	Total Sales	Salesrank
1	93	Nevanide Actozide	18638576	1
2	180	Docstryl Rivacin	17604957	2
3	37	Ketastadil	17348331	3
4	127	Menogine	17120166	4
5	36	Theopril	16750848	5
6	70	Adalatamine	16748636	6
7	238	Cephozumab Synmethate	16680192	7
8	188	Flutacerol	16584445	8
9	88	Malavirine Alimdine	16497403	9
10	130	Travoloride	16448105	10

```sql
-- Trendy Product Class
CREATE OR ALTER FUNCTION TrendyProductClass (@n INT)
RETURNS TABLE
AS
RETURN
(
    SELECT *
    FROM (
        SELECT p.ProductID,
               p.ProductName,
               SUM(od.[Total sales]) AS [Total Sales],
               RANK() OVER (ORDER BY SUM(od.[Total sales]) DESC) AS
Salesrank
        FROM [dbo].[order] od JOIN product p
            ON od.productID = p.productID
            join ProductClass pc
            on pc.ProductClassID =p.ProductID
        GROUP BY p.ProductID, p.ProductName
    ) AS rank_view
    WHERE rank_view.Salesrank <= @n
);
select * from TrendyProductClass (10)
```

Results | Messages

	ProductID	ProductName	Total Sales	Salesrank
1	2	Choriotrisin	12642672	1
2	5	Oxymotroban Fexoformin	9857534	2
3	4	Lioletine Refliruvax	9269850	3
4	1	Topipizole	7421824	4
5	6	Pazofenac	2752863	5
6	3	Acantaine	1470282	6

```sql
-- Best 2 product in each class
with RankProdect as(
select p.ProductName,pc.ProductClass
,SUM(od.[Total sales]) as [Total sales]
,ROW_NUMBER() OVER (PARTITION BY pc.ProductClass ORDER BY
SUM(od.[Total sales]) DESC) AS rank

from [dbo].[Order] od join Product p
on p.ProductID=od.productID
join ProductClass pc
on pc.ProductClassID=p.ProductClassID
group by p.ProductName,pc.ProductClass
)
select
   ProductName,
    ProductClass,
    [Total sales]
from RankProdect
where RANK <= 2
```

Results | Messages

	ProductID	ProductName	Total Sales	Salesrank
1	2	Choriotrisin	12642672	1
2	5	Oxymotroban Fexoformin	9857534	2
3	4	Lioletine Refliruvax	9269850	3
4	1	Topipizole	7421824	4
5	6	Pazofenac	2752863	5
6	3	Acantaine	1470282	6