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Valuable Insights using SQL

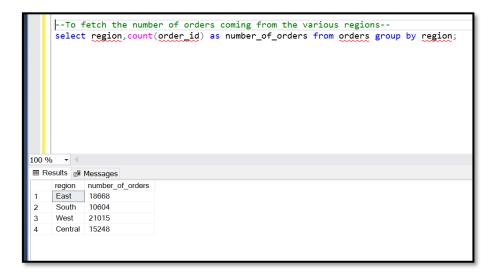
Tool Used: Microsoft SQL Server

I. <u>Database : Super Store</u>

Q.1. What are the number of products which were bought in between the year 2014 to 2016 by various states?

```
--To select count of Products which were bought in between the year 2014 to 2016 by various states
  |select state, YEAR(order_date) AS order_year, COUNT(product_id) AS product_count
  FROM orders
WHERE YEAR(order date) BETWEEN 2014 AND 2016
GROUP BY state, YEAR(order date);
Results Messages
 state order_year product_count
Rhode Island 2015 49
  Nebraska
                 2016
                           93
  Nevada
                 2016
                           206
326
  Oklahoma
                 2016
                 2016
  New Jersey
                 2015
2015
                            26
269
  Colorado
  Arizona
                 2016
                            285
1722
  New York
                 2015
  Massachusetts 2016
                            158
  Missouri
```

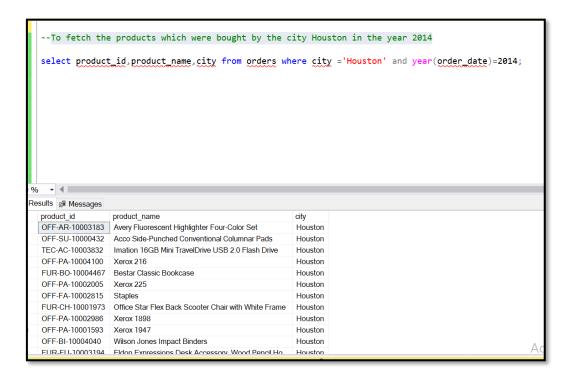
Q.2. What are the number of orders coming from various regions?



Q.3. Select the order_id,product_id and customer_name who has returned the orders from the New York state.

```
--List the Order_id , Product_id and Customer Name who has returned the orders from the New York State--
  select r.order_id, o.product_id, o.customer_name
  from orders o left outer join returns r
  on o.order_id=r.order_id
 where r.returned='Yes
 and o.state='New York';
Results Messages
 order_id
                product_id
                                 customer_name
  CA-2015-134201 OFF-AR-10002804 Eugene Hilde...
  CA-2015-134201 OFF-ST-10001476 Eugene Hilde.
 CA-2015-134201 OFF-AR-10002804 Eugene Hilde.
 CA-2015-134201 OFF-ST-10001476 Eugene Hilde.
 CA-2015-134201 OFF-AR-10002804 Eugene Hilde.
 CA-2015-134201 OFF-ST-10001476 Eugene Hilde.
 CA-2015-134201 OFF-AR-10002804 Eugene Hilde...
  CA-2015-140984 OFF-ST-10000585 Craig Carroll
  CA-2015-140984 TEC-CO-10001571 Craig Carroll
  CA-2015-140984 OFF-BI-10002012
  CA-2015-140984 OFF-ST-10000585 Craig Carroll
                TEC-CO-10001571
```

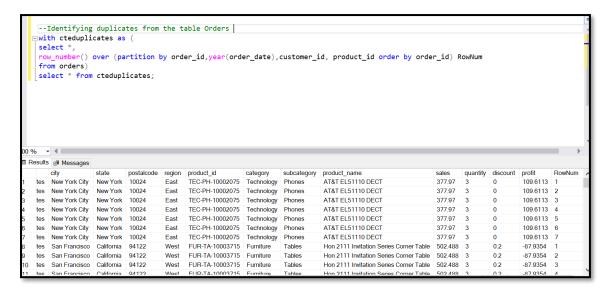
Q.4. To fetch the list of products which were bought by the city Houston in the year 2014.



Q.5. To fetch the top 5 sum of sales by state and categories in the year 2014 and 2015.

```
--Fetch the top 5 sum of sales by state and categories in the year 2014 and 2015
select top 5 year(order_date) as year_of_order, state, category, sum(sales) as sum_of_sales
from orders
where year(order_date) in (2014,2015)
group by year(order_date),state,category
order by sum(sales) desc;
esults 🗐 Messages
year_of_order state
                      category
                                   sum_of_sales
 2015
             New York
                      Technology
                                   227898.558
 2014
             California
                     Furniture
                                   220208.349500001
 2015
             California Furniture
                                   212438.098
 2014
             California
                      Office Supplies 201186.366
                                   200037.892
 2015
             California Technology
```

Q.6. Identify the duplicate rows from Orders Table



Q.7. Delete the duplicates from the Orders Table

Q.8. To find out the Year on Year Growth of Superstore based on Sales?

```
--To find year on year growth based on Sales
with cte_PreviousYearTotal
as
select year(order_date) as OrderYear, sum(sales) as TotalSales from orders
group by year(order_date)
select OrderYear, TotalSales, LAG(TotalSales, 1) over (order by OrderYear) PrevYearTotal,
format((TotalSales-LAG(TotalSales,1) over (order by OrderYear))/
LAG(TotalSales,1) over (order by OrderYear), 'P') YOYGrowth
from cte_PreviousYearTotal;
  - 4 -
esults 🖟 Messages
OrderYear TotalSales
                         PrevYearTotal
                                         YOYGrowth
2014
          483966.126100001 NULL
                                         NULL
2015
          470442.449000001 | 483966.126100001 | -2.79%
2016
          608532.458000001 470442.449000001
                                         29.35%
2017
          732568.539199999 608532.458000001 20.38%
```

II. <u>Database: Netflix</u>

Q.9. To display the count of type of content on Netflix.

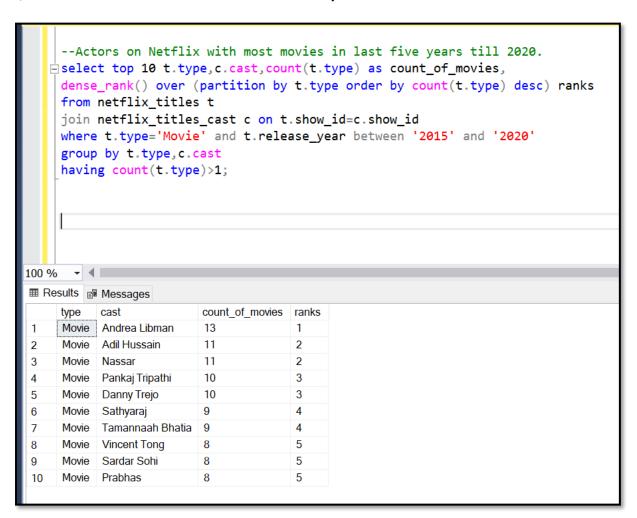
Q.10. To display the country names where movies were released in the year 2019 by the director Richard Finn.

```
--To display the country names where movies were released in the year 2019 by the director Richard Finn.
   select t.type,t.title,t.release_year,d.director,c.country from netflix_titles t
    join netflix_titles_countries c on t.show_id=c.show_id
     join netflix_titles_directors d on t.show_id=d.show_id
     where t.release_year ='2019' and d.director='Richard Finn';
100 % - 4
director
                                          release_year
    Movie Norm of the North: King Sized Adventure 2019
                                                     Richard Finn South Korea
     Movie Norm of the North: King Sized Adventure 2019
                                                     Richard Finn United States
     Movie Norm of the North: King Sized Adventure 2019
                                                     Richard Finn China
     Movie Norm of the North: King Sized Adventure 2019
                                                     Richard Finn India
```

Q.11. To display the ranks of content category wise like which released first between the year 1990 and 2020.

```
--To display the ranks of Content category wise like which released first between the year 1990 and 2020.
     with cte_top_category_yearwise as
     select t.release_year,t.date_added,t.title,c.listed_in, dense_rank() over (partition by t.release_year order by c.listed_in desc) ranks
     from netflix_titles t join netflix_titles_category c
     on t.show_id=c.show_id
     select * from cte_top_category_yearwise where release_year between '1990' and '2020';
       - 4 ■
100 %
release_year date_added
                                                                    listed in
               2017-07-01 00:00:00.000 Twin Peaks
      1990
                 2014-12-18 00:00:00.000 Pee-wee's Playhouse
                                                                    TV Comedies
                                                                     Stand-Up Comedy
                 2018-12-31 00:00:00.000 Tim Allen: Men Are Pigs
     1990
     1990
                 2019-08-01 00:00:00.000 Rocky V
                                                                     Sports Movies
                 2019-11-01 00:00:00.000 Listen Up! The Lives of Quincy Jones Music & Musicals
     1990
     1990
                 2014-12-18 00:00:00.000 Pee-wee's Playhouse
                                                                    Kids' TV
     1990
                 2018-08-16 00:00:00.000 Look Out, Officer
                                                                    International Movies
                 2019-12-31 00:00:00.000 Ghayal
                                                                     International Movies
     1990
                 2019-12-31 00:00:00 000 Shiva
                                                                     International Movies
                 2019-10-01 00:00:00.000 Escape from the "Liberty" Cinema
                                                                    Independent Movies
      1990
      1990
                 2020-01-01 00:00:00.000 Tremors
                                                                    Horror Movies
```

Q.12. Actors on Netflix with most movies in last five years till 2020.



Q.13. Actors on Netflix with most TV shows in last five years till 2020.

```
--Actors on Netflix with most TV shows in last five years till 2020.
  dense_rank() over (partition by t.type order by count(t.type) desc) ranks
    from netflix_titles t
    join netflix_titles_cast c on t.show_id=c.show_id
    where t.type='TV Show ' and t.release_year between '2015' and '2020'
    group by t.type,c.cast
    having count(t.type)>1;
00 %
     - 4

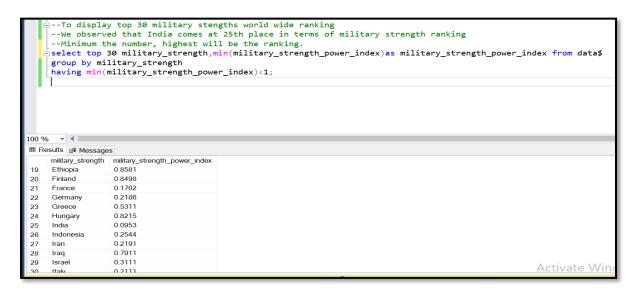
■ Results  Messages

                                           ranks
                              count_of_movies
    type
            cast
   TV Show
           Takahiro Sakurai
                               13
                                            1
                                            2
            Ashleigh Ball
                               10
    TV Show
                               9
                                            3
    TV Show
            Hiroshi Kamiya
    TV Show
                               9
                                            3
            Vincent Tong
    TV Show Yuki Kaji
                               9
                                            3
    TV Show Ai Kayano
                               8
                                            4
    TV Show
            Daisuke Ono
                               8
                                            4
    TV Show
            Kathleen Barr
                               8
                                            4
                                            5
                               7
    TV Show Kevin Michael Richardson
10
    TV Show Kenjiro Tsuda
                               7
                                            5
```

III. Database: military

Dataset: World_Military_Power.xls

Q.14. To display top 30 military strength world-wide ranking.



We observed that India comes at 25th place in terms of military strength ranking. Minimum the number, highest will be the ranking.

Q.15. To display the top 10 countries with highest external debt value.

```
-- To display the top 10 countries with highest external debt
   SELECT TOP 10
         external_debt,
         MAX(CAST(REPLACE(external_debt_value, ',', '') AS BIGINT)) AS external_debt
    GROUP BY external_debt_value,external_debt
    ORDER BY external_debt_value desc;
100 %
      - 4 -
■ Results Messages
     external_debt defense_budget
    Vietnam 96580000000
     Romania
                95970000000
     New Zealand 91620000000
3
                91530000000
     Panama
     Albania
                9505000000
                939900000000
     Cameroon
                9375000000
     Zimbabwe
                9357000000
     Israel
                88660000000
    Pakistan
                82190000000
10
```

Q.16. Prepare a report of having names of all countries with aircraft strength value, aircraft fleet value and helicopter fleet strength value from military data.

