use Commercial\_Project

-- 1) Show Total Transactions, Total Profit, Profit Margin by Product\_Brand

select p.product\_brand, COUNT(t.transaction\_date) AS number\_of\_transactions, ROUND(SUM(t.profit),0) AS total\_profit,

-- CAST(SUM(profit) / SUM(revenue) AS decimal(10,2)) \* 100 AS profit\_margin

CAST(SUM(t.profit) / SUM(t.quantity \* p.product\_retail\_price) AS decimal(10,2)) \* 100 AS profit\_margin

from Transaction\_Data t

inner join Products p on t.product\_id = p.product\_id

group by p.product\_brand

-- Show the top 30 product brands, then sort descending by Total Transactions

select TOP 30

p.product\_brand, COUNT(t.transaction\_date) AS number\_of\_transactions, ROUND(SUM(t.profit),0) AS total\_profit,

-- CAST(SUM(profit) / SUM(revenue) AS decimal(10,2)) \* 100 AS profit\_margin

CAST(SUM(t.profit) / SUM(t.quantity \* p.product\_retail\_price) AS decimal(10,2)) \* 100 AS profit\_margin

from Transaction\_Data t

inner join Products p on t.product\_id = p.product\_id

group by p.product\_brand

order by COUNT(t.transaction\_date) DESC

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-- Show total transactions by start of month

select DATETRUNC(MONTH, c.date) AS start\_of\_month, COUNT(transaction\_date) AS number\_of\_transactions from Transaction\_Data t

inner join calendar c on c.date = t.transaction\_date

group by DATETRUNC(MONTH, c.date)

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-- Show Total Transactions by store city and country

select COUNT(t.transaction\_date) AS number\_of\_transactions, s.store\_country, s.store\_city from Transaction\_Data t

inner join Stores s on s.store\_id = t.store\_id

group by s.store\_country, s.store\_city

-- Show Total transactions by store country and store\_city

-- Window function OVER() clause

select CONCAT\_WS(' ', c.first\_name, c.last\_name) AS customer\_full\_name, s.store\_country, s.store\_city, t.transaction\_date,

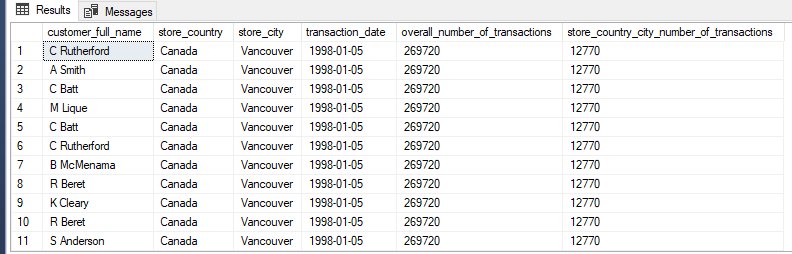
COUNT(t.transaction\_date) OVER() AS overall\_number\_of\_transactions,

COUNT(t.transaction\_date) OVER(PARTITION BY s.store\_country, s.store\_city) AS store\_country\_city\_number\_of\_transactions

from Transaction\_Data t

inner join Stores s on s.store\_id = t.store\_id

left join Customers c on c.customer\_id = t.customer\_id



-- Pull the weekly revenue trending. Only show data for 1998

select DATETRUNC(WEEK, c.Date) AS start\_of\_week, ROUND(SUM(t.quantity \* p.product\_retail\_price),0) AS total\_revenue

from Transaction\_Data t

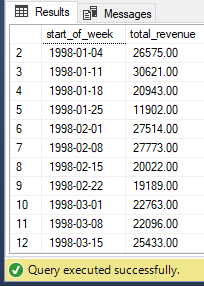
left join Calendar c on t.transaction\_date = c.Date

left join Products p on p.product\_id = t.product\_id

where DATEPART(YEAR, c.Date) = 1998

group by DATETRUNC(WEEK, c.Date)

order by DATETRUNC(WEEK, c.Date) ASC



-- Pull the Top Customer in terms of Total Revenue and Total Orders – Optional Question

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