

**BI Test: Task 1**

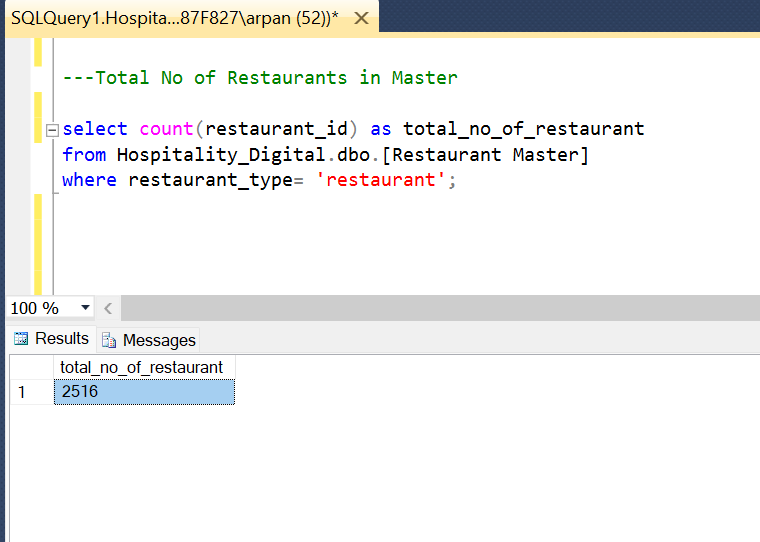
**SQL**

A metro company

1. How many restaurants in master, how many restaurants have reservations and what percentage do they account for? How many reservations were made in total?
2. Total No of Restaurants in Master

select count(restaurant\_id) as total\_no\_of\_restaurant

from Hospitality\_Digital.dbo.[Restaurant Master]

 where restaurant\_type= 'restaurant';

1. No of Reserved Restaurant in Master

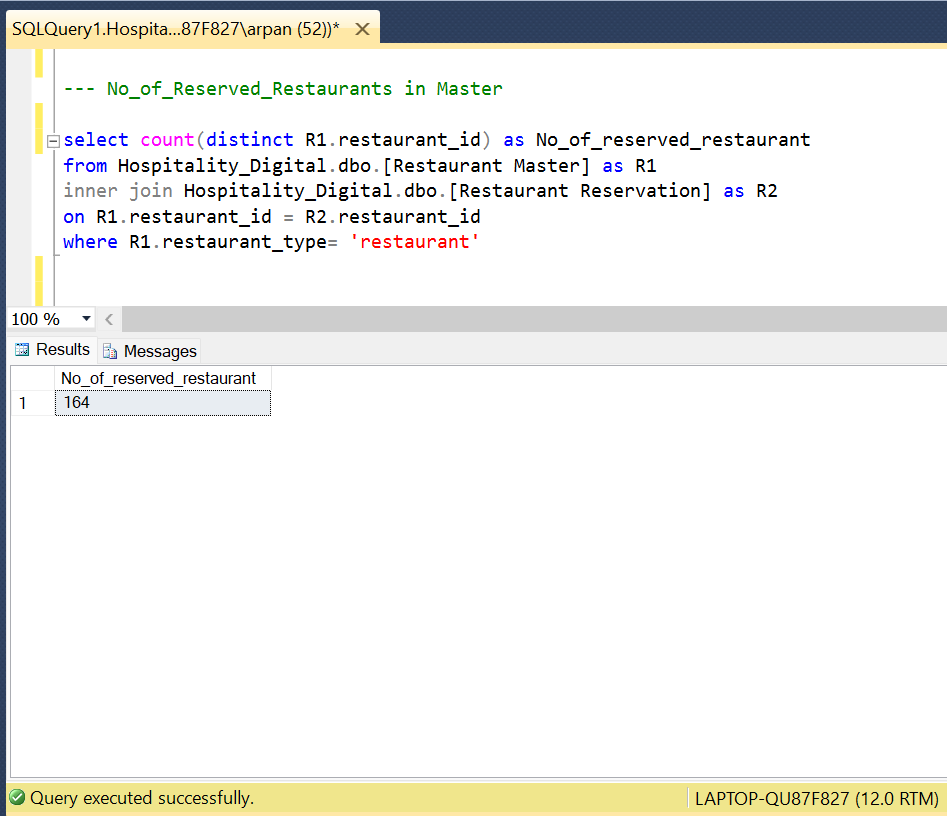
select count(distinct R1.restaurant\_id) as No\_of\_reserved\_restaurant

from Hospitality\_Digital.dbo.[Restaurant Master] as R1

inner join Hospitality\_Digital.dbo.[Restaurant Reservation] as R2

on R1.restaurant\_id = R2.restaurant\_id

where R1.restaurant\_type= 'restaurant';



1. Percentage of Restaurants which are reserved out of Total\_restaurants in Master

with t1 as (select count(restaurant\_id) as total\_no\_of\_restaurant

from Hospitality\_Digital.dbo.[Restaurant Master]

where restaurant\_type= 'restaurant'),

t2 as (select count(distinct R1.restaurant\_id) as No\_of\_reserved\_restaurant

from Hospitality\_Digital.dbo.[Restaurant Master] as R1

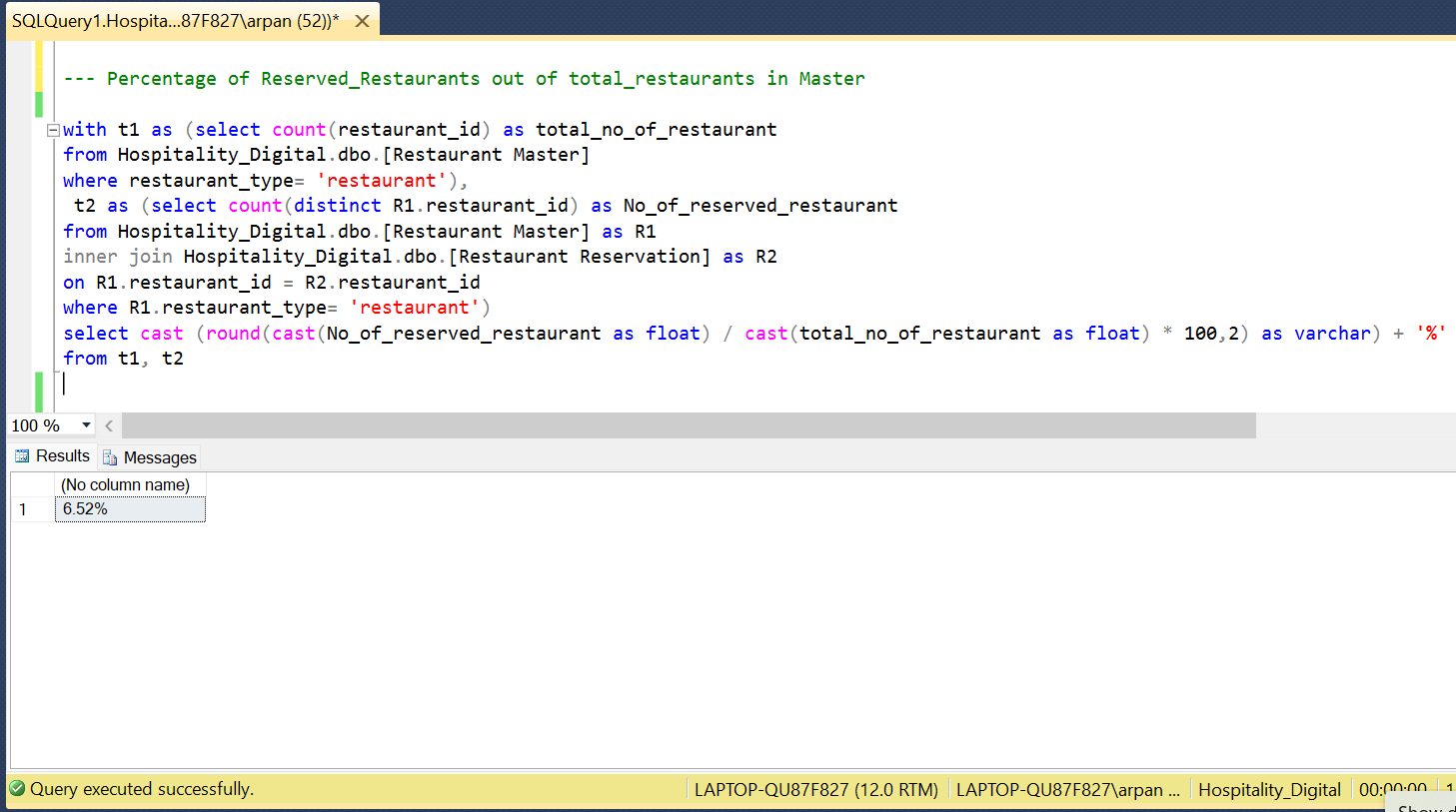
inner join Hospitality\_Digital.dbo.[Restaurant Reservation] as R2

on R1.restaurant\_id = R2.restaurant\_id

where R1.restaurant\_type= 'restaurant')

select cast (round(cast(No\_of\_reserved\_restaurant as float) / cast(total\_no\_of\_restaurant as

float) \* 100,2) as varchar) + '%' from t1, t2;



1. Total No. of Reservations made in Restaurants from Master

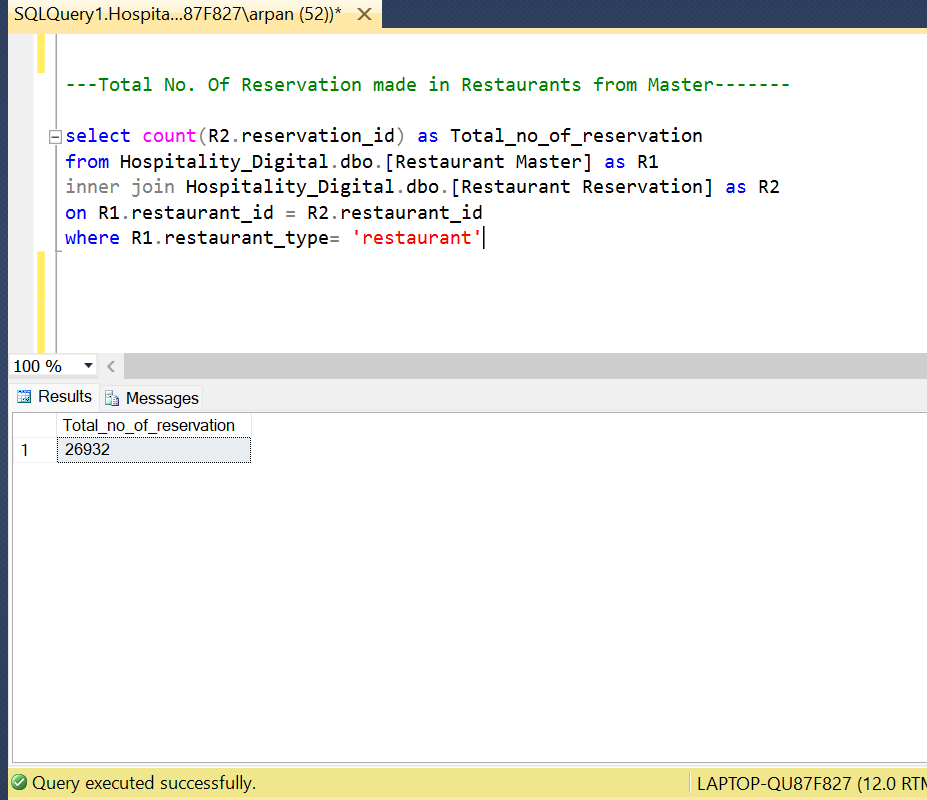
select count(R2.reservation\_id) as Total\_no\_of\_reservation

from Hospitality\_Digital.dbo.[Restaurant Master] as R1

inner join Hospitality\_Digital.dbo.[Restaurant Reservation] as R2

on R1.restaurant\_id = R2.restaurant\_id

where R1.restaurant\_type= 'restaurant';



1. Developments in Reservations over time at Monthly level:-

select year(reservation\_created\_date) as year, month(reservation\_created\_date) as month,

count(reservation\_id) as current\_month\_reservation,

LAG(count(reservation\_id)) over (order by year(reservation\_created\_date),

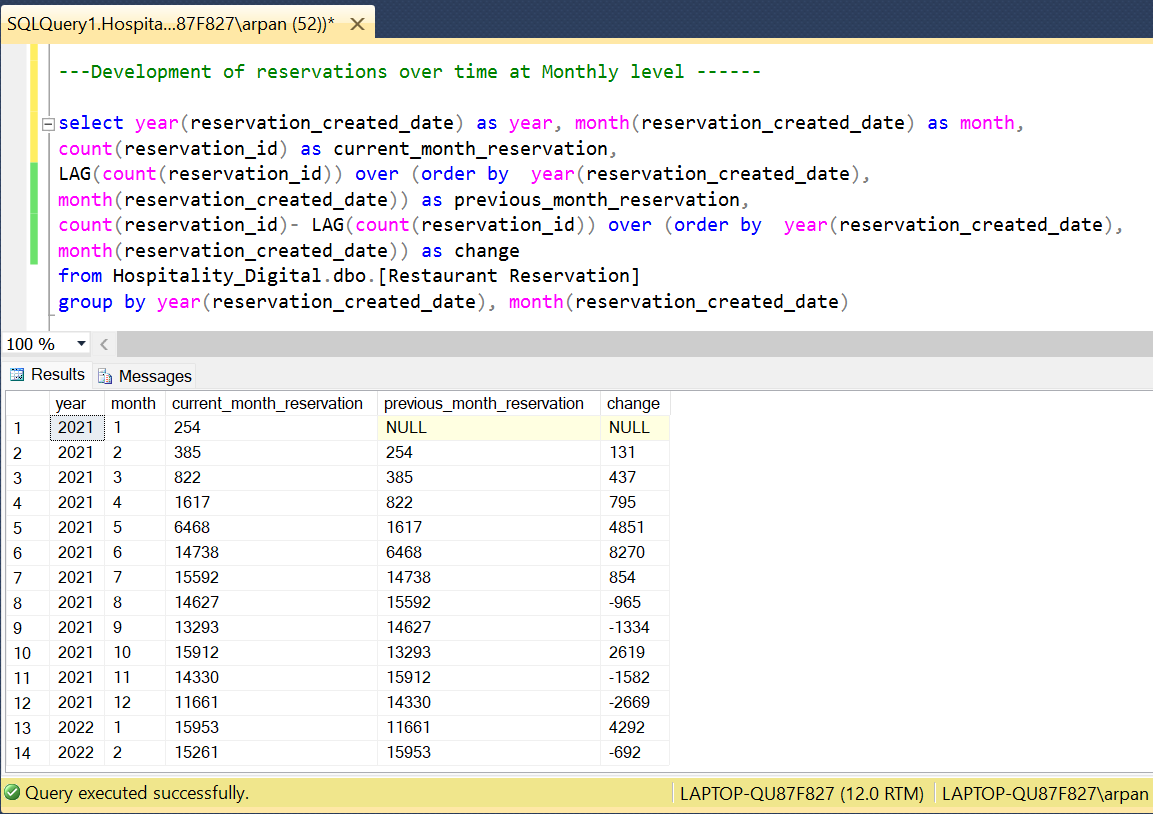
month(reservation\_created\_date)) as previous\_month\_reservation,

count(reservation\_id)- LAG(count(reservation\_id)) over (order by year(reservation\_created\_date),

month(reservation\_created\_date)) as change

from Hospitality\_Digital.dbo.[Restaurant Reservation]

group by year(reservation\_created\_date), month(reservation\_created\_date);



1. Year/Month with Highest No. of Reservations:-

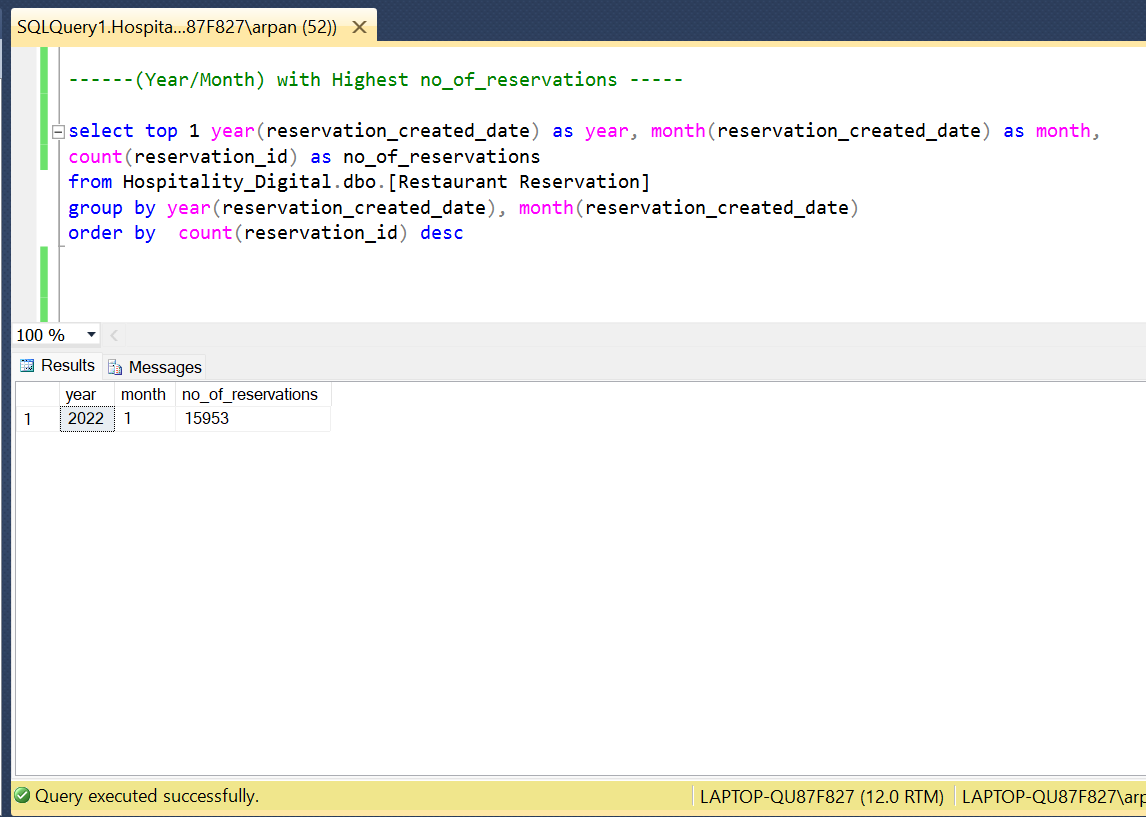
select top 1 year(reservation\_created\_date) as year,

month(reservation\_created\_date) as month, count(reservation\_id) as no\_of\_reservations

from Hospitality\_Digital.dbo.[Restaurant Reservation]

group by year(reservation\_created\_date), month(reservation\_created\_date)

order by count(reservation\_id) desc



1. Year/Month with Lowest No. of Reservations:-

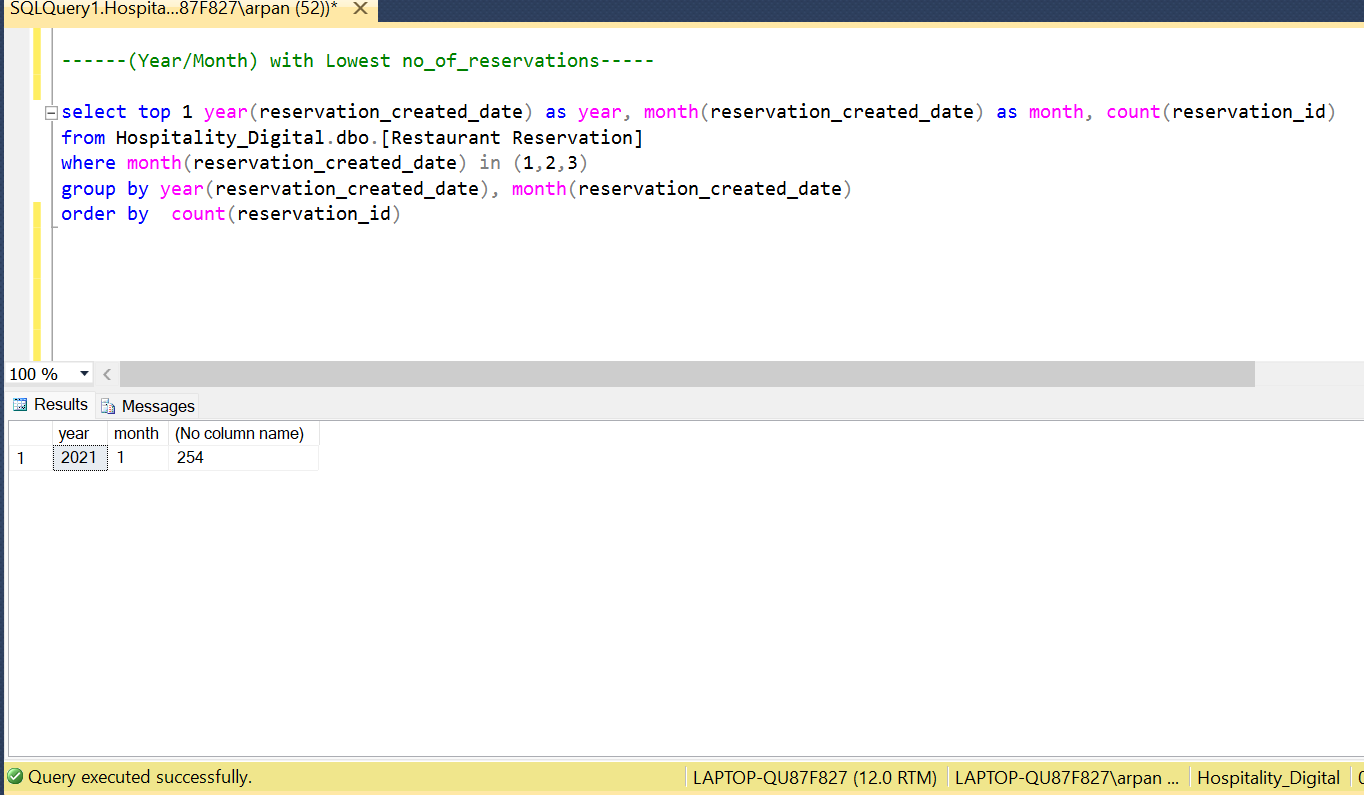
select top 1 year(reservation\_created\_date) as year, month(reservation\_created\_date) as month, count(reservation\_id)

from Hospitality\_Digital.dbo.[Restaurant Reservation]

where month(reservation\_created\_date) in (1,2,3)

group by year(reservation\_created\_date), month(reservation\_created\_date)

order by count(reservation\_id)



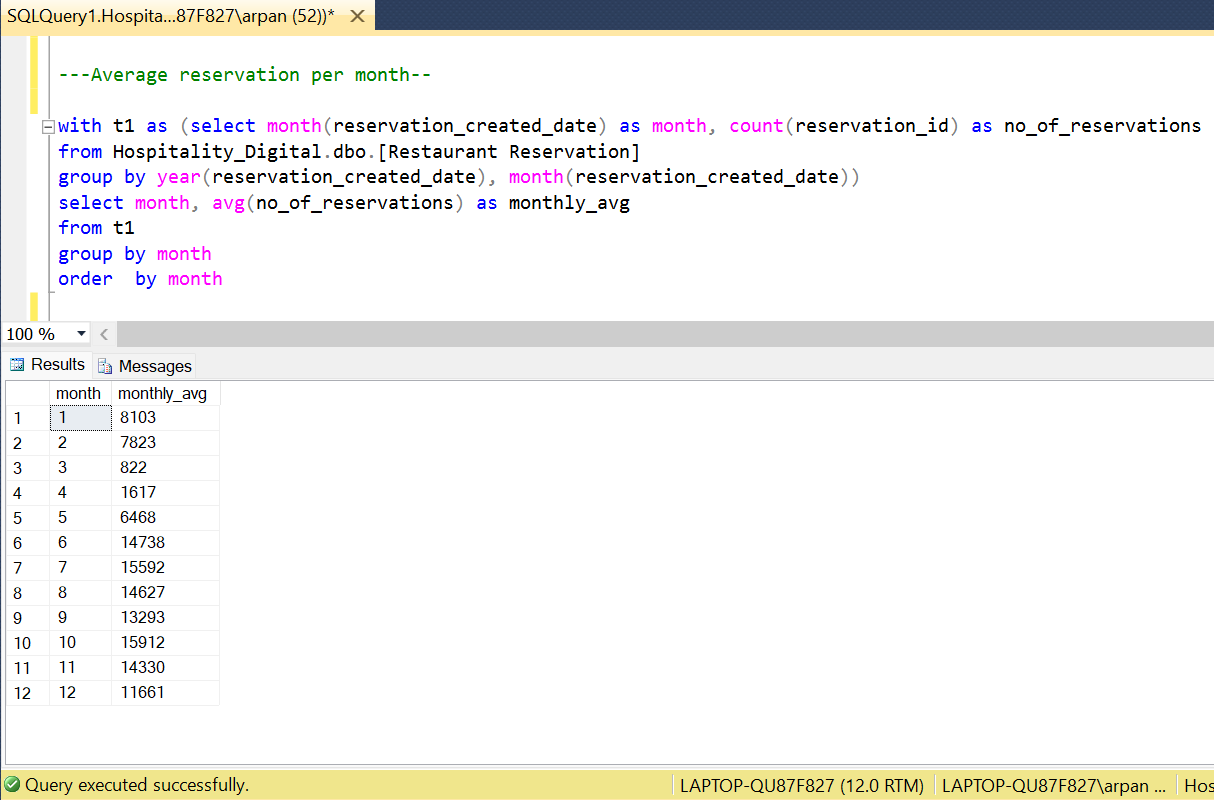
1. Average Reservations per Month:-

with t1 as (select month(reservation\_created\_date) as month, count(reservation\_id) as no\_of\_reservations

from Hospitality\_Digital.dbo.[Restaurant Reservation]

group by year(reservation\_created\_date), month(reservation\_created\_date))

select month, avg(no\_of\_reservations) as monthly\_avg

from t1 group by month order by month

1. Third Reservation per Restaurant:-

with t1 as (select \*,

ROW\_NUMBER () over (partition by restaurant\_id order by reservation\_created\_date, reservation\_id) as rank

from Hospitality\_Digital.dbo.[Restaurant Reservation])

select restaurant\_id, reservation\_id, reservation\_created\_date

from t1

where rank = 3

