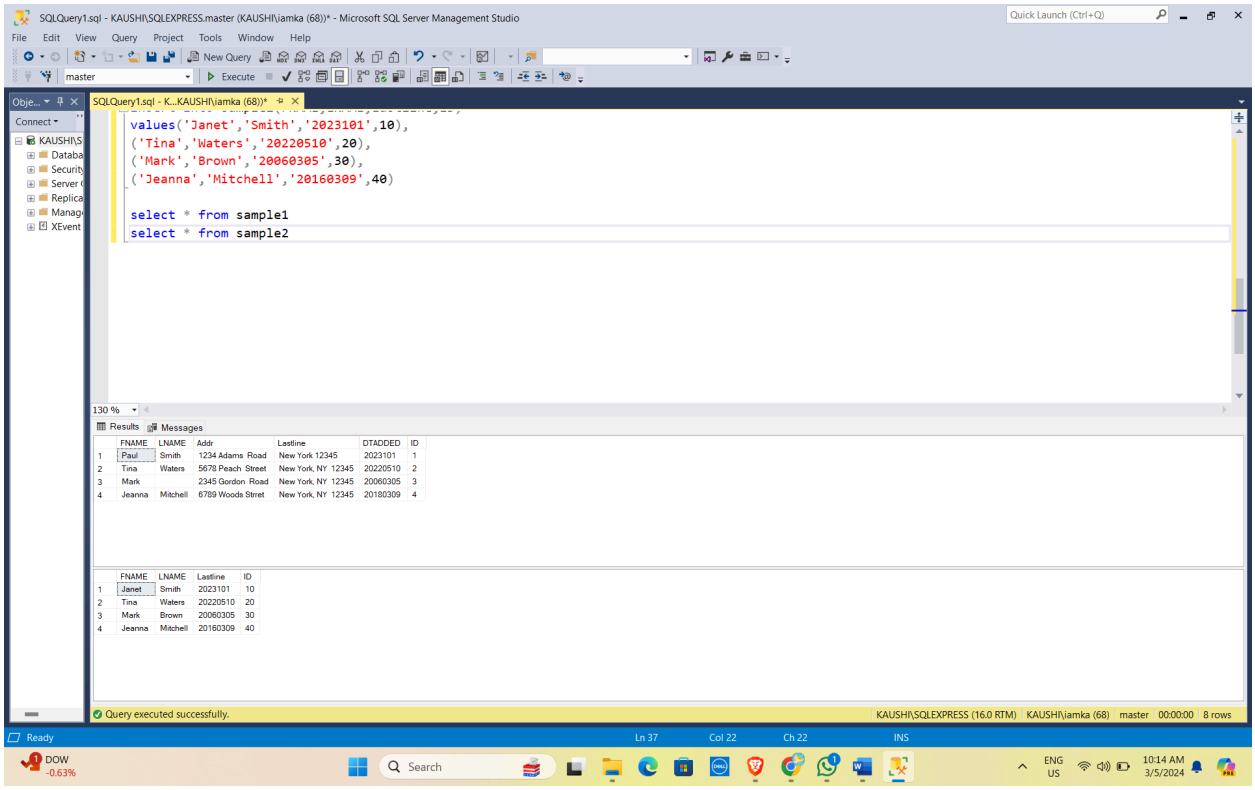
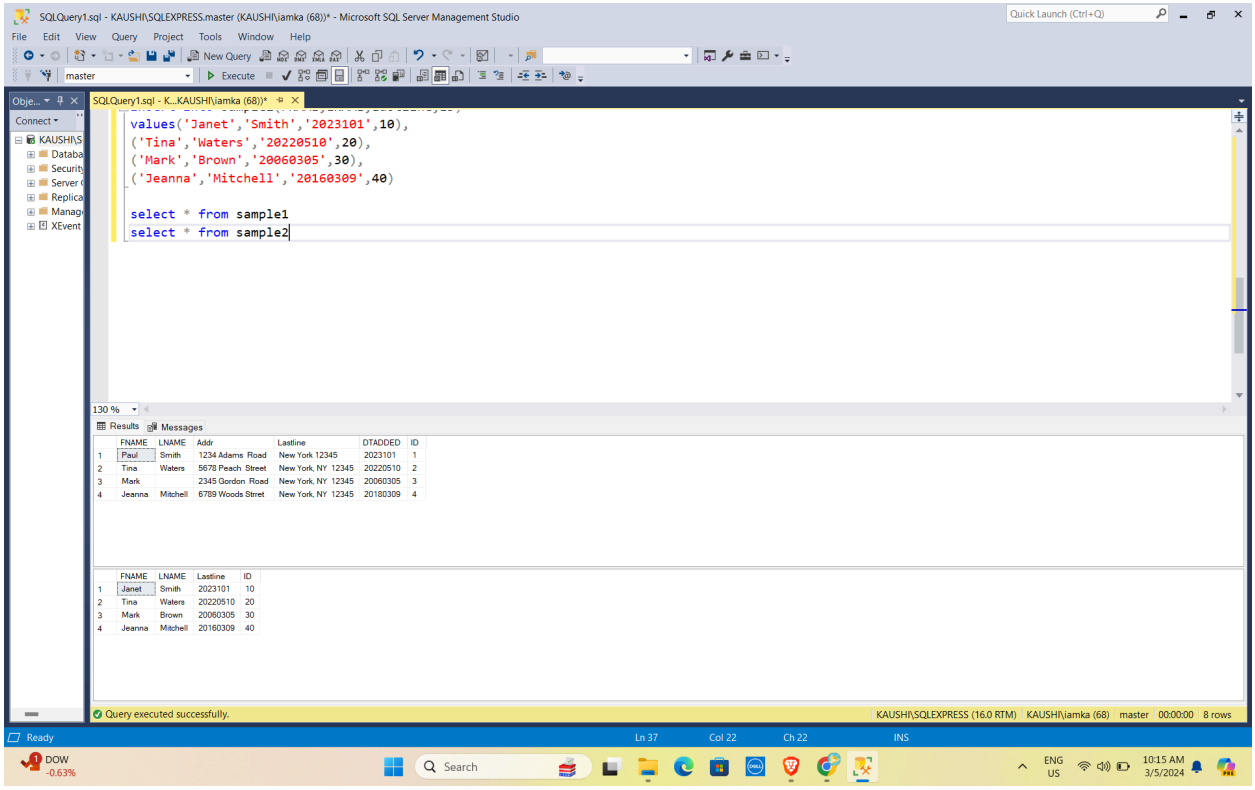
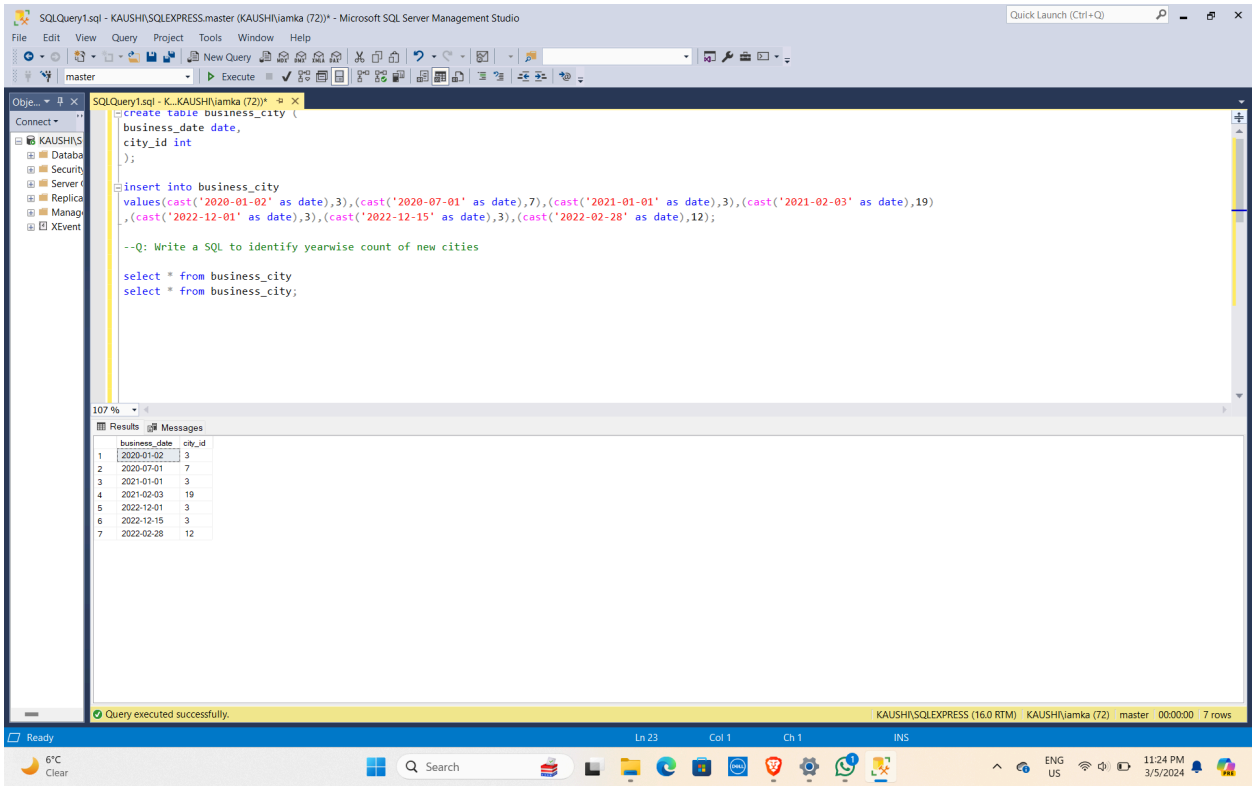
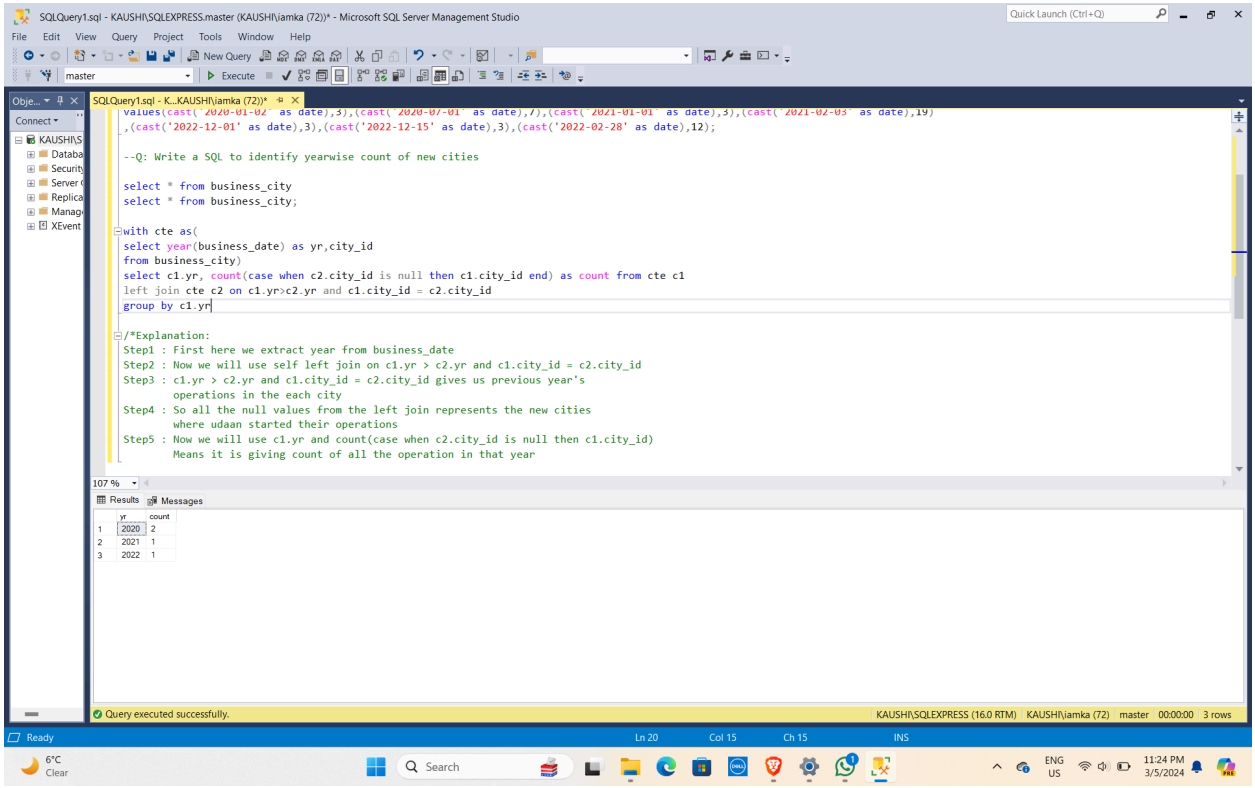
Day29 - March5th 2024

1. Started my day woke up early
2. Completed cooking food and headed to library
3. Solved one medium problem on binary search
4. Received a call from Ascendion for a data engineer position
5. Ascendion team gave me some screening questions on SQL : https://docs.google.com/document/d/1o9jbK3JOW4CFRBOtntFmpJ_jTfS-xYpQmosWOu72DVo/edit?usp=sharing
6. Completed pyspark project
7. Ended my day by solving complex problem on SQL from Ankit's YT


SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\iamka (68))* - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query
Execute
master
SQLQuery1.sql - K...KAUSHI\iamka (68))*
values('Janet','Smith','2023101',10),
('Tina','Waters','20220510',20),
('Mark','Brown','20060305',30),
('Jeanna','Mitchell','20160309',40)
select * from sample1
select * from sample2
130 %
Results
Messages
FNAME LNAME Addr Lastline DTADDED ID
1 Paul Smith 1234 Adams Road New York 12345 2023101 1
2 Tina Waters 5678 Peach Street New York, NY 12345 20220510 2
3 Mark 2345 Gordon Road New York, NY 12345 20060305 3
4 Jeanna Mitchell 6789 Woods Strret New York, NY 12345 20180309 4
FNAME LNAME Lastline ID
1 Janet Smith 2023101 10
2 Tina Waters 20220510 20
3 Mark Brown 20060305 30
4 Jeanna Mitchell 20160309 40
Query executed successfully.
KAUSHI\SQLEXPRESS (16.0 RTM) KAUSHI\iamka (68) master 00:00:00 8 rows
Ready
Ln 37 Col 22 Ch 22 INS
DOW -0.63%
Search
ENG US
10:14 AM 3/5/2024


SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\iamka (68))* - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query
Execute
master
SQLQuery1.sql - K...KAUSHI\iamka (68))*
values('Janet','Smith','2023101',10),
('Tina','Waters','20220510',20),
('Mark','Brown','20060305',30),
('Jeanna','Mitchell','20160309',40)
select * from sample1
select * from sample2
130 %
Results
Messages
FNAME LNAME Addr Lastline DTADDED ID
1 Paul Smith 1234 Adams Road New York 12345 2023101 1
2 Tina Waters 5678 Peach Street New York, NY 12345 20220510 2
3 Mark 2345 Gordon Road New York, NY 12345 20060305 3
4 Jeanna Mitchell 6789 Woods Strret New York, NY 12345 20180309 4
FNAME LNAME Lastline ID
1 Janet Smith 2023101 10
2 Tina Waters 20220510 20
3 Mark Brown 20060305 30
4 Jeanna Mitchell 20160309 40
Query executed successfully.
KAUSHI\SQLEXPRESS (16.0 RTM) KAUSHI\iamka (68) master 00:00:00 8 rows
Ready
Ln 37 Col 22 Ch 22 INS
DOW -0.63%
Search
ENG US
10:15 AM 3/5/2024


SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\iamka (72))* - Microsoft SQL Server Management Studio
create table business_city (
business_date date,
city_id int
);
insert into business_city
values(cast('2020-01-02' as date),3),(cast('2020-07-01' as date),7),(cast('2021-01-01' as date),3),(cast('2021-02-03' as date),19)
,(cast('2022-12-01' as date),3),(cast('2022-12-15' as date),3),(cast('2022-02-28' as date),12);
--Q: Write a SQL to identify yearwise count of new cities
select * from business_city
select * from business_city;
business_date city_id
2020-01-02 3
2020-07-01 7
2021-01-01 3
2021-02-03 19
2022-12-01 3
2022-12-15 3
2022-02-28 12
Query executed successfully.
Ready
Ln 23 Col 1 Ch 1 INS


SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\iamka (72))* - Microsoft SQL Server Management Studio
values(cast('2020-01-02' as date),3),(cast('2020-07-01' as date),7),(cast('2021-01-01' as date),3),(cast('2021-02-03' as date),19)
,(cast('2022-12-01' as date),3),(cast('2022-12-15' as date),3),(cast('2022-02-28' as date),12);
--Q: Write a SQL to identify yearwise count of new cities
select * from business_city
select * from business_city;
with cte as(
select year(business_date) as yr,city_id
from business_city)
select c1.yr, count(case when c2.city_id is null then c1.city_id end) as count from cte c1
left join cte c2 on c1.yr>c2.yr and c1.city_id = c2.city_id
group by c1.yr
/*Explanation:
Step1 : First here we extract year from business_date
Step2 : Now we will use self left join on c1.yr > c2.yr and c1.city_id = c2.city_id
Step3 : c1.yr > c2.yr and c1.city_id = c2.city_id gives us previous year's
operations in the each city
Step4 : So all the null values from the left join represents the new cities
where udaan started their operations
Step5 : Now we will use c1.yr and count(case when c2.city_id is null then c1.city_id)
Means it is giving count of all the operation in that year
yr count
2020 2
2021 1
2022 1
Query executed successfully.
Ready
Ln 20 Col 15 Ch 15 INS