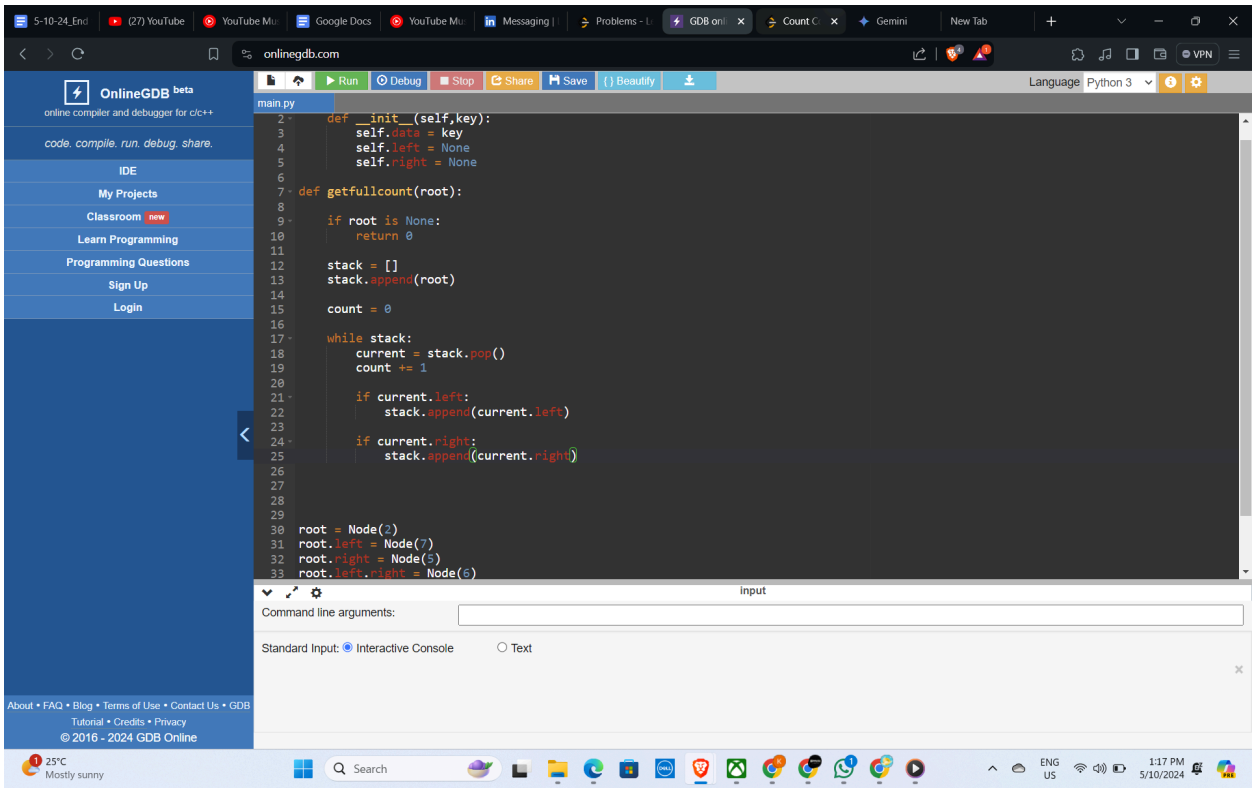
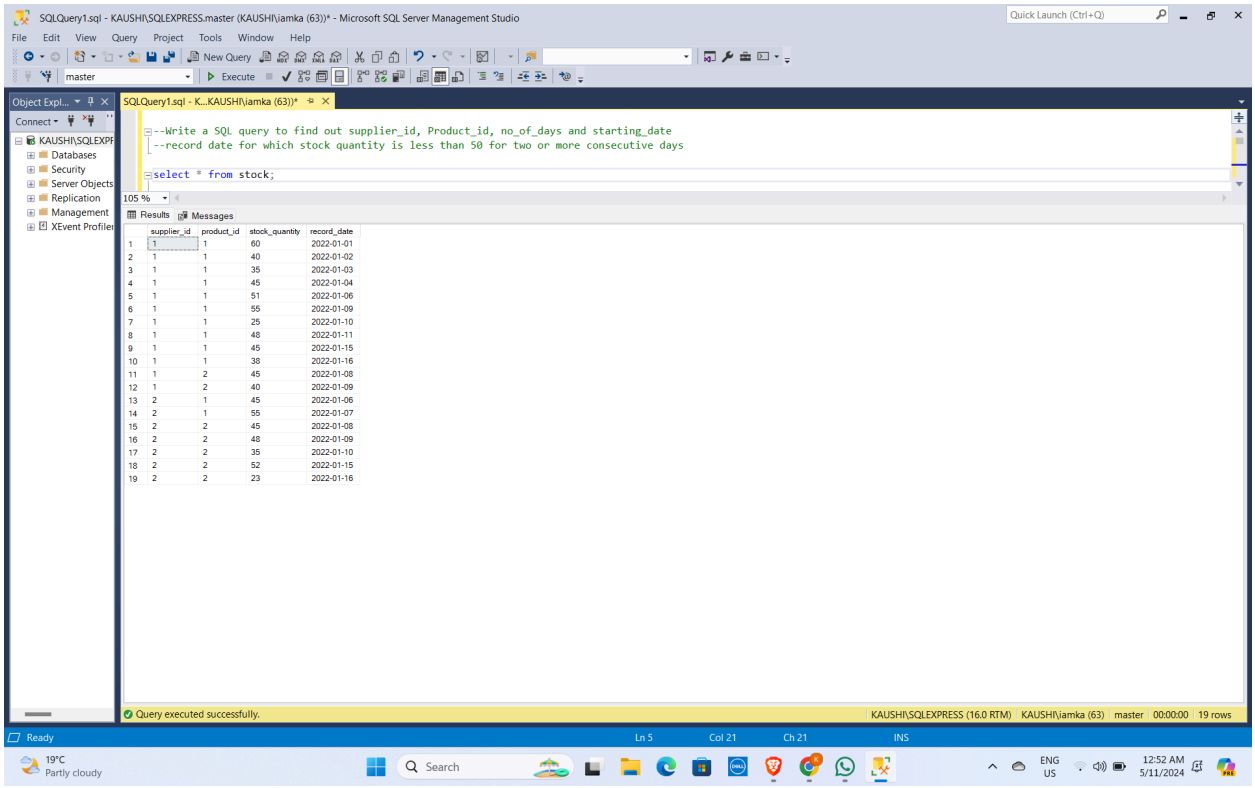
Day95 - May10th 2024

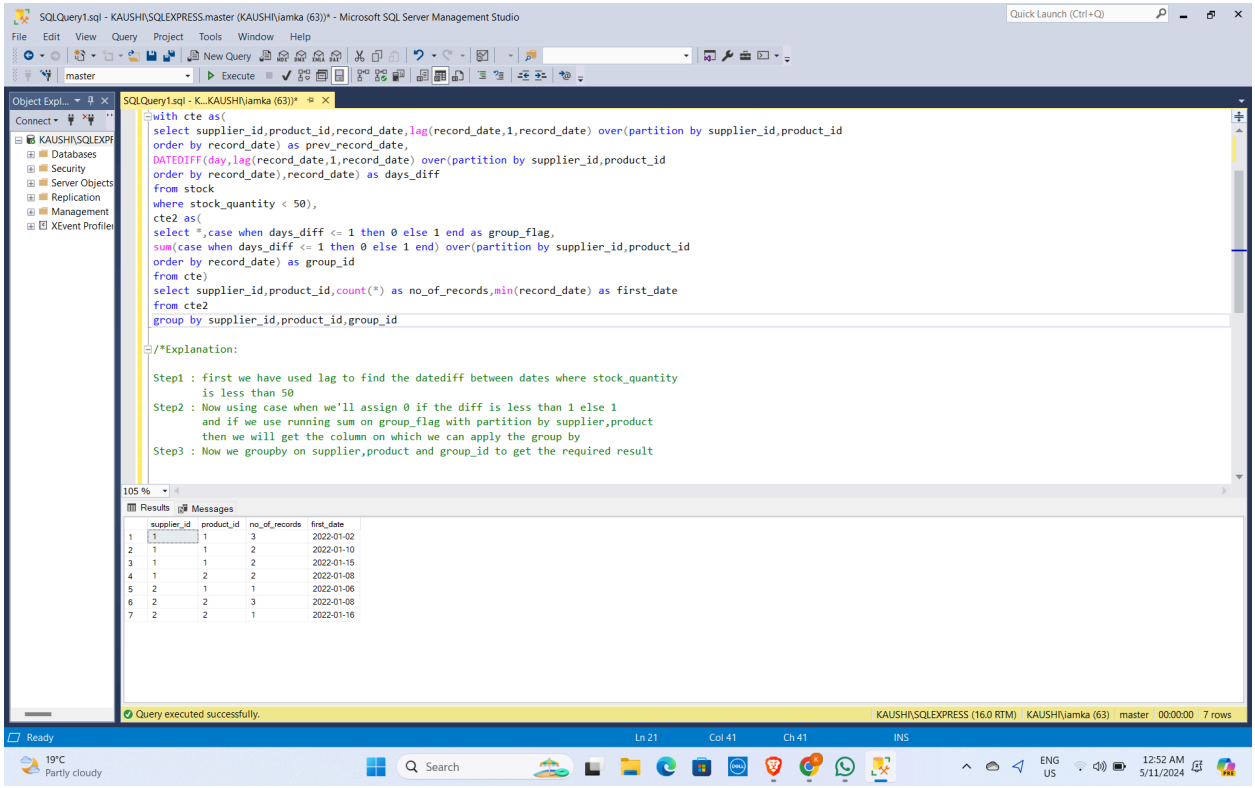
1. Started my day as usual
2. Wrote a program to get full count of binary tree



3. Worked on my AWS data engineering project
   Pls find the doc here :
   https://docs.google.com/document/d/1uJMsg9_PhgtidsLXmi6MaweQkk-q3asVdv36dvFJif4/edit?usp=sharing

4. Ended my day by solving complex SQL question


SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\iamka (63))* - Microsoft SQL Server Management Studio
--Write a SQL query to find out supplier_id, Product_id, no_of_days and starting_date
--record date for which stock quantity is less than 50 for two or more consecutive days
select * from stock;
Query executed successfully.


SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\iamka (63))* - Microsoft SQL Server Management Studio
with cte as(
select supplier_id,product_id,record_date,lag(record_date,1,record_date) over(partition by supplier_id,product_id
order by record_date) as prev_record_date,
DATEDIFF(day,lag(record_date,1,record_date) over(partition by supplier_id,product_id
order by record_date),record_date) as days_diff
from stock
where stock_quantity < 50),
cte2 as(
select *,case when days_diff <= 1 then 0 else 1 end as group_flag,
sum(case when days_diff <= 1 then 0 else 1 end) over(partition by supplier_id,product_id
order by record_date) as group_id
from cte)
select supplier_id,product_id,count(*) as no_of_records,min(record_date) as first_date
from cte2
group by supplier_id,product_id,group_id
/*Explanation:
Step1 : first we have used lag to find the datediff between dates where stock_quantity
is less than 50
Step2 : Now using case when we'll assign 0 if the diff is less than 1 else 1
and if we use running sum on group_flag with partition by supplier,product
then we will get the column on which we can apply the group by
Step3 : Now we groupby on supplier,product and group_id to get the required result
Query executed successfully.