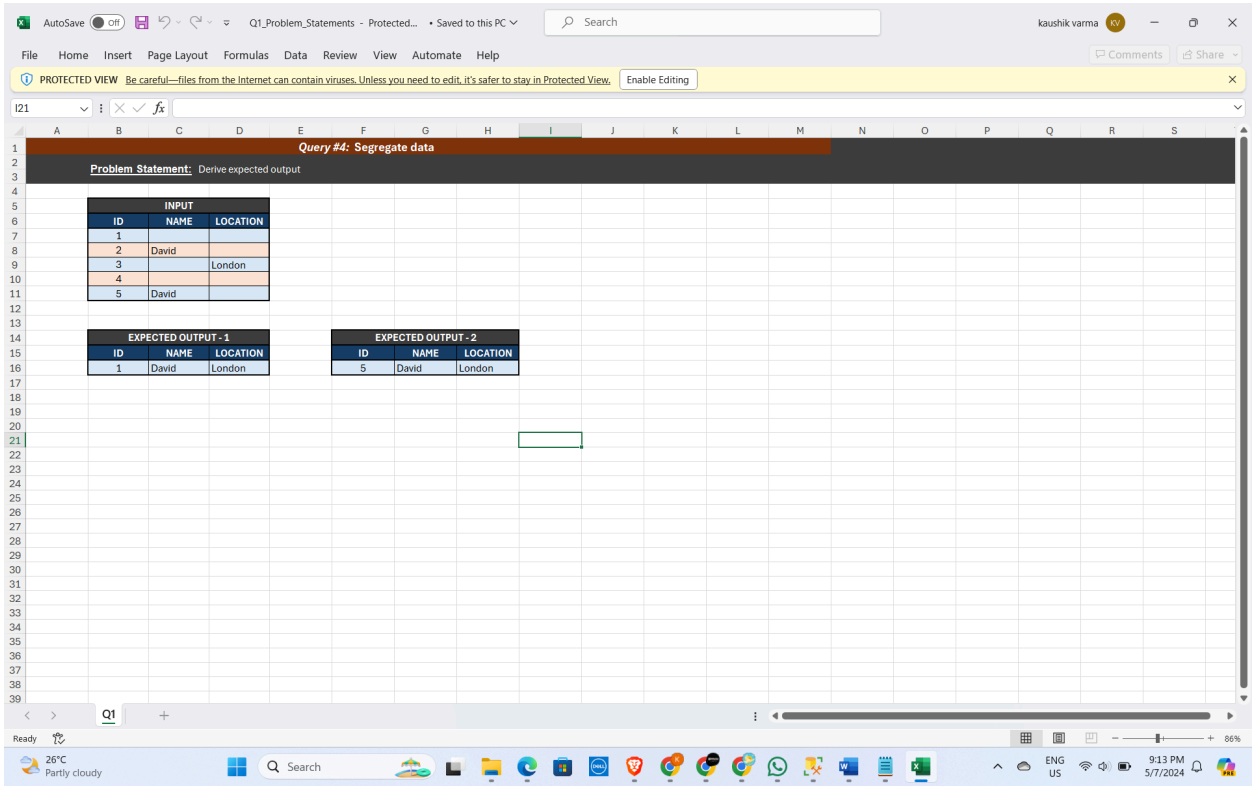
Day92 - May 7th 2024

1. Started my day as usual
2. Solved one leetcode problem on binary trees on leetcode as it was easy did not made any documents
3. Actually searching for data engineering projects/ideas..will start one soon
4. Ended my day by solving two complex SQL questions from youtube



Query #4: **Segregate data**

Problem Statement: Derive expected output

INPUT

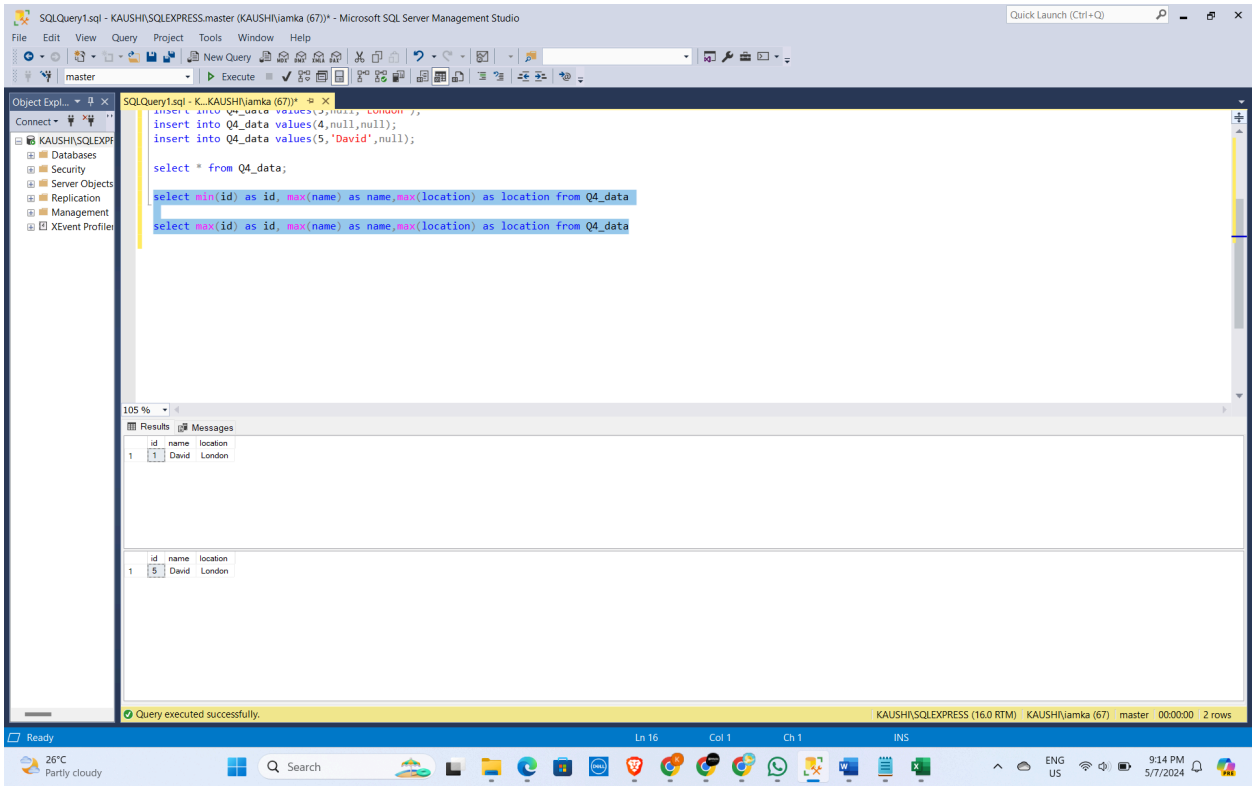
ID	NAME	LOCATION
1		
2	David	
3		London
4		
5	David	

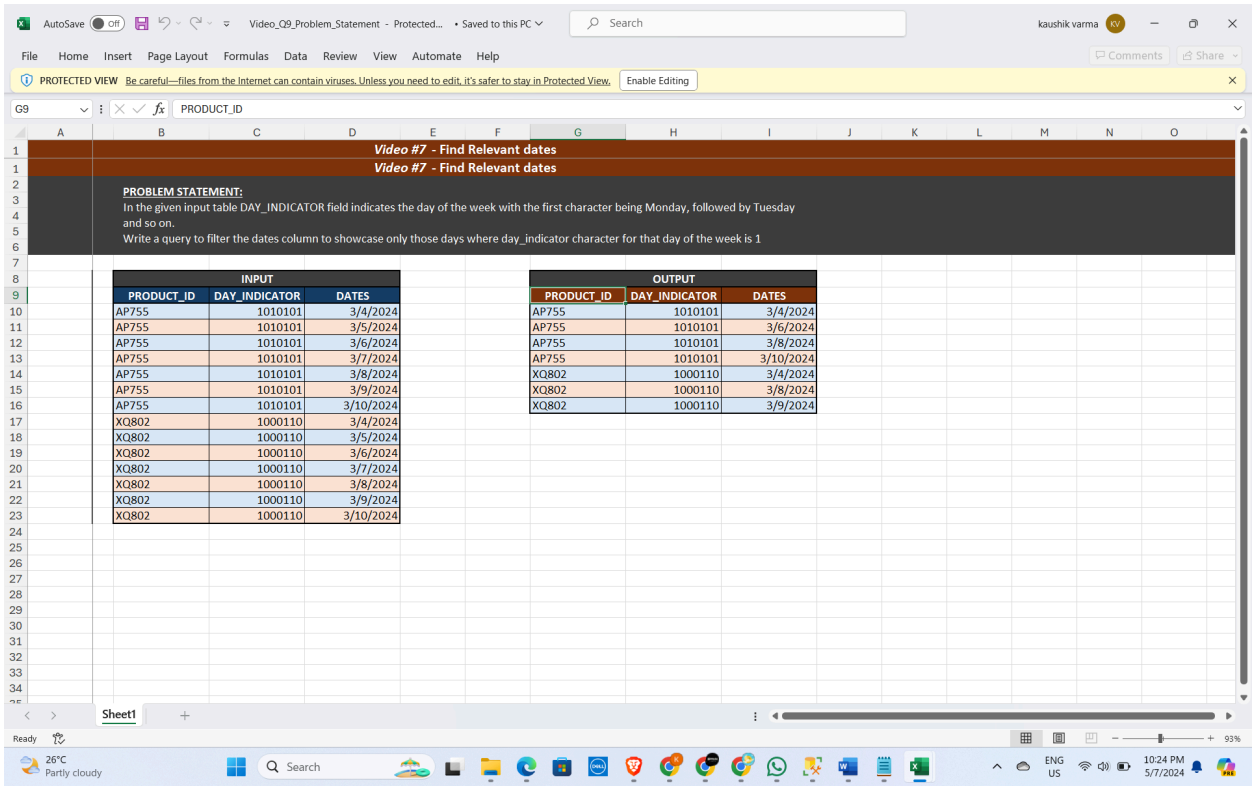
EXPECTED OUTPUT - 1

ID	NAME	LOCATION
1	David	London

EXPECTED OUTPUT - 2

ID	NAME	LOCATION
5	David	London


SQLQuery1.sql - KAUSHI\SQLEXPRESS.master (KAUSHI\iamka (67))* - Microsoft SQL Server Management Studio
File Edit View Query Project Tools Window Help
New Query
Execute
master
Object Expl...
Connect
KAUSHI\SQLEXPR
Databases
Security
Server Objects
Replication
Management
XEvent Profiler
SQLQuery1.sql - K...KAUSHI\iamka (67))*
insert into Q4_data values(4,null,null);
insert into Q4_data values(5,'David',null);
select * from Q4_data;
select min(id) as id, max(name) as name,max(location) as location from Q4_data
select max(id) as id, max(name) as name,max(location) as location from Q4_data
105 %
Results
Messages
id name location
1 1 David London
id name location
1 5 David London
Query executed successfully.
KAUSHI\SQLEXPRESS (16.0 RTM)
KAUSHI\iamka (67)
master
00:00:00
2 rows
Ready
Ln 16
Col 1
Ch 1
INS
26°C
Partly cloudy
Search
ENG
US
9:14 PM
5/7/2024



Video #7 - Find Relevant dates

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PROBLEM STATEMENT:

In the given input table DAY_INDICATOR field indicates the day of the week with the first character being Monday, followed by Tuesday and so on.

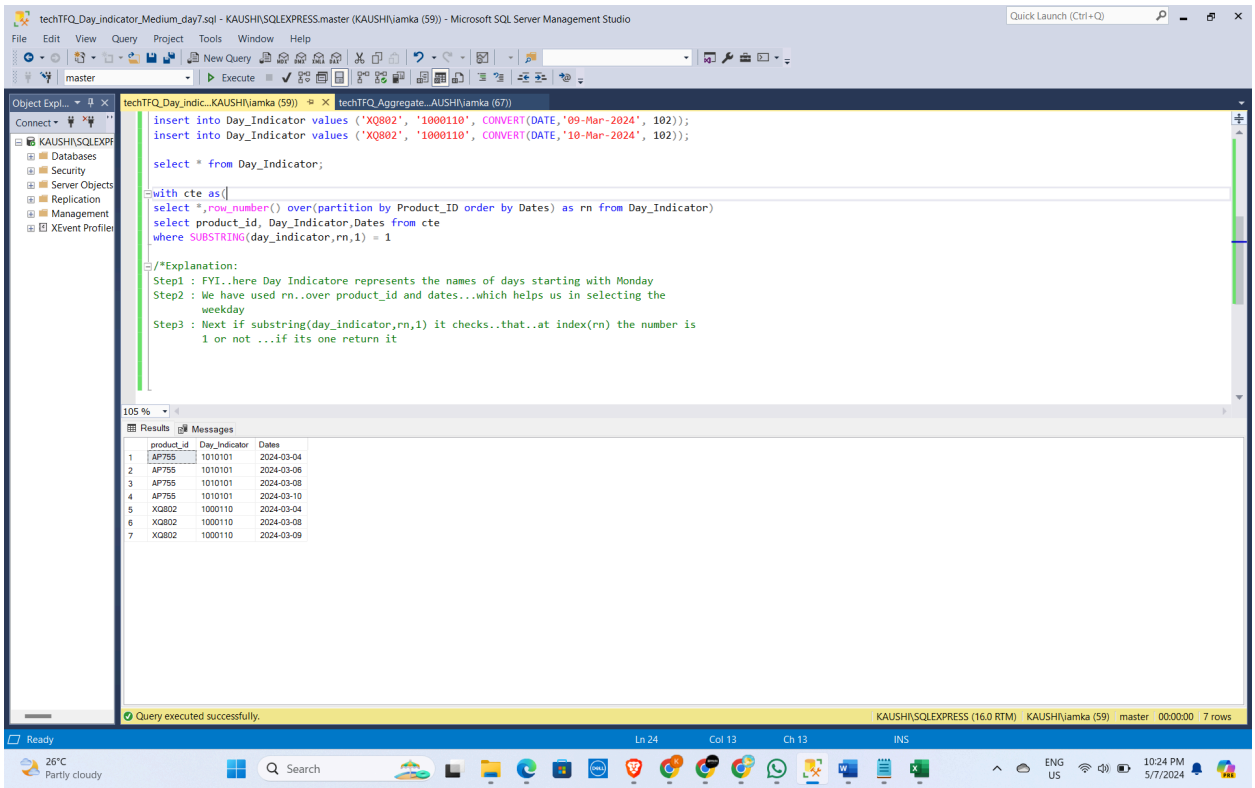
Write a query to filter the dates column to showcase only those days where day_indicator character for that day of the week is 1

INPUT

PRODUCT_ID	DAY_INDICATOR	DATES
AP755	1010101	3/4/2024
AP755	1010101	3/5/2024
AP755	1010101	3/6/2024
AP755	1010101	3/7/2024
AP755	1010101	3/8/2024
AP755	1010101	3/9/2024
AP755	1010101	3/10/2024
XQ802	1000110	3/4/2024
XQ802	1000110	3/5/2024
XQ802	1000110	3/6/2024
XQ802	1000110	3/7/2024
XQ802	1000110	3/8/2024
XQ802	1000110	3/9/2024
XQ802	1000110	3/10/2024

OUTPUT

PRODUCT_ID	DAY_INDICATOR	DATES
AP755	1010101	3/4/2024
AP755	1010101	3/6/2024
AP755	1010101	3/8/2024
AP755	1010101	3/10/2024
XQ802	1000110	3/4/2024
XQ802	1000110	3/8/2024
XQ802	1000110	3/9/2024



```
insert into Day_Indicator values ('XQ802', '1000110', CONVERT(DATE,'09-Mar-2024', 102));
insert into Day_Indicator values ('XQ802', '1000110', CONVERT(DATE,'10-Mar-2024', 102));

select * from Day_Indicator;

with cte as(
select *,row_number() over(partition by Product_ID order by Dates) as rn from Day_Indicator)
select product_id, Day_Indicator,Dates from cte
where SUBSTRING(day_indicator,rn,1) = 1

/*Explanation:
Step1 : FYI..here Day Indicatore represents the names of days starting with Monday
Step2 : We have used rn..over product_id and dates...which helps us in selecting the
        weekday
Step3 : Next if substring(day_indicator,rn,1) it checks..that..at index(rn) the number is
        1 or not ...if its one return it
```

	product_id	Day_Indicator	Dates
1	AP755	1010101	2024-03-04
2	AP755	1010101	2024-03-06
3	AP755	1010101	2024-03-08
4	AP755	1010101	2024-03-10
5	XQ802	1000110	2024-03-04
6	XQ802	1000110	2024-03-08
7	XQ802	1000110	2024-03-09