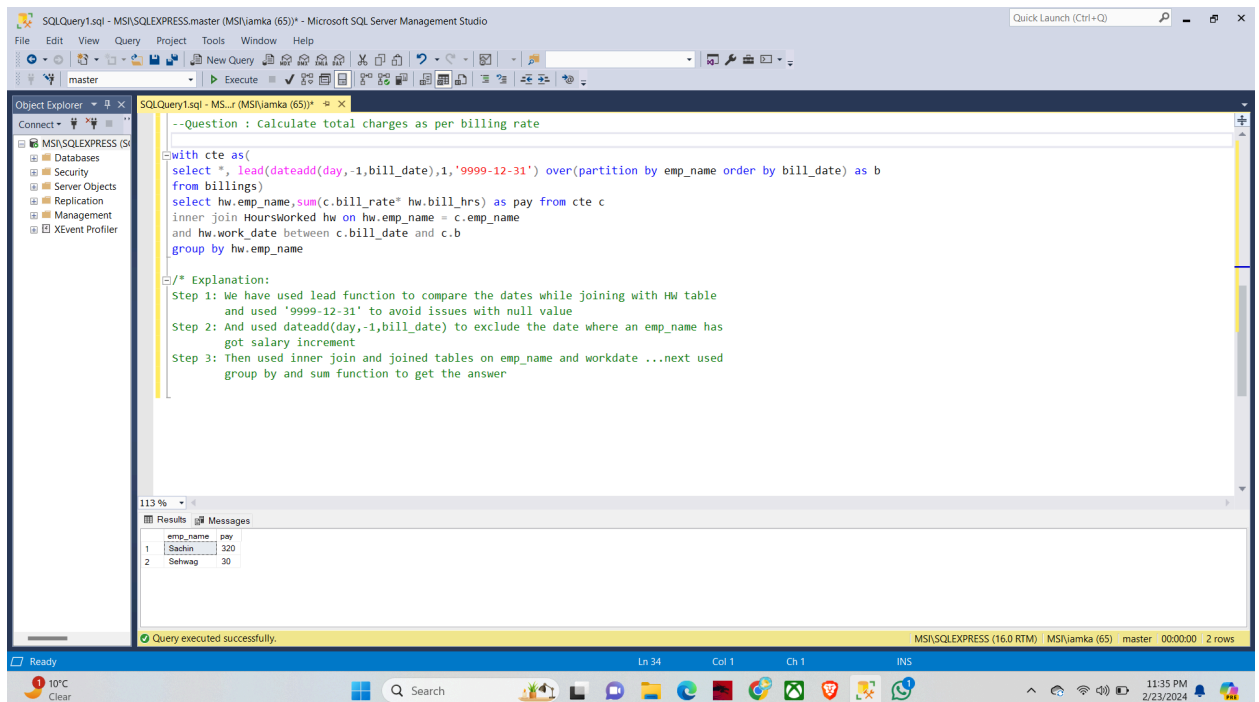


Day18 - Feb 23rd 2024

1. Started my day as usual
2. Solved 2 questions from binary search pattern
3. Marketed my profile and applied for jobs(it takes more time)
4. Started learning PySpark basics :

<https://docs.google.com/document/d/1EJA9wCQM2DyTEju6GfRcwUtbpz1x3ZxsG9ujmbugbA/edit?usp=sharing>

5. Will start a real time spark project soon
6. Ended my day by solving SQL question from Ankit's YT



The screenshot shows the Microsoft SQL Server Enterprise Manager interface. The main window displays a SQL query in the 'SQLQuery1.sql' file. The query is designed to calculate total charges per employee by joining a 'billings' table with an 'HoursWorked' table. It uses a Common Table Expression (CTE) to handle date offsets and an inner join to match employee names. The results pane at the bottom shows two rows of data: Sachin with a pay of 320 and Gehwag with a pay of 30. The status bar at the bottom indicates the query was executed successfully.

```
--Question : Calculate total charges as per billing rate

with cte as(
select *, lead(dateadd(day,-1,bill_date),1,'9999-12-31') over(partition by emp_name order by bill_date) as b
from billings)
select hw.emp_name,sum(c.bill_rate* hw.bill_hrs) as pay from cte c
inner join HoursWorked hw on hw.emp_name = c.emp_name
and hw.work_date between c.bill_date and c.b
group by hw.emp_name

/* Explanation:
Step 1: We have used lead function to compare the dates while joining with Hw table
and used '9999-12-31' to avoid issues with null value
Step 2: And used dateadd(day,-1,bill_date) to exclude the date where an emp_name has
got salary increment
Step 3: Then used inner join and joined tables on emp_name and workdate ...next used
group by and sum function to get the answer
```

emp_name	pay
Sachin	320
Gehwag	30

Query executed successfully.