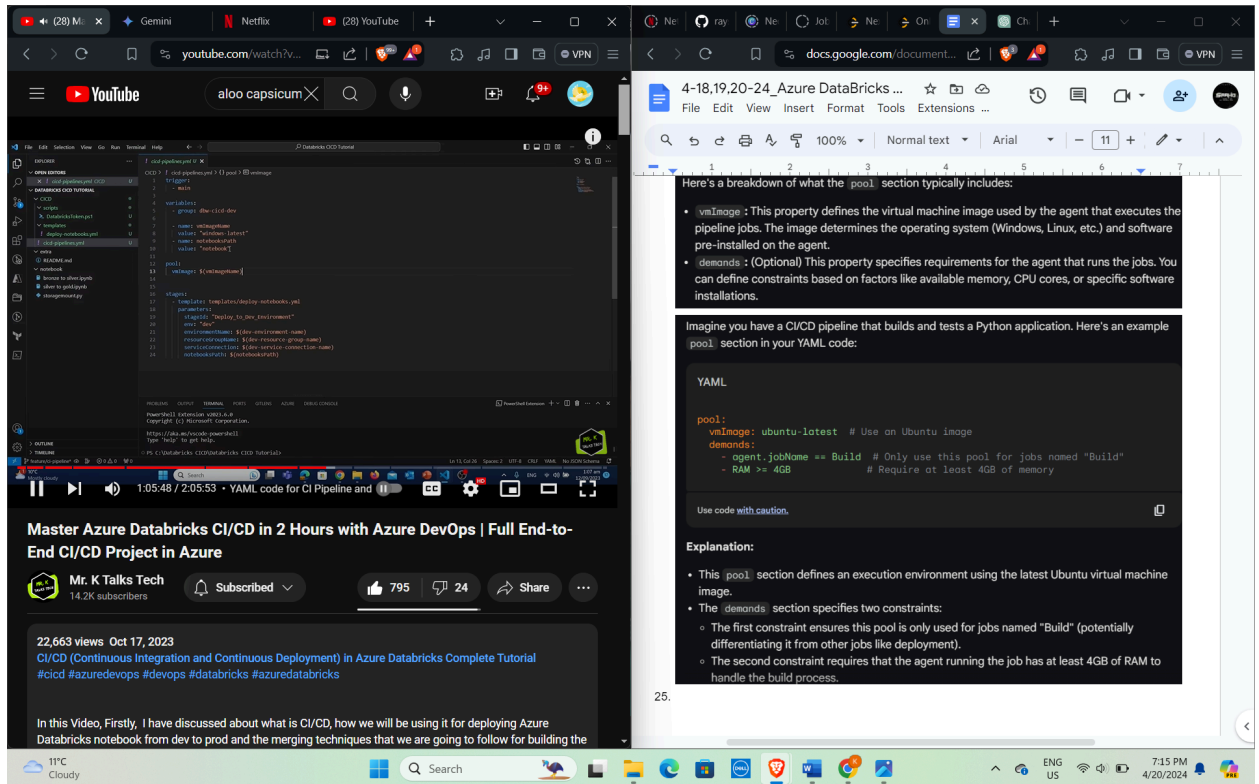Day75 - April 20th 2024

1. Started my day as usual
2. Solved one easy leetocde problem
3. Learning YAML code for creating CICD pipeline project



Pls find the doc here :
https://docs.google.com/document/d/1pe1ODyw0HgLJQHXUiPrZTaWc3Mb_v-G3Vfjkg4
kkXkU/edit?usp=sharing

4. Ended my day by solving complex SQL question on youtube



```sql
create table input (
id int,
formula varchar(10),
value int
)
insert into input values (1,'1+4',10),(2,'2+1',5),(3,'3-2',40),(4,'4-1',20);

--Q : Given the formula find the new value for each id
--    newvalue(1+4) = id(1+4) = 30
select * from input;
```

| id | formula | value |
|----|---------|-------|
| 1  | 1+4     | 10    |
| 2  | 2+1     | 5     |
| 3  | 3-2     | 40    |
| 4  | 4-1     | 20    |



```sql
select * from input;

with cte as(
select *,left(formula,1) as id1, right(formula,1) as id2,SUBSTRING(formula,2,1) as op from input)
select c1.id,c1.formula,c1.value,
case when op = '+' then ip1.value + ip2.value
     when op = '-' then ip1.value - ip2.value end as newValue
from cte c1
inner join input ip1 on c1.id1 = ip1.id
inner join input ip2 on c1.id2 = ip2.id

/* Explanation:
Step1 : First we have used Left function to retrieve left part of id from the formula
        similarly we used right function to retrieve right part of id from the formula
        To retrieve operator we used substring and framed it in CTE
Step2 : Now we used inner join on cte and input table on c1.id1 and ip1.id to get the
        left part's formula id's value
Step3 : Similarly used inner join on cte and input table on c1.id2 and ip1.id to get
        right part's formula id's value
*/
```

| id | formula | value | newValue |
|----|---------|-------|----------|
| 1  | 1+4     | 10    | 30       |
| 2  | 2+1     | 5     | 15       |
| 3  | 3-2     | 40    | 35       |
| 4  | 4-1     | 20    | 10       |