

SQL Date time continued and CTE.

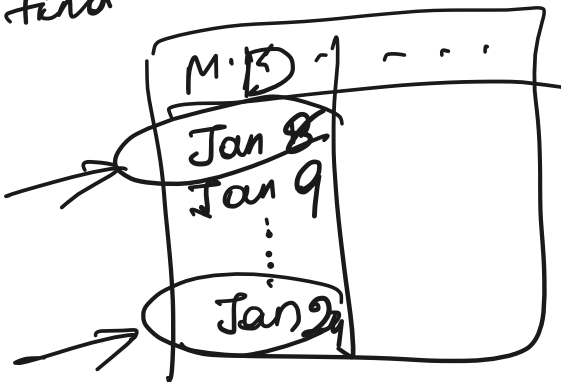
Recap :

- First value
- Last value
- Nth value
- Date operation
- Parse-datetime
- Extract
- format
- Date_add, sub.

Agenda:

- Date functions
- CTE
- One FB interview ques.

Find the no. of days betw first & last date.



`Date_diff (\downarrow date 1, date 2, Day)`
 \downarrow
 return the o/p in days.

`current-date()` \Rightarrow gives the today's date

Days since each purchase.

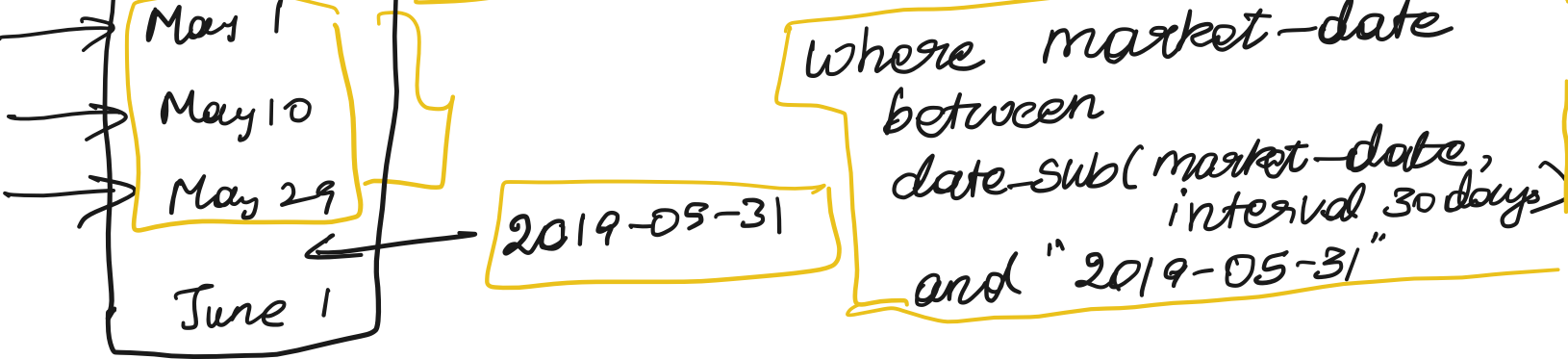
		lag:	
	A	Jan 1	NULL
→	A	Jan 7 ← Jan 1	⇒ 6
→	A	Jan 15 ← Jan 7	⇒ 9
→	B	Feb 20	NULL
→	B	Feb 24 ← Feb 20	⇒ 4
→	B	Feb 27 ← Feb 24	⇒ 3

Sales that happened within 30 days before May 31.

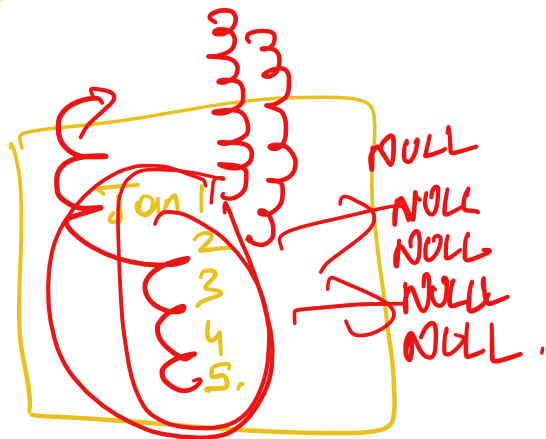
M.K.	
Feb 15	2019-05-31 ⇒ 75 days
April 25	⇒ 35 days
May 10	⇒ 20 days
May 24	⇒ 6 days
May 29	⇒ 10 days
June 10	

Where `datediff("2019-05-31", market_date, day) < 31`

Apr 29 ← `(2019-05-31) - 30` can also be done with



Quiz question:



lead (Date, 1) over ()

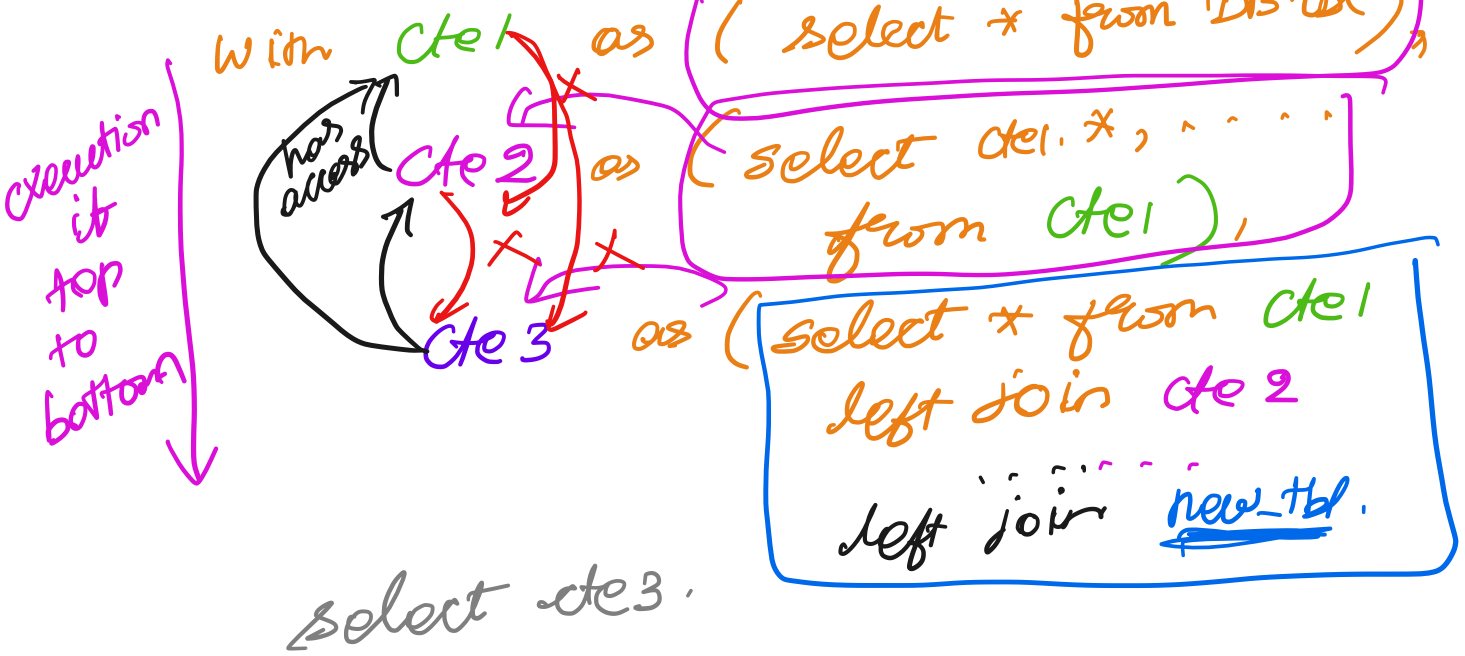
CTE - common table expression.

- Modularize your query.

Syntax:

```
With CTE-tbl-1 as ( query 1 ),
    cte-tbl-2 as ( query 2 ),
    cte-tbl-3 as ( query 3 )
```

select * from cte-table-3



FB interview question.

Post table

usr.id	date	Post.id	num-comment
usr1	Jan 1	P242	10
usr2			
usr1	Feb 20	P823	30
usr3			
...			

User table

Row no	usr.id	Country
	usr1	India
	usr2	USA
	usr3	UK.

Which countries has raised in the Ranking based on the number of comments between Dec 2021 vs Jan 2022

Dec, 2021 Jan, 2022

1 → India 10. → UK 50. ↑ 1

2 → UK. 20. → India 96 ↓ 2.

	Dec	Jan
UK	2	1
U.S.A.	4	2

emp	Dept	Sales
e1	A	10
e2	A	20
e3	A	40
e4	B	15
e5	B	10

5 rows. `Select dept, sum(sales)`
`group by (dept)`

Dept		emp
A	70	e1
		e2
B	25	e3
		e4
		e5

`Select dept, emp, sum(sales)`
`group by (dept)`

Select

emp, dept
 from ...
 group emp, dept