SQL Basics

DATES:

There are different date functions:

AGE	Calculates the difference b/w 2 dates as interval *SELECT AGE('2022-01-01', '2000-01-01'); -- Output: 22 years 0 mons 0 days.*
CURRENT_DATE	Today's Date *SELECT CURRENT_DATE; -- Output: 2025-02-06 (Example)*
CURRENT_TIME	Time right now *SELECT CURRENT_TIME; -- Output: 14:30:15.123456+05:00*
CURRENT_TIMESTAMP	Current date and time *SELECT CURRENT_TIMESTAMP; -- Output: 2025-02-06 14:30:15.123456+05:00*
EXTRACT	Returns a part of date as interval *SELECT EXTRACT(YEAR FROM CURRENT_DATE); -- Output: 2025* *SELECT EXTRACT(MONTH FROM CURRENT_TIMESTAMP); -- Output: 2* *SELECT EXTRACT(DAY FROM '2025-02-06'); -- Output: 6*
DATE_PART	Return part of date as interval *SELECT DATE_PART('year', CURRENT_DATE); -- Output: 2025* *SELECT DATE_PART('hour', CURRENT_TIMESTAMP); -- Output: 14*
DATE_TRUNC	Returns a part of date truncated to a precision. *SELECT DATE_TRUNC('year', CURRENT_TIMESTAMP); -- Output: 2025-01-01 00:00:00* *SELECT DATE_TRUNC('month', CURRENT_TIMESTAMP); -- Output: 2025-02-01 00:00:00*

NOW	Time right now
	SELECT NOW(); -- Output: 2025-02-06 14:30:15.123456+05:00
TO_DATE	Converts a string to a date
	SELECT TO_DATE('06-02-2025', 'DD-MM-YYYY'); -- Output: 2025-02-06
TO_TIMESTAMP	Converts a string to a timestamp
	SELECT TO_TIMESTAMP('06-02-2025 14:30:15', 'DD-MM-YYYY HH24:MI:SS'); -- Output: 2025-02-06 14:30:15

Nulls in SQL:

The cell which has no value is represented by null. The null value may affect the calculation.

The cell with 0 will affect in the average but the cell with the null does not affect the average.

Example Queries:

```
select productid, productname, discontinued
from products
where discontinued = '0';

(-- we can update the values also)

update discontinued = NULL
from products
where discontinued = '0';
```