**What are window functions ?**

Window functions in SQL are a type of analytical function that perform calculations across a set of rows that are related to the current row, called a ‘window’. A window function calculates a value for each row in the result set based on a subset of the rows that are defined by a window specification.

The window specification is defined using the OVER() clause in SQL, which specifies the partitioning and ordering of the rows that the window function will operate on. The partitioning divides the rows into groups based on a specific column or expression, while the ordering defined the order in which the rows are processed within each group.

**Frames**

A frame in a window function is a subset of rows within the partition that determines the scope of the window function calculation. The frame is defined using a combination of two clauses in the window function : **ROWS** and **BETWEEN**.

The ROWS clause specifies how many rows should be included in the frame relative to the current row. For example, ROWS 3 PRECEDING means that the frame includes the current row and the three rows that precede it in the partition.

The BETWEEN clause specifies the boundaries of the frame.

Examples :

* **ROWS BETWEEN UNBOUNDED PRECEDING AND CURRENT ROW** means that the frame includes all rows from the beginning of the partition up to and including the current row. (default)
* **ROWS BETWEEN 1 PRECEDING AND 1 FOLLOWING** means the frame includes the current row and the row immediately before and after it
* **ROWS BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING** means the frame includes all rows in the partition
* **ROWS BETWEEN 3 PRECEDING AND 2 FOLLOWING** means the frame includes the current row and the three rows before it and the two rows after it

UNBOUNDED PRECEDING means first row and UNBOUNDED FOLLOWING means the last row.