SESSION WILL BE DIVIDED INTO

1. What are window functions

2. What are the different types of window functions

3. Exploring the types of window functions

   1. Aggregated Window Functions
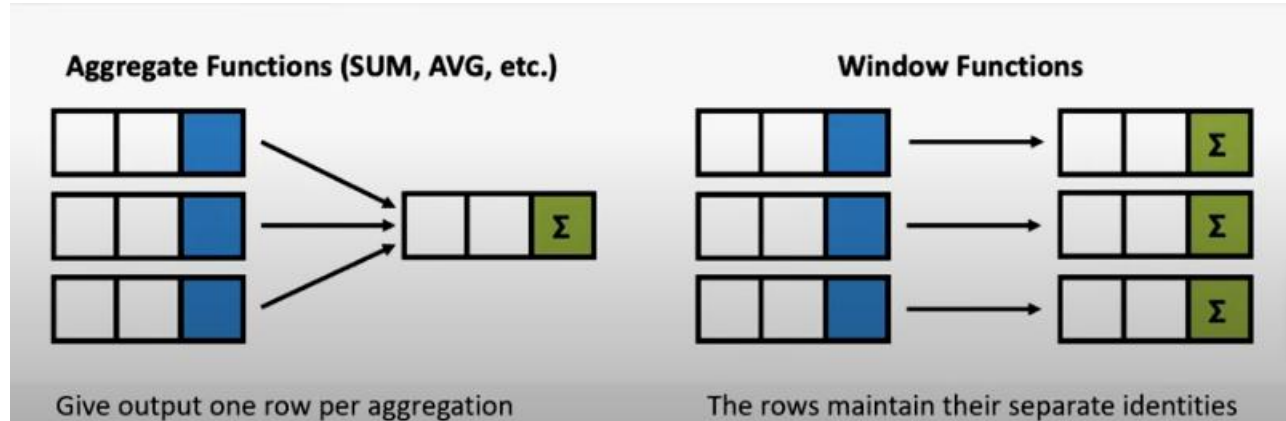
   2. Analytical Window Functions

SECTION 1

WHAT are window functions?

Definition

- A window function operates on a subset of rows related to the current row, often defined by partitions or groups, while retaining the individual row structure.

- These functions are used when we need to perform operations such as ranking, cumulative sums, or accessing values from other rows within the same group

- In short, Window functions apply aggregate, ranking, and analytic functions over a particular window (set of rows)

WHAT are window functions?

Aggregate Functions (SUM, AVG, etc.)

Give output one row per aggregation

Window Functions

The rows maintain their separate identities

SECTION 1

SYNTAX

- Over clause is used with window functions to define that window.

- <function_name>() OVER (PARTITION BY <column> ORDER BY <column>)

EXAMPLE

```
SELECT
        sales_person_name,
        location,
        amount,
        RANK() OVER (PARTITION BY location ORDER BY amount DESC) AS rank_within_state
FROM sales;
```

SECTION 1

WARM UP

Based on the sales table give me the output for

- Write a SQL query to retrieve the total number of orders per location.

- Write a SQL query to print the distinct product names

- Write a SQL query to find all the sales where the amount is greater than 1000. Display the salesperson's name, location, and amount.

Different Types of Window function

Types of Window Functions

1. **Aggregate Window Functions**

2. **Analytical Window functions**

SECTION 3

Different Types of Window function

Types of Window Functions

1. Aggregate Window Functions

    1. SUM()

    2. AVERAGE()

    3. COUNT()

    4. MIN()

    5. MAX()

Different Types of Window function

Types of Window Functions

2. Analytical Window Functions

1. RANK()

2. DENSE_RANK()

3. ROW_NUMBER()

It is compulsory to use Order by clause with ranking function