The SQL CASE Expression

The CASE expression goes through conditions and returns a value when the first condition is met (like an if-then-else statement). So, once a condition is true, it will stop reading and return the result. If no conditions are true, it returns the value in the ELSE clause.

If there is no ELSE part and no conditions are true, it returns NULL.

SQL CASE Syntax

SELECT column1, column2,... ,

CASE

 WHEN condition THEN result

END AS alias_name

FROM table;

Here,

column1,column2, ... are the column names to be included in the result set

CASE checks the condition

result is the result or value to be inserted to the new column if condition is satisfied

END ends the CASE statement

AS specifies the name alias_name for the new column

table is the name of the table.

Example: Voter Eligibility Using SQL CASE

Customers

customer_id	first_name	last_name	age	country
1	John	Doe	31	USA
2	Robert	Luna	22	USA
3	David	Robinson	16	UK
4	John	Reinhardt	25	UK
5	Betty	Doe	12	UAE

```
SELECT customer_id, first_name
CASE
    WHEN age >= 18 THEN 'Allowed'
END AS can_vote
FROM Customers;
```

customer_id	first_name	can_vote
1	John	Allowed
2	Robert	Allowed
3	David	
4	John	Allowed
5	Betty	

CASE With Multiple Conditions

Syntax

SELECT column1, column2, ...

   CASE

     WHEN condition1 THEN result1

     WHEN condition2 THEN result2

     -- Add more WHEN conditions and results as needed

   END AS alias_name

FROM table_name;

We can add as many WHEN ... THEN conditions as required in the CASE statement.

SELECT customer_id, first_name,

CASE

   WHEN country = 'USA' THEN 'United States of America'

   WHEN country = 'UK' THEN 'United Kingdom'

END AS country_name

FROM Customers;

CASE With ELSE

A CASE statement can have an optional ELSE clause. The ELSE clause is executed if none of the conditions in the CASE statement is matched.

Syntax

SELECT customer_id, first_name,

  CASE

    WHEN condition1 THEN result1

    WHEN condition2 THEN result2

    -- Add more WHEN conditions and results as needed

    ELSE else_result

  END AS alias_name

FROM table_name;

The ELSE clause has no condition as it is executed if none of the WHEN conditions are matched.

Table: Customers

customer_id	first_name	last_name	age	country
1	John	Doe	31	USA
2	Robert	Luna	22	USA
3	David	Robinson	22	UK
4	John	Reinhardt	25	UK
5	Betty	Doe	28	UAE

```
SELECT customer_id, first_name
CASE
    WHEN country = 'USA' THEN 'United States of America'
    WHEN country = 'UK' THEN 'United Kingdom'
    ELSE 'Unknown Country'
END AS country_name
FROM Customers;
```

customer_id	first_name	country_name
1	John	United States of America
2	Robert	United States of America
3	David	United Kingdom
4	John	United Kingdom
5	Betty	Unknown Country