CASE STATEMENT

SQL CASE statement is a conditional expression that allows users to execute different actions based on different conditions. It is similar to if-else logic in other programming languages.

CASE Statement in SQL

CASE Expression in SQL goes through all conditions and stops when any condition is met. It does not check for other conditions after a condition has returned true and returns results based on that condition.

If no condition is true then the ELSE part will be executed. If there is no ELSE part, then it returns **NULL**.

Syntax

To use CASE Statement in SQL, use the following syntax:

```
CASE case_value
    WHEN condition THEN result1
    WHEN condition THEN result2
    ...
    ELSE result
END CASE;
```

SQL CASE Example

Let's look at some examples of the CASE statement in SQL to understand it better.

Let's create a demo SQL table, which will be used in examples.

Demo SQL Database

We will be using this sample SQL table for our examples on SQL CASE statement:

CustomerID	CustomerName	LastName	Country	Age	Phone
1	Shubham	Thakur	India	23	xxxxxxxxxx
2	Aman	Chopra	Australia	21	xxxxxxxxxx
3	Naveen	Tulasi	Sri Lanka	24	xxxxxxxxxx
4	Aditya	Arpan	Austria	21	xxxxxxxxxx
5	Nishant. Salchichas S.A.	Jain	Spain	22	xxxxxxxxxx

You can create the same Database in your system, by writing the following MySQL query:

```
-- Create the Customer table
CREATE TABLE Customer (
    CustomerID INT PRIMARY KEY,
    CustomerName VARCHAR(50),
    LastName VARCHAR(50),
    Country VARCHAR(50),
    Age INT,
    Phone VARCHAR(10) -- Changed to VARCHAR to allow
leading zeroes if needed
);
-- Insert some sample data into the Customer table
INSERT INTO Customer (CustomerID, CustomerName, LastName,
Country, Age, Phone)
VALUES
    (1, 'Shubham', 'Thakur', 'India', 23, 'xxxxxxxxxx'),
    (2, 'Aman', 'Chopra', 'Australia', 21, 'xxxxxxxxxx'),
    (3, 'Naveen', 'Tulasi', 'Sri Lanka', 24, 'xxxxxxxxxx'),
    (4, 'Aditya', 'Arpan', 'Austria', 21, 'xxxxxxxxxx'),
    (5, 'Nishant', 'Jain', 'Spain', 22, 'xxxxxxxxxx');
```

CASE Expression Example

In this example, we use CASE statement.

Query

```
SELECT CustomerName, Age,
CASE
    WHEN Country = "India" THEN 'Indian'
    ELSE 'Foreign'
END AS Nationality
FROM Customer;
```

SQL CASE When Multiple Conditions Example

We can add multiple conditions in the CASE statement by using multiple WHEN clauses.

Query

```
SELECT CustomerName, Age,
CASE
    WHEN Age > 22 THEN 'The Age is greater than 22'
    WHEN Age = 21 THEN 'The Age is 21'
    ELSE 'The Age is over 30'
END AS QuantityText
FROM Customer;
```

Output

CustomerName	Age	QuantityText
Shubham	23	The Age is greater than 20
Aman	21	The Age is 21
Naveen	24	The Age is greater than 20
Aditya	21	The Age is 21
Nishant. Salchichas S.A.	22	The Age is over 30

Output

CASE Statement With ORDER BY Clause Example

Let's take the Customer Table which contains CustomerID, CustomerName, LastName, Country, Age, and Phone. We can check the data of the Customer table by using the ORDER BY clause with the CASE statement.

Query

```
SELECT CustomerName, Country
FROM Customer
ORDER BY
(CASE
    WHEN Country IS 'India' THEN Country
    ELSE Age
END);
```

Output

CustomerName	Country
Aman	Australia
Aditya	Austria
Nishant. Salchichas S.A.	Spain
Naveen	Sri lanka
Shubham	India

CASE Statement With ORDER BY Clause Example Output

Important Points About CASE Statement

• The SQL CASE statement is a conditional expression that allows for the execution of different queries based on specified conditions.
• There should always be a SELECT in the CASE statement.
• **END ELSE** is an optional component but **WHEN THEN** these cases must be included in the CASE statement.
• We can make any conditional statement using any conditional operator (like WHERE) between WHEN and THEN. This includes stringing together multiple conditional statements using AND and OR.
• We can include multiple WHEN statements and an ELSE statement to counter with unaddressed conditions.