Conditional Statements in MySQL

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Conditional Statements in MySQL

❖ Conditional statements control the flow of execution based on conditions.

❖ Three main types in MySQL:

➢ IF statement

➢ IF…ELSEIF…ELSE statement

➢ CASE statement

Syntax - IF Statement

```sql
IF condition THEN
    -- statements
END IF;
```

Use Case: Use when you want to execute code only if a condition is true.

Example - IF Statement

```sql
DELIMITER $$
CREATE PROCEDURE CheckPositive(IN num INT)
BEGIN
  IF num > 0 THEN
     SELECT 'Positive Number' AS Result;
  END IF;
END $$
DELIMITER ;


CALL CheckPositive(5);
```

IF…ELSE Statement

```
IF condition THEN
    -- statements if true
ELSE
    -- statements if false
END IF;
```

Use Case: Use when you need to handle both true and false outcomes.

Check if a number is even or odd

```
DELIMITER $$
CREATE PROCEDURE CheckEvenOdd(IN num INT)
BEGIN
  IF MOD(num, 2) = 0 THEN
      SELECT 'Even Number' AS Result;
  ELSE
      SELECT 'Odd Number' AS Result;
  END IF;
END $$
DELIMITER ;


CALL CheckEvenOdd(7);
```

IF...ELSEIF...ELSE

```
IF condition1 THEN
  -- code block 1
ELSEIF condition2 THEN
  -- code block 2
ELSE
  -- code block 3
END IF;
```

Use Case: Use when there are multiple conditions to evaluate.

Example - IF...ELSEIF...ELSE -> Categorise Marks

```sql
DELIMITER $$
CREATE PROCEDURE GradeStudent(IN marks INT)
BEGIN
  IF marks >= 90 THEN
     SELECT 'Grade A' AS Grade;
  ELSEIF marks >= 75 THEN
     SELECT 'Grade B' AS Grade;
  ELSEIF marks >= 60 THEN
     SELECT 'Grade C' AS Grade;
  ELSE
     SELECT 'Fail' AS Grade;
  END IF;
END $$
DELIMITER ;

CALL GradeStudent(78);
```

Syntax - CASE Statement

```
CASE expression
  WHEN value1 THEN statement1
  WHEN value2 THEN statement2
  ...
  ELSE default_statement
END CASE;
```

Use Case: Best for comparing one variable against multiple values.

Example: Day number to name

```sql
DELIMITER $$
CREATE PROCEDURE DayName(IN dayNum INT)
BEGIN
  CASE dayNum
    WHEN 1 THEN SELECT 'Sunday' AS Day;
    WHEN 2 THEN SELECT 'Monday' AS Day;
    WHEN 3 THEN SELECT 'Tuesday' AS Day;
    ELSE SELECT 'Invalid Day' AS Day;
  END CASE;
END $$
DELIMITER ;

CALL DayName(2);
```

Summary

❖ IF – Simple yes/no check

❖ IF...ELSEIF...ELSE – Multiple condition paths

❖ CASE – Clean alternative to multiple IFs

❖ Always use DELIMITER $$ and END blocks properly in stored procedures