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section-B2

Introduction to PL/SQL Conditions

In PL/SQL, conditions allow decision-making in programs. The two main types of conditional statements are:

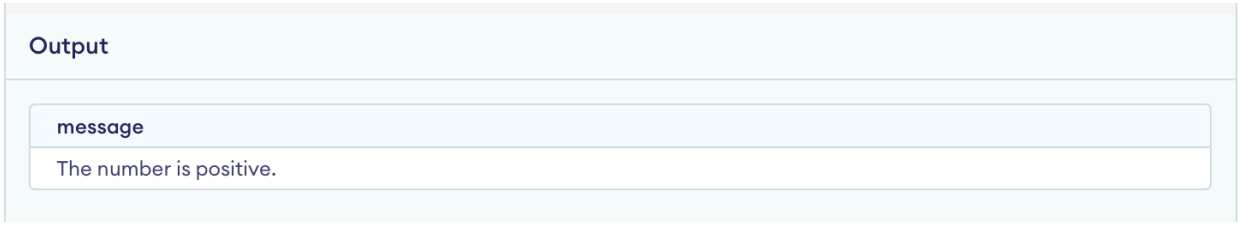
IF-THEN
IF-THEN-ELSE
IF-THEN-ELSIF-ELSE
CASE Statement

IF-THEN Statement

Executes a block of code if the condition is `TRUE`.

Example: Check if a number is positive

```
SET SERVEROUTPUT ON;

DECLARE
    num NUMBER := 10;
BEGIN
    IF num > 0 THEN
        DBMS_OUTPUT.PUT_LINE('The number is positive.');
    END IF;
END;
/
```

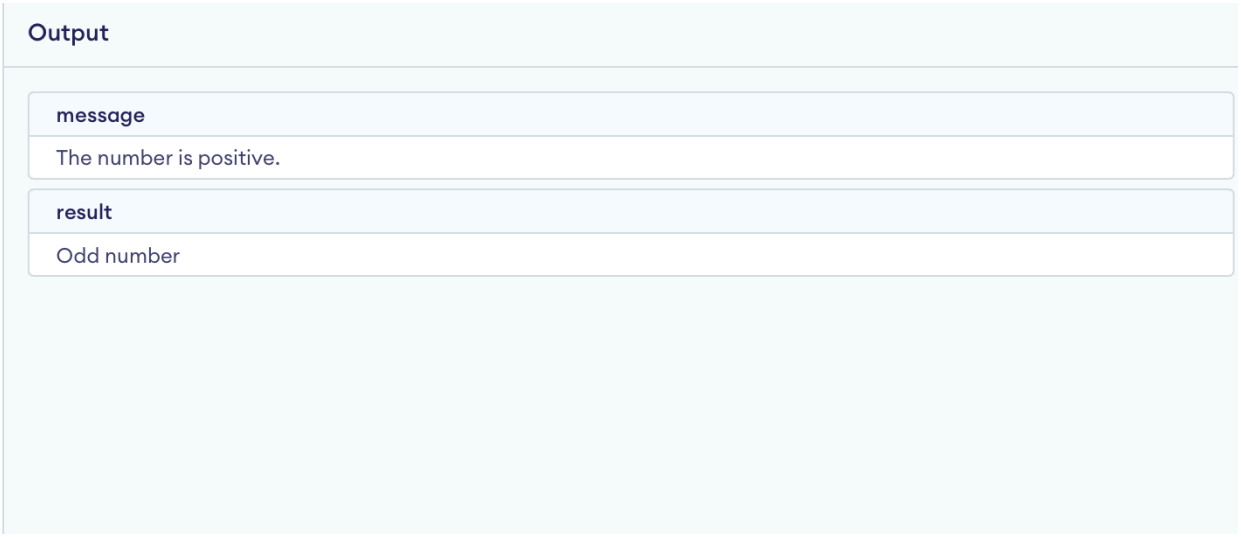


IF-THEN-ELSE Statement

Executes one block if the condition is TRUE, otherwise executes another block.

Example: Check if a number is even or odd

```
SET SERVEROUTPUT ON;
DECLARE
    num NUMBER := 7;
BEGIN
    IF MOD(num, 2) = 0 THEN
        DBMS_OUTPUT.PUT_LINE('Even number');
    ELSE
        DBMS_OUTPUT.PUT_LINE('Odd number');
    END IF;
END;
/
```

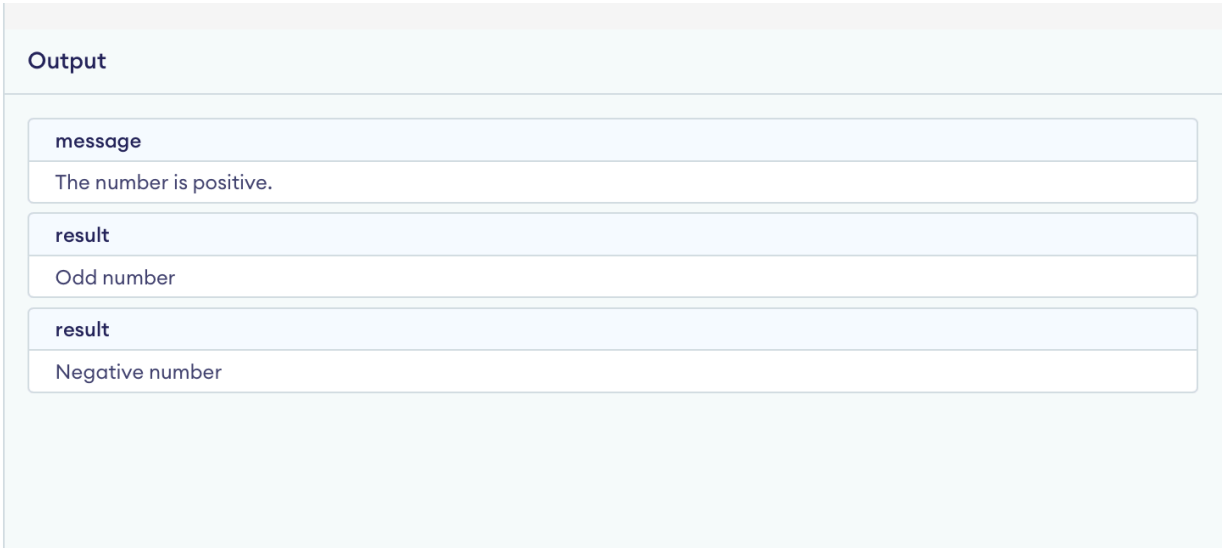


IF-THEN-ELSIF-ELSE Statement

Check multiple conditions one by one.

Example: Check if a number is positive, negative, or zero

```
SET SERVEROUTPUT ON;

DECLARE
    num NUMBER := -5;
BEGIN
    IF num > 0 THEN
        DBMS_OUTPUT.PUT_LINE('Positive number');
    ELSIF num < 0 THEN
        DBMS_OUTPUT.PUT_LINE('Negative number');
    ELSE
        DBMS_OUTPUT.PUT_LINE('Zero');
    END IF;
END;
/
```

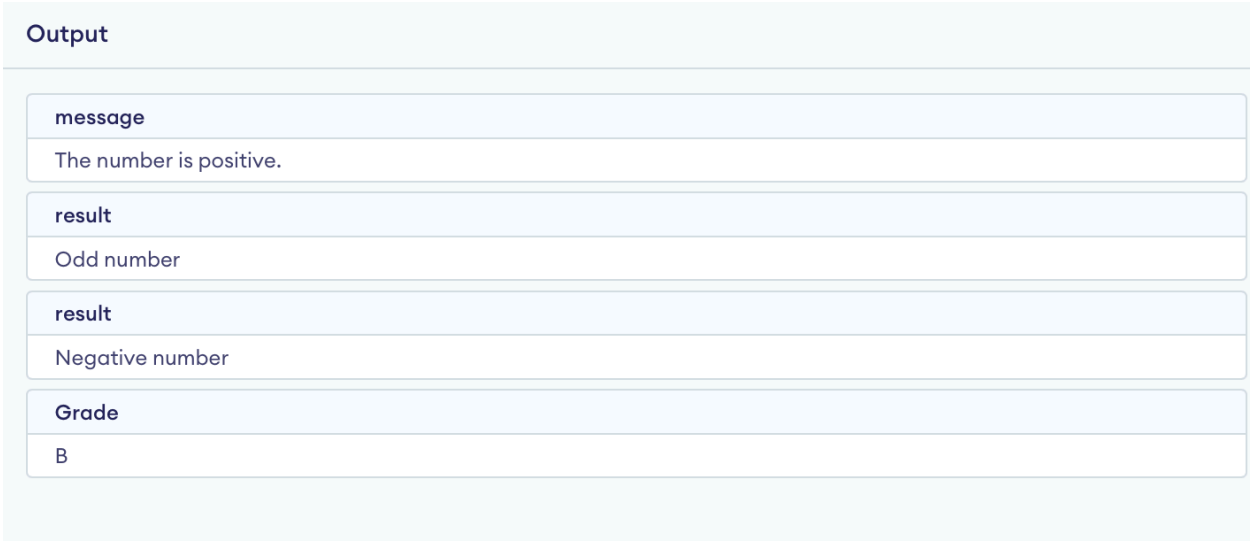


CASE Statement

The `CASE` statement is used to handle multiple conditions more efficiently. **Example: Grade Calculation Using CASE**

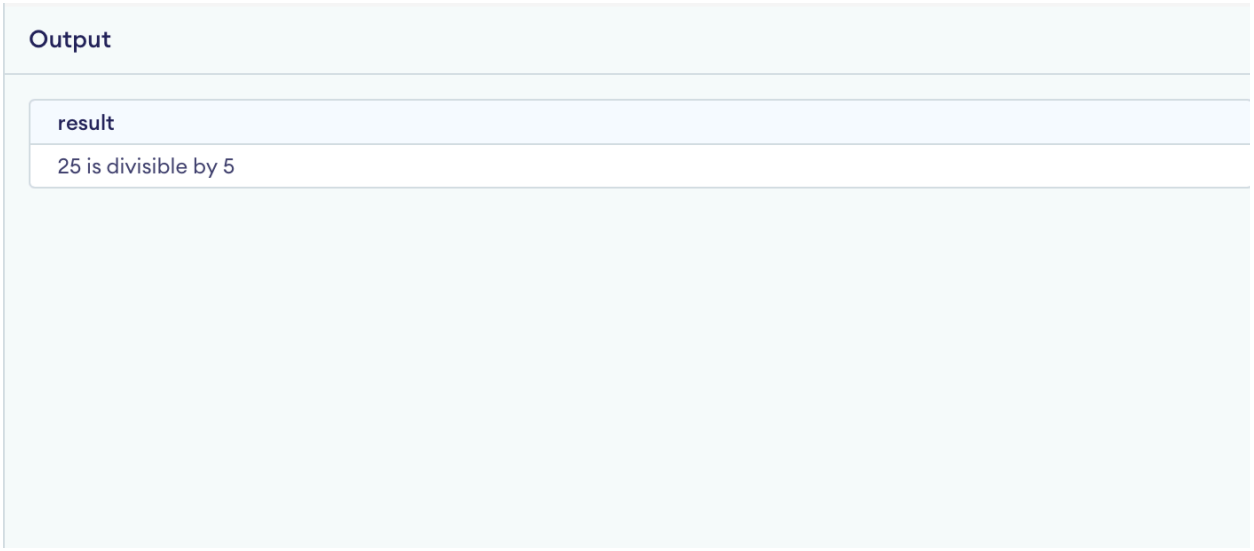
```
SET SERVEROUTPUT ON;

DECLARE
    marks NUMBER := 85;
    grade VARCHAR2(10);
BEGIN
    grade := CASE
                WHEN marks >= 90 THEN 'A'
                WHEN marks >= 80 THEN 'B'
                WHEN marks >= 70 THEN 'C'
                ELSE 'Fail'
             END;

    DBMS_OUTPUT.PUT_LINE('Grade: ' || grade);
END;
```

/



Simple Tasks for Practice

1. Write a PL/SQL program to check whether a number is **divisible by 5**.



2. Modify the **grade program** to include more conditions (e.g., `60-70` for **D**, `below 60` for **F**).

Output

Grade
B

3. Write a **CASE statement** to display the day of the week based on a number input (1 = Monday, 2 = Tuesday, etc.).

Output

Day_of_Week
Wednesday

4. Create a program that **checks the largest of three numbers** using `IF-THEN-ELSIF`.

Output

Largest_Number
25