PL/SQL - IF-THEN STATEMENT

It is the simplest form of **IF** control statement, frequently used in decision making and changing the control flow of the program execution.

The **IF statement** associates a condition with a sequence of statements enclosed by the keywords **THEN** and **END IF**. If the condition is **TRUE**, the statements get executed and if the condition is **FALSE** or **NULL** then the **IF** statement does nothing.

Syntax:
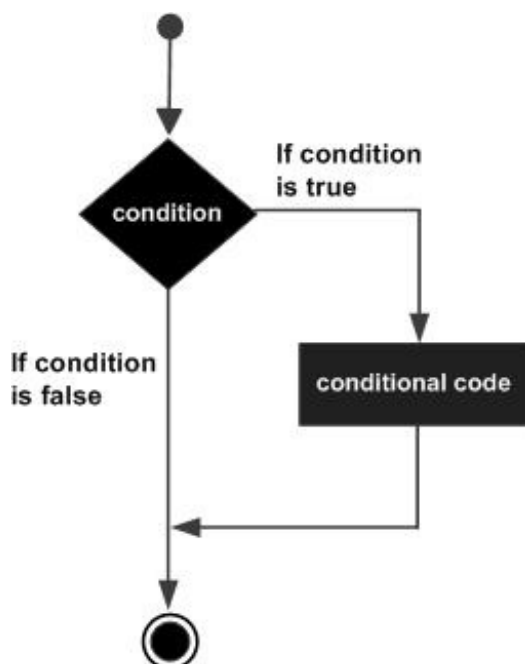
Syntax for IF-THEN statement is:

```
IF condition THEN
    S;
END IF;
```

Where *condition* is a Boolean or relational condition and *S* is a simple or compound statement. Example of an IF-THEN statement is:

```
IF (a <= 20) THEN
    c:= c+1;
END IF;
```

If the boolean expression *condition* evaluates to true then the block of code inside the if statement will be executed. If boolean expression evaluates to false then the first set of code after the end of the if statement (after the closing end if) will be executed.

Flow Diagram:

Example 1:

Let us try a complete example that would illustrate the concept:

```
DECLARE
   a number(2) := 10;
BEGIN
   a:= 10;
  -- check the boolean condition using if statement
   IF( a < 20 ) THEN
      -- if condition is true then print the following
      dbms_output.put_line('a is less than 20 ' );
   END IF;
   dbms_output.put_line('value of a is : ' || a);
END;
/
```

When the above code is executed at SQL prompt, it produces the following result:

```
a is less than 20
value of a is : 10

PL/SQL procedure successfully completed.
```

Example 2:

Consider we have a table and few records in the table as we had created in PL/SQL Variable Types

```
DECLARE
   c_id customers.id%type := 1;
   c_sal  customers.salary%type;
BEGIN
   SELECT  salary
   INTO  c_sal
   FROM customers
   WHERE id = c_id;
   IF (c_sal <= 2000) THEN
      UPDATE customers
      SET salary =  salary + 1000
         WHERE id = c_id;
      dbms_output.put_line ('Salary updated');
   END IF;
END;
/
```

When the above code is executed at SQL prompt, it produces the following result:

```
Salary updated

PL/SQL procedure successfully completed.
```