

Database Programming with PL/SQL

2-5: Writing PL/SQL Executable Statements

Practice Activities

Vocabulary

Identify the vocabulary word for each definition below:

Explicit conversion	Converts values from one data type to another by using built-in functions.
Implicit conversion	Converts data types dynamically if they are mixed in a statement.

Try It / Solve It

- Examine the following code and then answer the questions.

```
DECLARE
x  VARCHAR2(20);
BEGIN
  x := '123' + '456' ;
  DBMS_OUTPUT.PUT_LINE(x); END;
```

- What do you think the output will be when you run the above code?

Se hará una conversión implícita y mostrará el resultado de la suma.

- Now, run the code. What is the output?

Results	Explain	Describe	Saved SQL	History
 <p>Statement processed.</p> <p>0.01 seconds</p>				

- C. In your own words, describe what happened when you ran the code. Did any implicit conversions take place?

Si, se realizó una conversión implícita en la variable x, porque es de tipo VARCHAR2 y realizo una suma.

2. Write an anonymous PL/SQL block that assigns the programmer's full name to a variable, and then displays the number of characters in the name.

DECLARE

v_name VARCHAR2(25):='jorge meza palomo';

BEGIN

DBMS_OUTPUT.PUT_LINE(length(v_name));

END;

3. Write an anonymous PL/SQL block that uses today's date and outputs it in the format of 'Month dd, yyyy'. Store the date in a DATE variable called my_date. Create another variable of the DATE type called v_last_day. Assign the last day of this month to v_last_day. Display the value of v_last_day.

DECLARE

my_date DATE:=SYSDATE;

v_last_day DATE:= SYSDATE;

BEGIN

DBMS_OUTPUT.PUT_LINE(to_date(my_date,'DD/MM/YYYY'));

DBMS_OUTPUT.PUT_LINE(last_day(v_last_day));

END;

4. Modify the program created in question 3 to add 45 days to today's date and then calculate and display the number of months between the two dates.

DECLARE

my_date DATE:=SYSDATE;

v_last_day DATE:= SYSDATE;

BEGIN

DBMS_OUTPUT.PUT_LINE(to_date(my_date,'DD/MM/YYYY'));

```
DBMS_OUTPUT.PUT_LINE(last_day(v_last_day));  
END;
```

5. Examine the following code and then answer the questions.

```
DECLARE  
x  NUMBER(6);  
BEGIN  
  x := 5 + 3 * 2 ;  
  DBMS_OUTPUT.PUT_LINE(x);  
END;
```

A. What do you think the output will be when you run the above code?

11

B. Now run the code. What is the output?

11

C. In your own words, explain the results.

Aunque la operación no contenga paréntesis para separar las operaciones, el compilador utiliza la jerarquía de operadores.

6. Examine the following code and then answer the question.

```
DECLARE
```

```
v_number    NUMBER;  
v_boolean   BOOLEAN;  
BEGIN  
  v_number := 25;  
  v_boolean := NOT(v_number > 30);  
END;
```

What value is assigned to v_boolean?

TRUE

7. List two drawbacks to relying on implicit data type conversions.

Puede ser más difícil de comprender para otras personas que utilicen tu código.

Es difícil saber si la conversión implícita tendrá el resultado esperado, es mejor optar por una conversión explícita, aunque se lleve más líneas de código porque así ya estarás seguro de que la conversión resultó correctamente.