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**Escola del Clot**

CFGS Desenvolupament d'Aplicacions Web

CFGS Desenvolupament d'Aplicacions Multiplataforma

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**M02. Bases de dades UF4 BBDD objecte-relacional**

**Activitat 2.1**

Database Programming with PL/SQL

2-1: Using Variables in PL/SQL

Practice Activities

**Vocabulary**

Identify the vocabulary word for each definition below:

Used for storage of data and manipulation of stored values.

Variables

Values passed to a program by a user or by another program to customize the program.

Parámetros

**Try It / Solve It**

1. Fill in the blanks.
   1. Variables can be assigned to the output of a \_\_\_\_\_\_\_\_PL/SQL\_\_\_\_\_\_\_\_\_\_.
   2. Variables can be assigned values in the \_\_\_\_declaration\_\_\_\_ section of a PL/SQL block.
   3. Variables can be passed as \_\_\_\_\_\_\_value\_\_\_\_\_\_\_\_\_ to subprograms.
2. Identify valid and invalid variable declaration and initialization:

*\*Subrayados en rojo los inválidos*

number\_of\_copies PLS\_INTEGER;

printer\_name CONSTANT VARCHAR2(10);

deliver\_to VARCHAR2(10) := Johnson;

by\_when DATE := SYSDATE+1;

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1. Examine the following anonymous block and choose the appropriate statement.

DECLARE

fname VARCHAR2(25);

lname VARCHAR2(25) DEFAULT 'fernandez';

BEGIN

DBMS\_OUTPUT.PUT\_LINE(fname || ' ' || lname); END;

* 1. The block will execute successfully and print ‘ fernandez’.
  2. The block will give an error because the fname variable is used without initializing.
  3. The block will execute successfully and print ‘null fernandez’.
  4. The block will give an error because you cannot use the DEFAULT keyword to initialize a variable of the VARCHAR2 type.
  5. The block will give an error because the FNAME variable is not declared.

1. In Application Express: (**nota: Poseu les captures de pantalla conforme ho heu executat, mostrant l’execució del script en mode detallat)**
   1. Create the following function:

CREATE FUNCTION num\_characters (p\_string IN VARCHAR2)

RETURN INTEGER AS

v\_num\_characters INTEGER;

BEGIN

SELECT LENGTH(p\_string) INTO v\_num\_characters FROM dual;

RETURN v\_num\_characters;

END;



B. Create and execute the following anonymous block:

DECLARE

v\_length\_of\_string INTEGER;

BEGIN

v\_length\_of\_string := num\_characters('Oracle Corporation'); DBMS\_OUTPUT.PUT\_LINE(v\_length\_of\_string);

END;



1. Write an anonymous block that uses a country name as input and prints the highest and lowest elevations for that country. Use the COUNTRIES table. Execute your block three times using United States of America, French Republic, and Japan**.(nota: s’ha de crear i omplir una taula countries amb els valors que vulgueu i amb el noms dels països que diu l’enunciat. A partir d’aquesta taula feu el codi en PL/SQL amb la funcionalitat que diu l’enunciat)**

SET SERVEROUTPUT ON;

DECLARE

v\_highest number;

v\_lowest number;

BEGIN

SELECT c\_lowest\_elevation,c\_highest\_elevation

INTO v\_lowest,v\_highest

FROM countries\_plsql

WHERE c\_name='Japan';

DBMS\_OUTPUT.PUT\_LINE('the lowest elevation is ' || v\_lowest);

DBMS\_OUTPUT.PUT\_LINE('the highest elevation is ' || v\_highest);

END;



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