Database Programming with PL/SQL

1-3: Creating PL/SQL Blocks

Practice Activities

Vocabulary

|  |  |
| --- | --- |
| Anonymous Block | Unnamed blocks of code not stored in the database and do not  exist after they are executed |
| Subprogram | A program that computes and returns a single value |
| Subprograme | Named PL/SQL blocks that are stored in the database and can  be declared as procedures or functions |
| compiler | Software that checks and translates programs written in high-  level programming languages into binary code to execute |
| **Procedura nu returneaza (cred)**  **Functia returneaza** | A program that performs an action, but does not have to return a  value |

Try It / Solve It

1. Complete the following chart defining the syntactical requirements for a PL/SQL block:

|  |  |  |
| --- | --- | --- |
|  | Optional sau mandatoriu? | Descrie ce este inclus in sectiune |
| DECLARE | Optional | Declaratii pt toate:  variabilele  constantele  cursor  exceptii definite de user care sunt referite in BEGIN si in EXCEPTION |
| BEGIN | obligatoriu | Minim un statement SQL care sa returneze date din tabela/tabelele accesate |
| EXCEPTION | optional | Ce actiune sa se performeze/execute cand avem erori sau functionari anormale in BEGIN...END, adica TRATAM ERORILE |
| END; | obligatoriu | Punct-si-virgula este obligatoriu |

2. Which of the following PL/SQL blocks executes successfully? For the blocks that fail, explain why they fail

A.BEGIN

END;

Pusca! Blocul de executie tre sa aiba minim un SQL Statement sau un PLSQL

B.DECLARE

amount INTEGER(10);

END;

Pusca! Nu are BEGIN, care e obligatoriu. Plus, aceeasi treaba ca la A

C.DECLARE

BEGIN

END;

Pusca! Motiv> A.

D.DECLARE

amount NUMBER(10);

BEGIN

DBMS\_OUTPUT.PUT\_LINE(amount);

END;

Asta trece cu succes.

3. Fill in the blanks:

A. PL/SQL blocks that have no names are called \_\_Anonymous blocks\_\_\_\_\_.

B. \_Procedures\_ and Functions\_ are named blocks and are stored in the database.

4. In Application Express, create and execute a simple anonymous block that outputs “Hello World.”

BEGIN

DBMS\_OUTPUT.PUT\_LINE('Hello World');

END;

DBMS = SGBD = sistem de gestiune de baze de date. Deci tine de sistem.

**OBS: O functie returneaza ceva. O procedura nu returneaza nimic**

**Put\_line = procedura**

5. Create and execute a simple anonymous block that does the following:

•Declares a variable of datatype DATE and populates it with the date that is six months

from today

•Outputs “In six months, the date will be: <insert date>.”

DECLARE

data DATE;

BEGIN

data **:=** add\_months(current\_date, 6);

DBMS\_OUTPUT.PUT\_LINE('In 6 months the date will be '|| data);

END;

Nota: atribuirea := foarte importanta