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Vocabulary

Identify the vocabulary word for each definition below:

Anonymous Blocks	Unnamed blocks of code not stored in the database and do not exist after they are executed
Function	A program that computes and returns a single value
Subprograms	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
Procedure	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 or Mandatory?	Describe what is included in this section
DECLARE	Optional	Declarations of all : • variables, • constants, • cursors, • and user-defined exceptions
BEGIN	Mandatory	• SQL statements to retrieve data from the database • PL/SQL statements to manipulate data in the block. Notes : Must contain at least one statement.
EXCEPTION	Optional	• Actions to perform when errors • abnormal conditions arise in the executable section.
END;	Mandatory	End; (with semicolon)

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

    a. BEGIN
       END;
       Answer : FAIL. After BEGIN we must have something or NULL;

b. DECLARE
   amount INTEGER(10);
END;
Answer : FAIL. Because the BEGIN is messing. BEGIN and END is mandatory

c. DECLARE
BEGIN
END;
Answer : FAIL. After BEGIN we must have something or NULL;

d. DECLARE
   amount NUMBER(10);
BEGIN
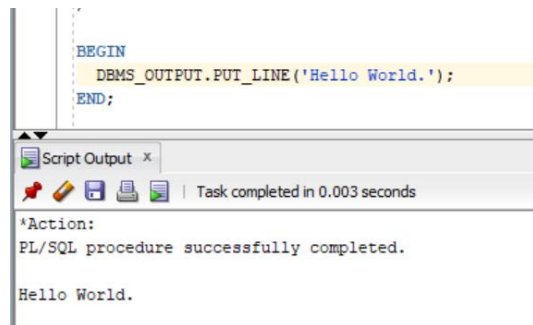   DBMS_OUTPUT.PUT_LINE(amount);
END;
Answer : SUCCESS

3. Fill in the blanks:
   a. PL/SQL blocks that have no names are called Anonymous Blocks
   b. Procedure and Function 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;
```
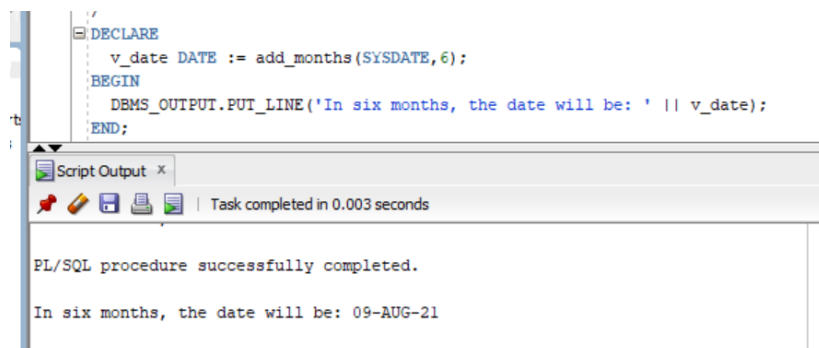
Script Output ×

| Task completed in 0.003 seconds

*Action:
PL/SQL procedure successfully completed.

Hello World.

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
    v_date DATE := add_months(SYSDATE,6);
BEGIN
    DBMS_OUTPUT.PUT_LINE('In six months, the date will be: ' || v_date);
END;
```

Script Output ×

| Task completed in 0.003 seconds

PL/SQL procedure successfully completed.

In six months, the date will be: 09-AUG-21