

Database Programming with PL/SQL

7-4: Recognizing the Scope of Exceptions Practice Activities **Vocabulary**

Identify the vocabulary word for each definition below:

|  |  |
| --- | --- |
| **Propagation** | The inner block terminates unsuccessfully, and PL/SQL passes the exception to the outer block. |
| **Exception Scope** | The portion of the program where the exception can be accessed without using a qualifier. |
| **Exception visibility** | The portion of a program in which the exception is declared and is accessible. |

**Try It / Solve It**

1. Enter and run the following code twice, once for each of the two country\_ids, 5 (which does not exist) and 672 (Antarctica, which does exist but has no currency).

DECLARE

v\_country\_name countries.country\_name%TYPE; v\_currency\_code countries.currency\_code%TYPE;

BEGIN DECLARE

e\_no\_currency EXCEPTION;

BEGIN

SELECT country\_name, currency\_code INTO v\_country\_name, v\_currency\_code FROM countries

WHERE country\_id = 5; -- repeat with 672

IF v\_currency\_code = 'NONE' THEN

RAISE e\_no\_currency;

END IF;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('This country does not exist');

WHEN e\_no\_currency THEN

DBMS\_OUTPUT.PUT\_LINE('This country exists but has no currency'); END;

EXCEPTION

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Another type of error occurred'); END;

1. Explain the output. Save your code.

Cum nu exista nicio tara cu id-ul 5 se va declansa exceptia prestabilita NO\_DATA\_FOUND si se va afisa ‚This country does not exist’ . In cazul id-ului 672 pt ca tara exista, dar nu are moneda se va declansa exceptia e\_no\_currency si se va afisa mesajul ‚ This country exists but has no currency’ .

1. Modify the code to move the two exception handlers to the outer block. Leave the declaration of e\_no\_currency in the inner block. Execute twice, again using country\_ids 5 and 672. Now what happens and why? Save your code.

DECLARE

v\_country\_name countries.country\_name%TYPE; v\_currency\_code countries.currency\_code%TYPE;

BEGIN

DECLARE

e\_no\_currency EXCEPTION;

BEGIN

SELECT country\_name, currency\_code INTO v\_country\_name, v\_currency\_code

FROM countries

WHERE country\_id = 672; -- repeat with 672

IF v\_currency\_code = 'NONE' THEN

RAISE e\_no\_currency;

END IF;

END;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('This country does not exist');

WHEN e\_no\_currency THEN

DBMS\_OUTPUT.PUT\_LINE('This country exists but has no currency');

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Another type of error occurred'); END;

Imi apare o eroare pentru ca nu am declarat e\_no\_currency in blocul exterior.

1. Modify the code again to move the declaration of e\_no\_currency to the outer block. Execute the code again using country\_ids 5 and 672. Now what happens and why?

DECLARE

v\_country\_name countries.country\_name%TYPE; v\_currency\_code countries.currency\_code%TYPE;

e\_no\_currency EXCEPTION;

BEGIN

BEGIN

SELECT country\_name, currency\_code INTO v\_country\_name, v\_currency\_code FROM countries

WHERE country\_id = 5; -- repeat with 672

IF v\_currency\_code = 'NONE' THEN

RAISE e\_no\_currency;

END IF;

END;

EXCEPTION

WHEN NO\_DATA\_FOUND THEN

DBMS\_OUTPUT.PUT\_LINE('This country does not exist');

WHEN e\_no\_currency THEN

DBMS\_OUTPUT.PUT\_LINE('This country exists but has no currency');

WHEN OTHERS THEN

DBMS\_OUTPUT.PUT\_LINE('Another type of error occurred'); END;

Codul ruleaza, pentru id=5 afiseaza ‚This country does not exist’, iar pentru 672 afiseaza ca ‚This country exists but has no currency’ .

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2