Database Programming with PL/SQL

7-4: Recognizing the Scope of Exceptions Practice

Activities

Vocabulary

Identify the vocabulary word for each definition below:

Propagation of exceptions	The inner block terminates unsuccessfully, and PL/SQL passes the exception to the outer block.
Exception Visibility	The portion of the program where the exception can be accessed without using a qualifier.
Exception Scope	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;
```

A. Explain the output. Save your code.

En la ejecución con el id 5, aparece la excepción de que no hay ningún país con ese id asignado.

En la ejecución con el id 672, aparece la excepción de que si existe un país con ese id pero no tiene moneda.

B. 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;
```

El código no encuentra ninguna excepción llamada e_no_currency, porque se encuentra declarada en el bloque interno.

C. 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?
    Ahora el Código funciona, porque ya se encuentra declarada la excepción e_no_currency en el bloque exterior.