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## **Introducing PL/SQL Nested Block**

To nest a block means to embed one or more PL/SQL blocks inside another PL/SQL block to allow you have a better control over program's execution and exception handling. Let's take a look at an example:

```
SET SERVEROUTPUT ON SIZE 1000000;
DECLARE
    n_emp_id EMPLOYEES.EMPLOYEE_ID%TYPE := &emp_id1;
BEGIN
    DECLARE
        n_emp_id employees.employee_id%TYPE := &emp_id2;
        v_name    employees.first_name%TYPE;
    BEGIN
        SELECT first_name
        INTO v_name
        FROM employees
        WHERE employee_id = n_emp_id;

        DBMS_OUTPUT.PUT_LINE('First name of employee ' ||
n_emp_id ||
                                ' is ' || v_name);

    EXCEPTION
        WHEN NO_DATA_FOUND THEN
            DBMS_OUTPUT.PUT_LINE('Employee ' || n_emp_id || '
not found');
    END;
END;
/
```

## **PL/SQL Block Label**

So what if you want to refer to the variable in the parent block inside the child block in the above example? PL/SQL provides you a feature called block label so you can qualify all references to variables inside that block via a label. To label a block you just specify the label name before the declaration section as below:

```
<<block_label>>
DECLARE
    ...
BEGIN
    ...
END;
```

You can refer to variable inside the block by using dot notation as below:

```
block_label.variable_name;
```

Here is an example:

```
SET SERVEROUTPUT ON SIZE 1000000;
<<label>>
DECLARE
  v_name VARCHAR2(25) := 'Maria';
BEGIN
  DBMS_OUTPUT.PUT_LINE(label.v_name);
END;
/
```

We can rewrite the above example as below:

```
SET SERVEROUTPUT ON SIZE 1000000;
<<parent>>
DECLARE
  n_emp_id EMPLOYEES.EMPLOYEE_ID%TYPE := &emp_id1;
BEGIN
  <<child>>
  DECLARE
    n_emp_id employees.employee_id%TYPE := &emp_id2;
    v_name    employees.first_name%TYPE;
  BEGIN
    SELECT first_name
    INTO v_name
    FROM employees
    WHERE employee_id = parent.n_emp_id;

    DBMS_OUTPUT.PUT_LINE('First name of employee ' ||
parent.n_emp_id ||
                        ' is ' || child.v_name);

  EXCEPTION
    WHEN NO_DATA_FOUND THEN
      DBMS_OUTPUT.PUT_LINE('Employee ' ||
parent.n_emp_id || ' not found');
  END;
END;
/
```