

## Database Programming with PL/SQL

### 4-5: Iterative Control: Nested Loops

### Practice Activities

#### Vocabulary

*No new vocabulary for this lesson*

#### Try It / Solve It

1. Write a PL/SQL block to produce a list of available vehicle license plate numbers. These numbers must be in the following format: NN-MMM, where NN is between 60 and 65, and MMM is between 100 and 110. Use nested FOR loops. The outer loop should choose numbers between 60 and 65. The inner loop should choose numbers between 100 and 110, and concatenate the two numbers together.
2. Modify your block from question 1 to calculate the sum of the two numbers on each iteration of the inner loop (for example, 62-107 sums to 169), and exit from the OUTER loop if the sum of the two numbers is greater than 172. Use loop labels. Test your modified code.

```
DECLARE
    v_license_plate VARCHAR2(20); -- Variabil pentru
    numrul de înmatriculare
    v_sum NUMBER; -- Variabil pentru suma NN + MMM
    <<outer_loop>> -- Etichet pentru bucla exterior
BEGIN
    -- Bucla exterior pentru NN (60-65)
    FOR nn IN 60..65 LOOP
        -- Bucla interior pentru MMM (100-110)
        FOR mmm IN 100..110 LOOP
            -- Concatenează NN i MMM în formatul NN-MMM
            v_license_plate := nn || '-' || mmm;
            -- Calculează suma NN + MMM
            v_sum := nn + mmm;

            -- Afieaz numrul de înmatriculare i suma
            DBMS_OUTPUT.PUT_LINE('License Plate: ' ||
                v_license_plate || ', Sum: ' || v_sum);

            -- Verifică dacă suma depășește 172
            IF v_sum > 172 THEN
                EXIT outer_loop; -- Ieșire din bucla exterior
            END IF;
        END LOOP;
    END LOOP;
END;
```

```
1.DECLARE
    v_license_plate VARCHAR2(20); -- Variabil
    pentru numrul de înmatriculare
BEGIN
    -- Bucla exterior pentru NN (60-65)
    FOR nn IN 60..65 LOOP
        -- Bucla interior pentru MMM (100-110)
        FOR mmm IN 100..110 LOOP
            -- Concatenează NN i MMM în formatul
            NN-MMM
            v_license_plate := nn || '-' || mmm;
            -- Afieaz numrul de înmatriculare
            DBMS_OUTPUT.PUT_LINE
            (v_license_plate);
        END LOOP;
    END LOOP;
END;
```