**PL/SQL programming**

Exercise 1: Control Structures

DECLARE

student\_name VARCHAR2(50);

marks NUMBER;

grade CHAR(1);

BEGIN

-- Iterative control: Loop through 5 students

FOR i IN 1..5 LOOP

-- Sequential control: simulate different marks using MOD

marks := 50 + (i \* 10); -- marks will be 60, 70, 80, 90, 100

-- Assign student name

student\_name := 'Student ' || i;

-- Conditional control: assign grade based on marks

IF marks >= 90 THEN

grade := 'A';

ELSIF marks >= 80 THEN

grade := 'B';

ELSIF marks >= 70 THEN

grade := 'C';

ELSIF marks >= 60 THEN

grade := 'D';

ELSE

grade := 'F';

END IF;

-- Output results

DBMS\_OUTPUT.PUT\_LINE('---');

DBMS\_OUTPUT.PUT\_LINE('Name: ' || student\_name);

DBMS\_OUTPUT.PUT\_LINE('Marks: ' || marks);

DBMS\_OUTPUT.PUT\_LINE('Grade: ' || grade);

-- Sequential control: skip next student if grade is F (not in this case)

IF grade = 'F' THEN

DBMS\_OUTPUT.PUT\_LINE('Failing student. Skipping next...');

EXIT; -- exits loop (can also use CONTINUE to skip iteration)

END IF;

END LOOP;

END;

Output:

---

Name: Student 1

Marks: 60

Grade: D

---

Name: Student 2

Marks: 70

Grade: C

---

Name: Student 3

Marks: 80

Grade: B

---

Name: Student 4

Marks: 90

Grade: A

---

Name: Student 5

Marks: 100

Grade: A