Sursele din Laborator plsql 2

SET SERVEROUTPUT ON;

-- 1

DECLARE

x NUMBER(1) := 5;

y x%TYPE := NULL;

BEGIN

IF x <> y THEN

DBMS\_OUTPUT.PUT\_LINE ('valoare <> null este = true');

ELSE

DBMS\_OUTPUT.PUT\_LINE ('valoare <> null este != true');

END IF;

x := NULL;

IF x = y THEN

DBMS\_OUTPUT.PUT\_LINE ('null = null este = true');

ELSE

DBMS\_OUTPUT.PUT\_LINE ('null = null este != true');

END IF;

END;

/

-- 2 a

DECLARE

TYPE emp\_record IS RECORD

(cod employees.employee\_id%TYPE,

salariu employees.salary%TYPE,

job employees.job\_id%TYPE);

v\_ang emp\_record;

BEGIN

v\_ang.cod:=700;

v\_ang.salariu:= 9000;

v\_ang.job:='SA\_MAN';

DBMS\_OUTPUT.PUT\_LINE ('Angajatul cu codul '|| v\_ang.cod ||

' si jobul ' || v\_ang.job || ' are salariul ' || v\_ang.salariu);

END;

/

-- 2 b

BEGIN

SELECT employee\_id, salary, job\_id

INTO v\_ang

FROM employees

WHERE employee\_id = 101;

DBMS\_OUTPUT.PUT\_LINE ('Angajatul cu codul '|| v\_ang.cod ||

' si jobul ' || v\_ang.job || ' are salariul ' || v\_ang.salariu);

END;

/

-- 2 c

BEGIN

DELETE FROM emp\_\*\*\*

WHERE employee\_id=100

RETURNING employee\_id, salary, job\_id INTO v\_ang;

DBMS\_OUTPUT.PUT\_LINE ('Angajatul cu codul '|| v\_ang.cod ||

' si jobul ' || v\_ang.job || ' are salariul ' || v\_ang.salariu);

END;

/

ROLLBACK;

-- 3

DECLARE

v\_ang1 employees%ROWTYPE;

v\_ang2 employees%ROWTYPE;

BEGIN

-- sterg angajat 100 si mentin in variabila linia stearsa

DELETE FROM emp\_\*\*\*

WHERE employee\_id = 100

RETURNING employee\_id, first\_name, last\_name, email, phone\_number,

hire\_date, job\_id, salary, commission\_pct, manager\_id,

department\_id

INTO v\_ang1;

-- inserez in tabel linia stearsa

INSERT INTO emp\_\*\*\*

VALUES v\_ang1;

-- sterg angajat 101

DELETE FROM emp\_\*\*\*

WHERE employee\_id = 101;

-- obtin datele din tabelul employees

SELECT \*

INTO v\_ang2

FROM employees

WHERE employee\_id = 101;

-- inserez o linie oarecare in emp\_\*\*\*

INSERT INTO emp\_\*\*\*

VALUES(1000,'FN','LN','E',null,sysdate, 'AD\_VP',1000, null,100,90);

-- modific linia adaugata anterior cu valorile variabilei v\_ang2

UPDATE emp\_\*\*\*

SET ROW = v\_ang2

WHERE employee\_id = 1000;

END;

/

-- 4

DECLARE

TYPE tablou\_indexat IS TABLE OF NUMBER INDEX BY PLS\_INTEGER;

t tablou\_indexat;

BEGIN

-- punctul a

FOR i IN 1..10 LOOP

t(i):=i;

END LOOP;

DBMS\_OUTPUT.PUT('Tabloul are ' || t.COUNT ||' elemente: ');

FOR i IN t.FIRST..t.LAST LOOP

DBMS\_OUTPUT.PUT(t(i) || ' ');

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

-- punctul b

FOR i IN 1..10 LOOP

IF i mod 2 = 1 THEN t(i):=null;

END IF;

END LOOP;

DBMS\_OUTPUT.PUT('Tabloul are ' || t.COUNT ||' elemente: ');

FOR i IN t.FIRST..t.LAST LOOP

DBMS\_OUTPUT.PUT(nvl(t(i), 0) || ' ');

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

-- punctul c

t.DELETE(t.first);

t.DELETE(5,7);

t.DELETE(t.last);

DBMS\_OUTPUT.PUT\_LINE('Primul element are indicele ' || t.first ||

' si valoarea ' || nvl(t(t.first),0));

DBMS\_OUTPUT.PUT\_LINE('Ultimul element are indicele ' || t.last ||

' si valoarea ' || nvl(t(t.last),0));

DBMS\_OUTPUT.PUT('Tabloul are ' || t.COUNT ||' elemente: ');

FOR i IN t.FIRST..t.LAST LOOP

IF t.EXISTS(i) THEN

DBMS\_OUTPUT.PUT(nvl(t(i), 0)|| ' ');

END IF;

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

-- punctul d

t.delete;

DBMS\_OUTPUT.PUT\_LINE('Tabloul are ' || t.COUNT ||' elemente.');

END;

/

-- 5

DECLARE

TYPE tablou\_indexat IS TABLE OF emp\_\*\*\*%ROWTYPE

INDEX BY BINARY\_INTEGER;

t tablou\_indexat;

BEGIN

-- stergere din tabel si salvare in tablou

DELETE FROM emp\_\*\*\*

WHERE ROWNUM<= 2

RETURNING employee\_id, first\_name, last\_name, email, phone\_number,

hire\_date, job\_id, salary, commission\_pct, manager\_id,

department\_id

BULK COLLECT INTO t;

--afisare elemente tablou

DBMS\_OUTPUT.PUT\_LINE (t(1).employee\_id ||' ' || t(1).last\_name);

DBMS\_OUTPUT.PUT\_LINE (t(2).employee\_id ||' ' || t(2).last\_name);

--inserare cele 2 linii in tabel

INSERT INTO emp\_\*\*\* VALUES t(1);

INSERT INTO emp\_\*\*\* VALUES t(2);

END;

/

-- 6

DECLARE

TYPE tablou\_imbricat IS TABLE OF NUMBER;

t tablou\_imbricat := tablou\_imbricat();

BEGIN

-- punctul a

FOR i IN 1..10 LOOP

t.extend;

t(i):=i;

END LOOP;

-- --daca am vrea sa avem in colectie -10 -9 .. -1 0 1 .. 10, cum facem?

-- t.extend(11);

-- FOR i IN 12..21 LOOP

-- t(i):= t(i-11);

-- END LOOP;

--

-- FOR i IN 1..11 LOOP

-- t(i):=-11 + i;

-- END LOOP;

DBMS\_OUTPUT.PUT('Tabloul are ' || t.COUNT ||' elemente: ');

FOR i IN t.FIRST..t.LAST LOOP

DBMS\_OUTPUT.PUT(t(i) || ' ');

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

-- punctul b

FOR i IN 1..10 LOOP

IF i mod 2 = 1 THEN t(i):=null;

END IF;

END LOOP;

DBMS\_OUTPUT.PUT('Tabloul are ' || t.COUNT ||' elemente: ');

FOR i IN t.FIRST..t.LAST LOOP

DBMS\_OUTPUT.PUT(nvl(t(i), 0) || ' ');

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

-- punctul c

t.DELETE(t.first);

t.DELETE(5,7);

t.DELETE(t.last);

DBMS\_OUTPUT.PUT\_LINE('Primul element are indicele ' || t.first ||

' si valoarea ' || nvl(t(t.first),0));

DBMS\_OUTPUT.PUT\_LINE('Ultimul element are indicele ' || t.last ||

' si valoarea ' || nvl(t(t.last),0));

DBMS\_OUTPUT.PUT('Tabloul are ' || t.COUNT ||' elemente: ');

FOR i IN t.FIRST..t.LAST LOOP

IF t.EXISTS(i) THEN

DBMS\_OUTPUT.PUT(nvl(t(i), 0)|| ' ');

END IF;

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

-- punctul d

t.delete;

DBMS\_OUTPUT.PUT\_LINE('Tabloul are ' || t.COUNT ||' elemente.');

END;

/

--7

DECLARE

TYPE tablou\_imbricat IS TABLE OF CHAR(1);

t tablou\_imbricat := tablou\_imbricat('m', 'i', 'n', 'i', 'm');

i INTEGER;

BEGIN

i := t.FIRST;

WHILE i <= t.LAST LOOP

DBMS\_OUTPUT.PUT(t(i));

i := t.NEXT(i);

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

i := t.LAST;

WHILE i >= t.FIRST LOOP

DBMS\_OUTPUT.PUT(t(i));

i := t.PRIOR(i);

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

t.delete(2);

t.delete(4);

i := t.FIRST;

WHILE i <= t.LAST LOOP

DBMS\_OUTPUT.PUT(t(i));

i := t.NEXT(i);

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

i := t.LAST;

WHILE i >= t.FIRST LOOP

DBMS\_OUTPUT.PUT(t(i));

i := t.PRIOR(i);

END LOOP;

DBMS\_OUTPUT.NEW\_LINE;

END;