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**Зачетная работа**

**Вариант №3**

Задание 1a

WITH rtree(id,first\_name,last\_name,manager\_id) AS (

SELECT id,first\_name,last\_name,manager\_id FROM bd6\_employees WHERE id=1

UNION ALL

SELECT e.id,e.first\_name,e.last\_name,e.manager\_id FROM bd6\_employees e JOIN rtree r ON (e.manager\_id=r.id)

)

SELECT \* FROM rtree;

Задание 1б

SET SERVEROUTPUT ON;

DECLARE

TYPE dep\_arr IS TABLE OF number(38);

deps dep\_arr:=dep\_arr(1);

CURSOR my\_cursor1 IS SELECT \* FROM bd6\_employees;

CURSOR my\_cursor2 IS SELECT \* FROM bd6\_employees;

person bd6\_employees%rowtype;

i number(38):=1;

k\_id number(38):=0;

k\_m number(38):=0;

BEGIN

DBMS\_OUTPUT.enable;

OPEN my\_cursor1;

FETCH my\_cursor1 INTO person;

DBMS\_OUTPUT.put\_line('meneger\_id='||person.manager\_id||' '||'id='||person.id||' '|| person.last\_name||' '||person.first\_name);

LOOP

FETCH my\_cursor1 INTO person;

EXIT WHEN my\_cursor1%notfound;

IF person.manager\_id=deps(1) THEN

DBMS\_OUTPUT.put\_line('meneger\_id='||person.manager\_id||' '||'id='||person.id||' '|| person.last\_name||' '||person.first\_name);

i := i + 1;

deps.extend;

deps(i):=person.id;

END IF;

END LOOP;

CLOSE my\_cursor1;

OPEN my\_cursor2;

LOOP

k\_id:=0;

k\_m:=0;

FETCH my\_cursor2 INTO person;

EXIT WHEN my\_cursor2%notfound;

FOR i IN 1..deps.count

LOOP

IF person.id=deps(i) THEN k\_id:=1;

END IF;

IF person.manager\_id=deps(i) THEN k\_m:=1;

END IF;

END LOOP;

IF k\_id=0 AND k\_m=1 THEN

DBMS\_OUTPUT.put\_line('meneger\_id='||person.manager\_id||' '||'id='||person.id||' '|| person.last\_name||' '||person.first\_name);

deps.extend;

i := i + 1;

deps(i):=person.id;

END IF;

END LOOP;

CLOSE my\_cursor2;

END;

Задание 2

SET SERVEROUTPUT ON

DECLARE

CURSOR my\_cursor return BD6\_EMPLOYEES%ROWTYPE

IS SELECT \* FROM BD6\_EMPLOYEES order by department\_id, salary\_in\_euro;

my\_row BD6\_EMPLOYEES%ROWTYPE;

i number:= 1;

dep number:= my\_row.department\_id;

temp number:= dep;

BEGIN

OPEN my\_cursor;

FETCH my\_cursor INTO my\_row;

WHILE my\_cursor%FOUND LOOP

dep:= my\_row.department\_id;

if (temp = dep)

then

i:= i+1;

else

i:= 1;

end if;

DBMS\_OUTPUT.put\_line(my\_row.last\_name||' '||my\_row.first\_name||' '||my\_row.phone\_number||' '||'Доб.'||i);

FETCH my\_cursor INTO my\_row;

temp:= dep;

END LOOP;

CLOSE my\_cursor;

END;

Задание 3

DECLARE

CURSOR cur(p1 number) IS SELECT \* FROM bd6\_employees WHERE manager\_id=p1 ORDER BY manager\_id,salary\_in\_euro;

CURSOR cur2(p2 number) IS SELECT \* FROM bd6\_employees WHERE manager\_id=p2 ORDER BY manager\_id,salary\_in\_euro;

person bd6\_employees%rowtype;

person1 bd6\_employees%rowtype;

i number(38):=1;

k number(38);

prev number(38);

--hel number(38);

cnt number(38):=1;

BEGIN

OPEN cur(1);

LOOP

FETCH cur INTO person;

SELECT count(\*) INTO k FROM bd6\_employees WHERE manager\_id=person.id;

EXIT WHEN cur%notfound;

IF k>3 THEN

prev:=person.manager\_id;

OPEN cur2(person.id);

FETCH cur2 INTO person;

cnt:=1;

WHILE cur2%found

LOOP

IF cnt>3 THEN

person.manager\_id:=prev;

DBMS\_OUTPUT.put\_line('менеджер='||person.manager\_id||' '||'id='||person.id||' '|| person.last\_name||' '||person.first\_name);

UPDATE bd6\_employees SET manager\_id=person.manager\_id WHERE id=person.id;

END IF;

FETCH cur2 INTO person;

cnt:=cnt+1;

END LOOP;

CLOSE cur2;

END IF;

END LOOP;

CLOSE cur;

END;

Задание 4

CREATE TABLE spiral(

f1 integer,

f2 integer,

f3 integer,

f4 integer,

f5 integer);

DECLARE

--i- количество строк

i integer := 1;

--n-количество чисел

n integer := 0;

BEGIN

WHILE n < 1000 LOOP

CASE mod(i,4)

WHEN 1 THEN INSERT INTO spiral VALUES (n + 1, n + 2, n + 3, n + 4, n + 5);

WHEN 2 THEN INSERT INTO spiral VALUES (n + 10, n + 9, n + 8, n + 7, n + 6); n := n + 10;

WHEN 3 THEN INSERT INTO spiral VALUES (n + 1, n + 2, n + 3, n + 4, n + 5);

WHEN 0 THEN INSERT INTO spiral VALUES (n + 10, n + 9, n + 8, n + 7, n + 6); n := n + 10;

END CASE;

i := i + 1;

END LOOP;

END;

SELECT \* FROM spiral;

Дополнительное задание 1(защита)