**-- 1) явный курсор, возвращающий список всех контрактов, заключенных в текущем квартале**

create or replace PROCEDURE prod1 AS

err1 exception;

CURSOR shows IS

select \* from contracts

where trunc(DAYFROM,'Q') = trunc(sysdate,'Q') and

trunc(DAYFROM,'yyyy') = trunc(sysdate,'yyyy');

m contracts%ROWTYPE;

BEGIN

OPEN shows;

FETCH shows INTO m;

IF shows%NOTFOUND then

raise err1;

end if;

WHILE shows%FOUND LOOP

dbms\_output.put\_line(to\_char(shows%ROWCOUNT)||chr(9)||m.CONTR\_ID||chr(9)||m.MAN\_ID||chr(9)||to\_char(m.dayfrom)||chr(9)||to\_char(m.dayto));

FETCH shows INTO m;

END LOOP;

exception

when err1 then

dbms\_output.put\_line('No data found');

END;

2) явный курсор с входными параметрами месяц и год, возвращающий список всех контрактов

-- (номер контракта, номер менеджера, номер контрагента, длительность в месяцах и отметка о том, истек контракт или нет)

-- заключенных в заданном месяце заданного года.

create or replace PROCEDURE prod2(mm number, yy number) AS

err1 exception;

cursor spisok(mm number, yy number) is

select contracts.dayto, contracts.contr\_id, contracts.man\_id,

((to\_char(extract(year from contracts.dayto)) - to\_char(extract(year from contracts.dayfrom))) \* 12 +

(to\_char(extract(month from contracts.dayto)) - to\_char(extract(month from contracts.dayfrom)))) as temp1,

((to\_char(extract(year from sysdate)) - to\_char(extract(year from contracts.dayfrom))) \* 12 +

(to\_char(extract(month from sysdate)) - to\_char(extract(month from contracts.dayfrom)))) as temp2

from contracts

where to\_char(extract(month from contracts.dayfrom)) = mm and

to\_char(extract(year from contracts.dayfrom)) = yy;

mark varchar(60);

spsk spisok%rowtype;

begin

open spisok (mm, yy);

fetch spisok into spsk;

if mm<1 or mm>12 then

if yy<2010 then

raise\_application\_error(-20203,'Некорректный месяц и год');

else raise\_application\_error(-20201,'Некорректный месяц');

end if;

end if;

if yy<2010 or yy>=2100 then

raise\_application\_error(-20202,'Некорректный год');

end if;

if spisok%notfound then

raise err1;

else

while spisok%found loop

if (spsk.dayto <= sysdate) then

mark := 'Контракт закончился';

dbms\_output.put\_line(to\_char(spisok%ROWCOUNT)||chr(9)||spsk.contr\_id||chr(9)||spsk.man\_id||chr(9)||spsk.temp1||chr(9)||mark);

else

mark := 'Контракт продолжается';

dbms\_output.put\_line(to\_char(spisok%ROWCOUNT)||chr(9)||spsk.contr\_id||chr(9)||spsk.man\_id||chr(9)||spsk.temp2||chr(9)||mark);

end if;

end loop;

end if;

exception

when err1 then

dbms\_output.put\_line('No data found');

end;

--1) неявный курсор, возвращающий количество всех контрактов, заключенных в текущем квартале;

create or replace PROCEDURE prod3 AS

err1 exception;

cc number(3);

BEGIN

select count(\*) into cc from contracts

where trunc(DAYFROM,'Q') = trunc(sysdate,'Q') and

trunc(DAYFROM,'yyyy') = trunc(sysdate,'yyyy');

if cc is null then

raise err1;

end if;

dbms\_output.put\_line('Количество контрактов в текущем квартале = '||cc);

exception

when err1 then

dbms\_output.put\_line('No data');

end;

-- 2) неявный курсор, изменяющем день завершения контракта с субботы и воскресенья на понедельник для контрактов,

-- заключенных в заданном месяце заданного года.

create or replace procedure prod4(mm in number, yyyy in number) as

temp number(3);

err1 exception;

err2 exception;

err3 exception;

day\_to\_1 number := 7; --saturday

day\_to\_2 number := 1; --sanday

nmin contracts.dayfrom%type;

nmax contracts.dayfrom%type;

BEGIN

select min(dayfrom) into nmin from contracts;

select max(dayfrom) into nmax from contracts;

if (mm<1 or mm>12) then

if (to\_number(to\_char(nmax,'yyyy')) < yyyy or to\_number(to\_char(nmin,'yyyy')) > yyyy) then

raise err2;

else raise err1;

end if;

end if;

if (to\_number(to\_char(nmax,'yyyy')) < yyyy or to\_number(to\_char(nmin,'yyyy')) > yyyy) then

raise err3;

end if;

select count(\*) into temp from contracts

where to\_char(extract(month from dayfrom)) = mm and

to\_char(extract(year from dayfrom)) = yyyy and

(to\_number(to\_char(dayto, 'd')) = day\_to\_1 or

to\_number(to\_char(dayto, 'd')) = day\_to\_2);

if (temp=0) then

raise\_application\_error(-20001,'No data found');

else

update contracts set dayto = dayto + 2

where to\_char(extract(month from dayfrom)) = mm and

to\_char(extract(year from dayfrom)) = yyyy and

to\_number(to\_char(dayto, 'd')) = day\_to\_1;

update contracts set dayto = dayto + 1

where to\_char(extract(month from dayfrom)) = mm and

to\_char(extract(year from dayfrom)) = yyyy and

to\_number(to\_char(dayto, 'd')) = day\_to\_2;

END IF;

dbms\_output.put\_line('Дни изменены: '||chr(9)||temp);

exception

when err1 then

dbms\_output.put\_line('Invalid month');

when err2 then

dbms\_output.put\_line('Invalid month and year');

when err3 then

dbms\_output.put\_line('Invalid year');

end;