

--5.11

--sesiunea 1:

```
SELECT * FROM dep_sca
```

```
WHERE department_id = 10 FOR UPDATE;
```

->In sesiunea 1 avem FOR UPDATE care blocheaza linia respectiva.

| | DEPARTMENT_ID | DEPARTMENT_NAME | MANAGER_ID | LOCATION_ID |
|---|---------------|-----------------|------------|-------------|
| 1 | 10 | Administration | 200 | 1700 |

--sesiunea 2:

```
SELECT * FROM dep_sca
```

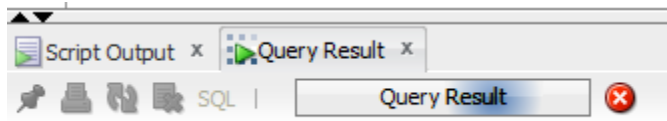
```
WHERE department_id = 10
```

```
FOR UPDATE NOWAIT;
```

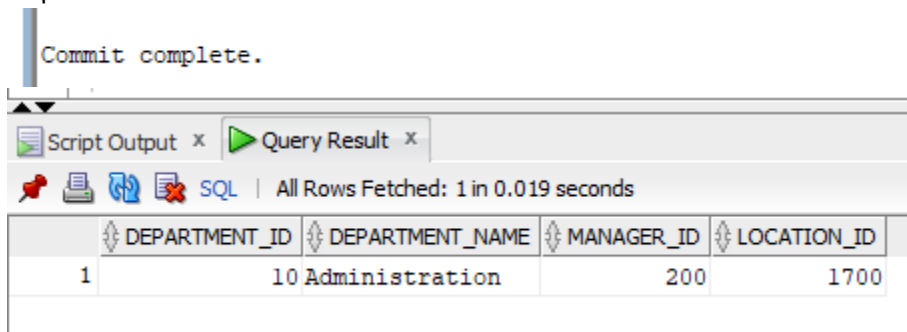
->In sesiunea 2 folosim NOWAIT care incearca sa acceseze linia blocata, neasteptand ca prima sesiune sa se incheie prin permanentizarea cu commit.

```
ORA-00054: resource busy and acquire with NOWAIT specified or timeout expired
00054. 00000 - "resource busy and acquire with NOWAIT specified or timeout expired"
*Cause: Interested resource is busy.
*Action: Retry if necessary or increase timeout.
```

->Daca scoatem NOWAIT din sesiunea 2 rularea si implicit selectia liniei cerute va fi amanata pana ce va fi finalizata sesiunea 1 cu commit.



Dupa ce se da comanda commit se va termina si sesiunea 2.



```
SELECT * FROM dep_sca
```

```
WHERE department_id = 40
```

```
FOR UPDATE WAIT 10;
```

->In acest select se asteapta 10 secunde sa se deblocheze linia si daca nu se deblocheaza va da eroare.

Deoarece in prima sesiune nu blochez linia va returna imediat ce se cere in clauza select.

--5.12

```
declare
  cursor c is
    select employee_id
    from emp_sca
    where department_id in
      (select department_id
       from dep_sca
       where department_name = 'IT')
    for update of salary nowait;
begin
  for i in c loop
    update emp_sca
    set salary = salary - 1000
    where current of c;
  end loop;
  commit;
end;
/
```

->Daca se efectueaza commit in interiorul loop-ului orice fetch de dupa va esua pentru ca dupa permanentizarea modificarilor facut sunt eliberate resursele alocate.

```
end;
Error report -
ORA-01002: fetch out of sequence
ORA-06512: at line 21
01002. 00000 - "fetch out of sequence"
*Cause:      This error means that a fetch has been attempted from a cursor
              which is no longer valid. Note that a PL/SQL cursor loop
              implicitly does fetches, and thus may also cause this error.
              There are a number of possible causes for this error, including:
              1) Fetching from a cursor after the last row has been retrieved
                 and the ORA-1403 error returned.
              2) If the cursor has been opened with the FOR UPDATE clause,
                 fetching after a COMMIT has been issued will return the error.
              3) Rebinding any placeholders in the SQL statement, then issuing
                 a fetch before reexecuting the statement.
*Action:     1) Do not issue a fetch statement after the last row has been
              retrieved - there are no more rows to fetch.
              2) Do not issue a COMMIT inside a fetch loop for a cursor
                 that has been opened FOR UPDATE.
              3) Reexecute the statement after rebinding, then attempt to
                 fetch again.
```

->Se poate modifica si o alta coloana in afara de cea specificata in for update.

declare

cursor c is

select employee_id

from emp_sca

where department_id in

(select department_id

from dep_sca

where department_name = 'IT')

for update of salary nowait;

begin

for i in c loop

update emp_sca

set salary = salary - 1000

where current of c;

update emp_sca

set commission_pct = 0.1

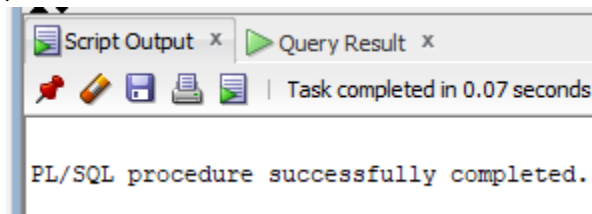
where current of c;

end loop;

commit;

end;

/



->Daca nu se specifica nicio coloana la for update nu sunt intampinate probleme la rularea instructiunilor, coloanele sunt modificate cu succes in interiorul iterarii.

declare

cursor c is

select employee_id

from emp_sca

where department_id in

(select department_id

from dep_sca

where department_name = 'IT')

for update nowait;

begin

for i in c loop

```
    update emp_sca  
    set salary = salary - 1000  
    where current of c;  
end loop;  
commit;  
end;  
/
```

