LAPORAN PRAKTIKUM
Administrasi Basis Data
Praktikum 8

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POLITEKNIK ELEKTRONIKA NEGERI SURABAYA

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Practice 8: Managing Data and Concurrency

1. Make an uncommitted update to the row in question by running the `lab_08_01.sql` script. Do not worry if the session seems to "hang"—this is the condition you are trying to create.

```
SQL> @lab_08_01.sql
SQL> -- Oracle Database 10g: Administration Workshop I
SQL> -- Oracle Server Technologies - Curriculum Development
SQL> --
SQL> -- ***Training purposes only***
SQL> -- ***Not appropriate for production use***
SQL> --
SQL> -- Create two application users, connect as one of them, and lock a row in
SQL> --    HR's EMPLOYEES table
SQL> --
SQL>
SQL> prompt Creating users...
Creating users...
SQL> -- Drop the users just in case they already exist
SQL> drop user smavris;
drop user smavris
          *
ERROR at line 1:
ORA-01918: user 'SMAVRIS' does not exist


Elapsed: 00:00:00.12
SQL> drop user ngreenberg;
Elapsed: 00:00:00.02
SQL>
SQL> -- Now connect in as Nancy Greenberg (Department Manager) and update John C
hen's record.
SQL> prompt Connecting as ngreenberg ...
Connecting as ngreenberg ...
SQL> connect ngreenberg/oracle1#
Connected.
SQL> set echo on
SQL> show user
USER is "NGREENBERG"
SQL> update hr.employees set phone_number='650.555.1212' where employee_id = 110
;

1 row updated.

Elapsed: 00:00:00.04
SQL> prompt User "ngreenberg" made an update and left it uncommitted in this ses
sion.
User "ngreenberg" made an update and left it uncommitted in this session.
SQL>
SQL>
SQL>
```
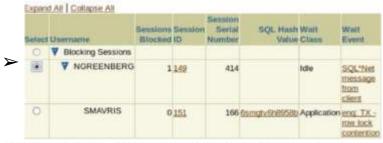
2. Make an attempt to update the same row in a separate session, by running, in a separate XTerm window, the `lab_08_02.sql` script. Make sure you see the message "Update is being attempted now" before moving on.

```
SQL> @lab_08_02.sql
SQL> -- Oracle Database 10g: Administration Workshop I
SQL> -- Oracle Server Technologies - Curriculum Development
SQL> --
SQL> -- ***Training purposes only***
SQL> -- ***Not appropriate for production use***
SQL> --
SQL> -- Lock a row in HR's EMPLOYEES table
SQL> -- Because Nancy Greenberg has already locked this record, this statement
SQL> --   will appear to "hang" as it waits for Nancy to either commit or rollba
ck.
SQL> prompt Sleeping for 20 seconds to ensure first process gets the lock first.
Sleeping for 20 seconds to ensure first process gets the lock first.
SQL> begin
  2  sys.dbms_lock.sleep(20);
  3  end;
  4  /
sys.dbms_lock.sleep(20);
*
ERROR at line 2:
ORA-06550: line 2, column 1:
PLS-00201: identifier 'SYS.DBMS_LOCK' must be declared
ORA-06550: line 2, column 1:
PL/SQL: Statement ignored
```

3. Using the **Blocking Sessions** link on the Performance page, detect which session is causing the locking conflict.

Expand All | Collapse All

Select	Username	Sessions Blocked	Session ID	Session Serial Number	SQL Hash Value	Wait Class	Wait Event
○	▼ Blocking Sessions						
●	▼ NGREENBERG	1	149	414		Idle	SQL*Net message from client
○	SMAVRIS	0	151	166	6smgtv6h8958b	Application	enq: TX - row lock contention

4. What was the last SQL statement that the blocking session executed?

SQL Details: 6smgtv6h8958b

Switch to SQL ID [   ] (Go)   View Data [Real Time: Manual Refresh ⬦] (Refresh) (Schedule SQL Tuning Advisor)

Text

```
update hr.employees set phone_number='650.555.1212' where employee_id = 110
```

Details

Select the plan hash value to see the details below.   Plan Hash Value [751015319 ⬦]

5. Resolve the conflict in favor of the user who complained, by killing the *blocking* session. What SQL statement resolves the conflict?

Show DDL

(Return)

```
ALTER SYSTEM KILL SESSION '149,414' IMMEDIATE
```

(Return)

6. Return to the SQL*Plus command window, and note that SMAVRIS's update has now completed successfully. It may take a few seconds for the success message to appear.

➢

```
[oracle@sqtrain labs]$ sqlplus dba1

SQL*Plus: Release 10.2.0.1.0 - Production on Sat Apr 15 19:48:09 2023

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Enter password:

Connected to:
Oracle Database 10g Enterprise Edition Release 10.2.0.1.0 - Production
With the Partitioning, OLAP and Data Mining options

SQL> @lab_08_02.sql
Sleeping for 20 seconds to ensure first process gets the lock first.

PL/SQL procedure successfully completed.

Sleep is finished.
Connected.
USER is "SMAVRIS"
Update is being attempted now.

1 row updated.

Update is completed.
SQL>
```