**Unlocking DEADLOCKS in Oracle Database**

 Hi, today we are going to identify and unlock a DEADLOCK.

Intro :

DB - Oracle 19c database (19.3)  
OS - Oracle Linux 8.10 ( vmware )

Creating an environment so that a DEADLOCK happens :  
**Session 1 :**

[oracle@test ~]$ sqlplus / as sysdba

SQL\*Plus: Release 19.0.0.0.0 - Production on Fri Jan 24 09:11:33 2025

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle.  All rights reserved.

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

SQL>

SQL>

SQL> show pdbs

    CON\_ID CON\_NAME                       OPEN MODE  RESTRICTED

---------- ------------------------------ ---------- ----------

         2 PDB$SEED                       READ ONLY  NO

         3 PDTEST                         READ WRITE NO

SQL>

SQL>

SQL> alter session set container=PDTEST;

Session altered.

SQL> create user deadtest identified by 1234;

User created.

SQL> grant connect,create session to deadtest;

Grant succeeded.

SQL> grant create table to deadtest;

Grant succeeded.

SQL>

SQL> exit

Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

[oracle@test ~]$

[oracle@test ~]$

[oracle@test ~]$ sqlplus deadtest/1234@PDTEST

SQL\*Plus: Release 19.0.0.0.0 - Production on Fri Jan 24 09:13:29 2025

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle.  All rights reserved.

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

SQL>

SQL> show user

USER is "DEADTEST"

SQL>

SQL>

SQL> create table tabstar(id number(2),name varchar2(25));

Table created.

SQL> insert into tabstart values(1,'ramu');

insert into tabstart values(1,'ramu')

            \*

ERROR at line 1:

ORA-00942: table or view does not exist

SQL> insert into tabstar values(1,'ramu');

insert into tabstar values(1,'ramu')

            \*

ERROR at line 1:

ORA-01950: no privileges on tablespace 'USERS'

SQL> exit

Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

[oracle@test ~]$

[oracle@test ~]$

[oracle@test ~]$ sqlplus / as sysdba

SQL\*Plus: Release 19.0.0.0.0 - Production on Fri Jan 24 09:15:22 2025

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle.  All rights reserved.

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

SQL> alter session set container=PDTEST;

Session altered.

SQL> alter user deadtest quota unlimited on USERS;

User altered.

SQL>

SQL> exit

Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

[oracle@test ~]$ sqlplus deadtest/1234@PDTEST

SQL\*Plus: Release 19.0.0.0.0 - Production on Fri Jan 24 09:18:01 2025

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle.  All rights reserved.

Last Successful login time: Fri Jan 24 2025 09:13:30 -05:00

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

SQL>

SQL>

SQL> insert into tabstar values(1,'ramu');

1 row created.

SQL> insert into tabstar values(2,'damu');

1 row created.

SQL> insert into tabstar values(3,'kamu');

1 row created.

SQL> insert into tabstar values(4,'lamu');

1 row created.

SQL> commit;

Commit complete.

SQL> exit

Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

[oracle@test ~]$

[oracle@test ~]$ sqlplus deadtest/1234@PDTEST

SQL\*Plus: Release 19.0.0.0.0 - Production on Fri Jan 24 09:45:45 2025

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle.  All rights reserved.

Last Successful login time: Fri Jan 24 2025 09:18:01 -05:00

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

SQL>

SQL> update tabstar set name='landu' where id=3;

1 row updated.

SQL>

Please see carefully, I haven't executed the COMMIT statement. Now, taking another session :

**Session 2 :**

[oracle@test ~]$ sqlplus deadtest/1234@PDTEST

SQL\*Plus: Release 19.0.0.0.0 - Production on Fri Jan 24 09:48:38 2025

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle.  All rights reserved.

Last Successful login time: Fri Jan 24 2025 09:45:46 -05:00

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

SQL> update tabstar set name='pandu' where id=3;

Please observe, after the update statement is fired, it is not showing 'row updated'. So it has been blocked by some other session. Let's unlock it.

**Session 3 :**

[oracle@test trace]$ sqlplus / as sysdba

SQL\*Plus: Release 19.0.0.0.0 - Production on Fri Jan 24 09:58:55 2025

Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle.  All rights reserved.

Connected to:

Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production

Version 19.3.0.0.0

SQL>

SQL> alter session set container=PDTEST;

Session altered.

SQL>

SQL> show parameter dump

NAME                                 TYPE        VALUE

------------------------------------ ----------- ------------------------------

background\_core\_dump                 string      partial

background\_dump\_dest                 string      /u01/app/oracle/product/19.3.0

                                                 .0/db\_home/rdbms/log

core\_dump\_dest                       string      /u01/app/oracle/diag/rdbms/cte

                                                 st/CTEST/cdump

max\_dump\_file\_size                   string      unlimited

shadow\_core\_dump                     string      partial

user\_dump\_dest                       string      /u01/app/oracle/product/19.3.0

                                                 .0/db\_home/rdbms/log

SQL> select \* from V$lock where block > 0; [ Query to check whether there is any existing lock or not ]

ADDR             KADDR                   SID TY        ID1        ID2      LMODE    REQUEST      CTIME      BLOCK     CON\_ID

---------------- ---------------- ---------- -- ---------- ---------- ---------- ---------- ---------- ---------- ----------

000000006BEE0750 000000006BEE0788         37 TX     393245        708          6          0        977          1          3

SQL>

SQL> select blocking\_session, sid, serial#, wait\_class, seconds\_in\_wait

from  v$session

where blocking\_session is not NULL

order by blocking\_session;  2    3    4

[ Query to check the blocking session and the blocked session ]

BLOCKING\_SESSION        SID    SERIAL# WAIT\_CLASS                                                       SECONDS\_IN\_WAIT

---------------- ---------- ---------- ---------------------------------------------------------------- ---------------

              37         38      14552 Application                                                                  892

SQL>  
SQL> select sid,serial#,USERNAME,status from v$session;[ Query to check the status of the sessions ]

       SID    SERIAL# USERNAME        STATUS

---------- ---------- --------------- --------

         1      32559                 ACTIVE

         2      30705                 ACTIVE

         3      40821                 ACTIVE

         5      60412                 ACTIVE

         6      28503 SYS             ACTIVE

         7      37610                 ACTIVE

              30      16777                 ACTIVE

        32      33035                 ACTIVE

        33      40124                 ACTIVE

        37      56157 DEADTEST        INACTIVE

        38      14552 DEADTEST        ACTIVE

        39      26880                 ACTIVE

        45       4464                 ACTIVE

        49      39053 SYS             ACTIVE

57 rows selected.

SQL> select sid, sql\_text from v$session s, v$sql q where sid = 37 and ( q.sql\_id = s.sql\_id or q.sql\_id = s.prev\_sql\_id );[ Query to check the sql executed in the blocking session ]

       SID SQL\_TEXT

----------------------------------------------------------------------------------------------------------------------------------------------

        37 update tabstar set name='landu' where id=3

SQL> alter system kill session '37,56157' immediate;[ Query to kill the affected session, make proper planning before killing a session ]

System altered.

SQL>

SQL> select \* from V$lock where block > 0;

no rows selected

SQL>

SQL>

Again, execute the above query to check if the deadlock situation has been resolved or not.

Thanks for viewing !!!

SOURCE: [PrithDBA: Unlocking DEADLOCKS in Oracle Database](https://reachprithijit.blogspot.com/2025/01/unlocking-deadlocks-in-oracle-database.html)