INSTALL SCHEMAS

Tuning

Oracle 19c Tuning

Note:

- Execute xhost + command as root.
- Login as oracle user using the su – oracle command.

Start Database

To start up a database from the command line, use SQL*Plus to connect toOracle with administrator privileges and then issue the STARTUP command.

a) Open terminal from the desktop and switch to oracle user:

```
su - oracle
```

b) Enter `sqlplus / as sysdba`

c) Start the database using the command `startup`. Enter `startup`

d) Enter following commands to open the current PDB

```
Alter pluggable database all open;
```

e) Exit SQL*Plus command-line. Enter `EXIT`.

f) Start the listener service by typing the following command:

```
lsnrctl START
```

1. Verify that the instance is started by checking whether the PMON background process is running.

   ```
   $ ps -ef|grep pmon
   ```

2. Change to the `$HOME` directory.

3. Connect to the `orcl` database instance as the `SYS` user with `SYSDBA` privilege.

```
[oracle@host01 ~]$ . oraenv
  ORACLE_SID = [orcl] ? orcl
  The Oracle base remains unchanged with value /u01/app/oracle
  [oracle@host01 ~]$ sqlplus

  SQL*Plus: Release 19.0.0.0.0 - Production on Fri Dec 11
  06:30:36 2020
  Version 19.3.0.0.0

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

  Enter user-name: /as sysdba

  Connected to:
  Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 -
  Production
  Version 19.3.0.0.0
SQL>
```

4. Check the current state of PDBs.

```
SQL> SHOW PDBS

    CON_ID CON_NAME                       OPEN MODE  RESTRICTED
---------- ------------------------------ ---------- ----------
         2 PDB$SEED                       READ ONLY  NO
         3 ORCLPDB                        READ WRITE NO
```

a. If the PDBs are not open, open them. If it is open, you can skip this step.
Note**: Do not run this command if your PDB is already opened.**

```
SQL> ALTER PLUGGABLE DATABASE ORCLPDB OPEN;

Pluggable database altered.
```

b. Save the state so that PDB1 is opened every time the CDB is opened. Exit SQL*Plus.

```
SQL> ALTER PLUGGABLE DATABASE orclpdb SAVE STATE;

Pluggable database altered.

SQL> exit
```

5. Check whether the listener is started and if not, start the listener.

```
[oracle@host01 ~]$ lsnrctl status
[oracle@host01 ~]$ lsnrctl start
```

6. Verify that you can connect to the `orclpdb` PDB by using the servicename. Exit SQL*Plus.

Note: If you get an error then proceed to the next step.

```
[oracle@host01 ~]$ . oraenv
ORACLE_SID = [orcl] ?
The Oracle base remains unchanged with value /u01/app/oracle
[oracle@host01 ~]$
[oracle@host01 ~]$ sqlplus system/fenago@orclpdb

…
Copyright (c) 1982, 2018, 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> exit;
```

7. If you are unable to connect to `orclpdb` using the service name thenadd these lines to `tnsnames.ora`, else skip these steps.

   a. Navigate to `$ORACLE_HOME/network/admin` and open `tnsnames.ora` :

```
[oracle@host01 /]$ cd $ORACLE_HOME
[oracle@host01 dbhome_1]$ cd network/admin/
[oracle@host01 dbhome_1]$ vi tnsnames.ora
```

   b. Add these lines to `tnsnames.ora`, if not already present:

```
orcl =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = UPDATE_HERE)(PORT
= 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = orcl)
    )
  )

orclpdb =
  (DESCRIPTION =
    (ADDRESS = (PROTOCOL = TCP)(HOST = UPDATE_HERE)(PORT
= 1521))
    (CONNECT_DATA =
      (SERVER = DEDICATED)
      (SERVICE_NAME = orclpdb)
    )
  )
```

c. Save the file and quit the vi editor (`:wq`).

8. Verify that the `HR` (sample schemas) user was created and there is data in the database.

```
[oracle@host01 /]$ . oraenv
 ORACLE_SID = [orcl] ? orcl
The Oracle base remains unchanged with value /u01/app/oracle
[oracle@host01 /]$ sqlplus

SQL*Plus: Release 19.0.0.0.0 - Production on Thu Dec 12 06:43:10
2019
Version 19.3.0.0.0

Copyright (c) 1982, 2018, Oracle.  All rights reserved.

Enter user-name: /as sysdba

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 -
Production
Version 19.3.0.0.0

SQL> conn sys/fenago@orclpdb as sysdba
Connected.

SQL> ALTER USER hr IDENTIFIED BY hr account unlock;

User altered.

Note: If you encounter an error "ORA-01918: user 'HR' does not
exist" then follow these steps to install HR schema.

SQL> conn sys/fenago@orclpdb
Connected.

SQL> @?/demo/schema/human_resources/hr_main.sql

specify password for HR as parameter 1:
Enter value for 1:
SP2-0137: DEFINE requires a value following equal sign

specify default tablespeace for HR as parameter 2:
Enter value for 2: users
```

```
specify temporary tablespace for HR as parameter 3:
Enter value for 3: temp

specify log path as parameter 4:
Enter value for 4: $ORACLE_HOME/demo/schema/log


PL/SQL procedure successfully completed.

Enter value for pass: cloud_4U

SQL> Select count(*) from employees;

  COUNT(*)
----------
       107
```

This completes the network and schema configuration.

9. Create a `labs` directory, copy the lab files (in the `labs` directory) from Desktop folder **oracle19c-labs/backup-recovery**.

```
[oracle@host01 /]$ cd /home/oracle/
[oracle@host01 ~]$ ln -s
/headless/Desktop/oracle/oracle19c-
labs/tuning/labs /home/oracle/

[oracle@host01 ~]$ ls –ltr /home/oracle/

[root@host01 ~]$ chmod –R 777 /home/oracle/labs (Run as root)
```

Install full GitHub sample schemas into each PDB

10. Download sample schemas from this location:
    https://github.com/oracle/db-sample-schemas/releases/tag/v19.2
11. Copy the downloaded file to **$ORACLE_HOME/demo/schema/** and unzip.
12. Execute **cd $ORACLE_HOME/demo/schema/**

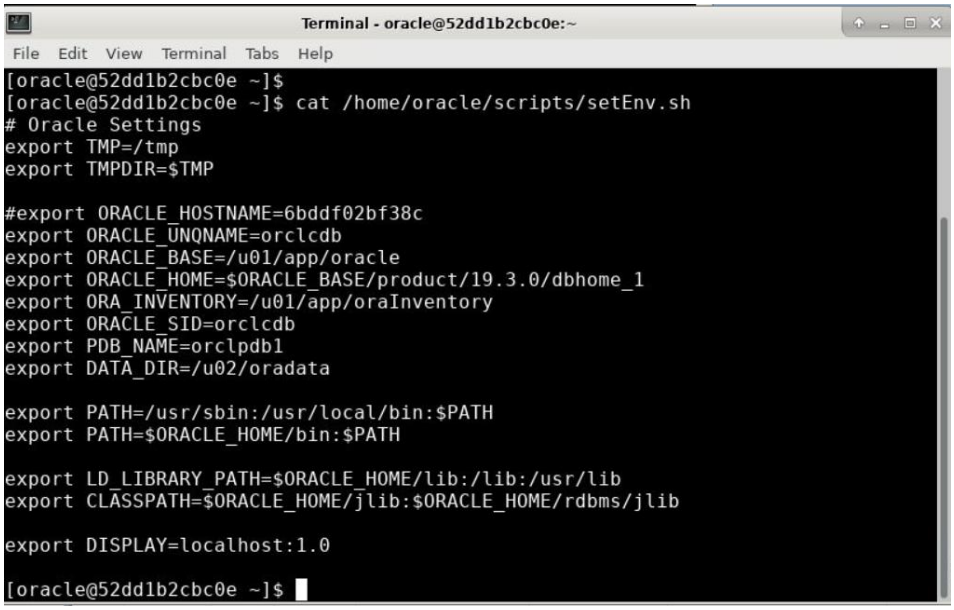
```
su - oracle
wget https://github.com/oracle/db-sample-schemas/archive/refs/tags/v19.2.zip
unzip v19.2.zip
ls -ltr
cd db-sample-schemas-19.2/
 ls -ltr
yes | cp -rf * $ORACLE_HOME/demo/schema/
cd $ORACLE_HOME/demo/schema
```

13. Execute **perl -p -i.bak -e 's#__SUB__CWD__#'$(pwd)'#g' *.sql */*.sql */*.dat**
14. **sqlplus / as sysdba**
15. Execute SQL> **@?/demo/schema/mksample fenago fenago hr oe fenago fenago sh fenago users temp /home/oracle/setup/schema1/ localhost:1521/orclpdb**
16. Execute SQL> **@?/demo/schema/sales_history/sh_main.sql sh users temp fenago $ORACLE_HOME/demo/schema/sales_history/ $ORACLE_HOME/demo/schema/log/ v3 localhost:1521/orclpdb**

This completes the setup

Oracle User Environment

Following script is being called in /home/oracle/.bashrc. Update variables as needed.



Start Database After Reboot

Edit /etc/oratab and set orcl as **Y** and running following commands:

```
$ su - oracle
$ lsnrctl status
$ lsnrctl start
$ dbstart $ORACLE_HOME
```