DBAI_Lab1

1) Check if your instance is running using "ps -ef | grep pmon"

```
Last login: Sun Mar 17 09:08:54 2024
[oracle@node1 ~]$ ps -ef | grep pmon
oracle      2339    2128  0 09:20 pts/0    00:00:00 grep --color=auto pmon
```

2) Startup your database

```
[oracle@node1 ~]$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Sun Mar 17 09:23:02 2024
Version 19.3.0.0.0

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Connected to an idle instance.

SQL> startup;
ORACLE instance started.

Total System Global Area 1073737800 bytes
Fixed Size                  8904776 bytes
Variable Size             276824064 bytes
Database Buffers          780140544 bytes
Redo Buffers                7868416 bytes
Database mounted.
Database opened.
```

3) show data files names, thier tablespaces, their size, their status using view "dba_data_files".

```
SQL> SELECT file_name, tablespace_name, bytes/1024/1024 AS size_mb, status
FROM dba_data_files;
  2
FILE_NAME
--------------------------------------------------------------------------------
TABLESPACE_NAME                SIZE_MB STATUS
------------------------------ ---------- ---------
/oradata/ITI/system01.dbf
SYSTEM                              820 AVAILABLE

/oradata/ITI/sysaux01.dbf
SYSAUX                              550 AVAILABLE

/oradata/ITI/undotbs01.dbf
UNDOTBS1                            500 AVAILABLE


FILE_NAME
--------------------------------------------------------------------------------
TABLESPACE_NAME                SIZE_MB STATUS
------------------------------ ---------- ---------
/oradata/ITI/users01.dbf
USERS                            13.75 AVAILABLE
```

4) create an OS user with name iti and make him login to the database using "sqlplus / as sysdba"

```
[root@node1 ~]# useradd iti
[root@node1 ~]#  usermod -a -G dba iti
[root@node1 ~]# su - iti
[iti@node1 ~]$ id
uid=54323(iti) gid=54332(iti) groups=54332(iti),54322(dba) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[iti@node1 ~]$ cd
```

5) show user to check with user your are connected to the database.

```
[iti@node1 ~]$ sqlplus / as sysdba
-bash: sqlplus: command not found
[iti@node1 ~]$ vi .bash_profile
[iti@node1 ~]$ . .bash_profile
[iti@node1 ~]$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Sun Mar 17 10:04:22 2024
Version 19.3.0.0.0

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Connected to:
Oracle Database 19c Standard Edition 2 Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

SQL> select user from dual;

USER
--------------------------------------------------------------------------------
SYS

SQL>
```


6) create tablespace with name "ITI_DATA" with two data files with intial size 50 MB each.

```
SQL> SQL>
SQL> CREATE TABLESPACE ITI_DATA
  2  DATAFILE '/oradata/ITI/file.dbf' SIZE 50M,
  3  '/oradata/ITI/file0.dbf' SIZE 50M
  4  ;

Tablespace created.
```

7) create user 'MYUSER' and make 'ITI_DATA' tablespace his default tablespace with unlimited quota on it.

```
SQL> CREATE USER MYUSER
IDENTIFIED BY password
DEFAULT TABLESPACE ITI_DATA
QUOTA UNLIMITED ON ITI_DATA;
  2    3    4
User created.

SQL>
```

8) try to connect with the new created user.

```
SQL> connect MYUSER/password;
ERROR:
ORA-01045: user MYUSER lacks CREATE SESSION privilege; logon denied


Warning: You are no longer connected to ORACLE.
```

9) give the new user connect, resource privilges.

```
SQL> exit
[iti@node1 ~]$ sqlplus / as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Sun Mar 17 11:33:42 2024
Version 19.3.0.0.0

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Connected to:
Oracle Database 19c Standard Edition 2 Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

SQL> GRANT CREATE SESSION TO MYUSER;

Grant succeeded.
```

10) repeat step (8).

```
SQL>  connect MYUSER/password;
Connected.
SQL>
```

11) show the usernames, their passwords, their tablespace, and their acccount status using the views "dba_users" .

```
PASSWORD
------------------------------------------------------------------------------
DEFAULT_TABLESPACE             ACCOUNT_STATUS
------------------------------ --------------------------------

MYUSER

ITI_DATA                       OPEN


31 rows selected.

SQL>
```

12) - create table t1 with two columns , column 1 number , column2 varchar2

```
SQL> CREATE TABLE t1 (column1 NUMBER,column2 VARCHAR2(255));

Table created.
```

- insert 3 rows in this table

```
SQL>  INSERT INTO t1
  2  VALUES (30,'shima')
  3  ;

1 row created.
```

```
SQL> INSERT INTO t1
  2  VALUES (20, 'aya')
  3  ;

1 row created.
```

```
SQL>  INSERT INTO t1 (column1, column2)
  VALUES (10,'nada')
    2    3  ;

1 row created.
```

- find information related to this table, and in which tablespace it saved.

```
SQL> SELECT TABLE_NAME , TABLESPACE_NAME
  2  from dba_tables
  3  WHERE  TABLE_NAME = 't1'
  4  ;

no rows selected

SQL> select owner ,table_name, tablespace_name
  2  FROM dba_tables
  3  WHERE lower(table_name) = 't1'
  4  ;

OWNER
------------------------------------------------------------
TABLE_NAME
------------------------------------------------------------
TABLESPACE_NAME
------------------------------
SYS
T1
SYSTEM
```

13)- change parameter audit_trail from none to DB.

```
SQL> ALTER SYSTEM SET AUDIT_TRAIL = none SCOPE = spfile;

System altered.
```

- restart the database to find the changes

```
SQL> shutdown immediate;

Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> SQL> startup
ORACLE instance started.

Total System Global Area 1073737800 bytes
Fixed Size                  8904776 bytes
Variable Size             276824064 bytes
Database Buffers          780140544 bytes
Redo Buffers                7868416 bytes
Database mounted.
Database opened.
SQL> SHOW parameter audit_trail

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
audit_trail                          string      NONE
SQL>
```

- create a pfile from the spfile and find the change you made on it. Create pfile from spfile

show parameter spfile get path /u01/app/oracle/product/19c/db_home/dbs/initITI.ora

```
SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL>  startup pfile ='/u01/app/oracle/product/19c/db_home/dbs/initITI.ora'

ORACLE instance started.
```

- edit the pfile and make the audit_sys_operations=true

```
*.audit_file_dest='/u01/app/oracle/admin/ITI/adump'
*.audit_trail='NONE'
*.audit_sys_operations='true'
```

- start the database using this pfile.

```
SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup pfile='/u01/app/oracle/product/19c/db_home/dbs/initITI.ora'
ORACLE instance started.
```

```
SQL> show parameter spfile

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------
spfile                               string
SQL>
```

- create spfile from the pfile.

```
SQL>  CREATE SPFILE FROM PFILE ;

File created.
```