DBA_Lab2

1- ensure for setting your environment and then stop your database if it's started

```
[oracle@node1 ~]$ . oraenv
ORACLE_SID = [ITI] ? ITI
The Oracle base has been set to /u01/app/oracle
[oracle@node1 ~]$
```

2- delete spfile and pfile && 3- try to startup your database

```
[oracle@node1 dbs]$ rm -rf spfileITI.ora  initITI.ora
[oracle@node1 dbs]$ sqlplus / as sysdba

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Version 19.3.0.0.0

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Connected to an idle instance.

SQL> startup;
ORA-01078: failure in processing system parameters
LRM-00109: could not open parameter file '/u01/app/oracle/product/19c/db_home/dbs/initITI.ora'
SQL>
```

3- do whatever needed action to start your database

```
[oracle@node1 dbs]$  vi initITI.ora
[oracle@node1 dbs]$  sqlplus / as sysdba

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Connected to an idle instance.

SQL> startup;
ORACLE instance started.

Total System Global Area  268434280 bytes
Fixed Size                  8895336 bytes
Variable Size             201326592 bytes
Database Buffers           50331648 bytes
Redo Buffers                7880704 bytes
ORA-00205: error in identifying control file, check alert log for more info
```

Trying to solve error : ORA-00205 error indicates that Oracle cannot find the control file. To resolve this issue, you should:
- **Check the Alert Log**:
- **Verify Control File Locations**:

```
ORA-00205: error in identifying control file, check alert log for more info

SQL> exit
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oduction
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[oracle@node1 dbs]$ vi alert_ITI.log
[oracle@node1 dbs]$ cd
[oracle@node1 ~]$ vi alert_ITI.log
[oracle@node1 ~]$ cd /u01/app/oracle/diag/rdbms/iti/ITI/
[oracle@node1 ITI]$ cd trace
[oracle@node1 trace]$ vi alert_ITI.log
[oracle@node1 trace]$ cd /u01/app/oracle/product/19c/db_home/dbs/
[oracle@node1 dbs]$  vi initITI.ora
[oracle@node1 dbs]$  sqlplus / as sysdba

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SQL> startup;
ORA-01081: cannot start already-running ORACLE - shut it down first
SQL> show parameter spfile;

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

```
SQL> create spfile from pfile;

File created.

SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> exit
```

```
SQL> startup;
ORACLE instance started.

Total System Global Area  268434280 bytes
Fixed Size                  8895336 bytes
Variable Size             201326592 bytes
Database Buffers           50331648 bytes
Redo Buffers                7880704 bytes
Database mounted.
Database opened.
SQL> show parameter spfile;

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
spfile                               string      /u01/app/oracle/product/19c/db
                                                 _home/dbs/spfileITI.ora

SQL>
```

5-enable archive log

```
SQL> archive log list;
Database log mode              No Archive Mode
Automatic archival             Disabled
Archive destination            /u01/app/oracle/product/19c/db_home/dbs/arch
Oldest online log sequence     13
Current log sequence           15
SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> exit
```

```
SQL> startup mount;
ORACLE instance started.

Total System Global Area  268434280 bytes
Fixed Size                  8895336 bytes
Variable Size             201326592 bytes
Database Buffers           50331648 bytes
Redo Buffers                7880704 bytes
Database mounted.
SQL> alter database archivelog;

Database altered.

SQL> archive log list;
Database log mode              Archive Mode
Automatic archival             Enabled
Archive destination            /u01/app/oracle/product/19c/db_home/dbs/arch
Oldest online log sequence     13
Next log sequence to archive   15
Current log sequence           15
SQL>
```

6- check where is the location of archivelog.

```
Automatic archival             Enabled
Archive destination            /u01/app/oracle/product/19c/db_home/dbs/arch
```

7- add new destination for archivelog on dest_1 , make sure it enabled

```
SQL> alter system set log_archive_dest_1='LOCATION=/orafra' scope=both;

System altered.

SQL> alter system set log_archive_dest_state_1=enable;

System altered.

SQL> select destination, status from v$archive_dest where dest_id=1;

DESTINATION
--------------------------------------------------------------------------------
STATUS
---------
/orafra
VALID
```

8- switch online redo log file , and confirm that the new archivelog saved in the new location.

```
SQL> shutdown immediate;
ORA-01109: database not open


Database dismounted.
ORACLE instance shut down.
SQL> startup mount;
ORACLE instance started.

Total System Global Area  268434280 bytes
Fixed Size                  8895336 bytes
Variable Size             201326592 bytes
Database Buffers           50331648 bytes
Redo Buffers                7880704 bytes
Database mounted.
SQL> alter database open;

Database altered.

SQL> alter system switch logfile;

System altered.
```

9- Select * from v$log;

```
SQL> Select * from v$log;

    GROUP#    THREAD#  SEQUENCE#       BYTES  BLOCKSIZE    MEMBERS ARC
---------- ---------- ---------- ---------- ---------- ---------- ---
STATUS           FIRST_CHANGE# FIRST_TIM NEXT_CHANGE# NEXT_TIME     CON_ID
--------------- ------------- --------- ------------ --------- ----------
         1          1         16  209715200        512          1 NO
CURRENT               994385 24-MAR-24   1.8447E+19                      0

         2          1         14  209715200        512          1 YES
INACTIVE              800219 14-MAR-24     988334 24-MAR-24              0

         3          1         15  209715200        512          1 YES
ACTIVE                988334 24-MAR-24     994385 24-MAR-24              0


SQL>
```

10-disable archive log

```
SQL> alter database noarchivelog;
alter database noarchivelog
*
ERROR at line 1:
ORA-01126: database must be mounted in this instance and not open in any
instance


SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL>  startup mount;
ORACLE instance started.

Total System Global Area  268434280 bytes
Fixed Size                  8895336 bytes
Variable Size             201326592 bytes
Database Buffers           50331648 bytes
Redo Buffers                7880704 bytes
Database mounted.
SQL> alter database noarchivelog;

Database altered.

SQL>
```

11-create new undo tablespace , with one datafile 50MB

```
SQL>
SQL> CREATE UNDO TABLESPACE nada_undo_tablespace
DATAFILE '/u01/app/oracle/oradata/ITI/nada_undo_tablespace.dbf' SIZE 50M;
  2

Tablespace created.
```

12-make this new created tablespace the default tablespace

```
SQL> SQL> ALTER SYSTEM SET UNDO_TABLESPACE = 'nada_undo_tablespace';

System altered.
```

```
SQL> ^CSELECT name, value FROM V$PARAMETER WHERE name = 'undo_tablespace';

SQL>
SQL> SELECT name, value FROM V$PARAMETER WHERE name = 'undo_tablespace';

NAME
--------------------------------------------------------------------------
VALUE
--------------------------------------------------------------------------
undo_tablespace
nada_undo_tablespace
```

13-create new tablespace ITI44SA with one datafile with size 50MB and make it the default tablespace for HR user. (create HR user if not exist)

```
SQL> CREATE USER HR IDENTIFIED BY hr;

User created.

SQL>
SQL> CREATE TABLESPACE ITI44SA
DATAFILE '/u01/app/oracle/oradata/ITI/nada_table.dbf' SIZE 50M;
  2

Tablespace created.

SQL> SQL> ALTER USER HR DEFAULT TABLESPACE ITI44SA;

User altered.

SQL> GRANT CREATE SESSION TO HR;

Grant succeeded.
```

14-create temporary tablespace TEMP2 with size 50MB

```
SQL> CREATE TEMPORARY TABLESPACE TEMP2
TEMPFILE '/u01/app/oracle/oradata/ITI/temp02.dbf' SIZE 50M;
  2
Tablespace created.
```

15-add datafile with size 50MB to ITI44SA tablespace.

```
SQL> ALTER TABLESPACE ITI44SA ADD DATAFILE '/u01/app/oracle/oradata/ITI/iti44sa02.dbf'
 SIZE 50M;
  2

Tablespace altered.
```

16-resize up the datafile of ITI tablespace from 50MB to 100MB.

```
SQL>  ALTER DATABASE DATAFILE '/u01/app/oracle/oradata/ITI/nada_table.dbf' RESIZE 100M;

Database altered.
```

17-resize up the tempfile for TEMP2 tablespace to 100MB.

```
SQL>
SQL> ALTER DATABASE TEMPFILE '/u01/app/oracle/oradata/ITI/temp02.dbf' RESIZE 100M;

Database altered.
```

18-make temp2 the default temptablespace tablespace for HR user

```
SQL> ALTER USER HR TEMPORARY TABLESPACE TEMP2;

User altered.
```

```
SQL> SELECT username, temporary_tablespace FROM DBA_USERS WHERE username = 'HR';

USERNAME
--------------------------------------------------------------------
TEMPORARY_TABLESPACE
----------------------------
HR
TEMP2

SQL>
```

19-create big tablespace BIG_SA with datafile 50MB.

```
SQL> CREATE BIGFILE TABLESPACE BIG_SA
DATAFILE '/u01/app/oracle/oradata/ITI/big_sa.dbf' SIZE 50M;
  2

Tablespace created.
```

20-add datafile with size 50MB to BIG_SA tablespace.

```
SQL> ALTER TABLESPACE BIG_SA ADD DATAFILE '/u01/app/oracle/oradata/ITI/big_sa.dbf' SIZE 50M;
ALTER TABLESPACE BIG_SA ADD DATAFILE '/u01/app/oracle/oradata/ITI/big_sa.dbf' SIZE 50M
*
ERROR at line 1:
ORA-32771: cannot add file to bigfile tablespace
```

You can RESIZE IT

```
SQL> SQL> ALTER DATABASE DATAFILE '/u01/app/oracle/oradata/ITI/big_sa.dbf' RESIZE 100M;

Database altered.
```

21-make tablespace BIG_SA offline

```
SQL> ALTER TABLESPACE BIG_SA OFFLINE;

Tablespace altered.

SQL> SELECT tablespace_name, status FROM dba_tablespaces WHERE tablespace_name = 'BIG_SA';

TABLESPACE_NAME                 STATUS
------------------------------- ---------
BIG_SA                          OFFLINE

SQL>
```

22-copy the datafile assigned to BIG_SA to NEW_NAME in operating system level by cp command

```
SQL> exit
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[oracle@node1 ~]$ cp /u01/app/oracle/oradata/ITI/big_sa.dbf /u01/app/oracle/oradata/ITI/new_big_sa.dbf
[oracle@node1 ~]$
```

22-rename the datafile assigned to BIG_SA to the NEW_NAME

```
-rw-r-----. 1 oracle oinstall  51M Mar 24 19:32 big_sa.dbf
[oracle@node1 ITI]$ cp big_sa.dbf new_big_sa.dbf
[oracle@node1 ITI]$ ll -htr | grep big
-rw-r-----. 1 oracle oinstall  51M Mar 24 19:32 big_sa.dbf
-rw-r-----. 1 oracle oinstall  51M Mar 24 19:36 new_big_sa.dbf
[oracle@node1 ITI]$ sqlplus / as sysdba

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SQL> alter tablespace BIG_SA rename datafile '/u01/app/oracle/oradata/ITI/big_sa.dbf'
  2  to '/u01/app/oracle/oradata/ITI/new_big_sa.dbf'
  3  ;

Tablespace altered.
```

23- make tablespace BIG_SA online

```
SQL> ALTER TABLESPACE BIG_SA ONLINE;

Tablespace altered.
```

24- check datafiles assigned to BIG_SA from DBA_DATA_FILES

```
SQL> SELECT file_name, tablespace_name, bytes
FROM DBA_DATA_FILES
WHERE tablespace_name = 'BIG_SA';
  2    3
FILE_NAME
----------------------------------------------------------------
TABLESPACE_NAME                         BYTES
------------------------------- ----------
/orafra/new_name.dbf
BIG_SA
```