Oracle Database= Physical files+Oracle Instance

Oracle Instance= physical memory+ background process

Physical memory- SGA (System or Share Global Area)

PGA- private global area (PGA)

PGA is allocated to user at the time of successful connection

Every DML operations internally follows Read operation

Update, Delete always the respective data will read from disk to memory (Database buffer cache)

Commit 10 AM- CheckPoint

Update

Create

Commit 10:10AM

Log Buffer

LGWR

Log group 2

Log group1

Archive Mode

Some offline location

Restaurant

10 serviceman

30 customers

Request queue

Response queue

Dispatcher is a process who is going to dispatch the shared server process to any user

Init<sid>.ora –initialization parameter file – you would like to change any value of parameter; shutdown and restart the instance-Increase the unavailability

Spfile<sid>.ora- server parameter file – can change the parameter dynamically without shutting down the instance - increase the availability

Log Buffer

Dirty List

LRU List

DBWR LGWR

grid

Tablespace offline – Tablespace is not visible to the database

Tablespace ReadOnly- It is only available for reading purpose

Controlfile always checks the consistency of the database

Relogfile checkpoint information with checkpoint information in datafiles header

If redologfile checkpoint information is greater than (32- checkpoint numbers) datafile header (28-checkpoint numbers) information means recovery is required

REDO – redo and rollback the uncommitted transactions

Startup nomount – only instance is created

Startup mount – instance is created, controlfiles are opened

Startup open or startup – instance is created, control files are opened , redolog files and data files are opened

System – data dictionary, sysaux – performance statistics

Create database orclman

User sys identified by admin

User system identified by admin

Logfile

Group 1 (‘D:\oracle\oradata\ORCLMANUAL\Redolog\redo1.log’) size 100M,

Group 2 (‘D:\oracle\oradata\ORCLMANUAL\Redolog\redo2.log’) size 100M

datafile

‘D:\oracle\oradata\ORCLMANUAL\datafile\system.dbf’ size 2G autoextend on

Sysaux datafile ‘D:\oracle\oradata\ORCLMANUAL\datafile\sysaux.dbf’ size 1G autoextend on

Default temporary tablespace temp

Tempfile ‘D:\oracle\oradata\ORCLMANUAL\datafile\temp.dbf’ size 1g

Undo tablespace undotbs1

Datafile ‘D:\oracle\oradata\ORCLMANUAL\datafile\undo.dbf’ size 1G;

You create a directory

Yuu create three separate folders – control file, data file, redolog file

You create initialization parameter file

Manadatory contents in pfile

db\_block\_size=8192

db\_name="orclman"

compatible=19.0.0

control\_files=("D:\oracle\oradata\ORCLMANUAL\ControlFile01.CTL",

"D:\oracle\oradata\ORCLMANUAL\ControlFile02.CTL")

undo\_tablespace=UNDOTBS1

oradim –new –sid <sid name>- creation of service

set oracle\_sid=<new sid name>

sqlplus/nolog

conn /as sysdba

startup nomount pfile=’pfile location with name”

startup instance

create spfile from pfile

shutdown

startup nomount

SQL> Create database orclman

2 User sys identified by admin

3 User system identified by admin

4 logfile

5 group 1('d:\oracle\oradata\orclmanual\redolog\redo1.log') size 100m,

6 group 2('d:\oracle\oradata\orclmanual\redolog\redo2.log') size 100m

7 datafile

8 'D:\oracle\oradata\ORCLMANUAL\datafile\system.dbf' size 2G autoextend on

9 Sysaux datafile 'D:\oracle\oradata\ORCLMANUAL\datafile\sysaux.dbf' size 1G

autoextend on

10 Default temporary tablespace temp

11 Tempfile 'D:\oracle\oradata\ORCLMANUAL\datafile\temp.dbf' size 1g

12 Undo tablespace undotbs1

13 Datafile 'D:\oracle\oradata\ORCLMANUAL\datafile\undo.dbf' size 1G;

Database created.