**3 STARTUP & SHUTDOWN METHODS**

In Oracle Database, there are several **start-up methods** and **shutdown** methods, each serving specific purposes in managing and maintaining the database

**STARTUP METHODS:**

1. start-up no mount
2. Start-up mount
3. Start-up
4. Start-up restrict
5. Start-up force
6. Start-up upgrade

**Start-up no mount:**

* To put the database in no mount **PFILE** or **SPFILE** is required.
* It reads the pfile and allocates memory to instance and start the background process.
* In no mount state we can perform control file recreate or restore.

**Start-up mount:**

* To put database in mount state control file is required.
* In mount state we can perform database recovery and archive log mode enable / disable and flashback.

**Start-up:**

* To open the database it must be consistent.
* When the start-up command fired it check the pfile and control file and check the checkpoit\_change# values of datafiles and control file and start the database.
* Checkpoint \_change# is the information available in control file.

**SQL>select checkpoint\_change# from v$database;**

**SQL>Select checkpoint\_change# from v$datafile;**

* We cannot open the inconsistent database.

**Start-up restrict:**

* Allows only privileged users to connect.(**SYS & SYSTEM**)
* During migration activities no user is allowed to connect database .while performing migrations we put database in restricted mode.

**SQL>Select Instance\_name, logins form v$instance;**

**Start-up force:**

* shut abort + normal start-up
* It will shut abort the database and start-up normal.

**Start-up upgrade:**

* Opens the database in upgrade mode, allowing the database to be upgraded.
* Used during software upgrades.

**SHUTDOWN METHODS:**

1. Shutdown normal
2. Shutdown transactional
3. Shutdown immediate
4. Shutdown abort

**Shutdown normal:**

* Shutdown normal cannot use in real-time.
* If any user connected to database shutdown normal will not work.
* To shutdown normal no users should be connected to database.

**Shutdown transactional:**

* It will check for the pending transactions.
* If any pending transactions it will wait until the transaction is commit.
* Even though any user is connected it will shut down but there should be no pending transactions.

**Shutdown immediate:**

* It won’t bother about the connected users and pending transactions.it will shut down database.
* The transactions which are NOT committed will be rollback.

**Shutdown abort:**

* Instance will crash or terminated in shut abort.
* In the next start-up of database SMON will do the instance recovery.
* Transactions which are committed are roll forward ( written into datafile)
* Transactions which are not committed are roll back.