**STARTUP & SHUTDOWN METHODS**

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

**STARTUP METHODS:**

1. startup nomount
2. Startup mount
3. Startup
4. Startup restrict
5. Startup force
6. Startup upgrade

**Startup nomount:**

* To put the database in nomount **PFILE** or **SPFILE** is required.
* It reads the pfile and allocates memory to instance and start the background process.
* In nomount state we can perform controlfile recreate or restore.

**Startup 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.

**Startup:**

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

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

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

* we cannot open the inconsistant database.

**Startup 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;**

**Startup force:**

* shut abort + normal startup
* It will shut abort the database and startup normal.

**Startup 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 realtime.
* 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 untill the transaction is commit.
* Even though any user is connected it will shutdown but there should be no any pending transactions.

**Shutdown immediate:**

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

**Shutdown abort:**

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