**PHYSICAL BACKUP**

Physical backup:-

Backup of physical files is known as physical backups

**Physical backup are two type:-**

1. Cold backups or offline backups or closed backups.
2. Hot backups or online backups or open backups.

**Cold backups:-**

Cold backups are passible after shutting down the database server

**Host backups:-**

Hot backups are passible only when the oracle instance in the OPEN stage

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**1.Steps for cold backups:-**

1. Create an empty folder named cold nkp under /home/prd directory and grant full permission

#su – oracle

$cd /home/prd

Prd ]$mkdir coldbkp

Prd ]$chmod –R 777 /home/prd/coldbkp

2) shutdown the database server if it is up and running

Sql>shut immediate;

Sql>host <enter>

$

3) go to /home/prd folder and copy all .dbf,m .log and .ctl files into the /home/prd/coldbkp folder

$cd /home/prd

Prd ]$cp \*.dbf \*.log \*.ctl /home/prd/coldbkp

4) go to /home/prd/coldkp folder and check all the files

Prd] $cd /home/prd/coldbkp

Coldbkp] $ ls <enter>

* Here we may find .dbf,.log and .ctl files.

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**2.How to perform restore and recovery when we loose original control file, redo log files and then database files?**

Go to /home/prd directory and delete all.dbf, log and .ctl files

#su – oracle

$cd /home/prd

Prd]$rm\*.dbf\*.log\*.ctl

Prd]$sqlplus ‘/as sysdba’

Sql>shut abort;

Sql>startuo;

* It will throw for error bcz control files are missing

**Step1:** shutdown the database server

Sql>shut abort;

Sql>host <enter>

$

**Step2:** go to /home/prd/coldbkp folder and copy all .dbf, .log and .ctl files into the original location i.e /home/prd

$cd /home/prd/coldbkp

Coldbkp]$cp\*.dbf \*.log \*.ctl /home/prd

**Step3:** start an oracle instance in the open stage

Coldbkp]$sqlplus ‘/ as sysdba’

Sql>startup;

Cold backups are used for non-productions environments

Eg: development, testing etc

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**3.Hot backups:-**

Host backups are used for production environment.

Eg: PROD server

Production server is running 24 by 7 and 365 days.

We have to perform the backups without shutting down the database server.

**Prerequisites for hot backups.**

1. Oracle instance must be in OPEN stage
2. Create and configure the flash recovery area (fra) and the size manual database creation
3. Database must be in archivelog mode
4. Create and configure the listener
5. Listener must be up and running

**Steps for hot backups:-**

1. Create an empty folder named hot bkp under /home/prd directory and grant full permission

#su – oracle

$cd /home/prd

Prd]$mkdir hotbkp

Prd]$chmod –R 777 /home/prd/hotbkp

1. Keep the database is in begin backup

Sql>alter database begin backup;

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**How to check whether the database is in begin backup mode or not?**

Sql>select \* from v$backup;

If the status in ACTIVE then the database is in begin backup mode

If the status in NOT ACTIVE then the database is not in begin backup mode

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1. Go to /home/prd folder any copy all .dbf files into the /home/prd/hotbkp files

#su – oracle

$cd /home/prd

Prd]$cp\*.dbf /home/prd/hotbkp

While copying .dbf files users may perform some transactions. We have to move these transactions into the flash recovery area (fra) as archivelog files using the following sql statement.

Sql>alter system switch logfile;

If we have 2 redo log group then switch 2 times

If we have 3 redo log group then switch 3 times

1. Keep the database is in end backup mode

Sql>alter database end backup;

1. Generate one more archivelog file for synchronization purpose.

Sql>alter system switch logfile;

1. Take the control file backup

Sql>alter database backup controlfile to ‘/home/prd/hotbkp/control1.ctl’;

1. Go to /home/prd/hotbkp folder and check the backup files.

#su – oracle

$cd /home/prd/hotbkp

Hotbkp]$ls <enter>

* Here we may find all.dbf and control1.ctl

1. Parameter file contains two control files so we must have two control files.

Hotbkp]$cp control1.ctl control2.ctl

Hotbkp]$ls <enter>

* Here we may find all .dbf, control1.ctl and control2.ctl

Note:- for hot backups redo log files are not required because the redo log files information is available in the archive log files.

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**4.How to perform restore and recovery when the loose original control files, redo log files and database files?**

Go to /home/prd folder and select all .dbf,.lof and .ctl files

#su – oracle

$cd /home/prd

Prd]$rm \*.dbf\*.log\*.ctl

**Step1:-** shutdown the database server

Sql>shut abort;

Sql>host <enter>

$

**Step2:-** copy backup files located at /home/prd/hotbkp folder into thee original location i.e /home/prd

$cd /home/prd/hotbkp

Hotbkp]$cp\*.dbf\*.ctl/home/prd

**Step3:-** restore data from archivelog files.

Recovery is passible only in the mount stage.

Hotbkp]$sqlplus ‘/as sysdba’

Sql>startup mount;

Sql>recover database using backup control file until cancel;

* Here we can apply archive log files either manually or automatically.
* If we have 2 or 3 archive log files then apply manually.
* If we have more 3 then apply automatically

Sql>recover database using backup control file untile cancel;

ENTER CANCEL.

* Here we are informing to the database server no more archive log file are available

4) open the database and create new redolog groups:-

Sql>alter database open resetlogs;

Database opened

5) check the database users.

Sql>select \* from all\_users;

Output: 17 users.

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