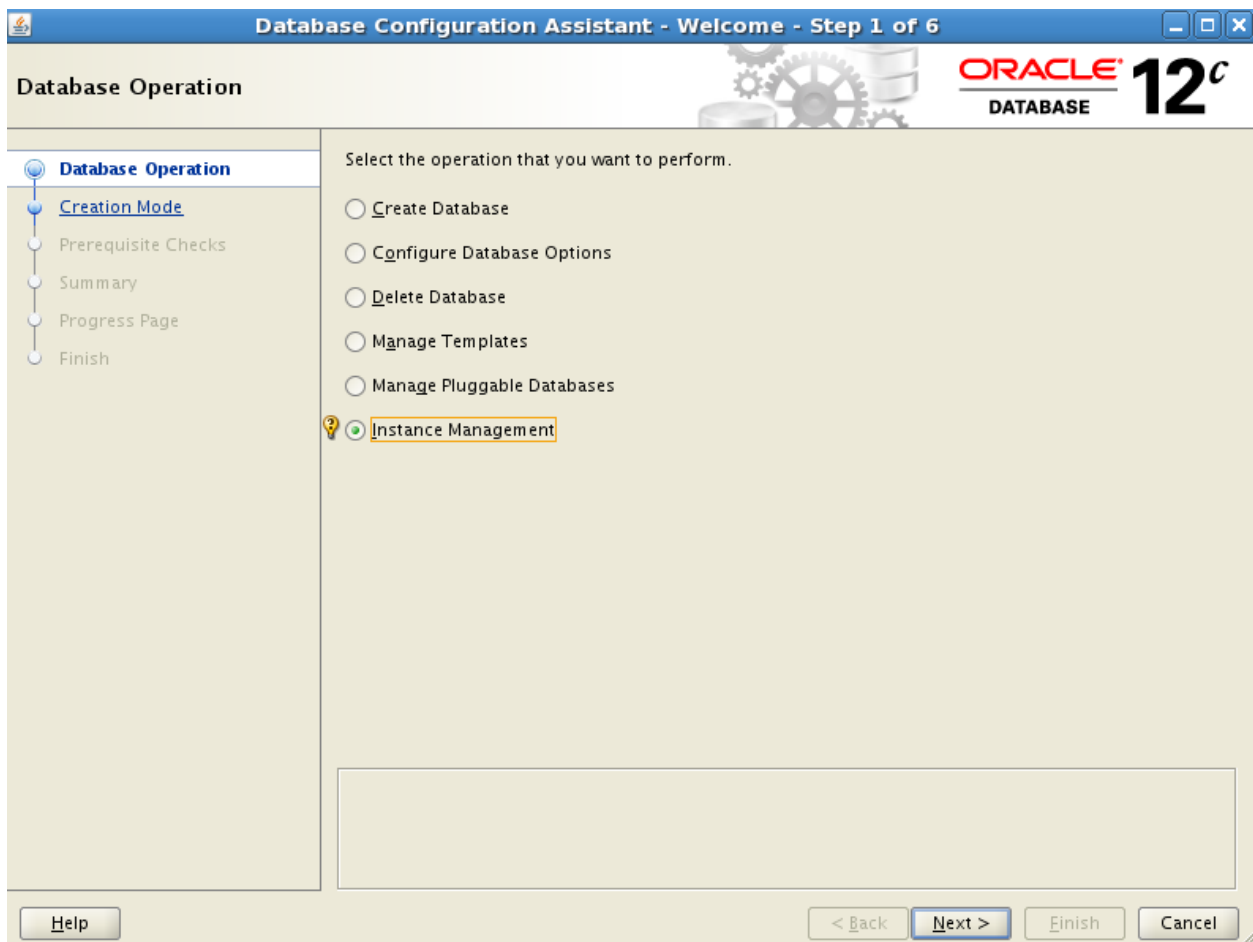


Oracle 12c RAC

Lab Module 8

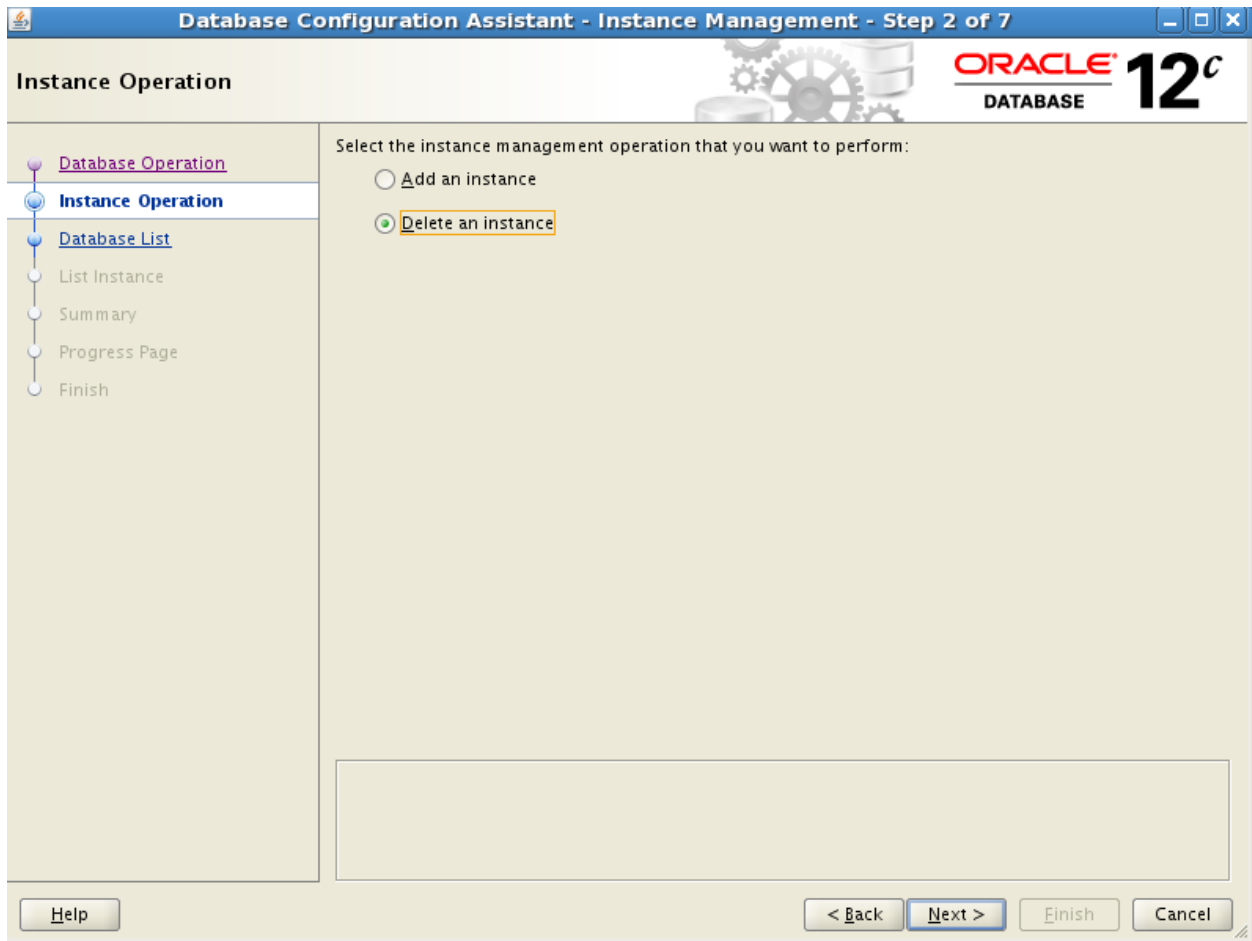
Module 8 Lab: Node Management Reducing the RAC and extending the RAC.

- 1) This lab will first reduce the rac.
 - a. From ol7-122-rac1 under the database environment run dbca
 - As root user run:
 - xhost +
 - As oracle user run:
 - . db_env
 - dbca



- b. Chose Instance Management

c. Select Delete an Instance



d. Select the cdbrac database

Database Configuration Assistant - Instance Management - Step 3 of 7

Database List

Database Operation

Instance Operation

Database List

List Instance

Summary

Progress Page

Finish

ORACLE[®] 12^c

DATABASE

Select an active cluster database to delete an instance. Also, specify SYSDBA credentials that could be used to connect to the database. If OS authentication is enabled, these credentials will be ignored.

Select	Database	Local Instance	Instance Status	Status	Type
<input checked="" type="radio"/>	orcl_cdb	orclcdb1	Running	active	Admin-Manag...

Specify SYSDBA credentials that could be used to connect to the database.

Username:

Password:

Help

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Next >

Finish

Cancel

e. Select cdbrac2 instance.

Database Configuration Assistant - Instance Management - Step 4 of 7

List Instance

Database Operation

Instance Operation

Database List

List Instance

Summary

Progress Page

Finish

Select the instance to delete from the list of instances of cluster database "orcl_cdb"

Instance Name	Node Name	Status
orclcdb1	rac1	active
orclcdb2	rac2	active

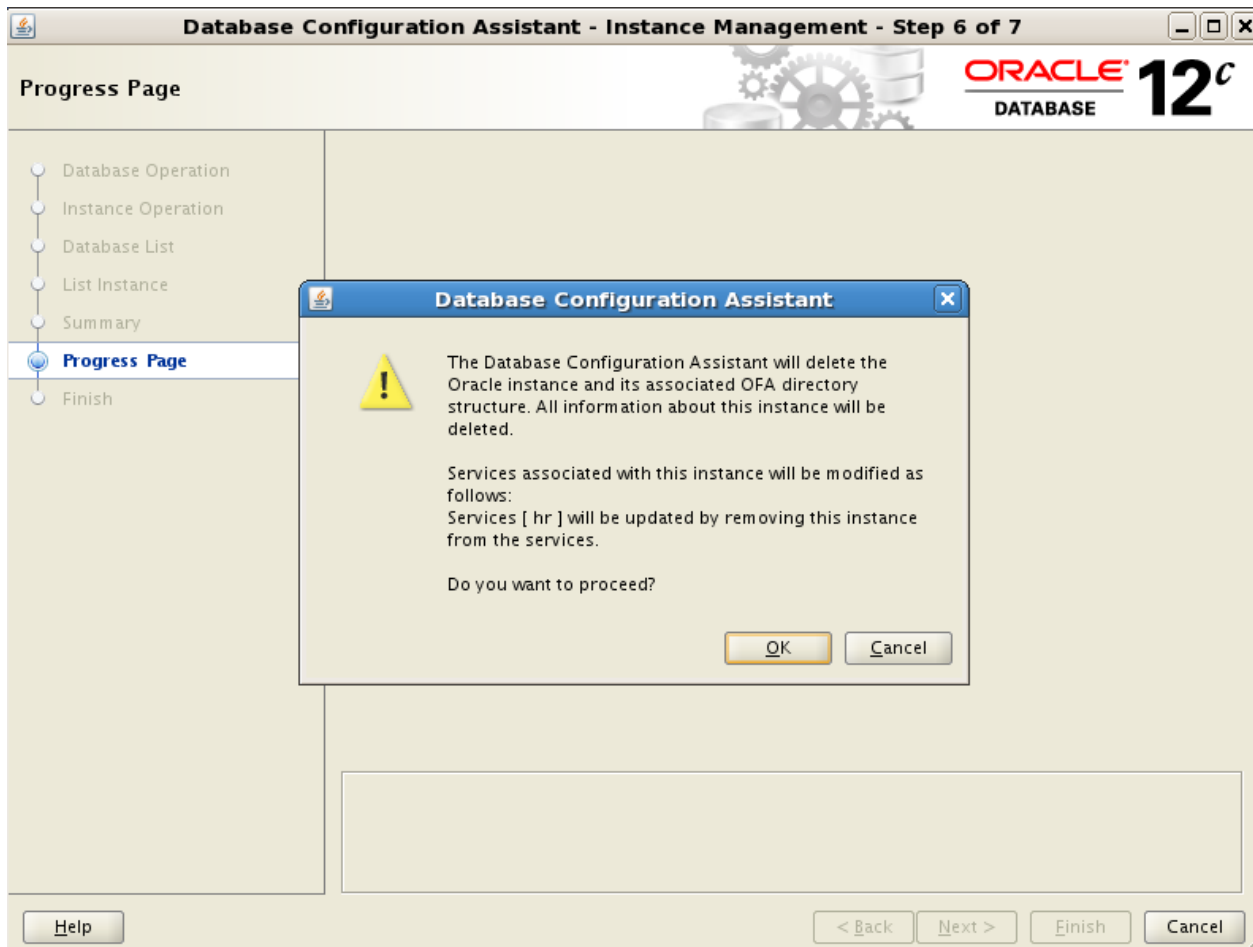
Help

< Back

Next >

Finish

Cancel



f. Select finish and select 'Ok' to proceed.

2) As the oracle user from the node to be deleted.

a. `$ORACLE_HOME/oui/bin/runInstaller -updatenodelist`
`ORACLE_HOME=$ORACLE_HOME "CLUSTER_NODES={ol7-122-rac2}" -local`

```
[oracle@rac2 bin]$ ./runInstaller -UpdateNodeList ORACLE_HOME=$ORACLE_HOME "CLUSTER_NODES={rac2}" -local
Starting Oracle Universal Installer...

Checking swap space: must be greater than 500 MB.   Actual 5951 MB   Passed
The inventory pointer is located at /etc/oraInst.loc
'UpdateNodeList' was successful.
[oracle@rac2 bin]$
```

3) As the Oracle user from the node to be deleted.

a. `$ORACLE_HOME/deinstall/deinstall -local`

```

[oracle@rac2 deinstall]$ ./deinstall -local
Checking for required files and bootstrapping ...
Please wait ...
Location of logs /u01/app/oraInventory/logs/

##### ORACLE DECONFIG TOOL START #####

##### DECONFIG CHECK OPERATION START #####
## [START] Install check configuration ##

Checking for existence of the Oracle home location /u01/app/oracle/product/12.1.0/dbhome_1
Oracle Home type selected for deinstall is: Oracle Real Application Cluster Database
Oracle Base selected for deinstall is: /u01/app/oracle
Checking for existence of central inventory location /u01/app/oraInventory
Checking for existence of the Oracle Grid Infrastructure home /u01/app/12.1.0/grid
The following nodes are part of this cluster: rac2,rac1
Checking for sufficient temp space availability on node(s) : 'rac2'

```

4) As the oracle user from the surviving node

a. \$ORACLE_HOME/oui/bin/runInstaller -updatenodelist

ORACLE_HOME=\$ORACLE_HOME "CLUSTER_NODES={ol7-122-rac1}"

```

[oracle@rac1 bin]$ ./runInstaller updateNodeList ORACLE_HOME=$ORACLE_HOME "CLUST
ER_NODES={rac1}"
Starting Oracle Universal Installer...

Checking swap space: must be greater than 500 MB.    Actual 5951 MB    Passed
Checking monitor: must be configured to display at least 256 colors.    Actual 1
6777216    Passed
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2015-04-08_06
-09-02PM. Please wait ...

```

5) From the GI environment as the root user on the node to be deleted.

a. \$GRID_HOME/crs/install/rootcrs.pl -deconfig -force

```

[root@rac2 ~]# . oraenv
ORACLE_SID = [root] ? +ASM2
The Oracle base for ORACLE_HOME=/u01/app/12.1.0/grid is /u01/app/oracle
[root@rac2 ~]# cd $ORACLE_HOME
[root@rac2 grid]# cd crs/install/
[root@rac2 install]# ./rootcrs.pl -deconfig -force
Using configuration parameter file: ./crsconfig_params
Network 1 exists

```

6) As the root user on the surviving node

a. \$GRID_HOME/bin/crsctl delete node -n ol7-122-rac2

```
root@rac1:/u01/app/12.1.0/grid/bin
File Edit View Terminal Tabs Help
[root@rac1 bin]# . oraenv
ORACLE_SID = [+ASM1] ?
The Oracle base for ORACLE_HOME=/u01/app/12.1.0/grid is /u01/app/oracle
[root@rac1 bin]# pwd
/u01/app/12.1.0/grid/bin
[root@rac1 bin]# ./crsctl delete node -n rac2
CRS-4661: Node rac2 successfully deleted.
[root@rac1 bin]#
[root@rac1 bin]#
```

7) In the grid environment on the surviving node update the clusterware for the surviving nodes.

- a. \$GRID_HOME/oui/bin/runInstaller -updatenodelist CRS=TRUE
ORACLE_HOME=GRID_HOME "CLUSTER_NODES={ol7-122-rac1}"

```
oracle@rac1:/u01/app/12.1.0/grid/oui/bin
File Edit View Terminal Tabs Help
[oracle@rac1 bin]$ . oraenv
ORACLE_SID = [orcl_cdb] ? +ASM1
The Oracle base for ORACLE_HOME=/u01/app/12.1.0/grid is /u01/app/oracle
[oracle@rac1 bin]$ cd $ORACLE_HOME/
[oracle@rac1 grid]$ cd oui/bin
[oracle@rac1 bin]$ ./runInstaller -updatenodelist CRS=TRUE ORACLE_HOME=$ORACLE_HOME "CLUSTER_NODES={rac1}"
Starting Oracle Universal Installer...

Checking swap space: must be greater than 500 MB.    Actual 5951 MB    Passed
```

8) Verify the node has been removed.

- a. olsnodes -n

```
'UpdateNodeList' was successful.
[oracle@rac1 bin]$
[oracle@rac1 bin]$
[oracle@rac1 bin]$
[oracle@rac1 bin]$ olsnodes -n
rac1      1
[oracle@rac1 bin]$
```

9) This section will add a node back in.

10) From the GRID environment on the first node extend the cluster software

a. `$GRID_HOME/addnode/addNode.sh -silent "CLUSTER_NEW_NODES={ol7-122-rac2}" "CLUSTER_NEW_VIRTUAL_HOSTNAMES={ol7-122-rac2-vip}" -ignoreSysPrereqs -ignorePrereq`

```
[oracle@rac1 addnode]$ ./addnode.sh -silent "CLUSTER_NEW_NODES={rac2}" "CLUSTER_NEW_VIRTUAL_HOSTNAMES={rac2}" -ignoreSysPrereqs -ignorePrereq
Starting Oracle Universal Installer...

Checking Temp space: must be greater than 120 MB.    Actual 14683 MB    Passed
Checking swap space: must be greater than 150 MB.    Actual 5951 MB    Passed

Prepare Configuration in progress.

Prepare Configuration successful.
..... 8% Done.
You can find the log of this install session at:
/u01/app/oraInventory/logs/addNodeActions2015-04-08_08-56-01PM.log

Instantiate files in progress.

Instantiate files successful.
..... 14% Done.

Copying files to node in progress.
■
```

11) Run the root.sh script on the new node to add to the cluster.

12) From the database home on the first node in the database environment add the database software

a. `$ORACLE_HOME/addnode/addNode.sh -silent "CLUSTER_NEW_NODES={ol7-122-rac2}"`

```
[oracle@rac1 addnode]$ ./addnode.sh -silent "CLUSTER_NEW_NODES={rac2}"
Starting Oracle Universal Installer...

Checking Temp space: must be greater than 120 MB.    Actual 14379 MB    Passed
Checking swap space: must be greater than 150 MB.    Actual 5526 MB    Passed
■
```

13) Create the new instance from the first node using dbca in silent mode.

a. `./dbca -silent -addInstance -nodelist <nodename> -gdbName <dbname> -instanceName cdbrac2 -sysDBAUserName sys -sysDBAPassword fenago`

14) Verify the instance is up and running

a. `srvctl status database -d cdbrac`


```
[oracle@rac1 bin]$ srvctl status database -d orcl
```

```
Instance orcl1 is running on node rac1
```

```
Instance orcl2 is running on node rac2
```

```
[oracle@rac1 bin]$
```

```
[oracle@rac1 bin]$ █
```
