

Setup of Oracle Grid Infrastructure for Standalone Server (Oracle Restart)

Content of the document:

Step1: Installation of ASM Software / GI software / Cluster ware software

- a. Download GI (Grid infrastructure Software) and DB software (19c)
- b. login as root user to your server and do the below
- c. using root user or even oracle user upload these sources to a temp or staging directory on your database server.
- d. create the below directories and unzip your software
- e. **creating** shared disks / raw /ASM disks for ASM installation
- f. now you are ready to go with ASM SW Installation / GI SW Installation / Clusterware Installation (from GUI screen as oracle user)

Step2: Installation of oracle Database Software / Oracle Software / Oracle Home Software.

Step3: Database creation (TESTDB)

- a. Create your planned ASM disk groups that will host your database.
- b. Create your required database (TESTDB).

Environment details:

| | |
|-------------|-------------------------------------|
| Server Name | oraclelab1.localdomain.com |
| IP address | 192.168.1.8 |
| OS release | "Oracle Linux Server" VERSION="7.9" |
| RAM | 8 GB |
| CPU | 2 |

ASM disks planning and design:

| Disk | partition | size | Used for | DISKGROUP_NAME |
|----------|-----------|-------|------------------------|----------------|
| /dev/sdb | /dev/sdb1 | 3 GB | Hosting ASM files | ASM_FILES |
| /dev/sdc | /dev/sdc1 | 30 GB | Hosting database files | DATA_DG1 |
| /dev/sdd | /dev/sdd1 | 30 GB | Hosting ARCHIVELOGS | FAST_RECOVERY |
| /dev/sde | /dev/sde1 | 10 GB | HOSTING REDO COPY1 | REDO1 |
| /dev/sdf | /dev/sdf1 | 10 GB | HOSTING REDO COPY2 | REDO2 |

Step1: Installation of ASM Software / GI software / Cluster ware software.

a. Download GI (Grid infrastructure Software) and DB software (19c):

by logging to <https://edelivery.oracle.com> then choose: (Oracle Database 19c 19.3.0.0.0).

Now you have downloaded the below sources:

- ✓ GI - V982068-01.zip
- ✓ DB - V982063-01.zip

b. login as root user to your server and do the below:

install all oracle perquisites:

```
[root@oraclelab1 19c_Grid]# id
uid=0(root) gid=0(root) groups=0(root) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[root@oraclelab1 19c_Grid]#
[root@oraclelab1 19c_Grid]# yum install oracle* --skip-broken
```

```
Installed:
  oracle-ceph-release-el7.x86_64 0:1.0-2.el7
  oracle-database-preinstall-19c.x86_64 0:1.0-3.el7
  oracle-database-server-12cR2-preinstall.x86_64 0:1.0-5.el7
  oracle-gluster-release-el7.x86_64 0:1.0-9.el7
  oracle-graalvm-ce-release-el7.x86_64 0:1.0-2.el7
  oracle-linux-manager-server-release-el7.x86_64 0:1.0-4.el7
  oracle-olcne-release-el7.x86_64 0:1.0-13.el7
  oracle-ovirt-release-el7.x86_64 0:1.0-3.el7
  oracle-rdbms-server-11gR2-preinstall.x86_64 0:1.0-6.el7
  oracle-release-el7.x86_64 0:1.0-4.el7
  oracle-softwarecollection-release-el7.x86_64 0:1.0-4.el7
  oraclelinux-developer-release-el7.x86_64 0:1.0-6.el7

Dependency Installed:
  ksh.x86_64 0:20120801-144.0.1.el7_9

Updated:
  oraclelinux-release.x86_64 7:7.9-1.0.11.el7

Skipped (dependency problems):
  oracle-linux-manager-client-release-el7.x86_64 0:1.0-2.el7
```

```
oracle-database-preinstall-18c.x86_64 0:1.0-1.el7
oracle-database-preinstall-21c.x86_64 0:1.0-1.el7
oracle-epel-release-el7.x86_64 0:1.0-4.el7
oracle-golang-release-el7.x86_64 0:1.0-12.el7
oracle-instantclient-release-el7.x86_64 0:1.0-3.el7
oracle-nodejs-release-el7.x86_64 0:1.0-9.el7
oracle-openstack-release-el7.x86_64 0:1.0-2.el7
oracle-php-release-el7.x86_64 0:1.0-5.el7
oracle-rdbms-server-12cR1-preinstall.x86_64 0:1.0-7.el7
oracle-software-release-el7.x86_64 0:1.0-1.el7
oracleasm-support.x86_64 0:2.1.11-2.el7
```

Or you can only install the perquisites for the required oracle database release:

```
[root@oraclelab1 19c_Grid]# yum -y install oracle-database-ee-19c
```

NOTES:

- Optional (In case if you installed above RPM)
- User & group create

```
# groupadd dba
# groupadd oinstall
# useradd -g oinstall -G oinstall,dba oracle
```

Then change oracle user password as below:

```
[root@oracelab1 19c_Grid]# passwd oracle
Changing password for user oracle.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
[root@oracelab1 19c_Grid]# ]
```

Then change the ownership of /u01 and /u02 as below:

```
[root@oracelab1 19c_Grid]# chown -R oracle:oinstall /u01
[root@oracelab1 19c_Grid]# chown -R oracle:oinstall /u02
```

c. using root user or even oracle user upload these sources to a temp or staging directory on your database server.

```
[root@oracelab1 ~]# id
uid=0(root) gid=0(root) groups=0(root) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[root@oracelab1 ~]#
[root@oracelab1 ~]# cd /media/sf_oracle19C_software
[root@oracelab1 sf_oracle19C_software]# ls -ltr
total 0
drwxrwx---. 1 root vboxsf 0 Oct 16 05:36 19c_database
drwxrwx---. 1 root vboxsf 0 Oct 16 05:36 19c_Grid
[root@oracelab1 sf_oracle19C_software]#
[root@oracelab1 sf_oracle19C_software]# ]
```

d. create the below directories and unzip your software:

- mkdir -p /u01/app/19.0.0.0/grid

```
[root@oracelab1 sf_oracle19C_software]# mkdir -p /u01/app/19.0.0.0/grid
[root@oracelab1 sf_oracle19C_software]# ]
```

- unzip /media/sf_oracle19C_software/19c_Grid/V982068-01-002.zip -d /u01/app/19.0.0.0/grid

```
[root@oracelab1 19c_Grid]# unzip /media/sf_oracle19C_software/19c_Grid/V982068-01-002.zip -d /u01/app/19.0.0.0/grid
```

- mkdir -p /u02/app/oracle/product/19.0.0.0/dbhome_1

```
[root@oracelab1 19c_Grid]# mkdir -p /u02/app/oracle/product/19.0.0.0/dbhome_1
[root@oracelab1 19c_Grid]# ]
```

- unzip /media/sf_oracle19C_software/19c_database/V982063-01-001.zip -d /u02/app/oracle/product/19.0.0.0/dbhome_1

```
[root@oracelab1 19c_database]# unzip /media/sf_oracle19C_software/19c_database/V982063-01-001.zip -d /u02/app/oracle/product/19.0.0.0/dbhome_1
```

- Change premission

```
#chown -R oracle:oinstall /u01
```

```
#chown -R oracle:oinstall /u01
```

```
[root@oracelab1 19c_database]# chown -R oracle:oinstall /u01
[root@oracelab1 19c_database]# chown -R oracle:oinstall /u02
[root@oracelab1 19c_database]#
```

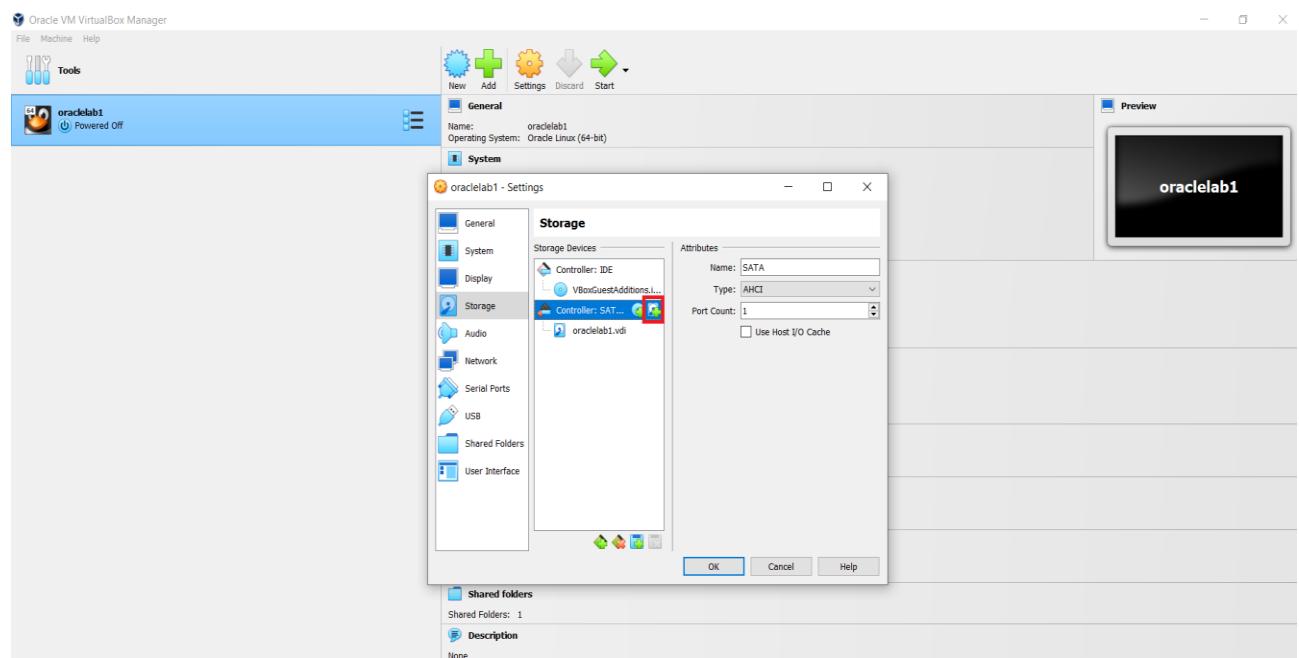
e. creating shared disks / raw /ASM disks for ASM installation

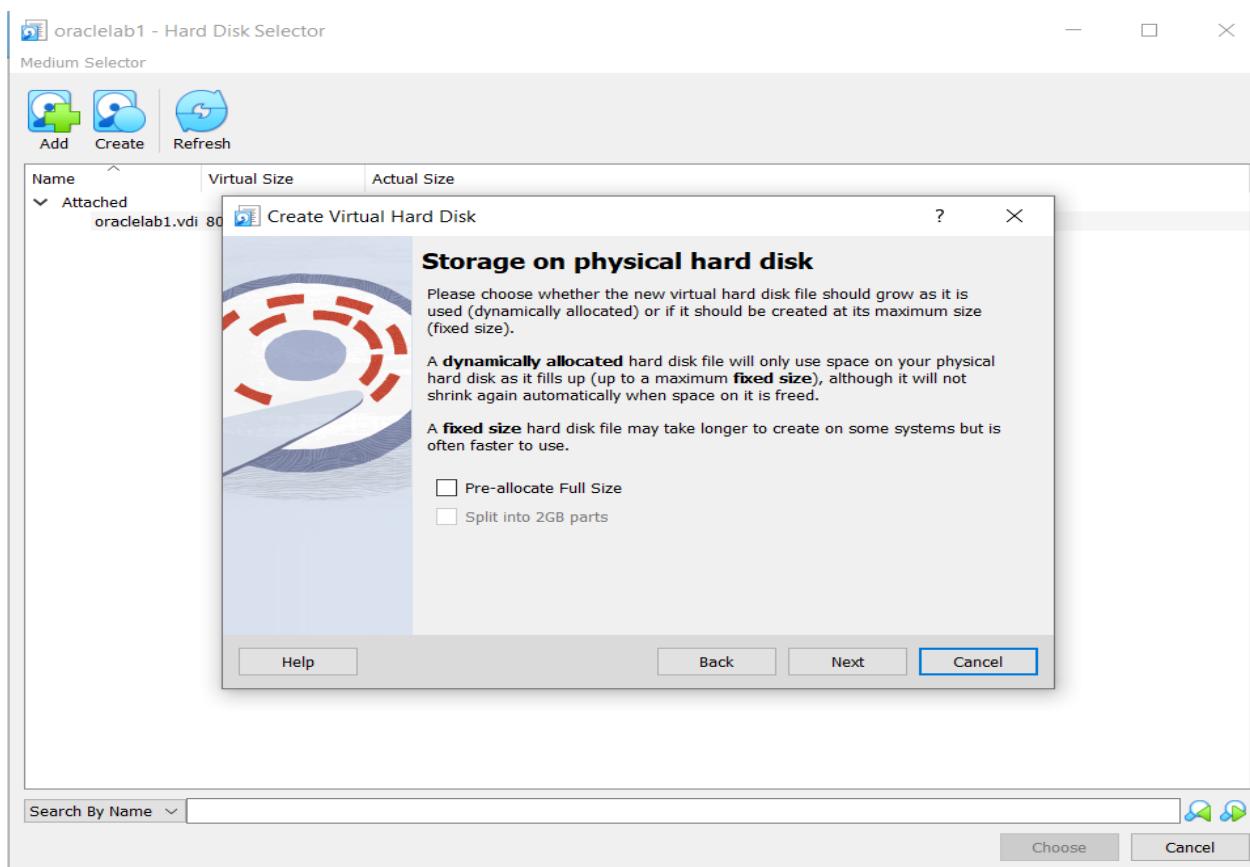
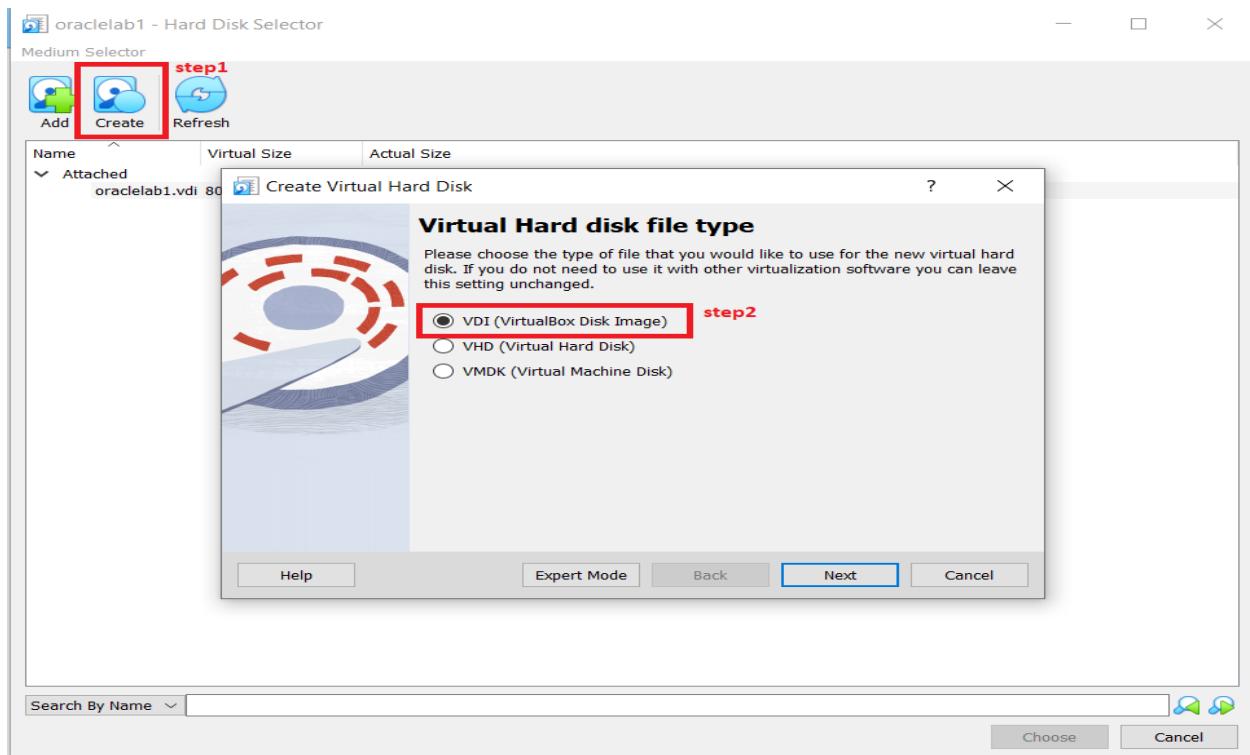
- Add virtual disk to oracelab1, just power of your virtual machine and add the required disks based on your planning and design:

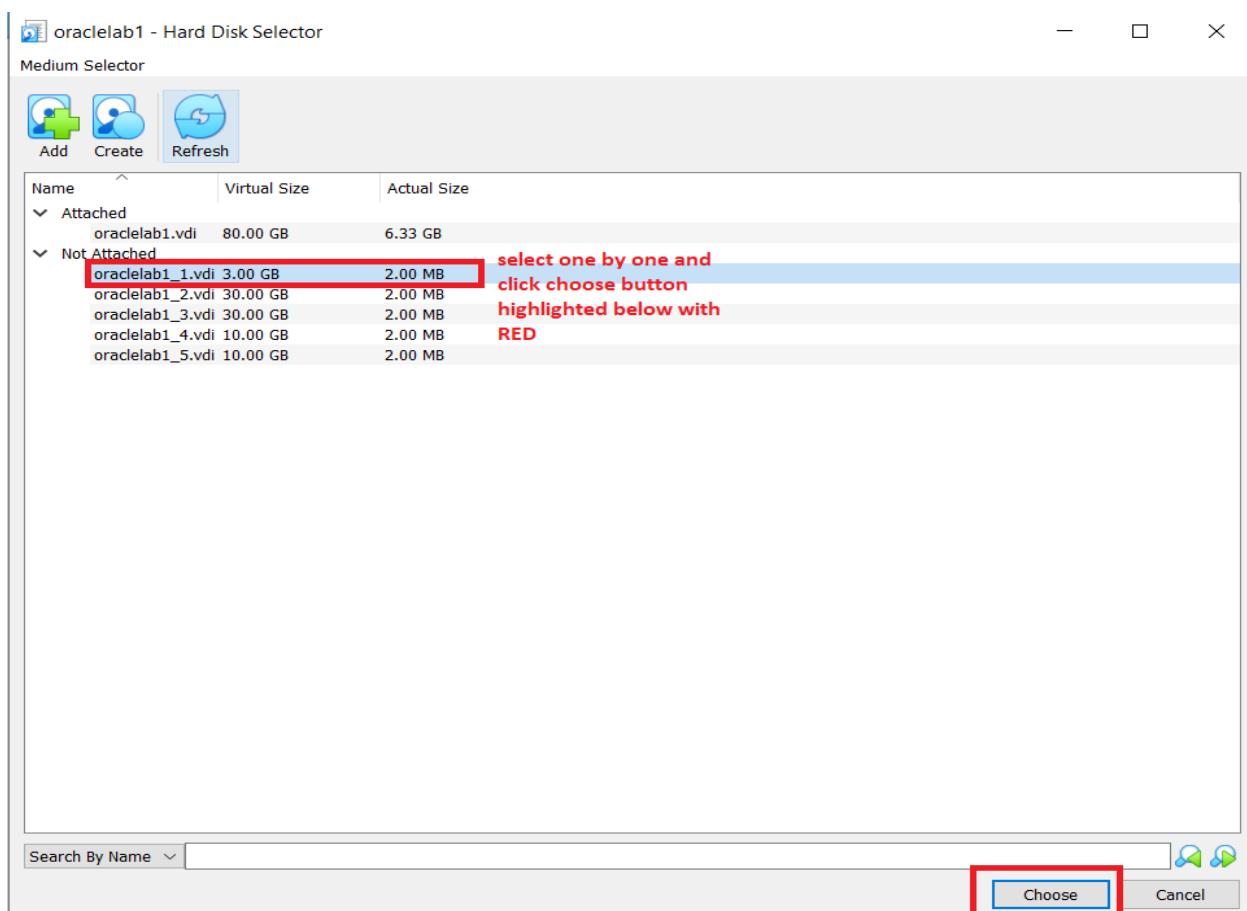
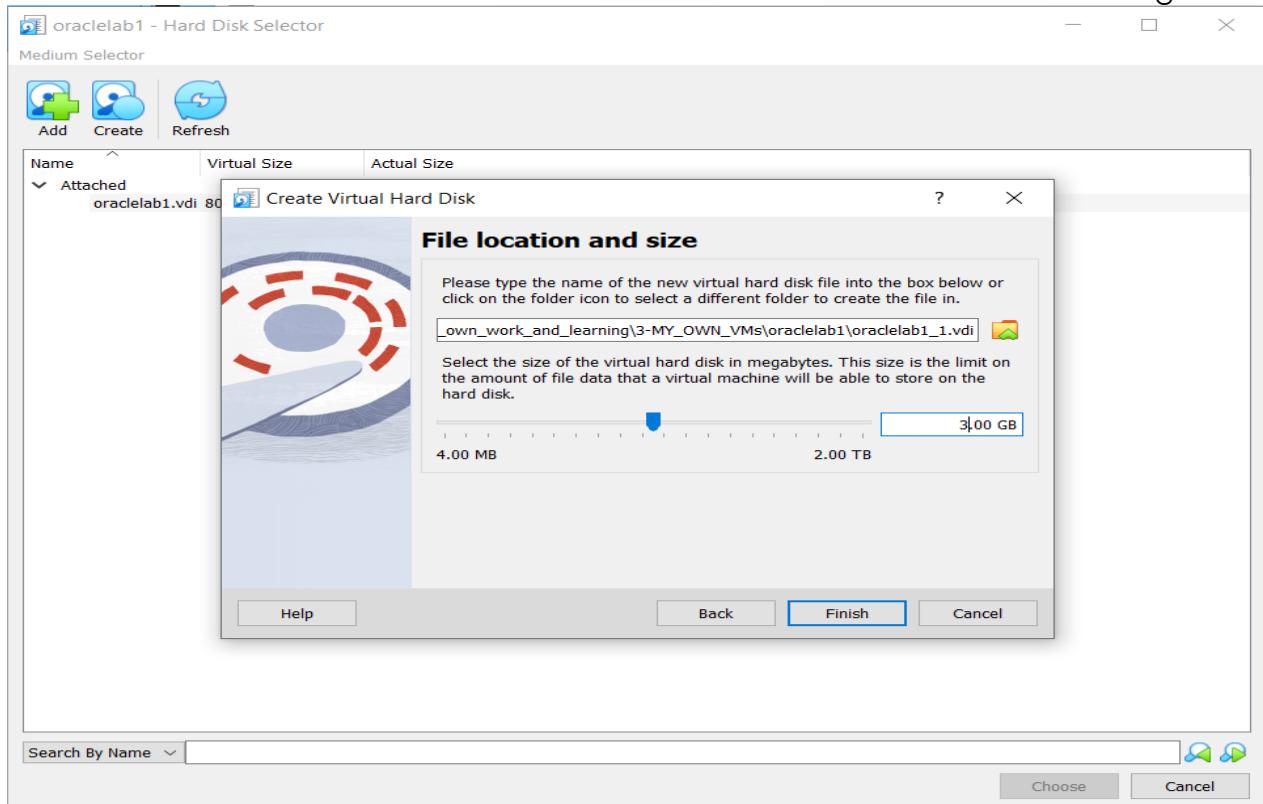
ASM disks planning and design:

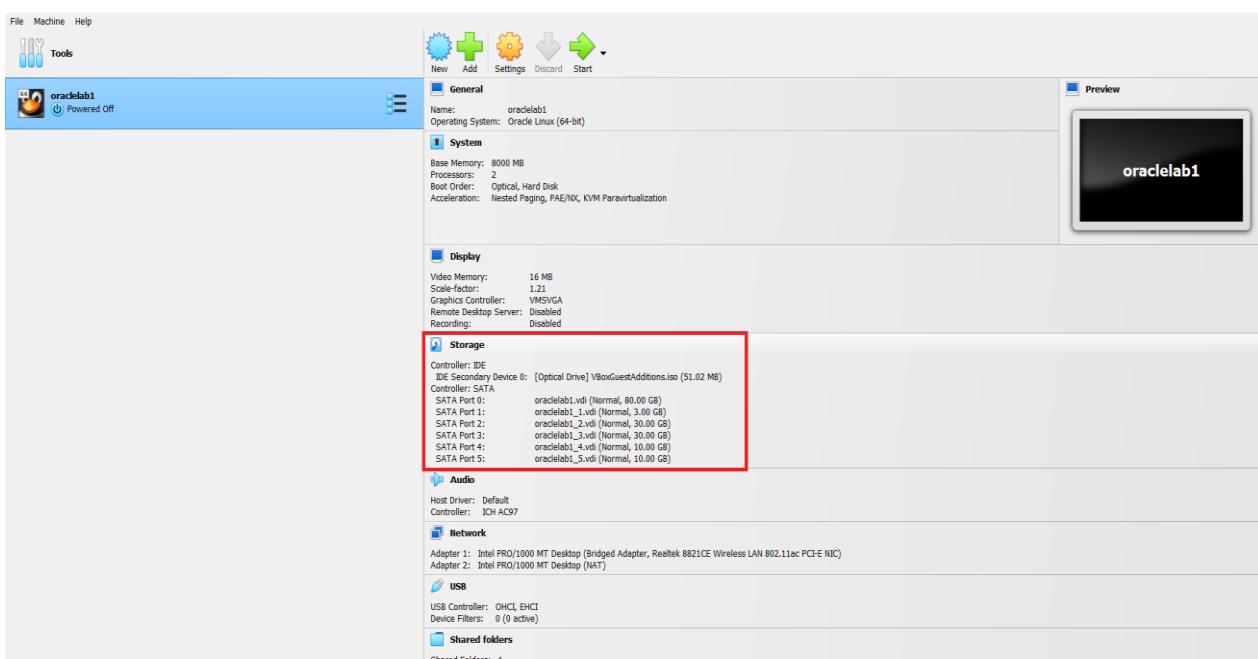
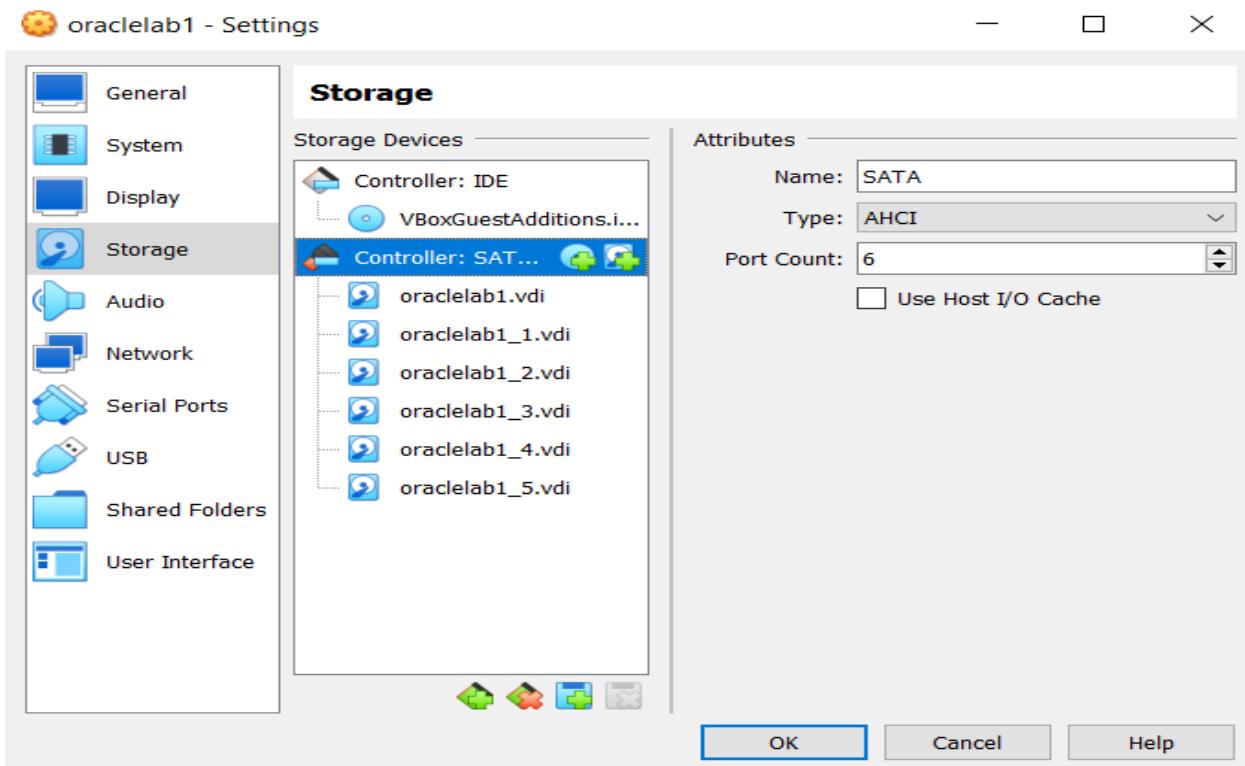
| Disk | partition | size | Used for | DISKGROUP_NAME |
|----------|-----------|-------|------------------------|----------------|
| /dev/sdb | /dev/sdb1 | 3 GB | Hosting ASM files | ASM_FILES |
| /dev/sdc | /dev/sdc1 | 30 GB | Hosting database files | DATA_DG1 |
| /dev/sdd | /dev/sdd1 | 30 GB | Hosting ARCHIVELOGS | FAST_RECOVERY |
| /dev/sde | /dev/sde1 | 10 GB | HOSTING REDO COPY1 | REDO1 |
| /dev/sdf | /dev/sdf1 | 10 GB | HOSTING REDO COPY2 | REDO2 |

- Add the required disks from your OVM as below:









Then start your virtual machine and do the below for each disk added:

- ls -ltr /dev/sd*

```
[root@oracelab1 ~]# ls -ltr /dev/sd*
brw-rw----. 1 root disk 8, 32 Oct 20 08:28 /dev/sdc
brw-rw----. 1 root disk 8, 80 Oct 20 08:28 /dev/sdf
brw-rw----. 1 root disk 8, 48 Oct 20 08:28 /dev/sdd
brw-rw----. 1 root disk 8, 64 Oct 20 08:28 /dev/sde
brw-rw----. 1 root disk 8, 16 Oct 20 08:28 /dev/sdb
brw-rw----. 1 root disk 8, 0 Oct 20 08:28 /dev/sda
brw-rw----. 1 root disk 8, 2 Oct 20 08:28 /dev/sda2
brw-rw----. 1 root disk 8, 3 Oct 20 08:28 /dev/sda3
brw-rw----. 1 root disk 8, 1 Oct 20 08:28 /dev/sda1
[root@oracelab1 ~]#
```

- fdisk -l /dev/sdb

```
[root@oracelab1 ~]# fdisk -l /dev/sdb

Disk /dev/sdb: 3221 MB, 3221225472 bytes, 6291456 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes

[root@oracelab1 ~]#
```

/dev/sdb - 3G (Virtual disk)

On OS level make partition to each virtual disk you add:

- fdisk /dev/sdb

```
[root@oracelab1 ~]# fdisk /dev/sdb
Welcome to fdisk (util-linux 2.23.2).

Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

Device does not contain a recognized partition table
Building a new DOS disklabel with disk identifier 0x363ff4ad.

Command (m for help): n  write n to create new partition!
Partition type:
  p   primary (0 primary, 0 extended, 4 free)
  e   extended
Select (default p): p  write p to make primary partition!
Partition number (1-4, default 1): click enter to accept default partition number 1
First sector (2048-6291455, default 2048): click enter to accept default first sector start!
Using default value 2048
Last sector, +sectors or +size{K,M,G} (2048-6291455, default 6291455): click enter to accept
Using default value 6291455
Partition 1 of type Linux and of size 3 GiB is set

Command (m for help): w
The partition table has been altered!

Calling ioctl() to re-read partition table.
Syncing disks.
[root@oracelab1 ~]#
```

- fdisk -l /dev/sdb to check your added disk details:

```
/dev/sdb - /dev/sdb1 - 3G
```

```
[root@oracelab1 ~]# fdisk -l /dev/sdb

Disk /dev/sdb: 3221 MB, 3221225472 bytes, 6291456 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk label type: dos
Disk identifier: 0x363ff4ad

Device Boot Start End Blocks Id System
/dev/sdb1 2048 6291455 3144704 83 Linux
[root@oracelab1 ~]#
```

Do all above steps for each disk you wanna to add and use!!!

Finally make sure from all the disk partitions as below:

- ls -ltr /dev/sd*

```
[root@oracelab1 ~]# ls -ltr /dev/sd*
brw-rw----. 1 root disk 8,  0 Oct 20 08:28 /dev/sda
brw-rw----. 1 root disk 8,  2 Oct 20 08:28 /dev/sda2
brw-rw----. 1 root disk 8,  3 Oct 20 08:28 /dev/sda3
brw-rw----. 1 root disk 8,  1 Oct 20 08:28 /dev/sda1
brw-rw----. 1 root disk 8, 16 Oct 20 08:34 /dev/sdb
brw-rw----. 1 root disk 8, 17 Oct 20 08:34 /dev/sdb1
brw-rw----. 1 root disk 8, 32 Oct 20 08:46 /dev/sdc
brw-rw----. 1 root disk 8, 33 Oct 20 08:46 /dev/sdc1
brw-rw----. 1 root disk 8, 48 Oct 20 08:46 /dev/sdd
brw-rw----. 1 root disk 8, 49 Oct 20 08:46 /dev/sdd1
brw-rw----. 1 root disk 8, 64 Oct 20 08:47 /dev/sde
brw-rw----. 1 root disk 8, 65 Oct 20 08:47 /dev/sde1
brw-rw----. 1 root disk 8, 80 Oct 20 08:48 /dev/sdf
brw-rw----. 1 root disk 8, 81 Oct 20 08:48 /dev/sdf1
[root@oracelab1 ~]#
```

configure oracleasm library to convert or label or stamp partitioned disks as RAW / physical disks / ASM DISKS as below:

- oracleasm init

```
[root@oraclelab1 ~]# oracleasm init
Creating /dev/oracleasm mount point: /dev/oracleasm
Loading module "oracleasm": oracleasm
Configuring "oracleasm" to use device physical block size
Mounting ASMLib driver filesystem: /dev/oracleasm
[root@oraclelab1 ~]#
```

- oracleasm configure -i

```
[root@oraclelab1 disks]# oracleasm configure -i
Configuring the Oracle ASM library driver.

This will configure the on-boot properties of the Oracle ASM library
driver. The following questions will determine whether the driver is
loaded on boot and what permissions it will have. The current values
will be shown in brackets ('[]'). Hitting <ENTER> without typing an
answer will keep that current value. Ctrl-C will abort.

Default user to own the driver interface []: oracle
Default group to own the driver interface []: oinstall
Start Oracle ASM library driver on boot (y/n) [y]: y
Scan for Oracle ASM disks on boot (y/n) [y]: y
Writing Oracle ASM library driver configuration: done
```

- oracleasm createdisk ASM_FILES /dev/sdb1

```
[root@oraclelab1 ~]# oracleasm createdisk ASM_FILES /dev/sdb1
Writing disk header: done
Instantiating disk: done
[root@oraclelab1 ~]#
```

- oracleasm createdisk DATA_DG1 /dev/sdc1

```
[root@oraclelab1 ~]# oracleasm createdisk DATA_DG1 /dev/sdc1
Writing disk header: done
Instantiating disk: done
[root@oraclelab1 ~]#
```

- oracleasm createdisk FAST_RECOVERY /dev/sdd1

```
[root@oraclelab1 ~]# oracleasm createdisk FAST_RECOVERY /dev/sdd1
Writing disk header: done
Instantiating disk: done
[root@oraclelab1 ~]#
```

- oracleasm createdisk REDO1 /dev/sde1

```
[root@oraclelab1 ~]# oracleasm createdisk REDO1 /dev/sde1
Writing disk header: done
Instantiating disk: done
[root@oraclelab1 ~]#
```

- oracleasm createdisk REDO2 /dev/sdf1

```
[root@oraclelab1 ~]# oracleasm createdisk REDO2 /dev/sdf1
Writing disk header: done
Instantiating disk: done
[root@oraclelab1 ~]#
```

f. now you are ready to go with ASM SW Installation / GI SW Installation / Clusterware Installation (from GUI screen as oracle user)

- make sure from your hosts file:
- vi /etc/hosts

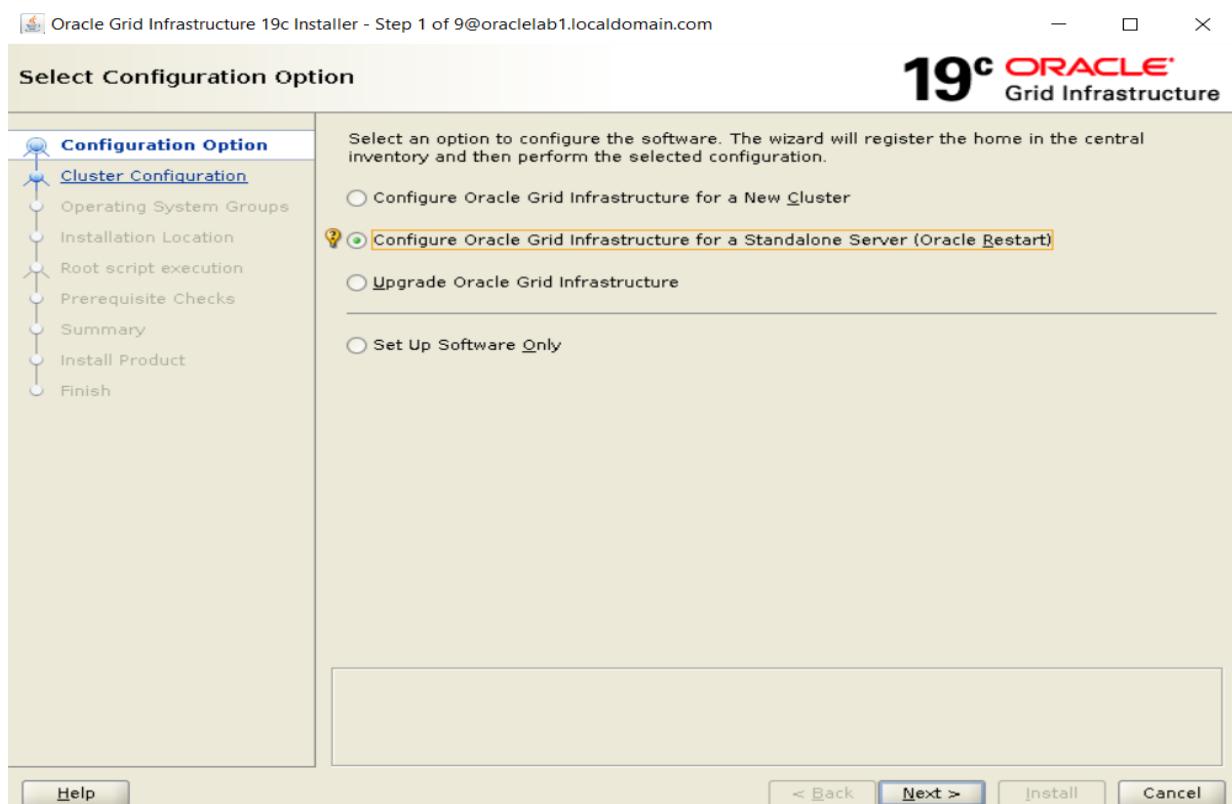
```
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6
192.168.1.108 oraclelab1.localdomain.com oraclelab1
~
```

\$ cd /u01/app/19.0.0.0/grid

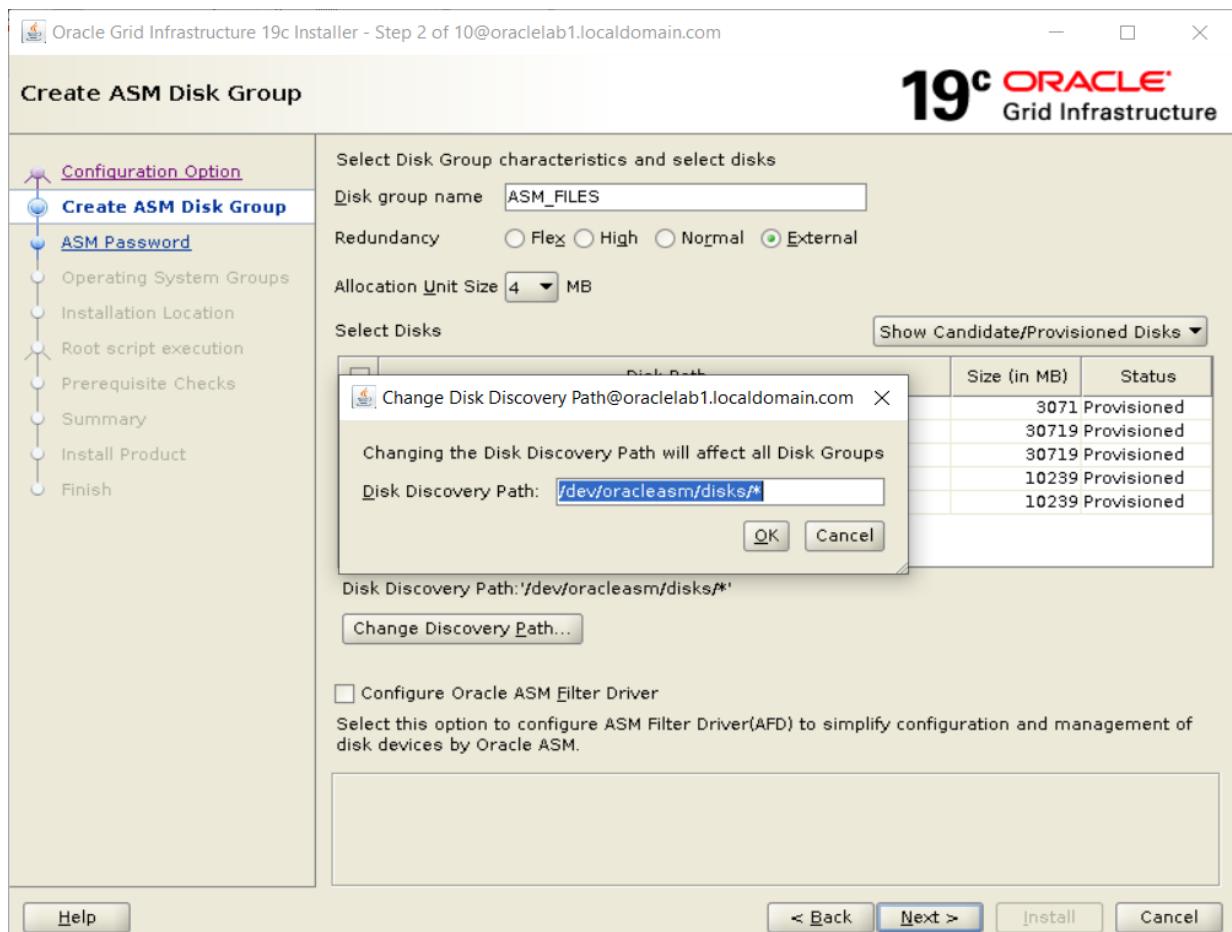
\$./gridSetup.sh

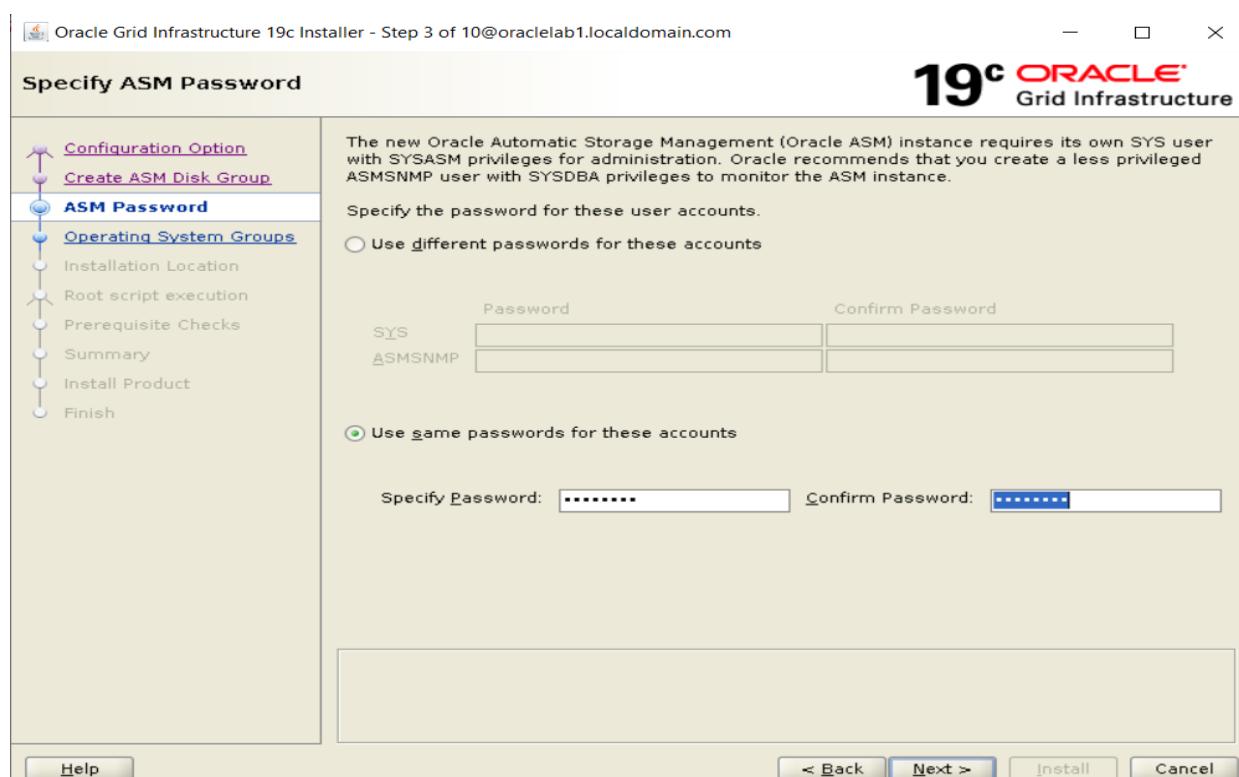
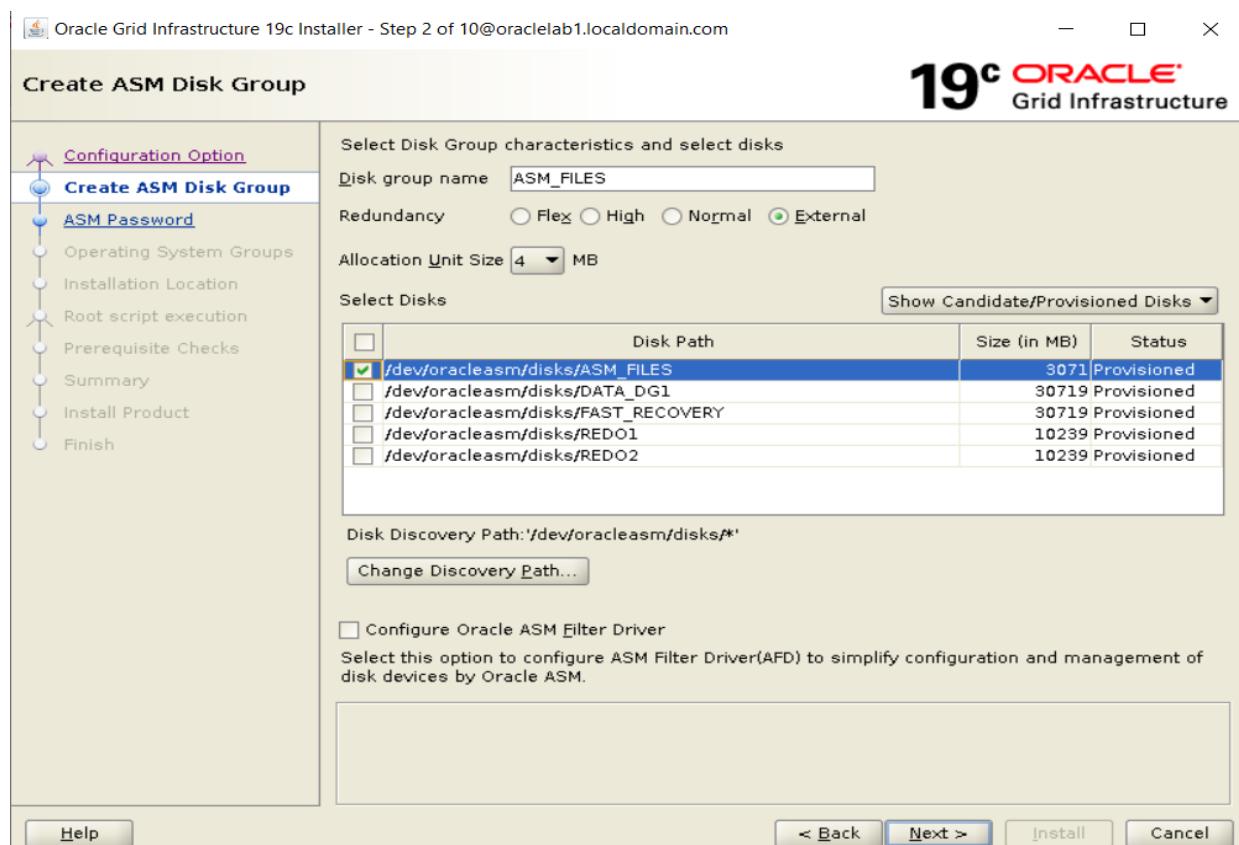
```
[oracle@oraclelab1 ~]$ id
uid=54321(oracle) gid=54321(oinstall) groups=54321(oinstall),54322(dba) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[oracle@oraclelab1 ~]$ cd /u01/app/19.0.0.0/grid
[oracle@oraclelab1 grid]$ ./gridSetup.sh
```

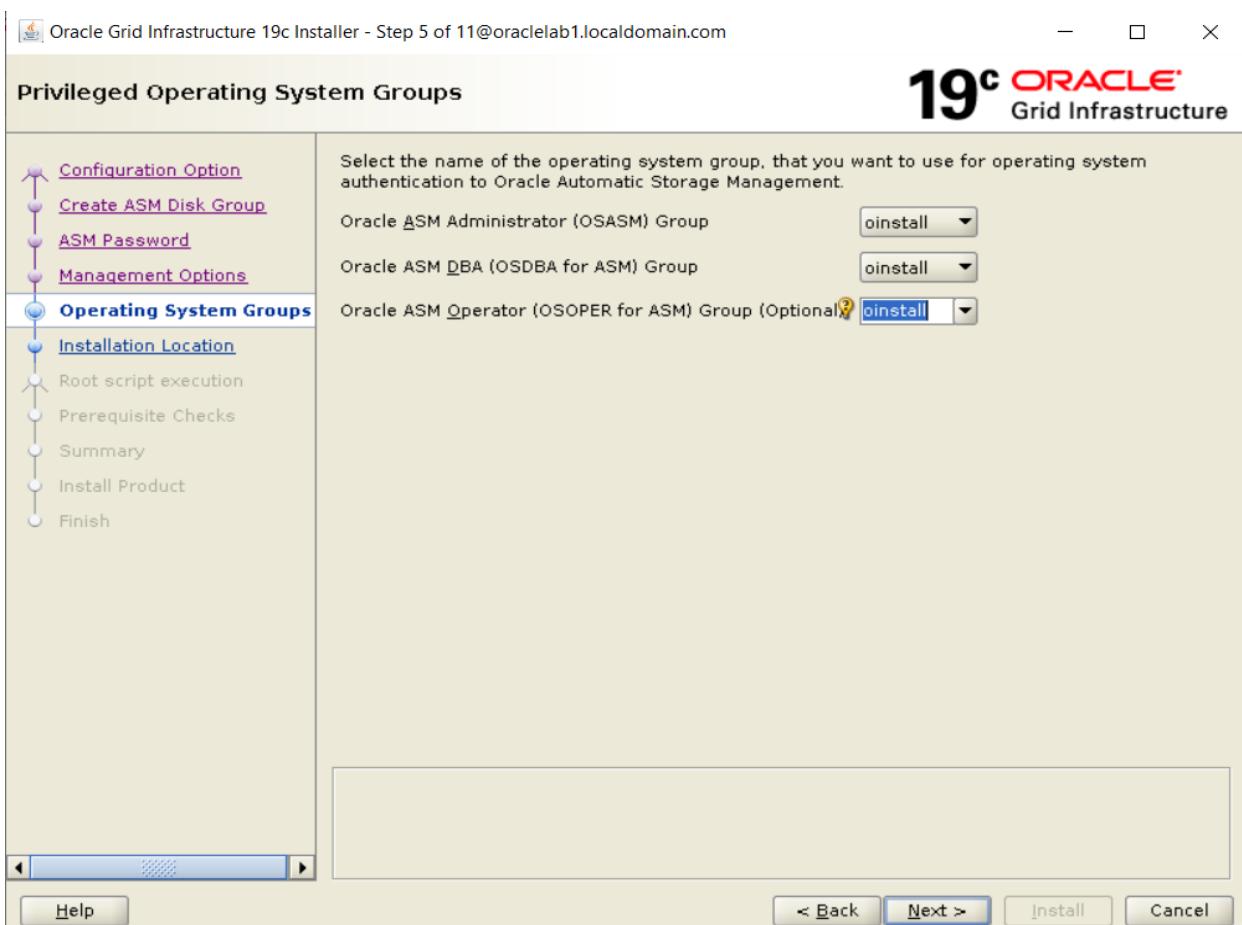
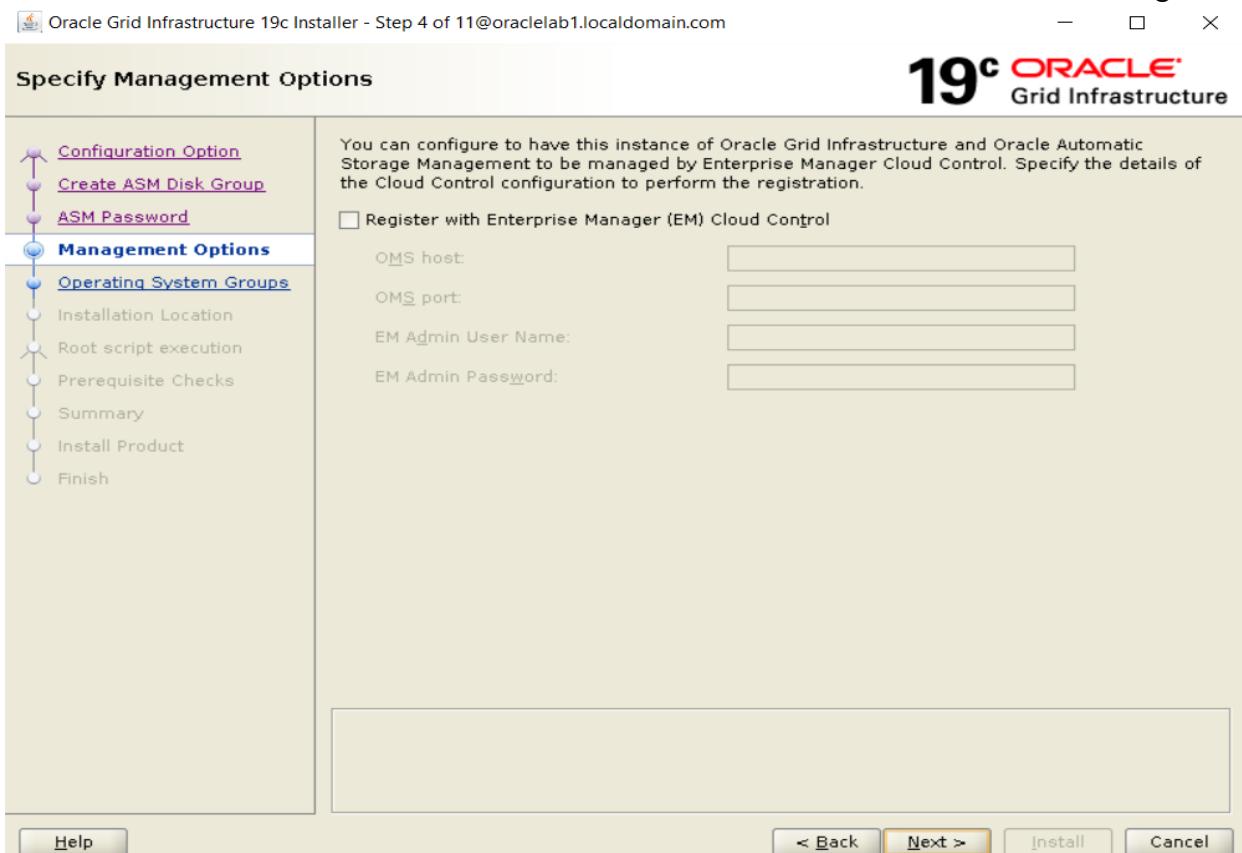


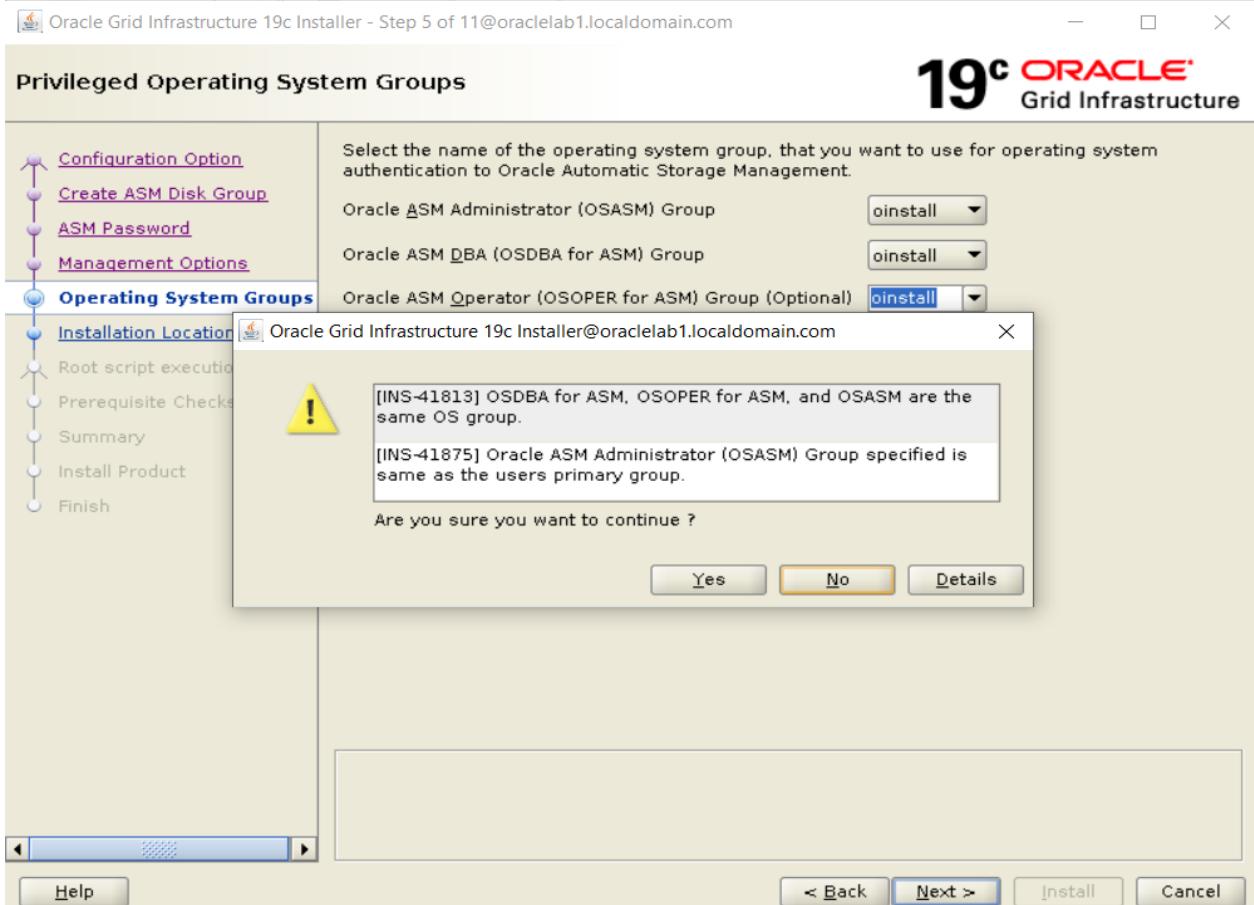


/dev/oracleasm/disks/*









Root script execution configuration

- [Configuration Option](#)
- [Create ASM Disk Group](#)
- [ASM Password](#)
- [Management Options](#)
- [Operating System Groups](#)
- [Installation Location](#)
- [Create Inventory](#)
- Root script execution**
- Prerequisite Checks**
- [Summary](#)
- [Install Product](#)
- [Finish](#)

During the software configuration, certain operations have to be performed as "root" user. You can choose to have the installer perform these operations automatically by specifying inputs for one of the options below. The input specified will also be used by the installer to perform additional prerequisite checks.

Automatically run configuration scripts

Use "root" user credential

Password :

Use sudo

Program path : /usr/bin/sudo

User name : oracle

Password :

Perform Prerequisite Checks

- [Configuration Option](#)
- [Create ASM Disk Group](#)
- [ASM Password](#)
- [Management Options](#)
- [Operating System Groups](#)
- [Installation Location](#)
- [Create Inventory](#)
- [Root script execution](#)
- Prerequisite Checks**
- [Summary](#)
- [Install Product](#)
- [Finish](#)

Verifying that the target environment meets minimum installation and configuration requirements for products you have selected. This can take time. Please wait.

0%

Preparing to perform checks...

Oracle Grid Infrastructure 19c Installer - Step 9 of 12@oraclelab1.localdomain.com

Perform Prerequisite Checks

Verification Result

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

| Checks | Status | Fixable |
|----------------------------|---------|---------|
| Physical Memory | Warning | No |
| Package: cvuqdisk-1.0.10-1 | Warning | Yes |

This is a prerequisite condition to test whether the package "cvuqdisk-1.0.10-1" is available on the system. ([more details](#))
 Expected Value : cvuqdisk-1.0.10-1
 Actual Value : missing

Help < Back Next > Install Cancel

Details@oraclelab1.localdomain.com X

Package: cvuqdisk-1.0.10-1 - This is a prerequisite condition to test whether the package "cvuqdisk-1.0.10-1" is available on the system.
 Expected Value : cvuqdisk-1.0.10-1
 Actual Value : missing
 Details:

- PRVG-11550 : Package "cvuqdisk" is missing on node "oraclelab1"
 - Cause: The cvuqdisk RPM is not installed on the specified node. This package is required for shared disk validations. During installation, ASM disk validation cannot be performed without this RPM.
 - Action: Install the required version of the cvuqdisk RPM using fix up action or manual steps as listed in the documentation.

Close

Oracle Grid Infrastructure 19c Installer - Step 9 of 12@oracelab1.localdomain.com

Perform Prerequisite Checks

Verification Result

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

Check Again **Fix & Check Again** **Show Failed** **Ignore All**

| Checks | Status | Fixable |
|----------------------------|---------|---------|
| Physical Memory | Warning | No |
| Package: cvuqdisk-1.0.10-1 | Warning | Yes |

This is a prerequisite condition to test whether the package "cvuqdisk-1.0.10-1" is available on the system. ([more details](#))
Expected Value : cvuqdisk-1.0.10-1
Actual Value : missing

Help **< Back** **Next >** **Install** **Cancel**

Fixup Script@oracelab1.localdomain.com

Some of the prerequisites have failed on the following nodes. Installer has generated a fixup script that needs to be run as a privileged user (root) on the listed nodes.

Script: [/tmp/GridSetupActions2023-10-20_10-48-32AM/CSV_19.0.0.0.0_oracle/runfixup.sh](#)

Nodes: oracelab1

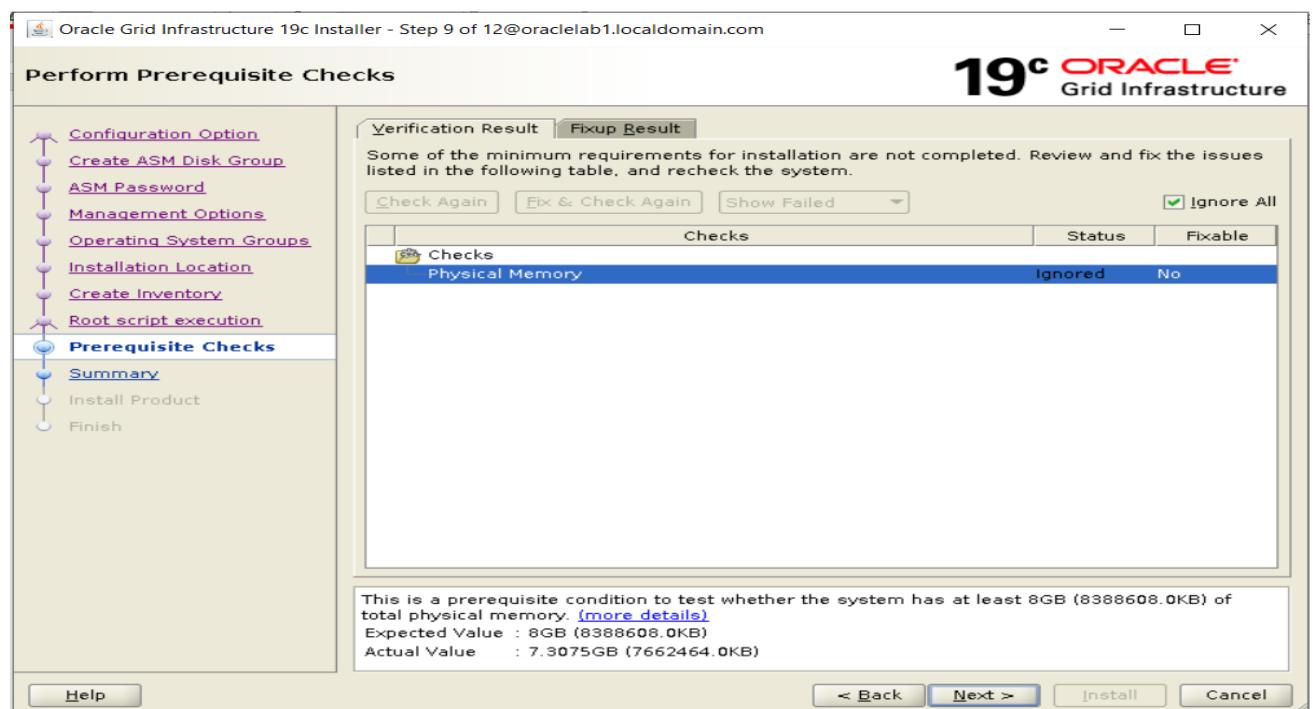
To execute the fixup script:

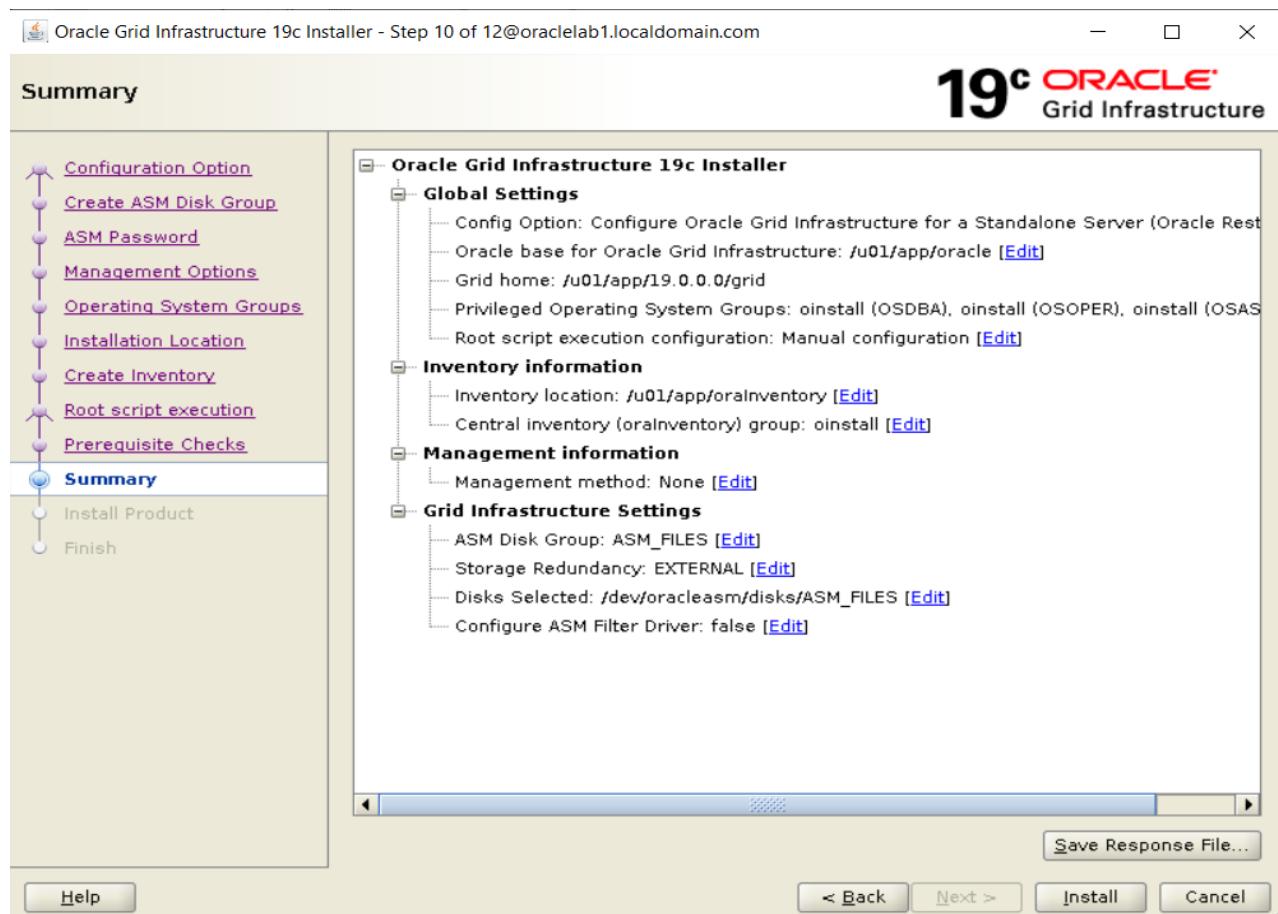
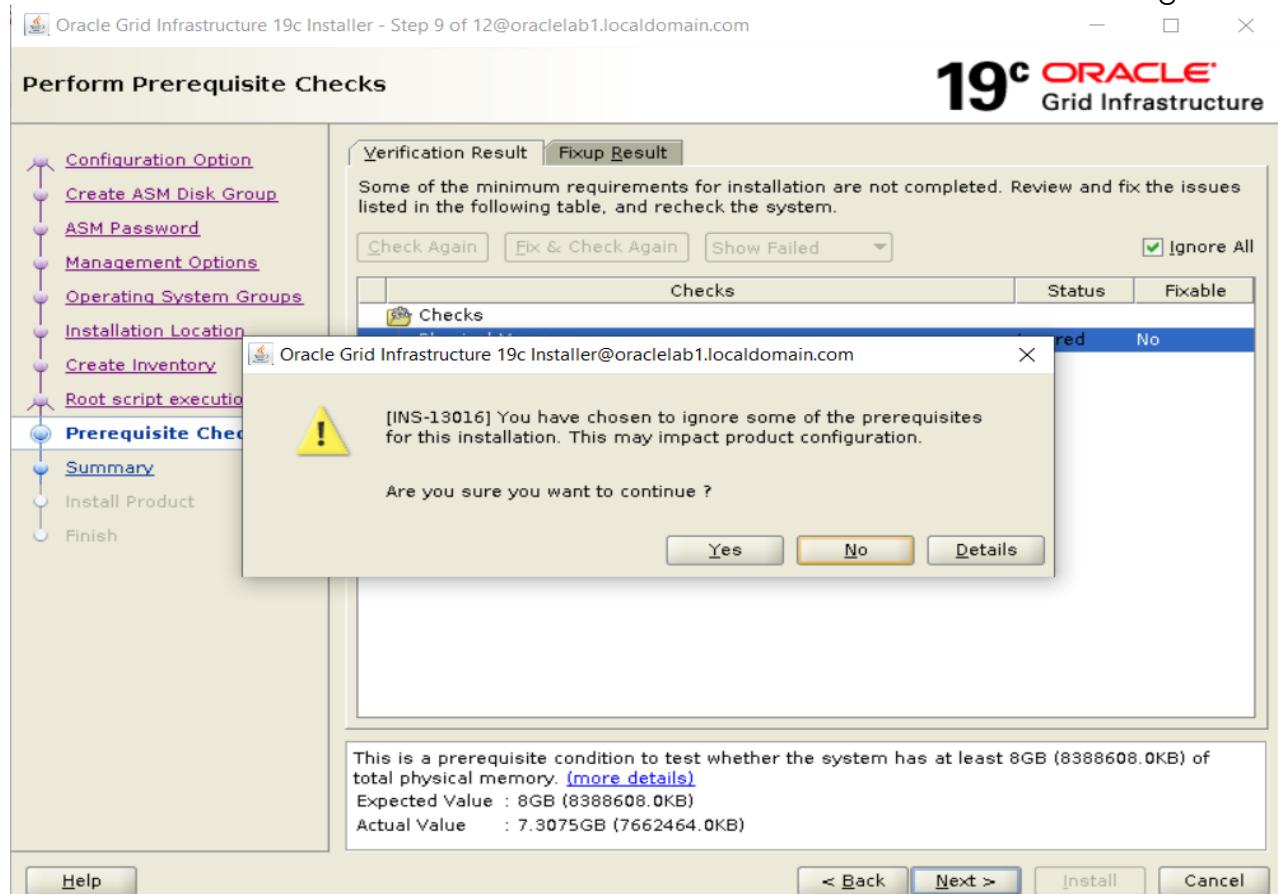
1. Open a terminal window
2. Login as "root"
3. Run the script
4. Return to this window and click "OK" to continue

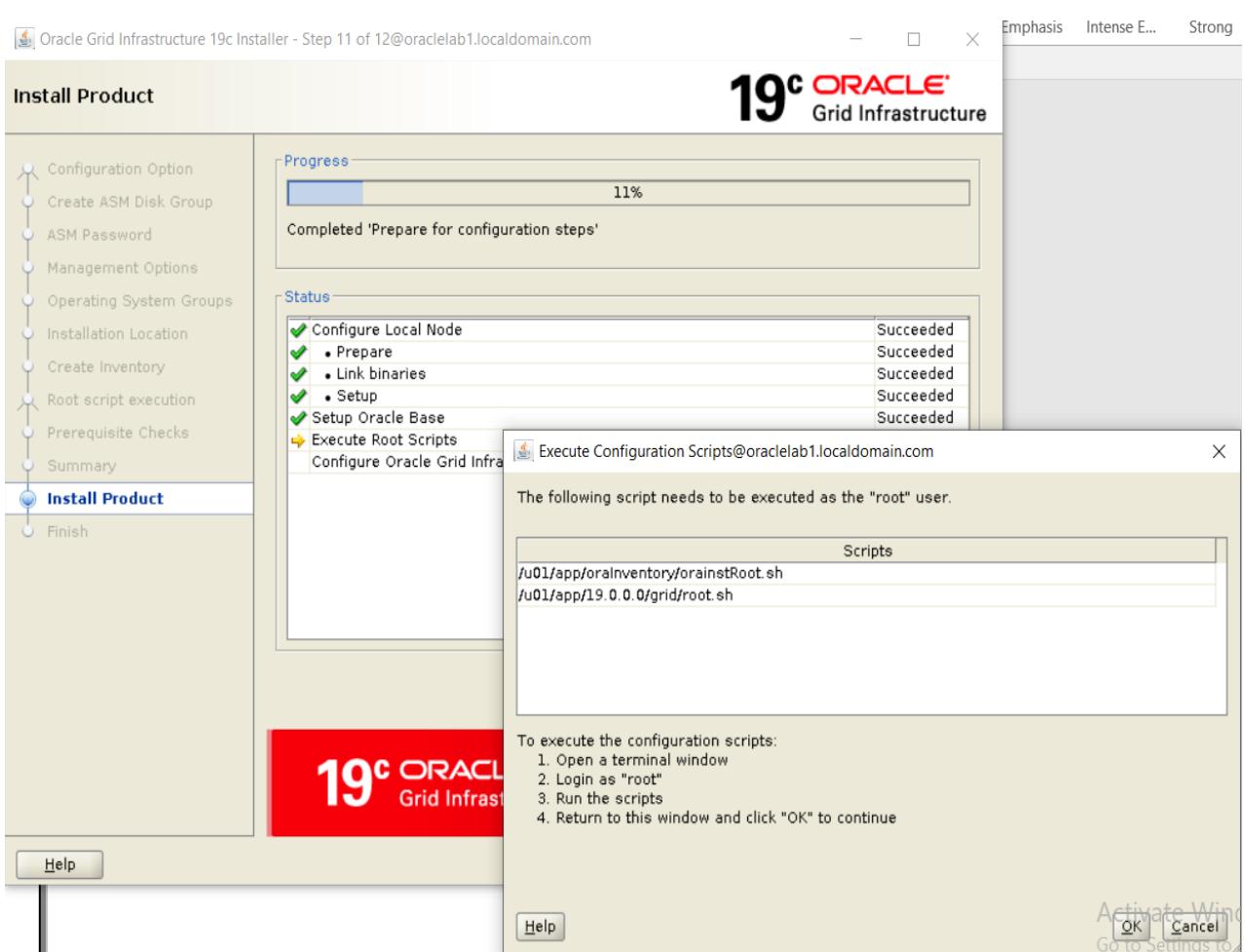
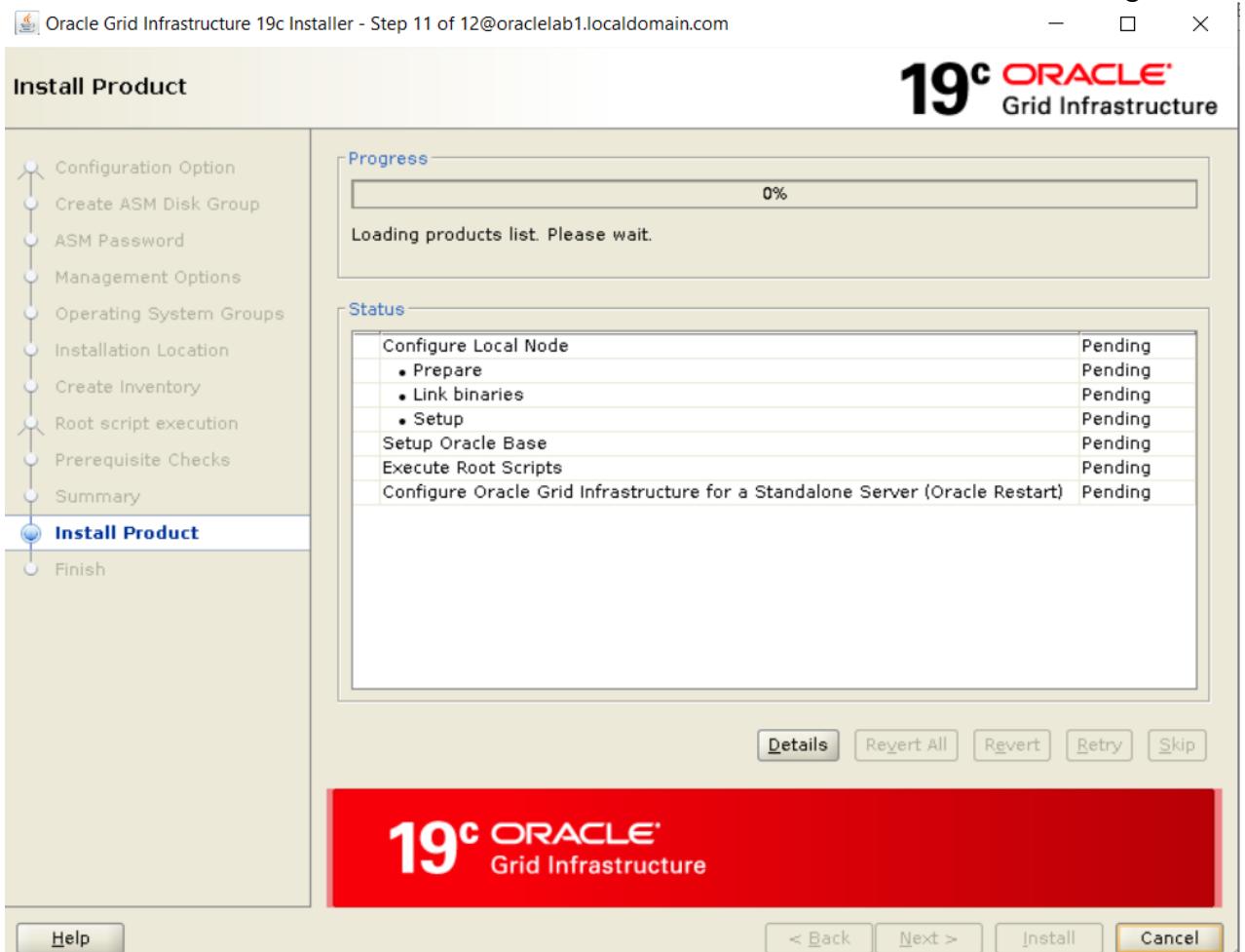
OK **Cancel**

```
/tmp/GridSetupActions2023-10-20_10-48-32AM/CSV_19.0.0.0.0_oracle/runfixup.sh
```

```
[root@oraclelab1 ~]# /tmp/GridSetupActions2023-10-20_10-48-32AM/CSV_19.0.0.0.0_oracle/runfixup.sh
All Fix-up operations were completed successfully.
[root@oraclelab1 ~]#
```







/u01/app/oralInventory/orainstRoot.sh

```
[root@oraclelab1 ~]# id
uid=0(root) gid=0(root) groups=0(root) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[root@oraclelab1 ~]#
[root@oraclelab1 ~]# /u01/app/oralInventory/orainstRoot.sh
Changing permissions of /u01/app/oralInventory.
Adding read,write permissions for group.
Removing read,write,execute permissions for world.

Changing groupname of /u01/app/oralInventory to oinstall.
The execution of the script is complete.
[root@oraclelab1 ~]#
```

/u01/app/19.0.0.0/grid/root.sh

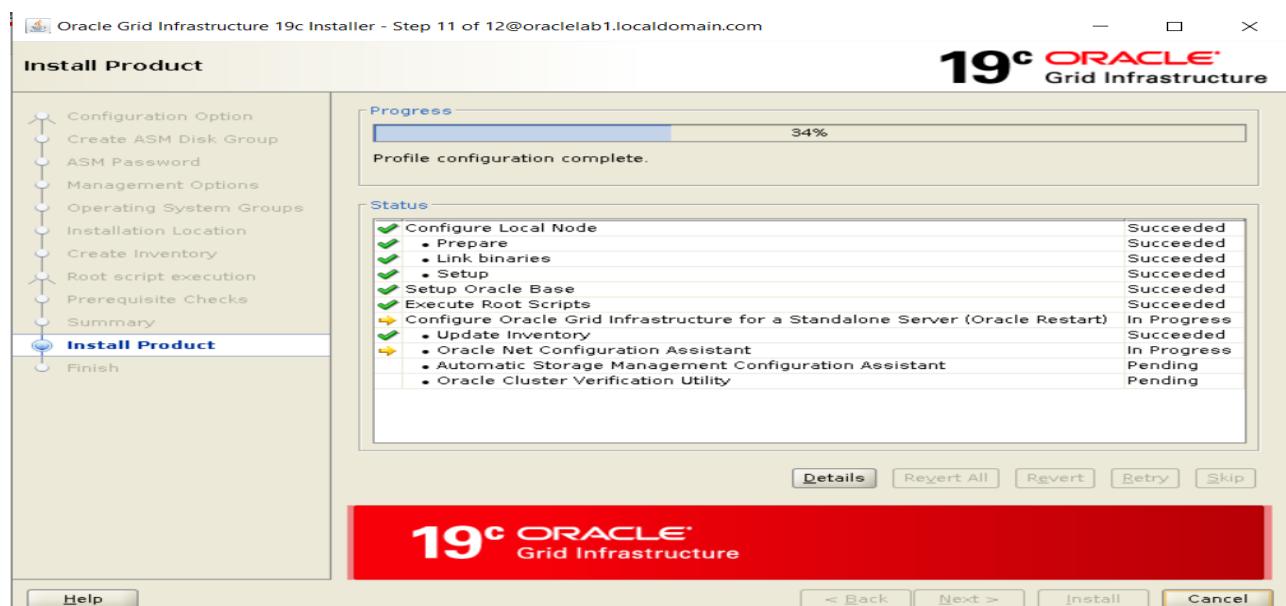
```
[root@oraclelab1 ~]# id
uid=0(root) gid=0(root) groups=0(root) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[root@oraclelab1 ~]# /u01/app/19.0.0.0/grid/root.sh
Performing root user operation.

The following environment variables are set as:
ORACLE_OWNER= oracle
ORACLE_HOME= /u01/app/19.0.0.0/grid

Enter the full pathname of the local bin directory: [/usr/local/bin]:
Copying dbhome to /usr/local/bin ...
Copying oraenv to /usr/local/bin ...
Copying coraenv to /usr/local/bin ...

Creating /etc/oratab file...
Entries will be added to the /etc/oratab file as needed by
Database Configuration Assistant when a database is created
Finished running generic part of root script.
Now product-specific root actions will be performed.
Using configuration parameter file: /u01/app/19.0.0.0/grid/crs/install/crsconfig_params
The log of current session can be found at:
/u01/app/oracle/crsdata/oraclelab1/crsconfig/roothas_2023-10-20_11-03-28AM.log
2023/10/20 11:03:36 CLSRSC-363: User ignored prerequisites during installation
LOCAL ADD MODE
Creating OCR keys for user 'oracle', privgrp 'oinstall'..
Operation successful.
LOCAL ONLY MODE
Successfully accumulated necessary OCR keys.
Creating OCR keys for user 'root', privgrp 'root'..
Operation successful.
CRS-4664: Node oraclelab1 successfully pinned.
2023/10/20 11:03:47 CLSRSC-320: Adding Clusterware entries to file 'oracle-ohasd.service'

oraclelab1 2023/10/20 11:04:40 /u01/app/oracle/crsdata/oraclelab1/olr/backup_20231020_110440.olr 724960844
2023/10/20 11:04:41 CLSRSC-327: Successfully configured Oracle Restart for a standalone server
[root@oraclelab1 ~]#
```



If you faced below error:

[INS-20802] Oracle Net Configuration Assistant failed.

```
[main] [ 2023-10-20 11:07:23.982 EET ] [has.UtilNative.Native] prsr_trace: Native: getCRSHome
[main] [ 2023-10-20 11:07:23.982 EET ] [has.UtilNative.Native] prsr_trace: Native: getCRSHome crs_home=/u01/app/19.0.0.0/grid(**)
[main] [ 2023-10-20 11:07:23.983 EET ] [HASContext.getCRSHome:645] /u01/app/19.0.0.0/grid
[main] [ 2023-10-20 11:07:23.983 EET ] [Util.getCRSHome:614] getCRSHome: ret=/u01/app/19.0.0.0/grid
[main] [ 2023-10-20 11:07:23.983 EET ] [Cluster.useASMGrp:262] Check isCluster: false
[main] [ 2023-10-20 11:07:23.983 EET ] [ASMFactoryImpl.updateASMDependency4Lsnr:5965] Updating dependency for ASM...
[main] [ 2023-10-20 11:07:23.989 EET ] [ASMImp.<init>:213] ASM resource name is ora.asm
[main] [ 2023-10-20 11:07:23.990 EET ] [cops.EntityOperations.Native] prsr_trace: e_type=1

[main] [ 2023-10-20 11:07:23.995 EET ] [EntityOperations.isEntityRegisteredCRSD:367] entity: ora.asm, type: 1, registered: false
[main] [ 2023-10-20 11:07:23.995 EET ] [ASMImp.<init>:288] Got NotExistsException. OK as create may not be done yet.
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1211] Checking if port 1521 is free on local machine...
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1226] InetAddress.getByName(127.0.0.1): /127.0.0.1
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1228] Local host IP address: oraclelab1.localdomain.com/192.168.1.108
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1230] Local host name: oraclelab1.localdomain.com
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1241] Address oraclelab1.localdomain.com
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1264] IP Address: oraclelab1.localdomain.com/192.168.1.108, Is IPv6 Address: false
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1267] IP Address: oraclelab1.localdomain.com/192.168.1.108, Is Link-Local Address: false
[main] [ 2023-10-20 11:07:23.996 EET ] [ConfigureListener.isPortFree:1292] Creating ServerSocket on Port:1521, IP Address: oraclelab1.localdomain.com/192.168.1.108
[main] [ 2023-10-20 11:07:23.997 EET ] [ConfigureListener.isPortFree:1328] Cannot assign requested address (Bind failed)
java.net.PlainSocketImpl.socketBind(Native Method)
java.net.AbstractPlainSocketImpl.bind(AbstractPlainSocketImpl.java:387)
java.net.ServerSocket.bind(ServerSocket.java:375)
java.net.ServerSocket.<init>(ServerSocket.java:237)
oracle.net.ca.ConfigureListener.isPortFree(ConfigureListener.java:1294)
oracle.net.ca.ConfigureListener.startOrStopListener(ConfigureListener.java:1380)
oracle.net.ca.ConfigureListener.typicalConfigure(ConfigureListener.java:369)
oracle.net.ca.SilentConfigure.performSilentConfigure(SilentConfigure.java:212)
oracle.net.ca.InitialSetup.<init>(NetCA.java:4325)
oracle.net.ca.NetCA.main(NetCA.java:460)
[main] [ 2023-10-20 11:07:23.997 EET ] [ConfigureListener.isPortFree:1341] Returning is Port 1521 free: false
```

Activate Windows
Go to Settings to activate Windows. 874,1 Bot

Save your day and edit /etc/hosts to looks like below:

Comment first line and add the below line

127.0.0.1 localhost

```
#127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4
127.0.0.1 localhost
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6
192.168.1.108 oraclelab1.localdomain.com oraclelab1
```

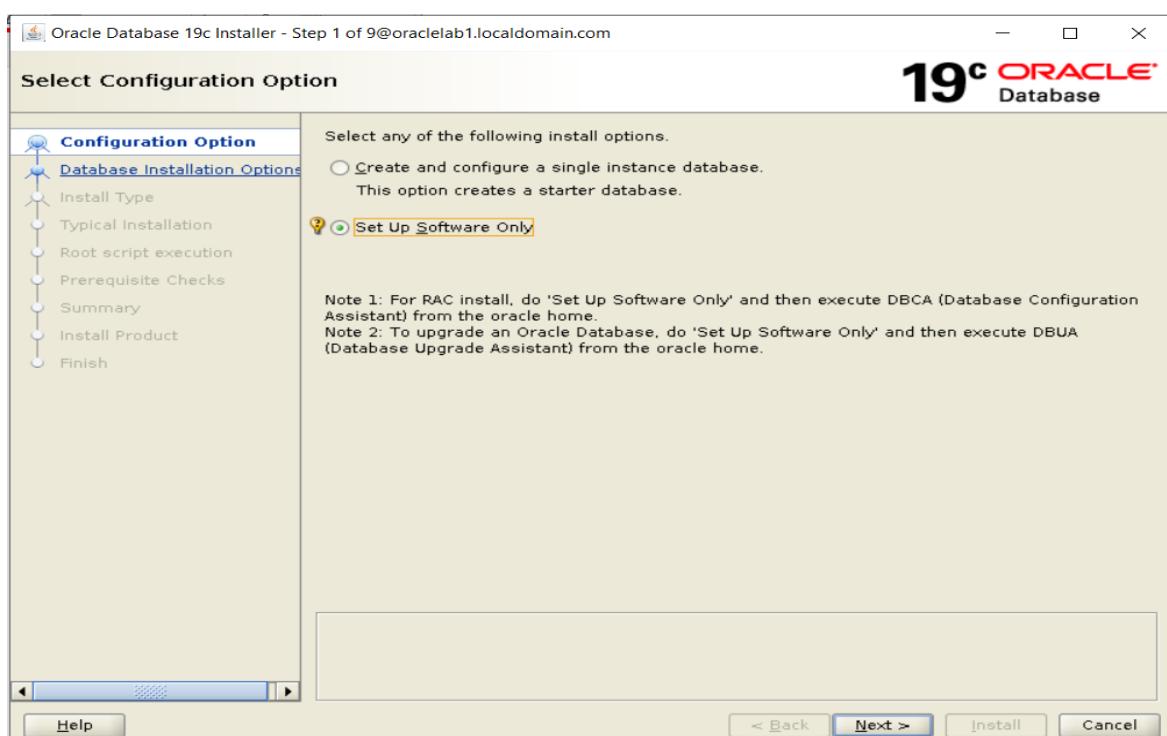


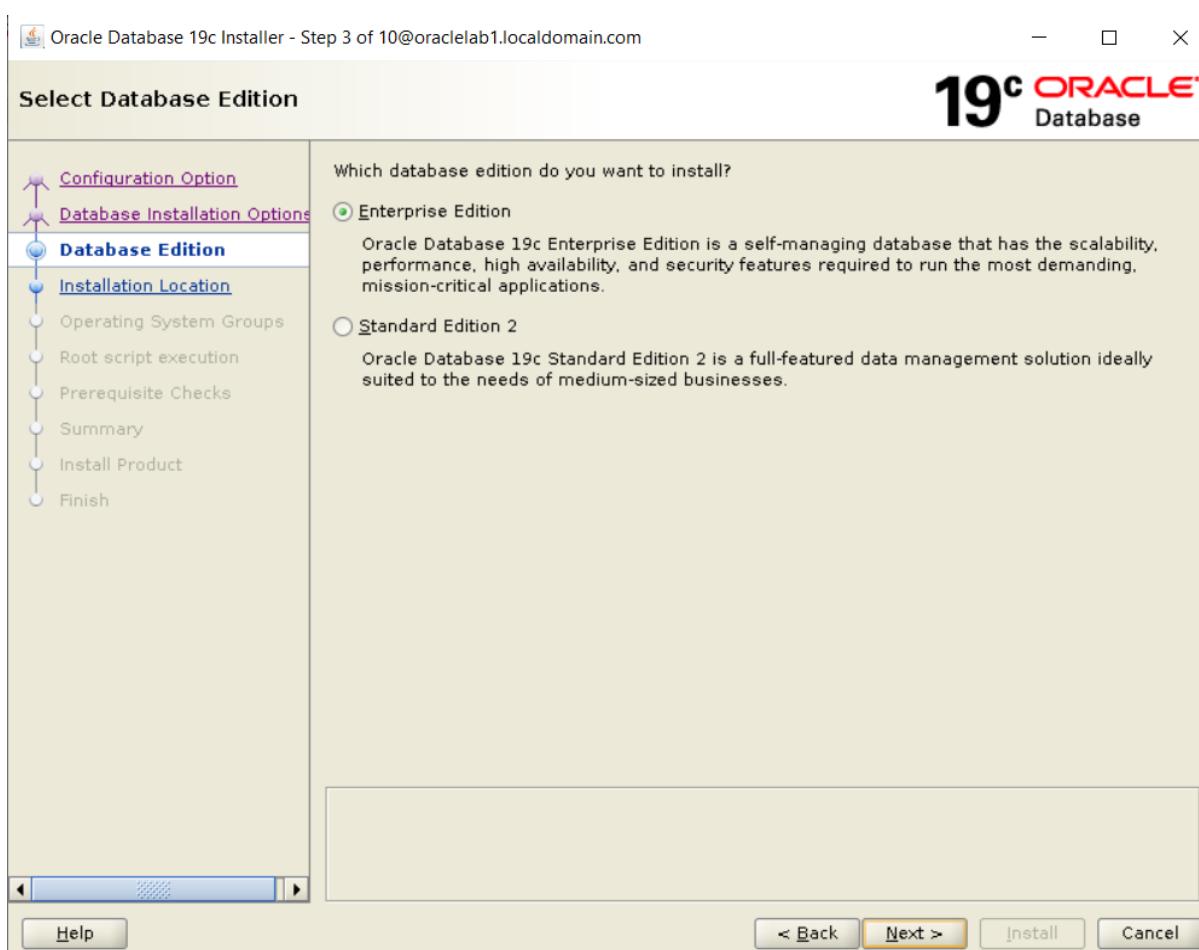
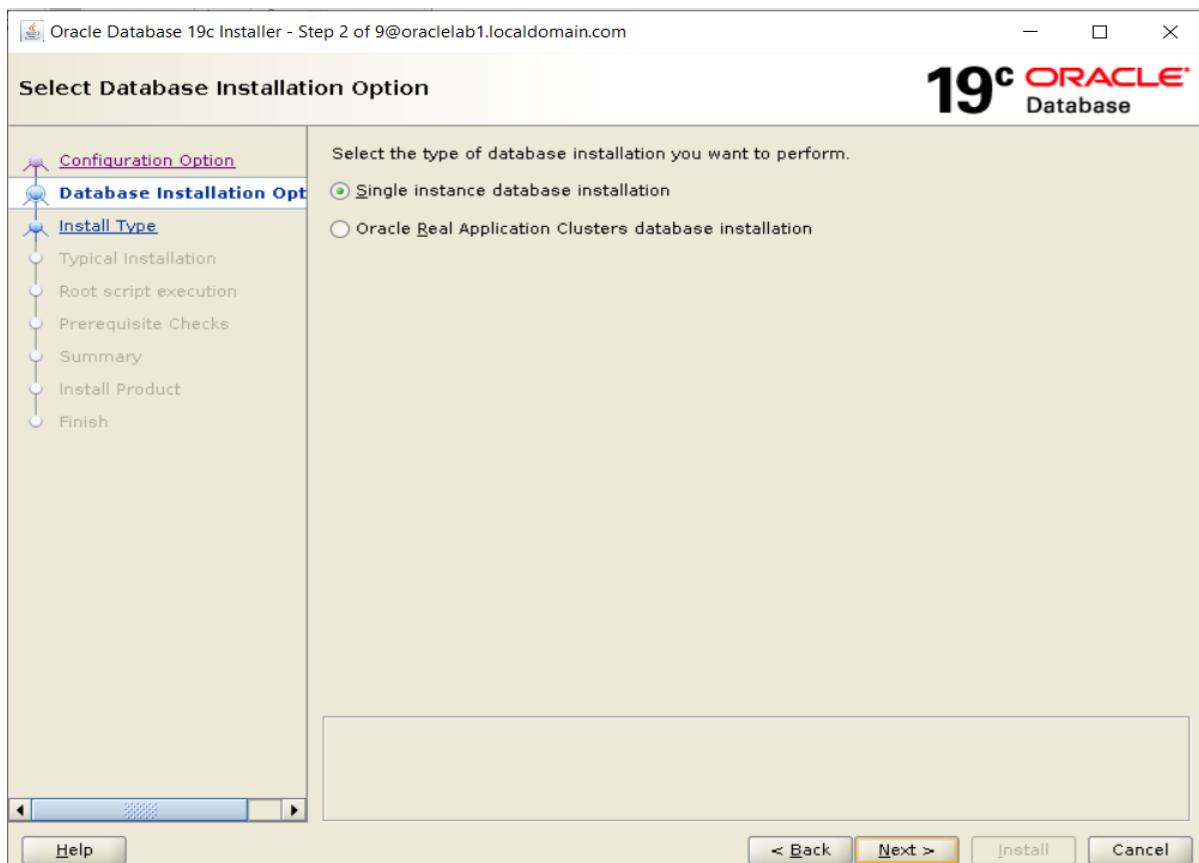
Step2: Installation of oracle Database Software / Oracle Software / Oracle Home Software.

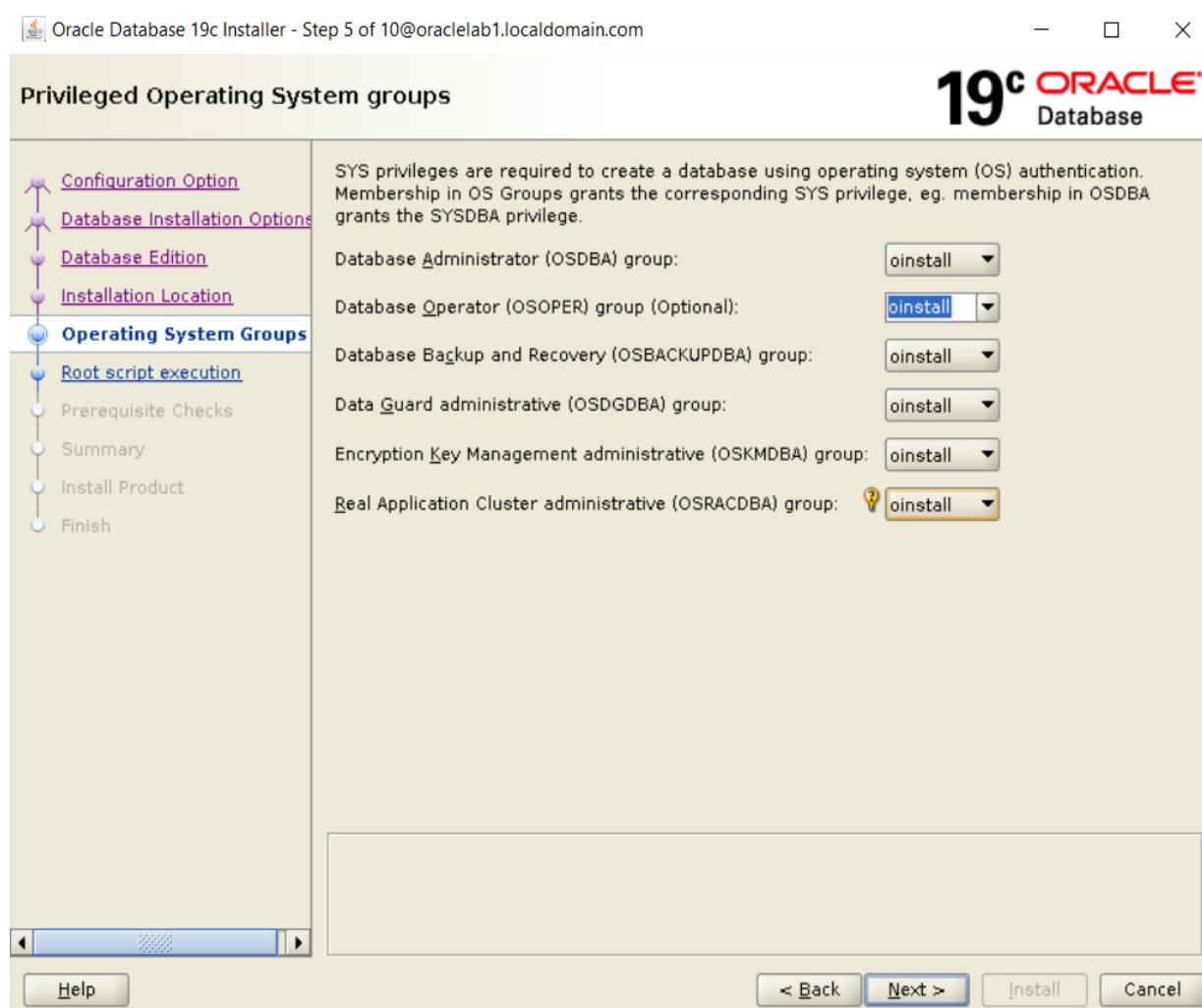
A- Database SW Installation / Oracle SW Installation / Oracle Home Installation (from GUI screen as oracle user)

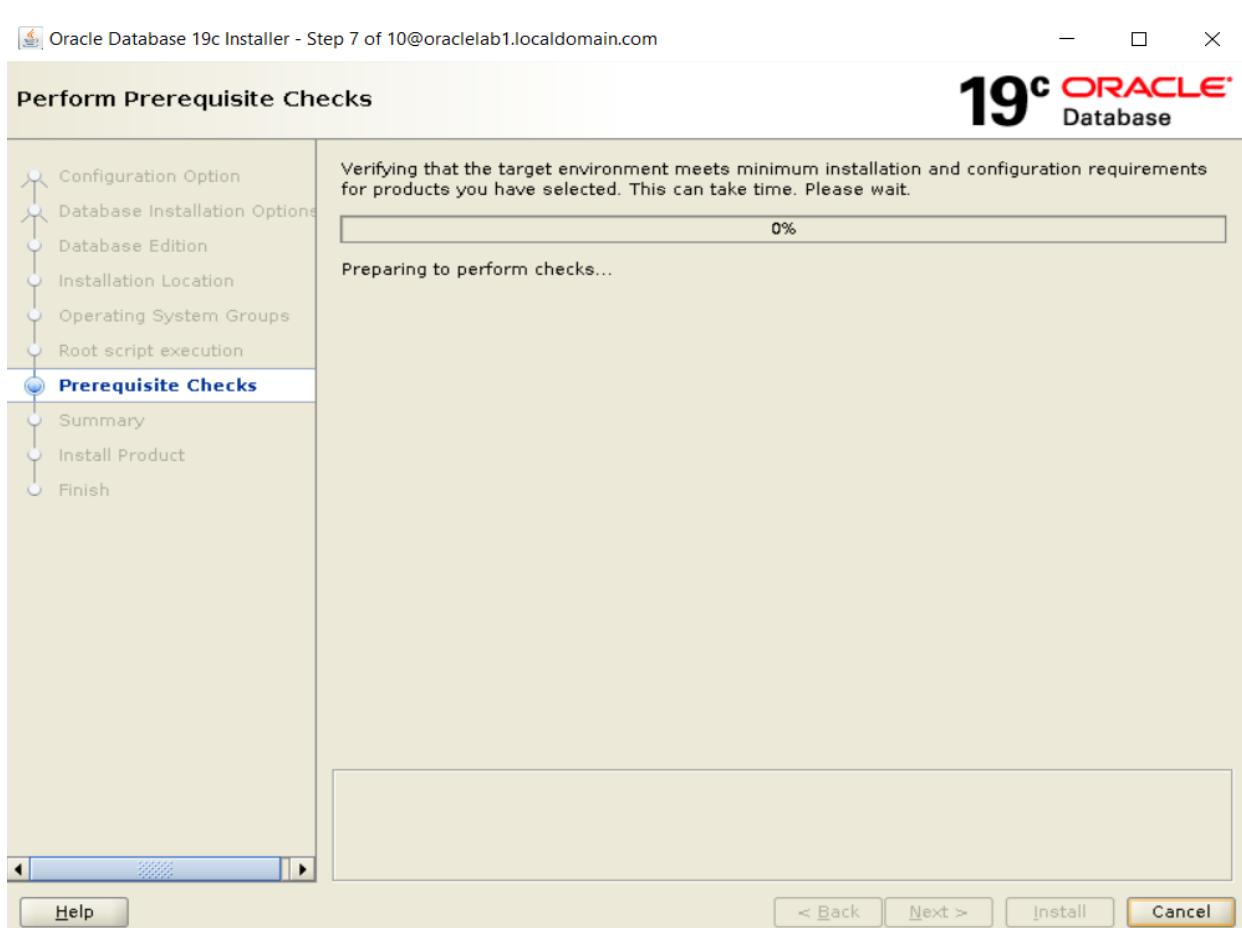
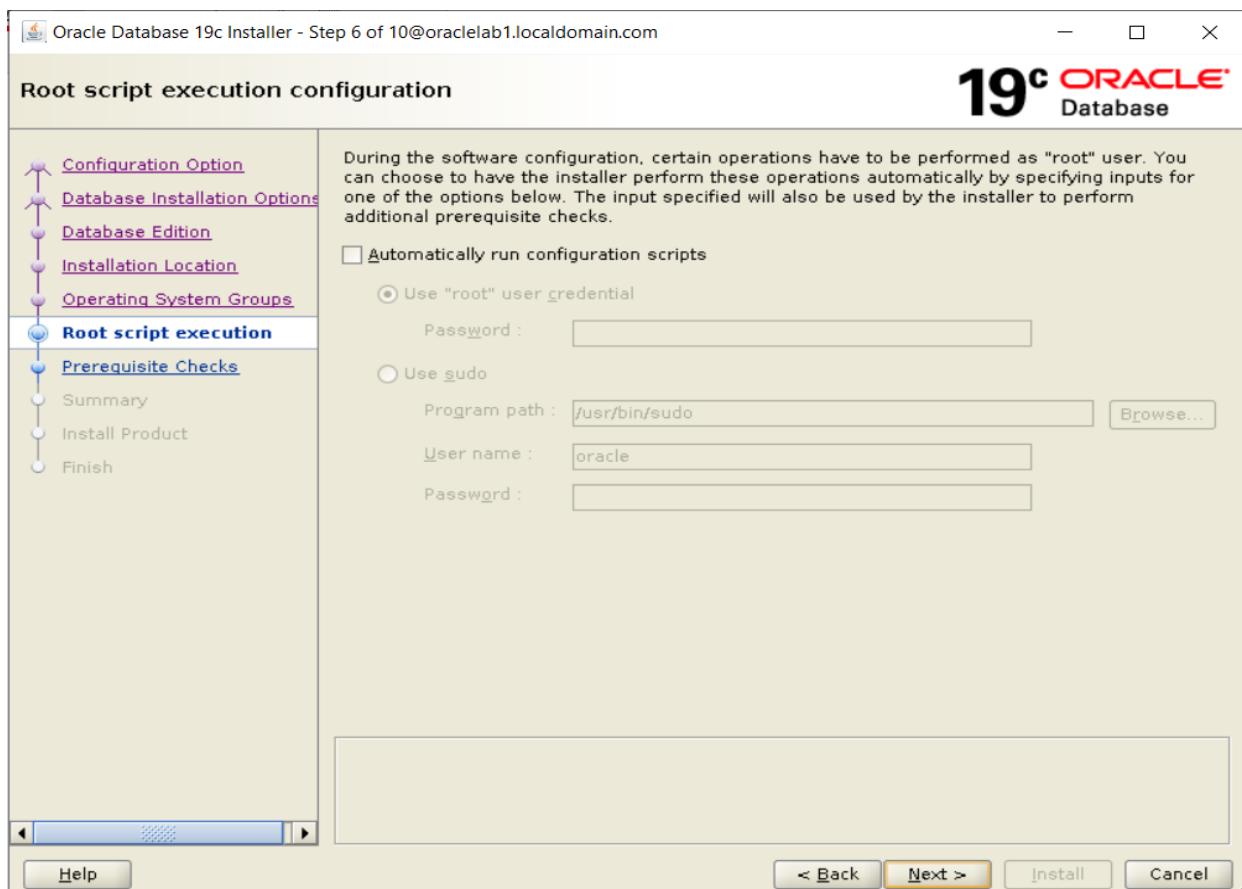
```
$ cd /u02/app/oracle/product/19.0.0.0/dbhome_1  
$ ./runInstaller
```

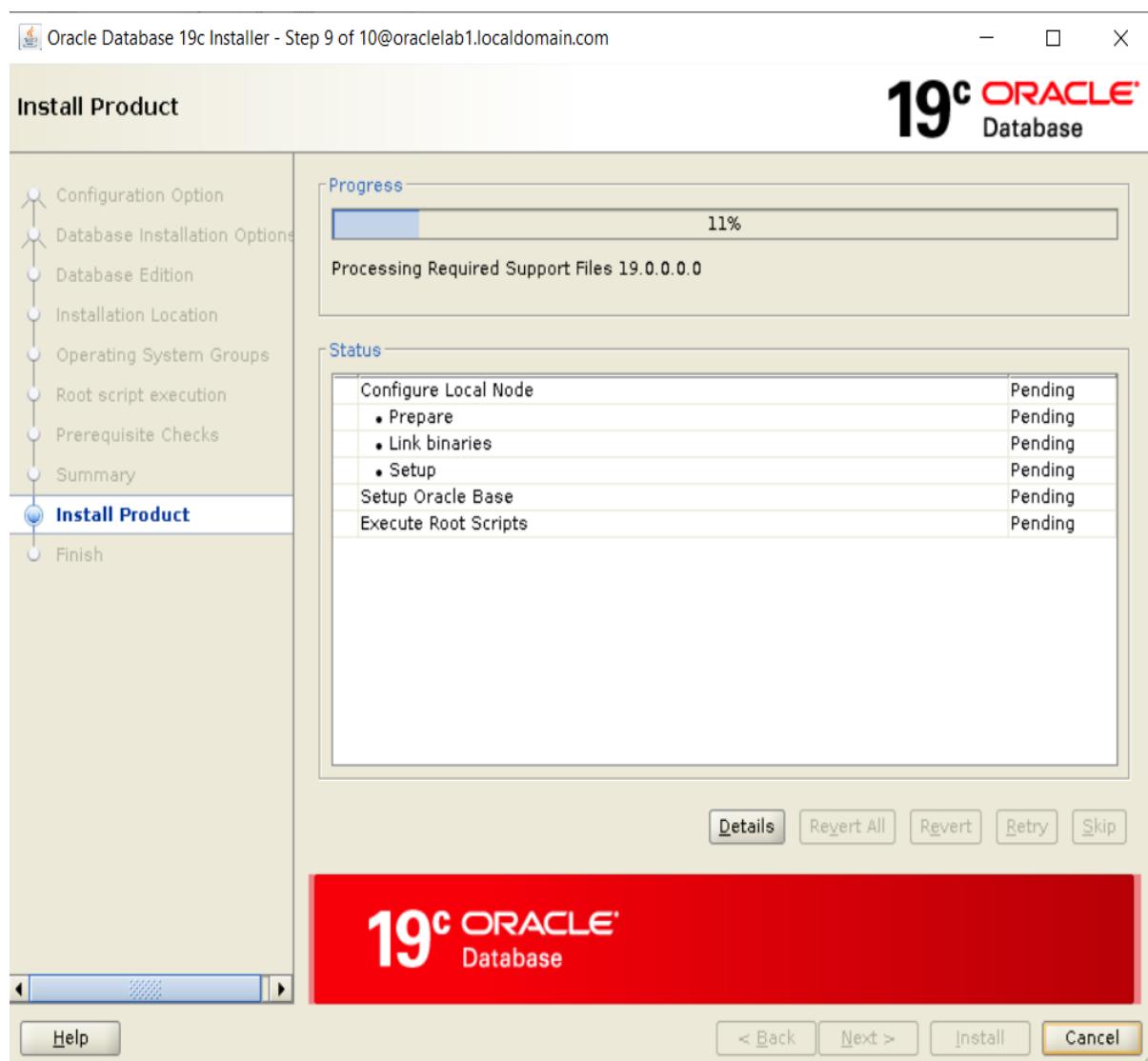
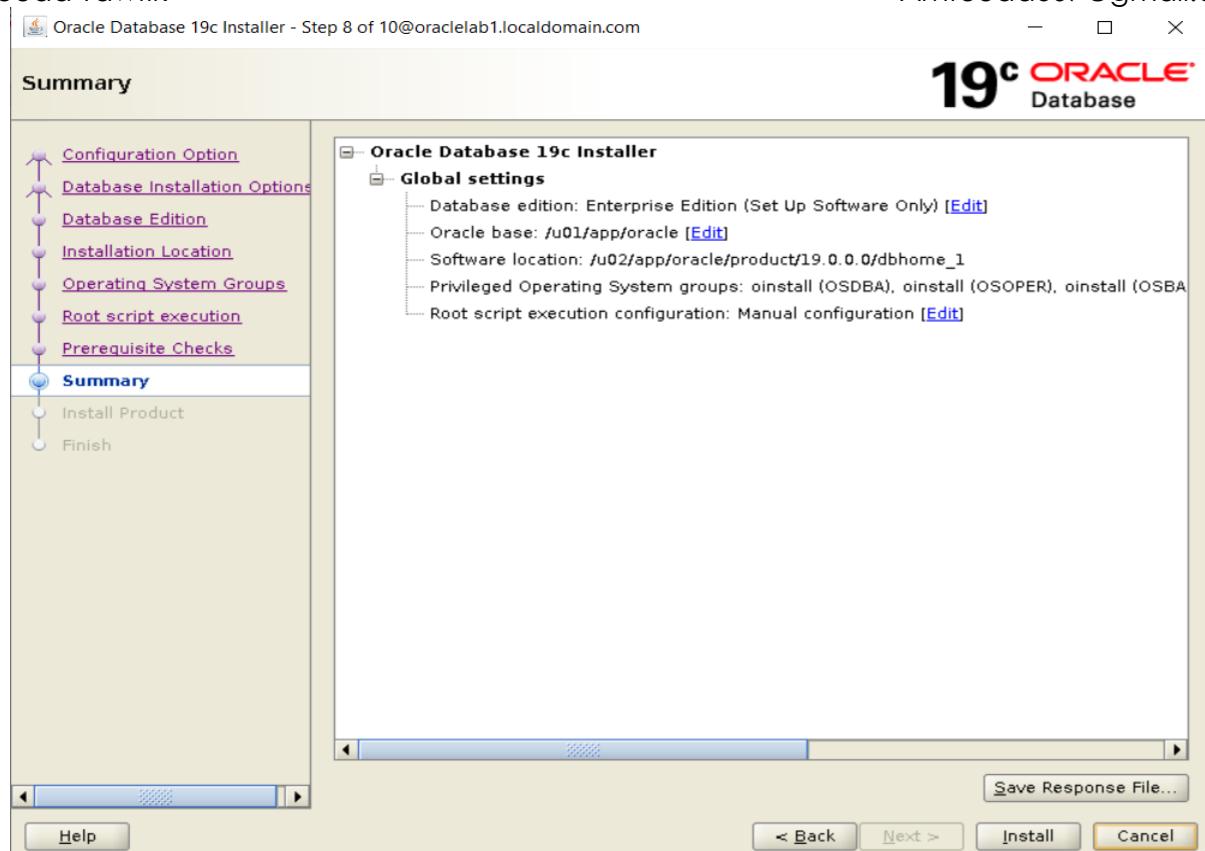
```
[oracle@oracelab1 dbhome_1]$ cd /u02/app/oracle/product/19.0.0.0/dbhome_1  
[oracle@oracelab1 dbhome_1]$ ./runInstaller
```

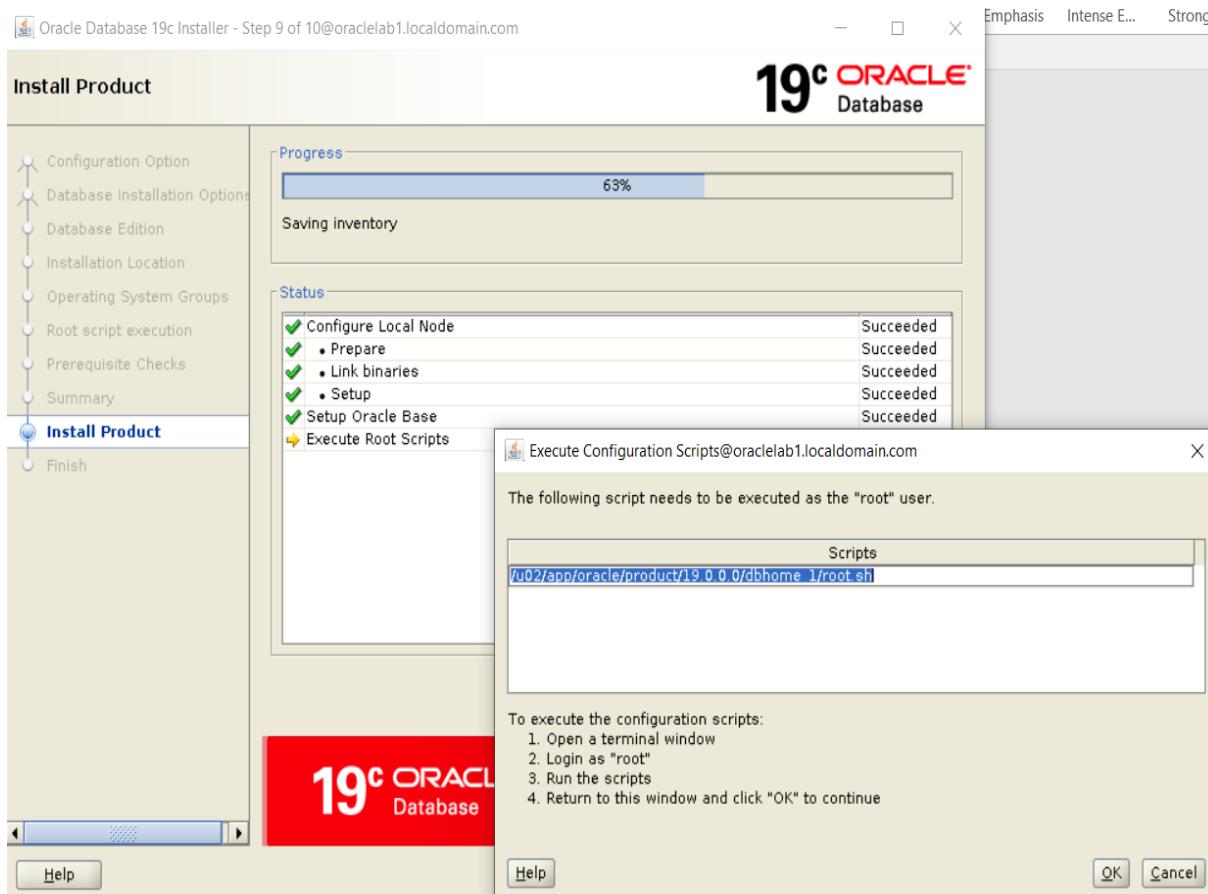












/u02/app/oracle/product/19.0.0.0/dbhome_1/root.sh

```
[root@oracelab1 ~]# /u02/app/oracle/product/19.0.0.0/dbhome_1/root.sh
Performing root user operation.

The following environment variables are set as:
ORACLE_OWNER= oracle
ORACLE_HOME= /u02/app/oracle/product/19.0.0.0/dbhome_1

Enter the full pathname of the local bin directory: [/usr/local/bin]:
The contents of "dbhome" have not changed. No need to overwrite.
The contents of "oraenv" have not changed. No need to overwrite.
The contents of "coraenv" have not changed. No need to overwrite.

Entries will be added to the /etc/oratab file as needed by
Database Configuration Assistant when a database is created
Finished running generic part of root script.
Now product-specific root actions will be performed.
Oracle Trace File Analyzer (TFA - Standalone Mode) is available at :
/u02/app/oracle/product/19.0.0.0/dbhome_1/bin/tfactl

Note :
1. tfactl will use TFA Service if that service is running and user has been granted access
2. tfactl will configure TFA Standalone Mode only if user has no access to TFA Service or TFA is not installed

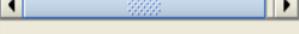
[root@oracelab1 ~]# ]
```

**Finish**

- Configuration Option
- Database Installation Options
- Database Edition
- Installation Location
- Operating System Groups
- Root script execution
- Prerequisite Checks
- Summary
- Install Product

Finish

The registration of Oracle Database was successful.

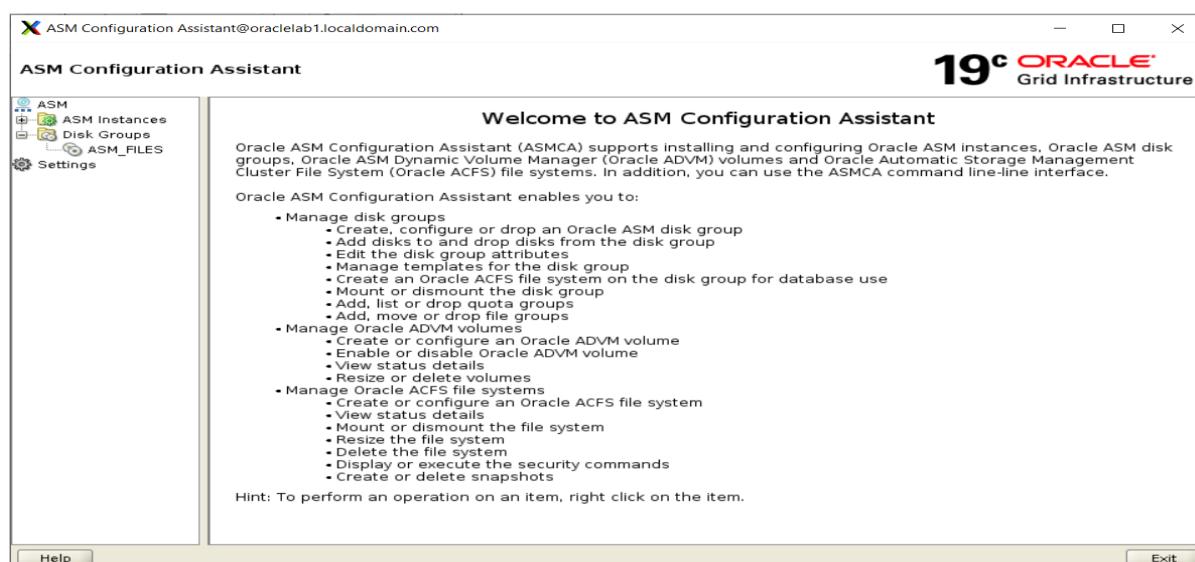
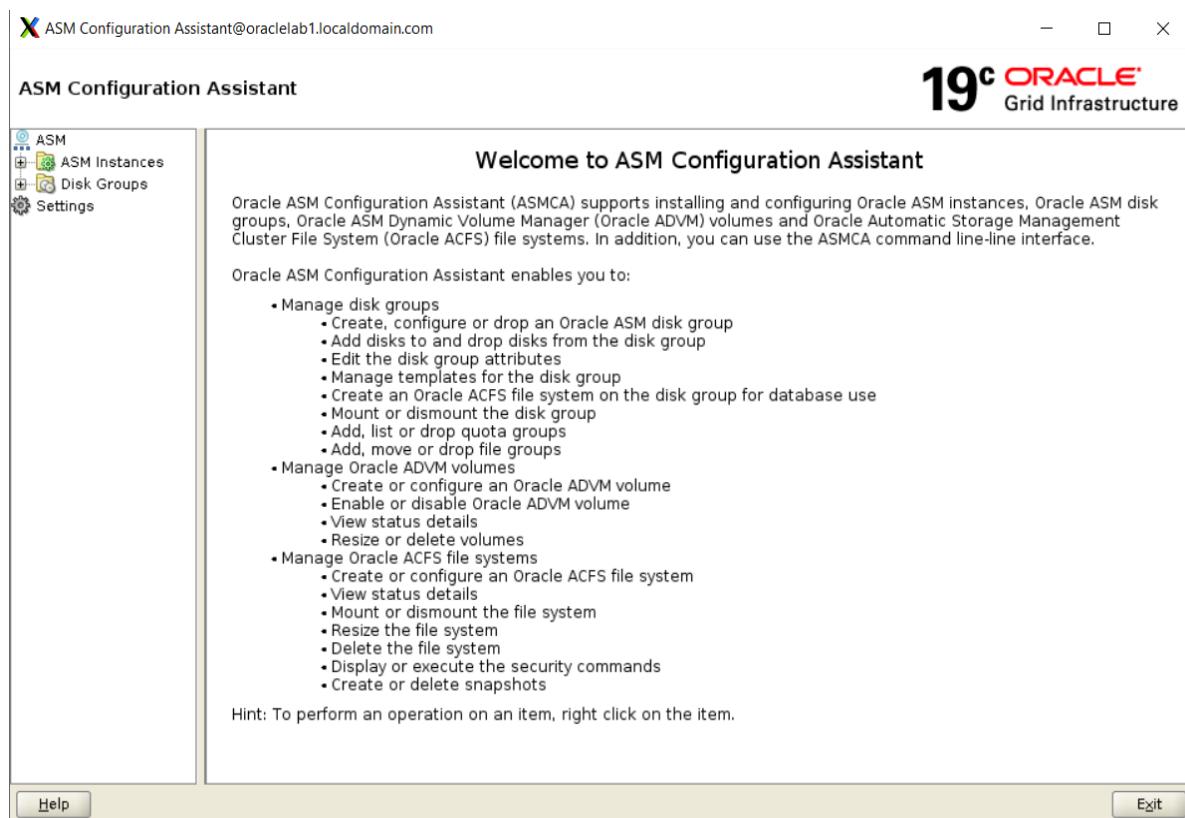
[Help](#)[**< Back**](#)[**Next >**](#)[Install](#)[**Close**](#)

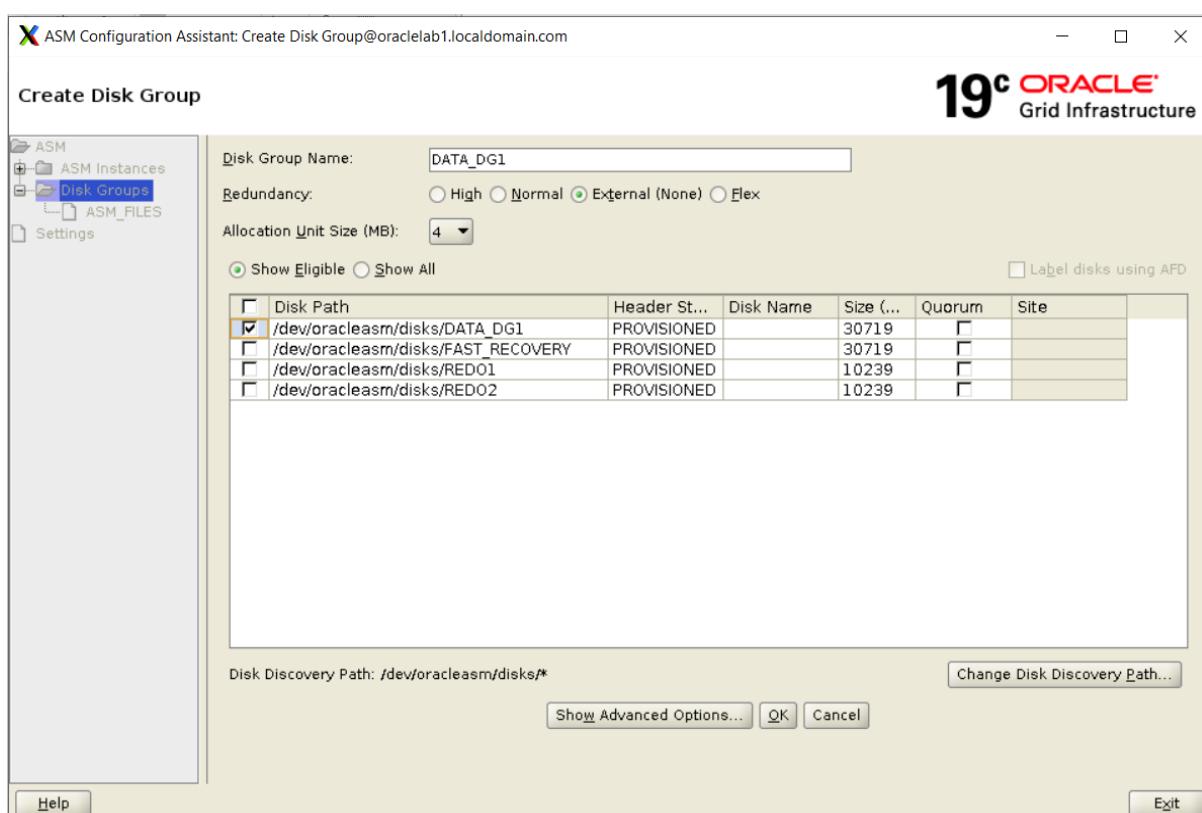
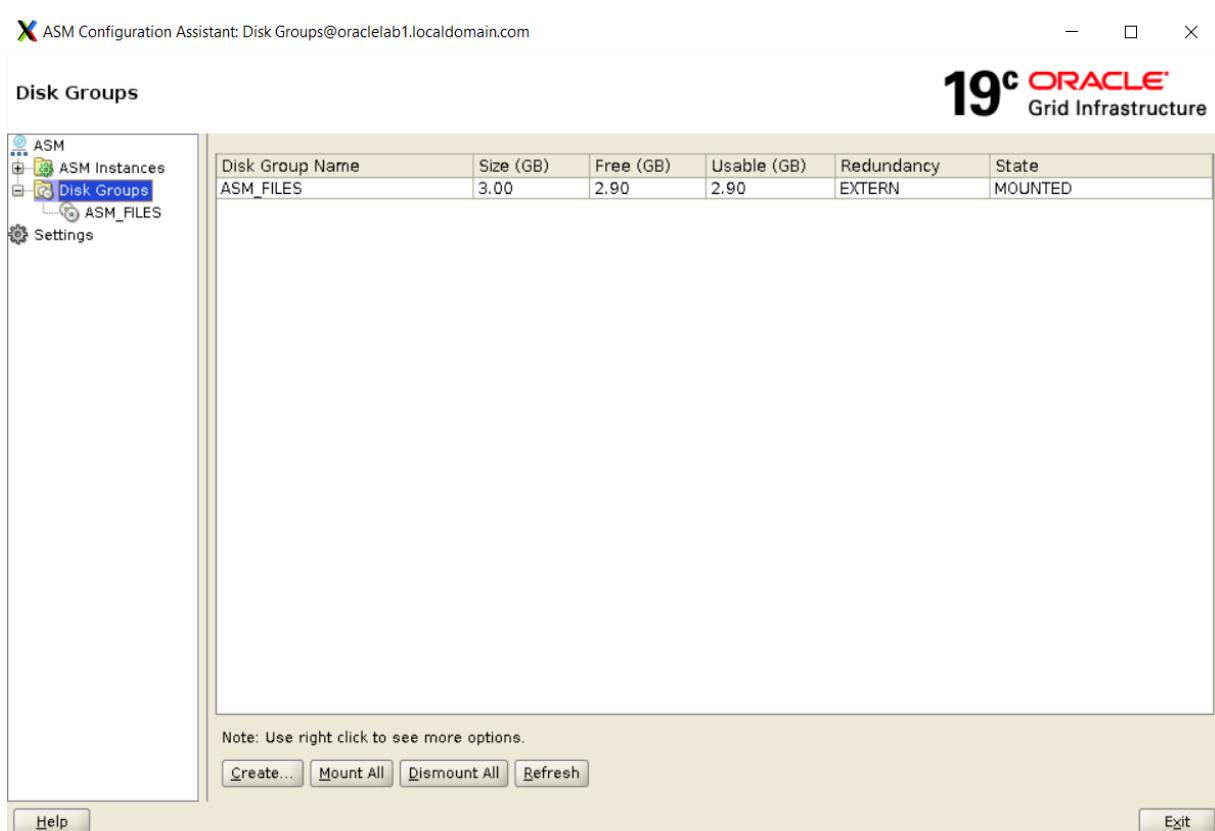
Step3: Database creation (TESTDB)

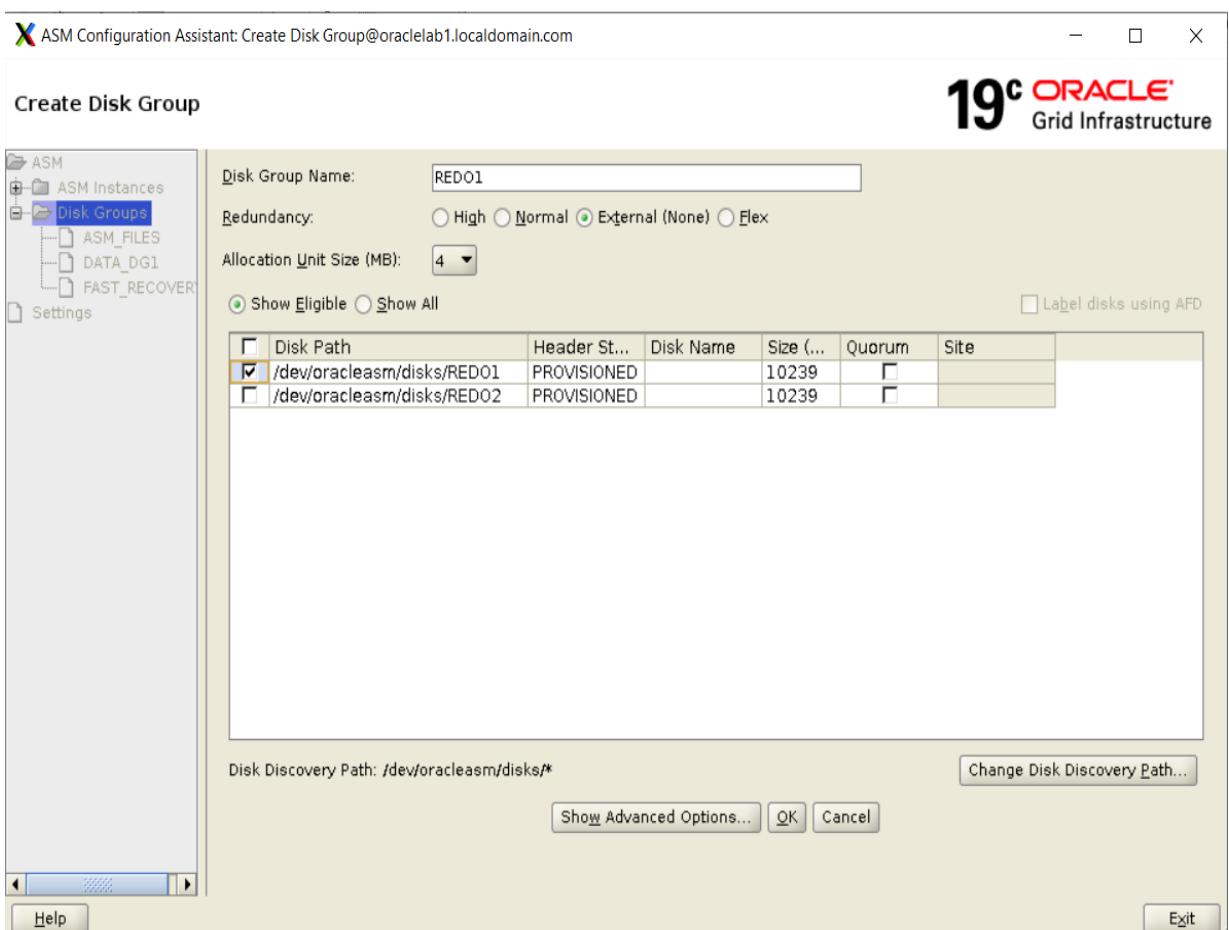
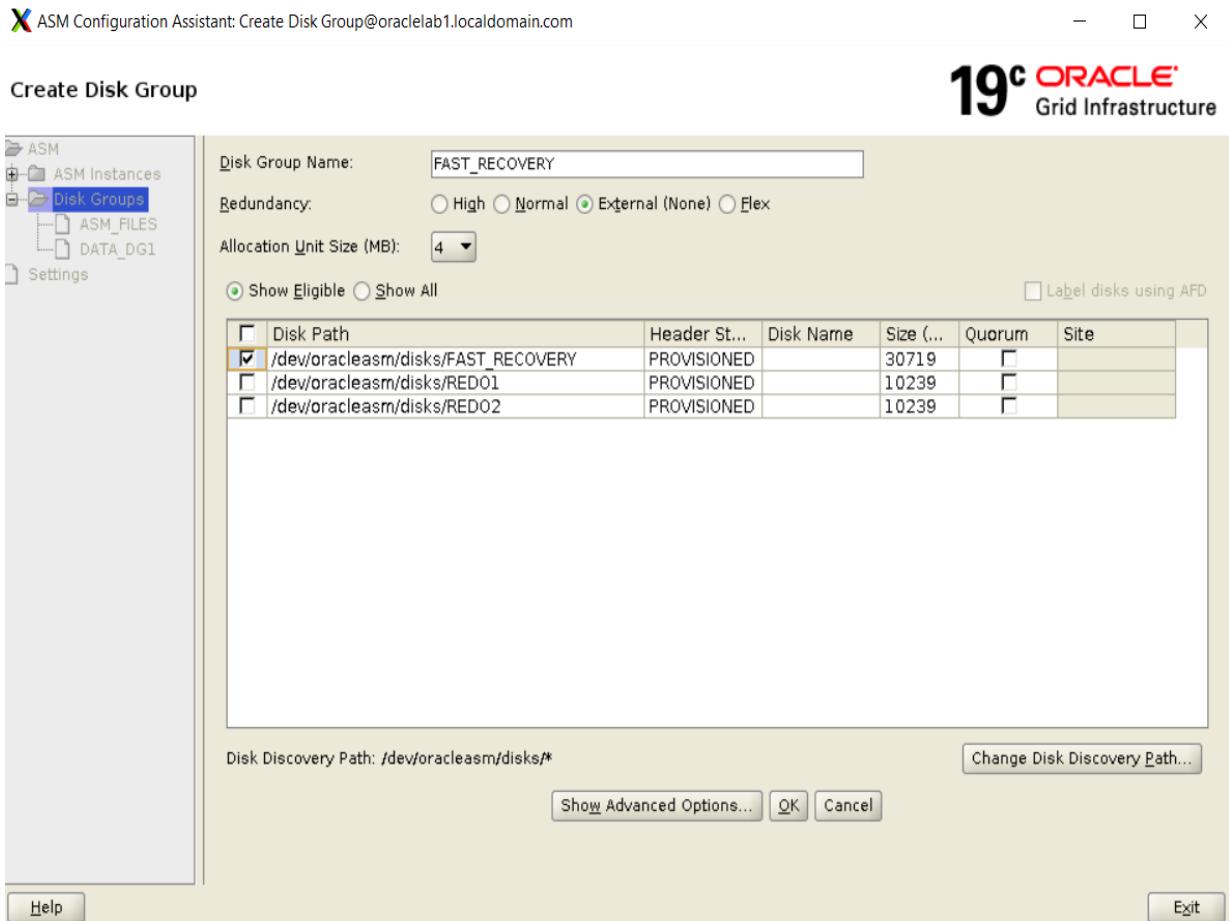
- a. Create your planned ASM disk groups that will host your database:

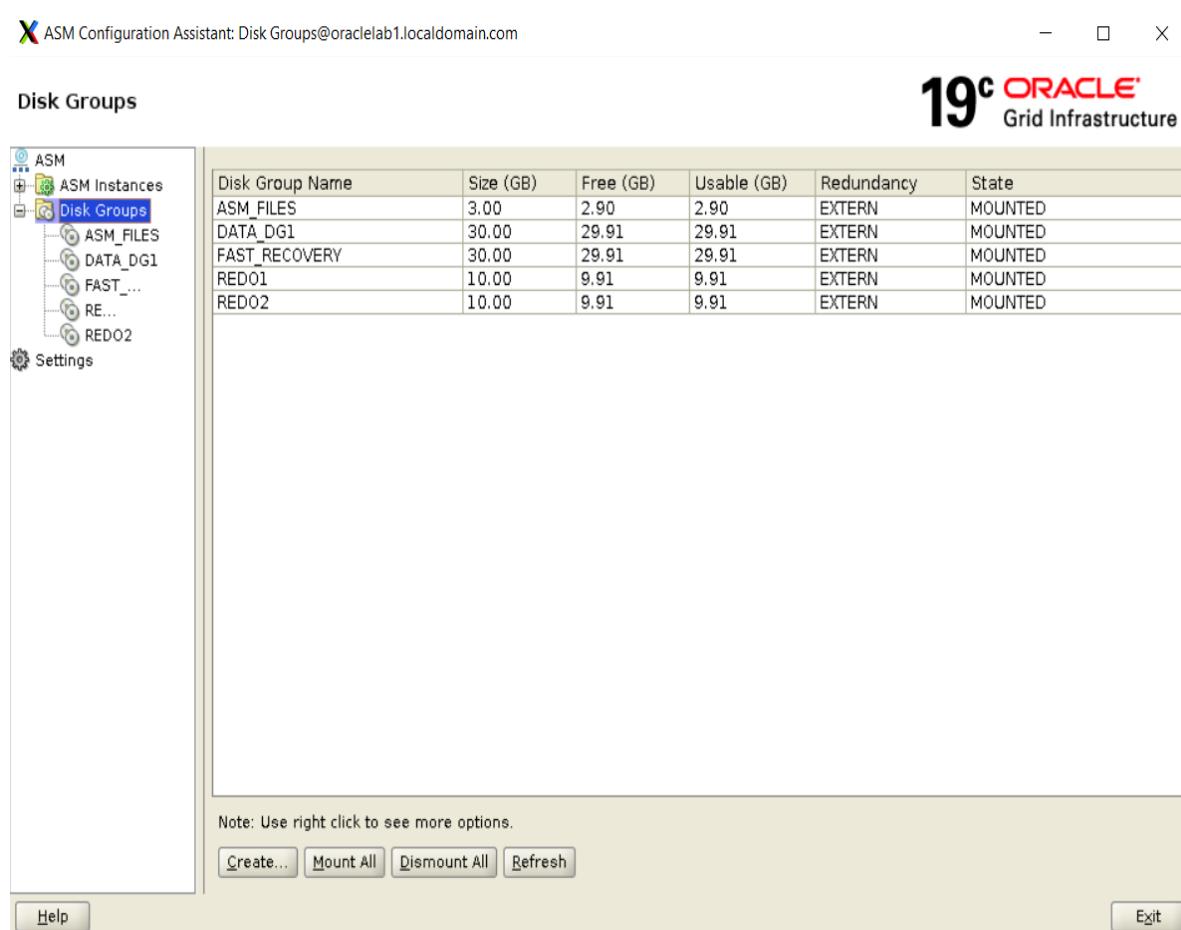
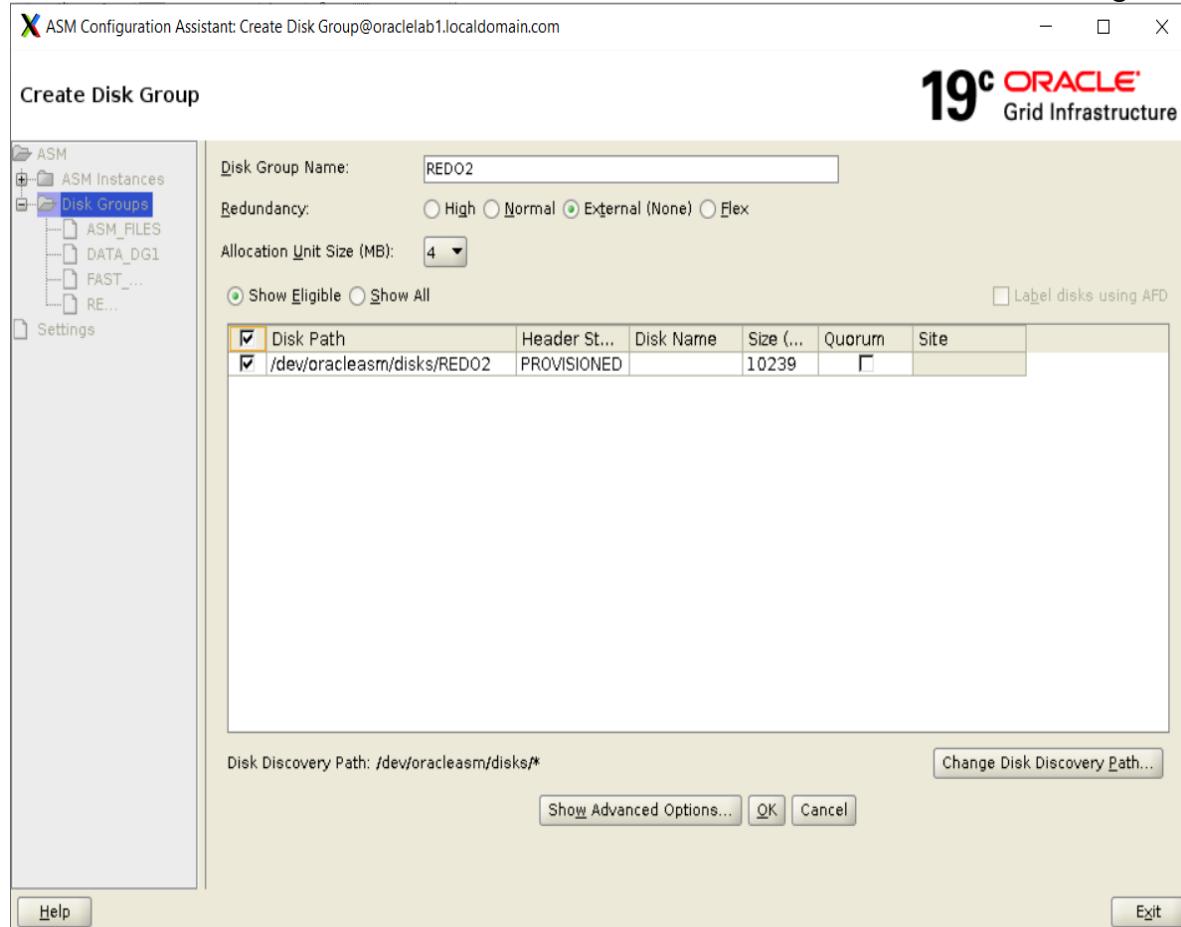
```
cd /u01/app/19.0.0.0/grid/bin
./asmca
```

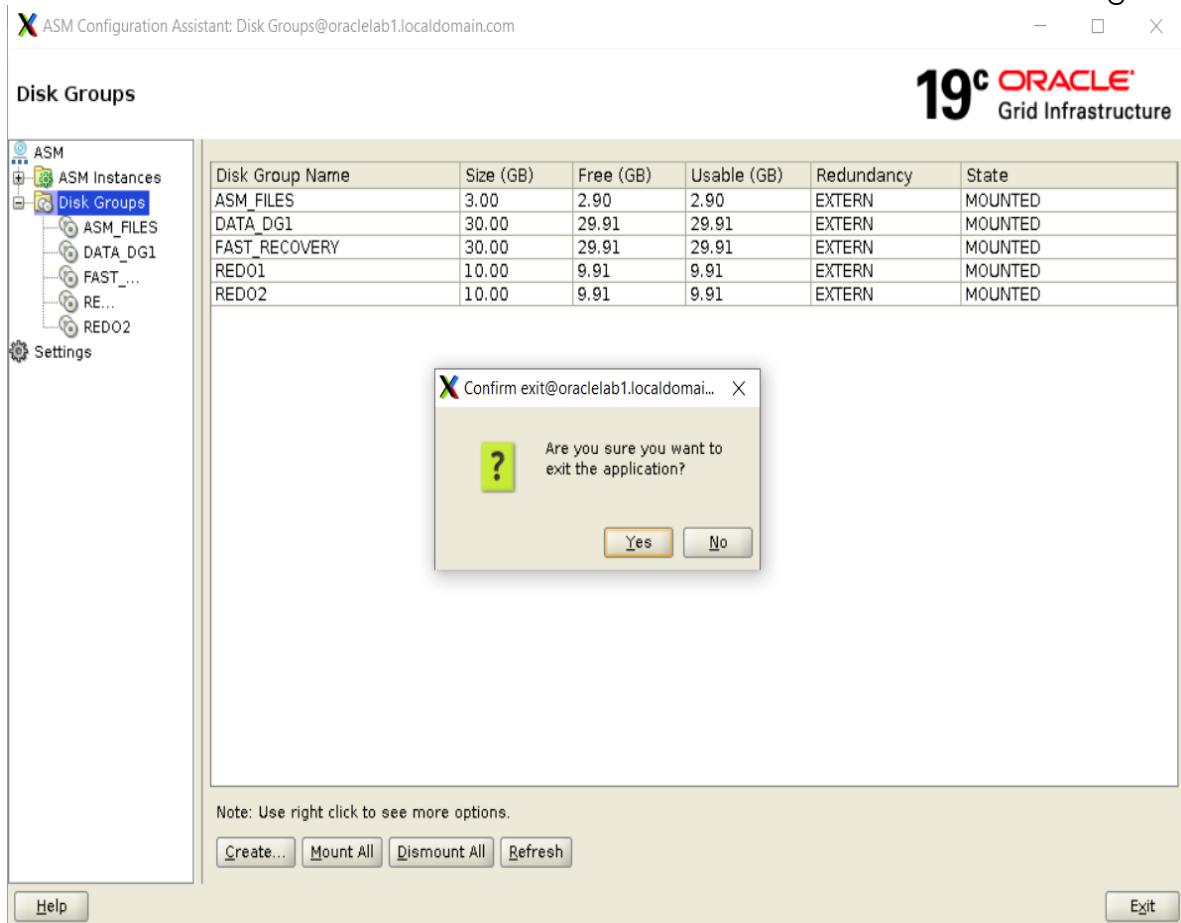
```
[oracle@oracelab1 grid]$ cd /u01/app/19.0.0.0/grid/bin
[oracle@oracelab1 bin]$ ./asmca
```







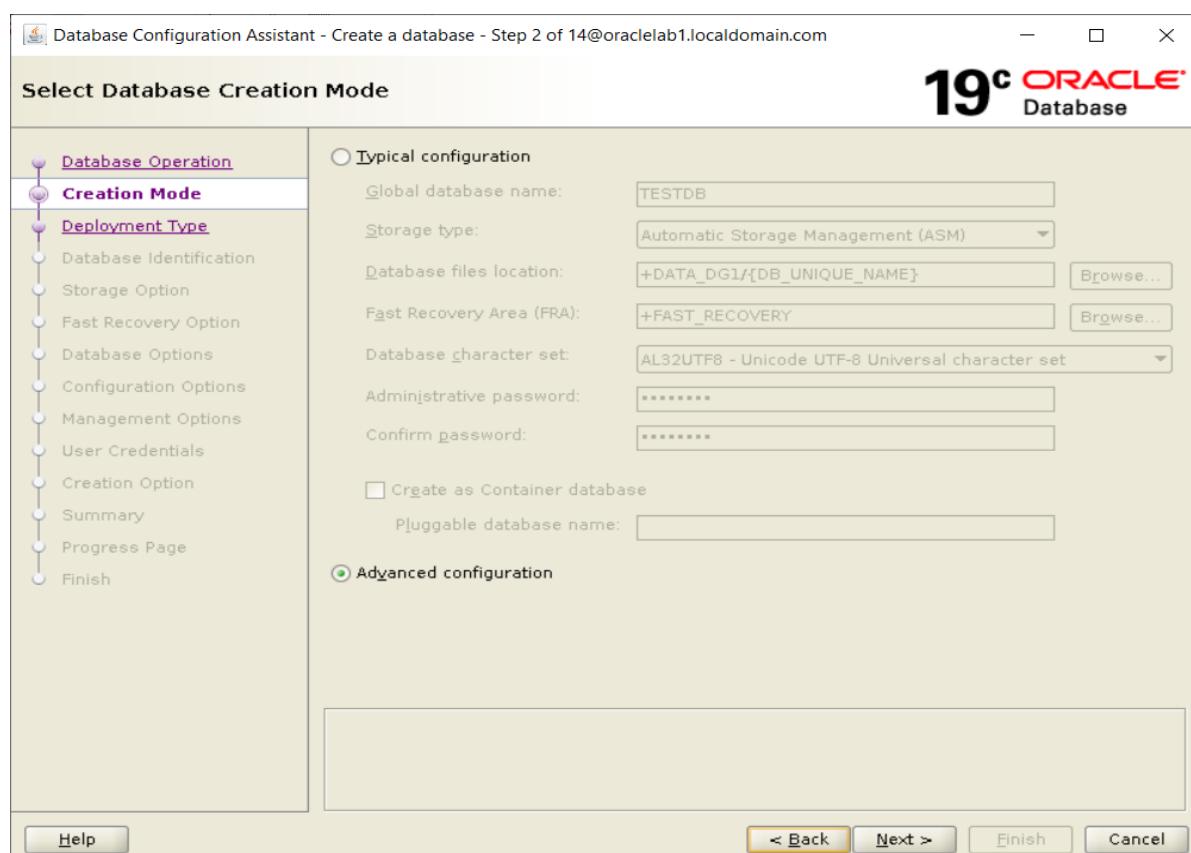
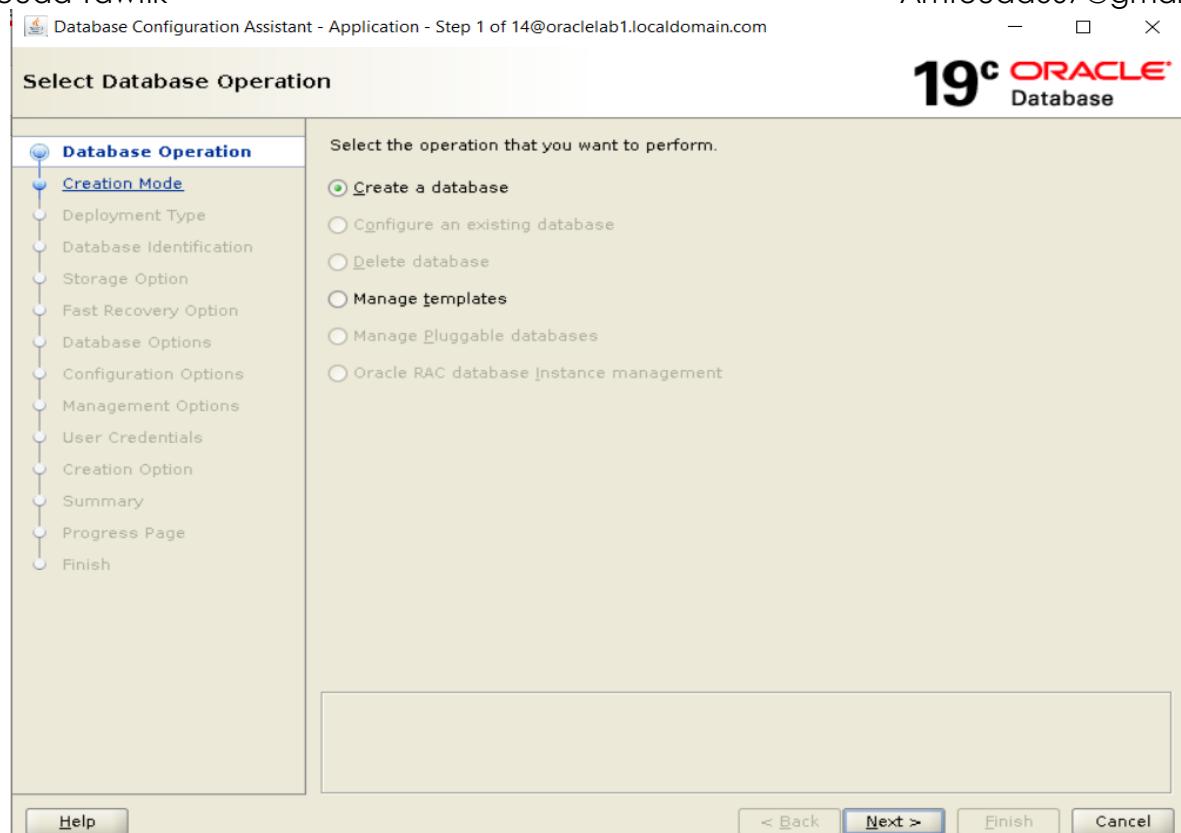




- b. Create your required database (TESTDB).

```
cd /u02/app/oracle/product/19.0.0.0/dbhome_1/bin  
./dbca
```





Database Configuration Assistant - Create a database - Step 3 of 14@oraclelab1.localdomain.com

Select Database Deployment Type

Deployment Type

Select the type of database you want to create.

Database type: Oracle Single Instance database

Configuration type: Admin Managed

Select a template for your database.

Templates that include datafiles contain pre-created databases. They allow you to create a new database quickly. Use templates without datafiles only when necessary, such as when you need to change attributes like block size that cannot be altered after database creation.

| Template name | Include datafiles | Details |
|---|-------------------|------------------------------|
| Data Warehouse | Yes | View details |
| Custom Database | No | View details |
| General Purpose or Transaction Processing | Yes | View details |

Template location: /u02/app/oracle/product/19.0.0/dbhome_1/assistants/dbca/temp [Change...](#)

< Back [Next >](#) Finish Cancel

Database Configuration Assistant - Create a database - Step 4 of 14@oraclelab1.localdomain.com

Specify Database Identification Details

Database Identification

Provide a unique database identifier information. An Oracle database is uniquely identified by a Global database name, typically of the form "name.domain".

Global database name: TESTDB

SID: TESTDB

Service name:

Create as Container database

A Container database can be used for consolidating multiple databases into a single database, and it enables database virtualization. A Container database (CDB) can have zero or more pluggable databases (PDB).

Use Local Undo tablespace for PDBs

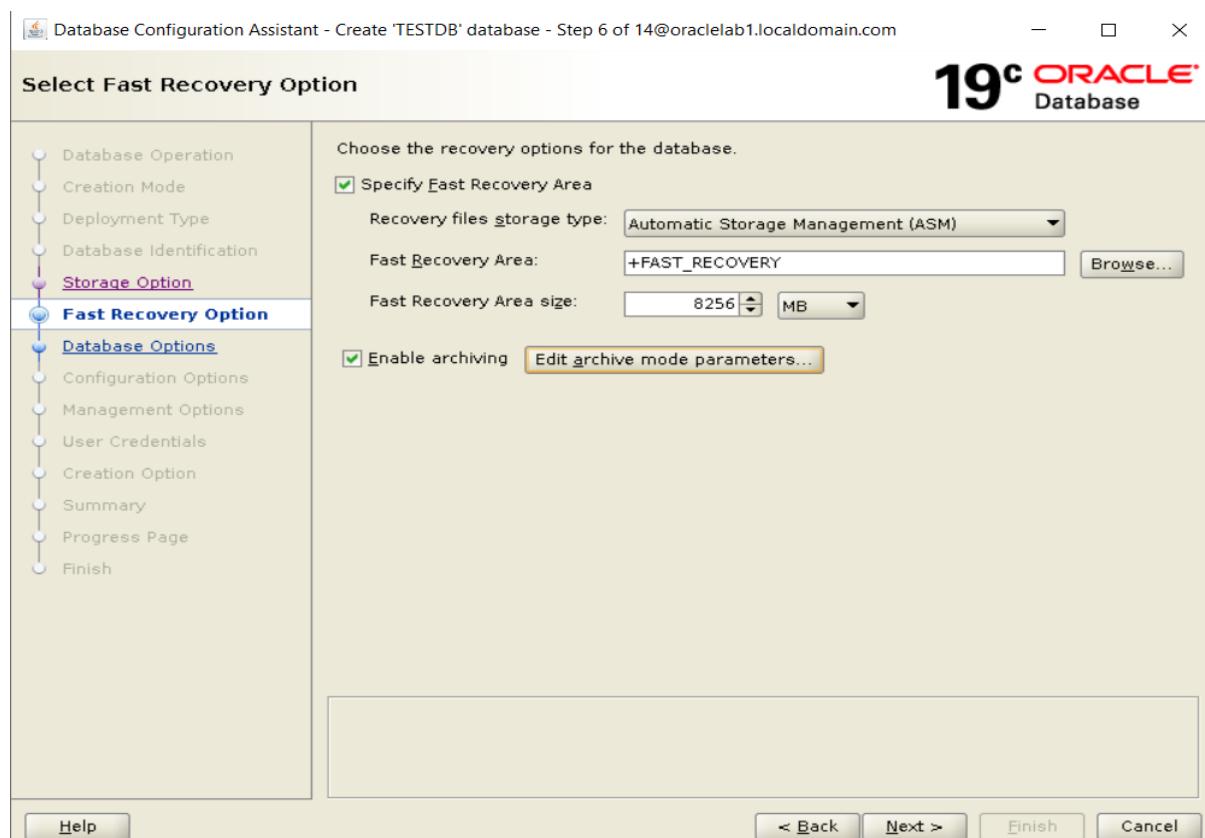
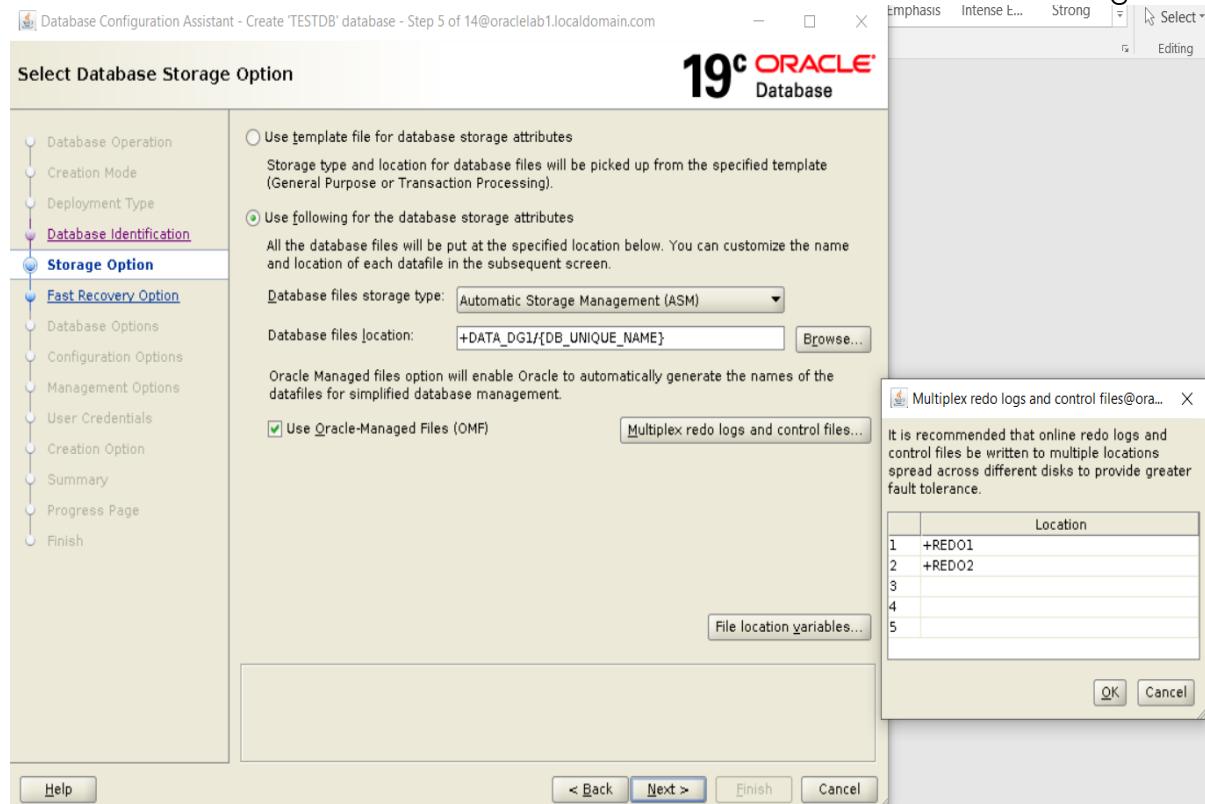
Create an empty Container database

Create a Container database with one or more PDBs

Number of PDBs: 1

PDB name: pdb

< Back [Next >](#) Finish Cancel



Database Configuration Assistant - Create 'TESTDB' database - Step 7 of 14@oraclelab1.localdomain.com

Specify Network Configuration Details

Listener selection

Listeners from Grid Infrastructure home and Database Oracle home are listed below. Specify the listener name and port to create a new listener in database Oracle home.

| Name | Port | Oracle home | Status |
|----------|------|------------------------|--------|
| LISTENER | 1539 | /u01/app/19.0.0.0/grid | Up |

Create a new listener

Listener name:

Listener port: 1521

Oracle home: /u02/app/oracle/product/19.0.0/dbhome_1

Help **< Back** **Next >** **Finish** **Cancel**

Database Configuration Assistant - Create 'TESTDB' database - Step 8 of 15@oraclelab1.localdomain.com

Select Oracle Data Vault Config Option

Configure Oracle Database Vault

Database Vault owner:
Password: Confirm password:

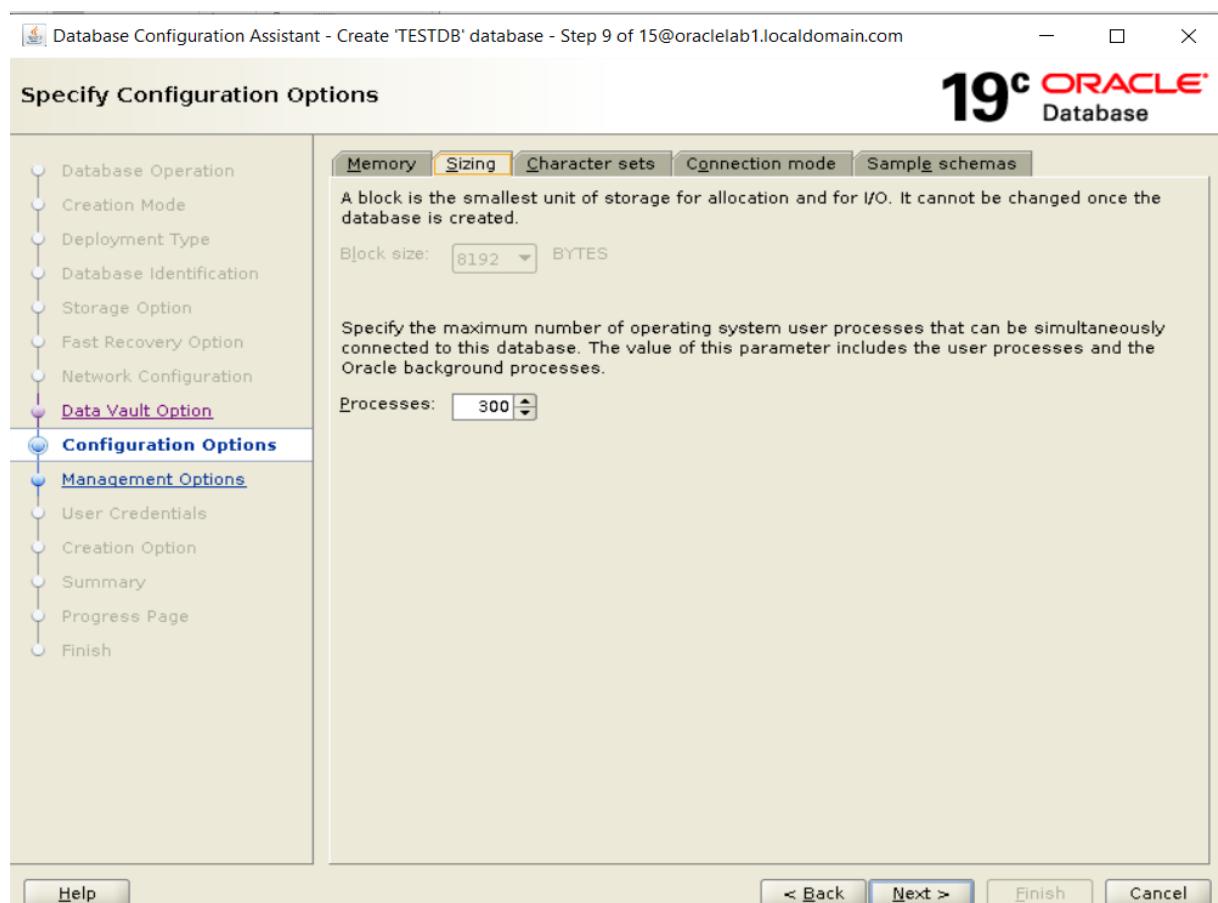
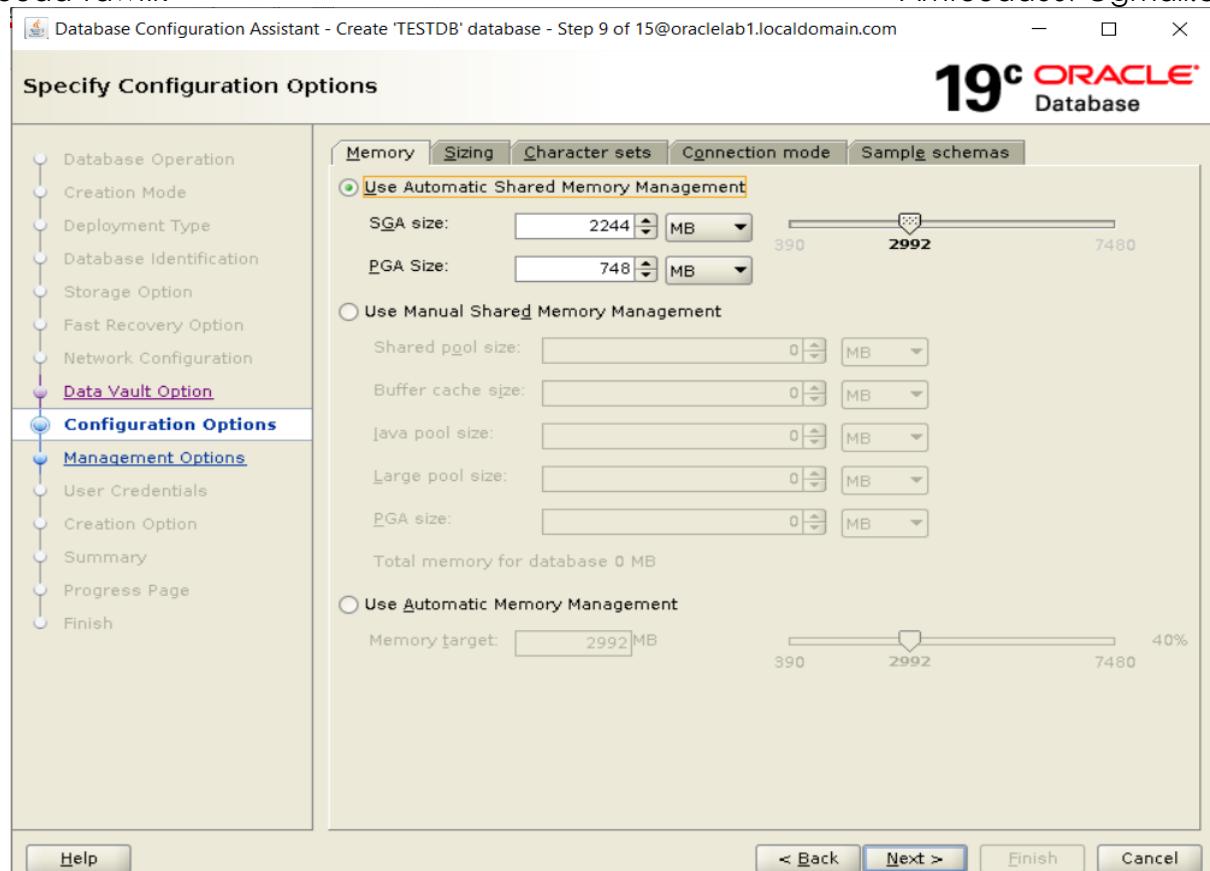
Create a separate account manager

Account manager:
Password: Confirm password:

Configure Oracle Label Security

Configure Oracle Label Security with OJD

Help **< Back** **Next >** **Finish** **Cancel**



Database Configuration Assistant - Create 'TESTDB' database - Step 9 of 15@oracelab1.localdomain.com

Specify Configuration Options

Character sets

The database character set determines how character data is stored in the database.

Use Unicode (AL32UTF8)
Setting character set to Unicode (AL32UTF8) enables you to store multiple language groups.

Use OS character set (WE8MSWIN1252)
Character set is based on the language setting of this operating system.

Choose from the list of character sets

Database character set: AL32UTF8 - Unicode UTF-8 Universal character set

Show recommended character sets only

National character set: AL16UTF16 - Unicode UTF-16 Universal character set

Default language: American

Default territory: United States

Help < Back Next > Finish Cancel

Database Configuration Assistant - Create 'TESTDB' database - Step 9 of 15@oracelab1.localdomain.com

Specify Configuration Options

Connection mode

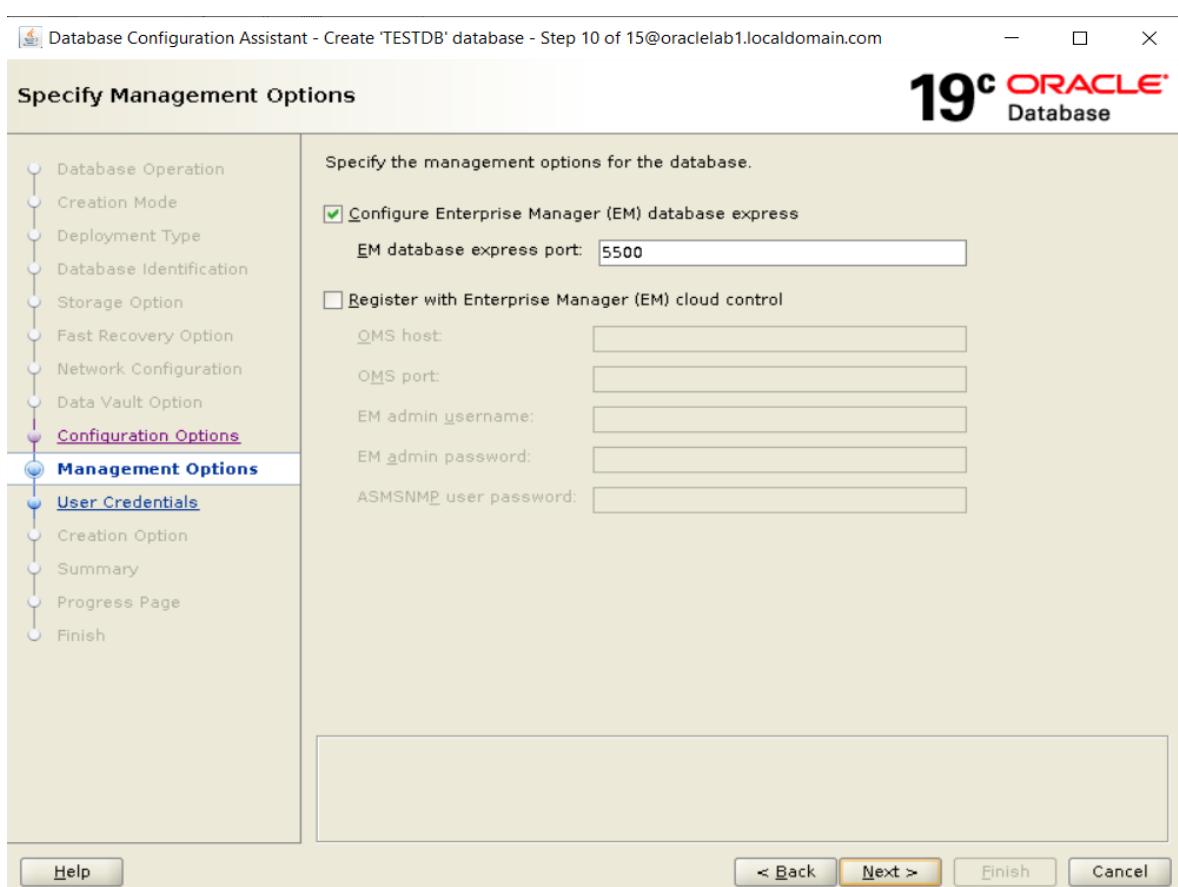
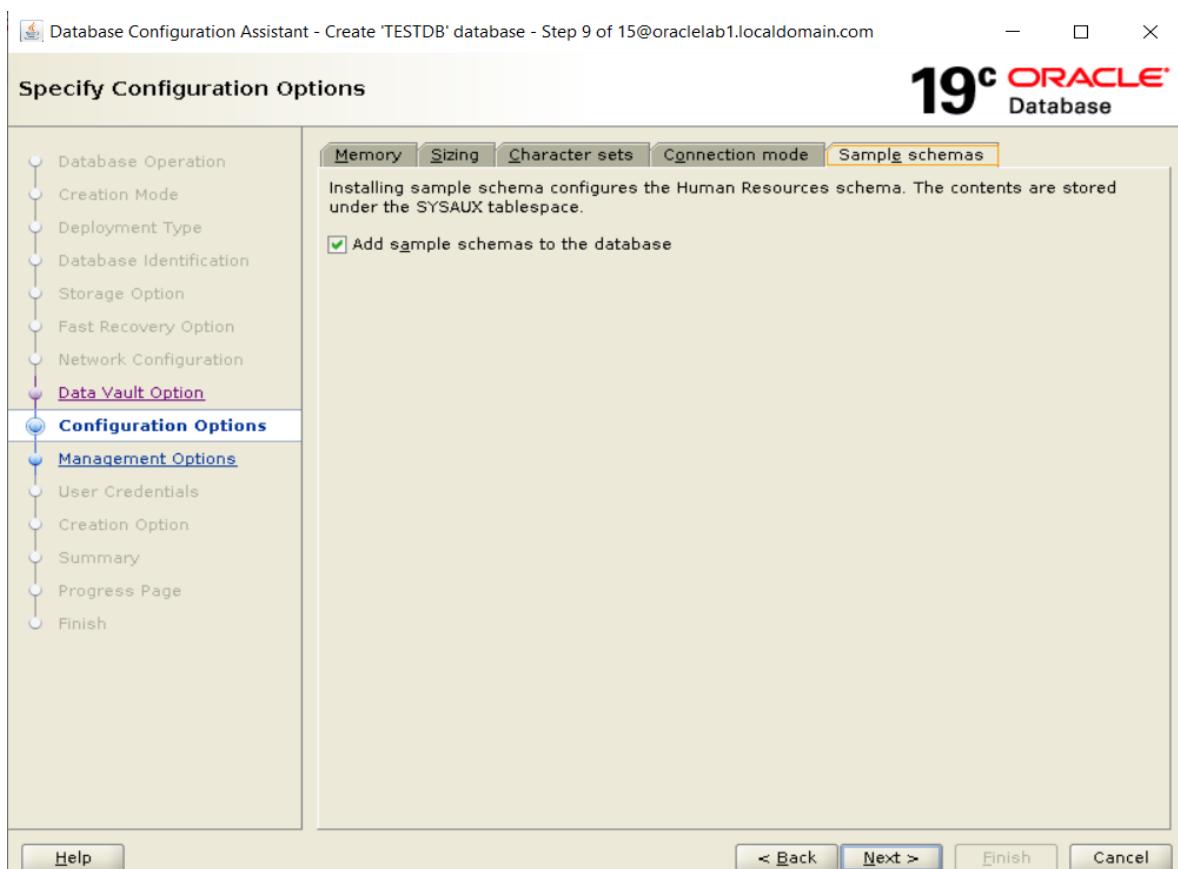
Dedicated server mode
The database will allocate a dedicated resource for each client connection in this mode. Use this mode when the number of total client connections is expected to be small or when clients will be making persistent, long-running requests to the database.

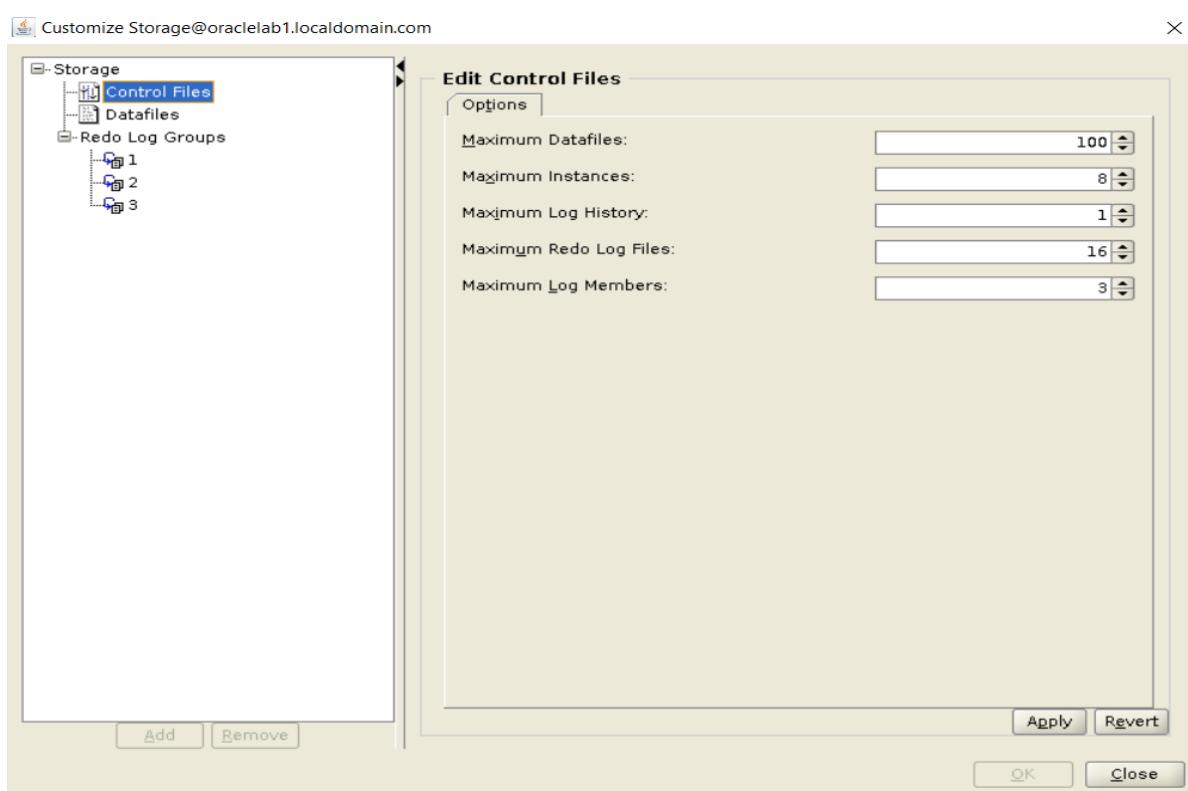
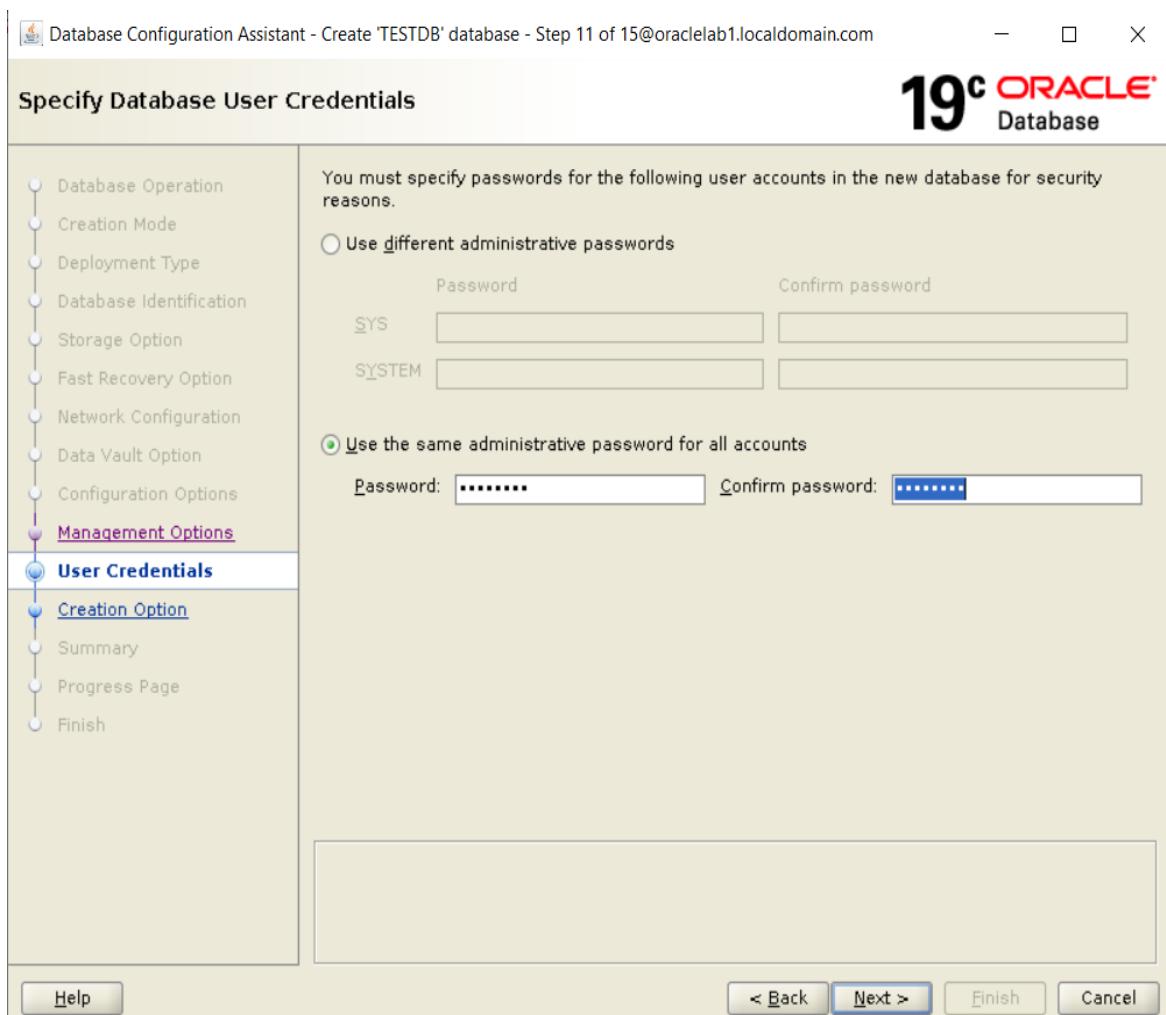
Shared server mode
The database will use a shared pool of allocated resources for all client connections in this mode. Use this mode when a large number of users need to connect to the database simultaneously while efficiently utilizing system resources.

Specify the number of Shared Servers, which will be the number of processes that will be created when the instance is started.

Shared servers: 1

Help < Back Next > Finish Cancel





Customize Storage@oracelab1.localdomain.com

Summary of Datafiles

| File Name |
|---------------------------|
| <OMF_SYSAUX_DATAFILE_1> |
| <OMF_SYSTEM_DATAFILE_1> |
| <OMF_UNDOTBS1_DATAFILE_1> |
| <OMF_USERS_DATAFILE_1> |
| <OMF_TEMP_DATAFILE_1> |

Add Remove OK Close

Customize Storage@oracelab1.localdomain.com

Summary of Redo Log Groups

| Name | Size(MB) |
|------|----------|
| 1 | 200 |
| 2 | 200 |
| 3 | 200 |

Change All : Update All

Add Remove Apply Revert OK Close

