

Add ip and hostname in /etc/hosts

```
[root@lab1 ~]# vi /etc/hosts
[root@lab1 ~]# cat /etc/hosts
127.0.0.1 localhost localhost.localdomain localhost4 localhost4.localdomain4
::1 localhost localhost.localdomain localhost6 localhost6.localdomain6
192.168.0.145 lab1.localdomain.com lab1
[root@lab1 ~]#
[root@lab1 ~]#
```

Softwares and Mount Points

```
[root@lab1 software]# ls -l
total 4749856
-rw-r--r--. 1 root root 1776391552 Sep 21 13:49 p36912597_190000_Linux-x86-64.zip
-rw-r--r--. 1 root root 27746581 Sep 21 13:48 p6880880_230000_Linux-x86-64.zip
-rw-r--r--. 1 root root 3059705302 Sep 21 13:48 V982063-01-001.zip
[root@lab1 software]#
[root@lab1 software]#
[root@lab1 software]# df -h
Filesystem      Size   Used  Avail Use% Mounted on
devtmpfs        4.0M    0     4.0M  0% /dev
tmpfs          3.9G    0     3.9G  0% /dev/shm
tmpfs          1.6G   9.3M  1.6G  1% /run
/dev/mapper/ol-root    37G   6.7G  31G  19% /
/dev/sda1       960M  451M  510M  47% /boot
/dev/mapper/ol-home   18G   4.7G  14G  27% /home
/dev/mapper/vg_redo2-lv_redo2   16G   147M  16G  1% /oracle/FRA
/dev/mapper/vg_data-lv_dbfiles   16G   147M  16G  1% /oracle/dbfiles
/dev/mapper/vg_index-lv_idxfiles  16G   147M  16G  1% /oracle/indexes
/dev/mapper/vg_archive-lv_archive 10G   104M  9.9G  2% /oracle/archive
/dev/mapper/vg_sw-lv_sw        16G   147M  16G  1% /u01/app/oracle
/dev/mapper/vg_redo1-lv_redo1   16G   147M  16G  1% /oracle/redo1
tmpfs           780M   52K   780M  1% /run/user/42
tmpfs           780M   36K   780M  1% /run/user/0
[root@lab1 software]#
[root@lab1 software]#
```

yum list oracle*

```
[root@lab1 software]# yum list oracle*
Last metadata expiration check: 0:04:19 ago on Sun 21 Sep 2025 01:52:28 PM IST.
Installed Packages
oracle-backgrounds.noarch                90.4.1.0.1.el9
oracle-indexhtml.noarch                   9.4.0.1.el9_2
oracle-logos.x86_64                      90.4.1.0.1.el9
oraclelinux-release.x86_64                9:9.6-1.0.8.el9
oraclelinux-release-el9.x86_64             1.0-24.el9
Available Packages
oracle-common-release.src                1.0-5.el9
oracle-database-preinstall-19c.src         1.0-1.el9
oracle-database-preinstall-19c.x86_64      1.0-1.el9
oracle-database-preinstall-23ai.src         1.0-3.el9
oracle-database-preinstall-23ai.x86_64      1.0-3.el9
oracle-spel-release-el9.src                1.0-1.el9
oracle-spel-release-el9.x86_64              1.0-1.el9
oracle-indexhtml.src                      9:4.0.1.el9_2
oracle-instantclient-release-23ai-el9.x86_64 1.0-4.el9
oracle-instantclient-release-23ai-el9.x86_64 1.0-5.el9
oracle-instantclient-release-el9.x86_64     1.0-3.el9
oracle-instantclient-release-el9.x86_64     1.0-4.el9
oracle-jdk-release-el9.x86_64              1.0-5.el9
oracle-linux-manager-client-release-el9.noarch 1.0-2.el9
oracle-linux-manager-client-release-el9/src   1.0-2.el9
oracle-19c.x86_64                         99.4.1.0.1.el9
oracle-logos-https.noarch                 99.4.1.0.1.el9
oracle-logos-pa.noarch                    90.4.1.0.1.el9
oracle-ocne-release-el9.src                1.0-7.el9
oracle-ocne-release-el9.x86_64              1.0-4.el9
oracle-olcne-release-el9.x86_64            1.0-4.el9
oracle-olcne-release-el9.x86_64            2.3-1.el9
oraclelinux-automation-manager-release-el9.src 2.3-1.el9
oraclelinux-automation-manager-release-el9.x86_64 1.0-2.el9
oraclelinux-developer-release-el9.src       1.0-2.el9
oraclelinux-developer-release-el9.x86_64     9:9.6-1.0.9.el9
oraclelinux-release.x86_64                 9:9.6-1.0.9.el9
oraclelinux-release-el9.src                 1.0-24.el9
[root@lab1 software]#
```

3. Creating users and groups

Manual Method:

```
groupadd oinstall
```

```
groupadd dba
```

```
useradd oracle
```

```
usermod -g oinstall -G oinstall,dba oracle
```

Automated Method:

```
yum install oracle* --skip-broken
```

```
yum install -y oracle-database-preinstall-19c --skip-broken
```

```
[root@lab1 ~]# yum install -y oracle-database-preinstall-19c --skip-broken
Last metadata expiration check: 0:09:53 ago on Sun 21 Sep 2025 01:52:28 PM IST.
Dependencies resolved.
=====
Package           Architecture Version       Repository      Size
=====
Installing:
oracle-database-preinstall-19c          x86_64   1.0-1.el9     ol9_appstream  33 k
Installing dependencies:
glIBC-devel          x86_64   2.34-168.0.1.el9    ol9_appstream  55 k
glIBC-headers        x86_64   2.34-168.0.1.el9    ol9_appstream  911 k
gssproxy             x86_64   0.8.4-7.el9      ol9_baseos_latest 120 k
initscripts          x86_64   10.11.8-4.0.1.el9    ol9_baseos_latest 285 k
kernel-headers       x86_64   5.14.0-570.44.1.0.el9_6 ol9_appstream  4.3 M
ksh                 x86_64   3:1.0.6-7.0.1.el9_6.1 ol9_appstream  889 k
libaio-devel         x86_64   0.3.111-13.el9     ol9_appstream  11 k
libev                x86_64   4.33-6.el9       ol9_baseos_latest 56 k
libnfssidmap         x86_64   1:2.5.4-34.0.1.el9    ol9_baseos_latest 70 k
libnsl               x86_64   2.34-168.0.1.el9    ol9_baseos_latest 1 k
libstdc++-devel      x86_64   11.5.0-5.0.1.el9     ol9_appstream  3.1 M
libverto-libev        x86_64   0.3.2-3.el9       ol9_baseos_latest 14 k
libxcrypt-devel      x86_64   4.4.18-3.el9       ol9_appstream  42 k
lm_sensors-libs      x86_64   3.6.0-10.el9      ol9_appstream  42 k
make                x86_64   1:4.3-8.el9       ol9_baseos_latest 570 k
nfs-utils            x86_64   1:2.5.4-34.0.1.el9    ol9_baseos_latest 516 k
pcp-conf             x86_64   6.3.7-1.0.2.el9_6  ol9_appstream  41 k
pcp-libs             x86_64   6.3.7-1.0.2.el9_6  ol9_appstream  654 k
rpcbind              x86_64   1.2.6-7.el9       ol9_baseos_latest 69 k
sssd-nfs-idmap       x86_64   2.9.6-4.0.1.el9     ol9_baseos_latest 45 k
sysstat              x86_64   12.5.4-9.0.2.el9    ol9_appstream  541 k
Transaction Summary
=====
Install  22 Packages

=====
Installed:
glIBC-devel-2.34-168.0.1.el9.x86_64   glIBC-headers-2.34-168.0.1.el9.x86_64   gssproxy-0.8.4-7.el9.x86_64   initscripts-10.11.8-4.0.1.el9.x86_64
kernel-headers-5.14.0-570.44.1.0.el9_6.x86_64  ksh-3:1.0.6-7.0.1.el9_6.1.x86_64  libaio-devel-0.3.111-13.el9.x86_64  libev-4.33-6.el9.x86_64
libnfssidmap-1:2.5.4-34.0.1.el9.x86_64  libnsl-2.34-168.0.1.el9.x86_64  libstdc++-devel-11.5.0-5.0.1.el9.x86_64  libverto-libev-0.3.2-3.el9.x86_64
libxcrypt-devel-4.4.18-3.el9.x86_64   lm_sensors-libs-3.6.0-10.el9.x86_64  make-1:4.3-8.el9.x86_64   nfs-utils-1:2.5.4-34.0.1.el9.x86_64
oracle-database-preinstall-19c-1.0-1.el9.x86_64 pcp-conf-6.3.7-1.0.2.el9_6.x86_64  pcp-libs-6.3.7-1.0.2.el9_6.x86_64  rpcbind-1.2.6-7.el9.x86_64
sssd-nfs-idmap-2.9.6-4.0.1.el9.x86_64  sysstat-12.5.4-9.0.2.el9.x86_64
```

```
id oracle
```

```
[root@lab1 ~]# id oracle
uid=54321(oracle) gid=54321(oinstall) groups=54321(oinstall),54322(dba),54323(oper),54324(backupdba),54325(dgdba),54326(kmdba),54330(racdba)
[root@lab1 ~]#
```

```
cat /etc/passwd
```

```
cat /etc/group
```

```
set password to oracle
```

```
passwd oracle
```

```
[root@lab1 ~]# passwd oracle
Changing password for user oracle.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@lab1 ~]#
```

4. Directory creation

```
[root@lab1 ~]# df -h
```

| Filesystem | Size | Used | Avail | Use% | Mounted on |
|-----------------------------------|------|------|-------|------|-----------------|
| devtmpfs | 4.0M | 0 | 4.0M | 0% | /dev |
| tmpfs | 3.9G | 0 | 3.9G | 0% | /dev/shm |
| tmpfs | 1.6G | 9.3M | 1.6G | 1% | /run |
| /dev/mapper/ol-root | 37G | 6.7G | 31G | 19% | / |
| /dev/sda1 | 960M | 451M | 510M | 47% | /boot |
| /dev/mapper/ol-home | 18G | 4.7G | 14G | 27% | /home |
| /dev/mapper/vg_redo2-lv_redo2 | 16G | 147M | 16G | 1% | /oracle/FRA |
| /dev/mapper/vg_data-lv_dbfiles | 16G | 147M | 16G | 1% | /oracle/dbfiles |
| /dev/mapper/vg_index-lv_idxfiles | 16G | 147M | 16G | 1% | /oracle/indexes |
| /dev/mapper/vg_archive-lv_archive | 10G | 104M | 9.9G | 2% | /oracle/archive |
| /dev/mapper/vg_sw-lv_sw | 16G | 147M | 16G | 1% | /u01/app/oracle |
| /dev/mapper/vg_redo1-lv_redo1 | 16G | 147M | 16G | 1% | /oracle/redo1 |
| tmpfs | 780M | 52K | 780M | 1% | /run/user/42 |
| tmpfs | 780M | 36K | 780M | 1% | /run/user/0 |

```
mkdir -p /u01/app/oracle/product/19.0.0/dbhome_1
```

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

```
chmod -R 755 /u01
```

```
[root@lab1 oracle]# mkdir -p /u01/app/oracle/product/19.0.0/dbhome_1
[root@lab1 oracle]# chmod -R 755 /u01
[root@lab1 oracle]# chown -R oracle:oinstall /u01
[root@lab1 oracle]#
```

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

```
chmod -R 755 /u01
```

```
[root@lab1 ~]# chown -R oracle:oinstall /u01
[root@lab1 ~]# chmod -R 755 /u01
[root@lab1 ~]#
```

5. disable firewall on hosts

```
systemctl status firewalld
```

```
systemctl stop firewalld
```

```
systemctl disable firewalld
```

```
[root@lab1 ~]# systemctl status firewalld
● firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; enabled; preset: enabled)
   Active: active (running) since Sun 2025-09-21 13:09:59 IST; 58min ago
     Docs: man:firewalld(1)
     Main PID: 1120 (firewalld)
        Tasks: 2 (limit: 49434)
       Memory: 43.4M
          CPU: 912ms
        CGroup: /system.slice/firewalld.service
                  └─1120 /usr/bin/python3 -s /usr/sbin/firewalld --nofork --nopid

Sep 21 13:09:58 lab1.localdomain.com systemd[1]: Starting firewalld - dynamic firewall daemon...
Sep 21 13:09:59 lab1.localdomain.com systemd[1]: Started firewalld - dynamic firewall daemon.
[root@lab1 ~]#
[root@lab1 ~]# systemctl stop firewalld
[root@lab1 ~]# systemctl disable firewalld
Removed "/etc/systemd/system/multi-user.target.wants/firewalld.service".
Removed "/etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service".
[root@lab1 ~]#
[root@lab1 ~]#
```

```
unzip -q V982063-01-001.zip -d /u01/app/oracle/
```

```
[root@lab1 ~]# cd /home/software/
[root@lab1 software]# ls -ltr
total 4749856
-rw-r--r--. 1 root root 3059705302 Sep 21 13:48 V982063-01-001.zip
-rw-r--r--. 1 root root 27746581 Sep 21 13:48 p6880880_230000_Linux-x86-64.zip
-rw-r--r--. 1 root root 1776391552 Sep 21 13:49 p36912597_190000_Linux-x86-64.zip
[root@lab1 software]#
[root@lab1 software]# unzip -q V982063-01-001.zip -d /u01/app/oracle/
[root@lab1 software]#
[root@lab1 software]#
```

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

```
chmod -R 755 /u01
```

```
[root@lab1 software]# chown -R oracle:oinstall /u01
[root@lab1 software]# chmod -R 755 /u01
```

```
sudo yum install xorg-x11*
```

```
systemctl restart sshd
```

```
service sshd restart
```

```
[root@lab1 ~]# sudo yum install xorg-x11*
Last metadata expiration check: 0:22:14 ago on Sun 21 Sep 2025 01:52:28 PM IST.
```

```
[root@lab1 ~]# systemctl restart sshd
[root@lab1 ~]# service sshd restart
Redirecting to /bin/systemctl restart sshd.service
```

after these above three commands take a new session of the same server and then run
./runInstaller

go to oracle location

```
/u01/app/oracle
```

```
cd OPatch/
```

```
./opatch version
```

```
mv OPatch OPatch_old
```

```
[oracle@lab1 oracle]$ pwd
/u01/app/oracle
[oracle@lab1 oracle]$ cd OPatch/
[oracle@lab1 OPatch]$ cd ..
[oracle@lab1 oracle]$
[oracle@lab1 oracle]$ pwd
/u01/app/oracle
[oracle@lab1 oracle]$ cd OPatch/
[oracle@lab1 OPatch]$ ./opatch version
OPatch Version: 12.2.0.1.17

OPatch succeeded.
[oracle@lab1 OPatch]$
[oracle@lab1 OPatch]$ cd ..
[oracle@lab1 oracle]$ mv OPatch OPatch_old
```

Unzip the latest opatch

```
## unzip -q p6880880_230000_Linux-x86-64.zip -d /u01/app/oracle/
```

```
unzip -q V982063-01-001.zip -d /u01/app/oracle/product/19.0.0/dbhome_1
```

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

```
chmod -R 755 /u01
```

```
[root@lab1 software]# unzip -q V982063-01-001.zip -d /u01/app/oracle/product/19.0.0/dbhome_1
[root@lab1 software]# cd /u01/app/oracle/product/19.0.0/dbhome_1
[root@lab1 dbhome_1]# mv OPatch OPatch_old
[root@lab1 dbhome_1]# cd /home/software/
[root@lab1 software]# unzip -q p6880880_230000_Linux-x86-64.zip -d /u01/app/oracle/product/19.0.0/dbhome_1
[root@lab1 software]# chown -R oracle:oinstall /u01
[root@lab1 software]# chmod -R 755 /u01
```

Check the latest opatch version

```
[oracle@lab1 oracle]$ cd OPatch
[oracle@lab1 OPatch]$ ./opatch version
OPatch Version: 12.2.0.1.44

OPatch succeeded.
[oracle@lab1 OPatch]$
```

```
unzip -q p36912597_190000_Linux-x86-64.zip -d /home/software/patch/
```

```
chown -R oracle:oinstall /home/software/patch/
```

```
chmod -R 755 /home/software/patch/
```

```
[root@lab1 software]# unzip -q p36912597_190000_Linux-x86-64.zip -d /home/software/patch/
[root@lab1 software]#
[root@lab1 software]# chown -R oracle:oinstall /home/software/patch/
[root@lab1 software]# chmod -R 755 /home/software/p
p36912597_190000_Linux-x86-64.zip  p6880880_230000_Linux-x86-64.zip    patch/
[root@lab1 software]# chmod -R 755 /home/software/patch/
```

```
[oracle@lab1 oracle]$ pwd
```

```
/u01/app/oracle
```

```
export CV_ASSUME_DISTID=OL8
```

```
export ORACLE_SID=TESTDB
```

```
export ORACLE_BASE=/u01/app/oracle
```

```
export ORACLE_HOME=/u01/app/oracle/product/19.0.0/dbhome_1
```

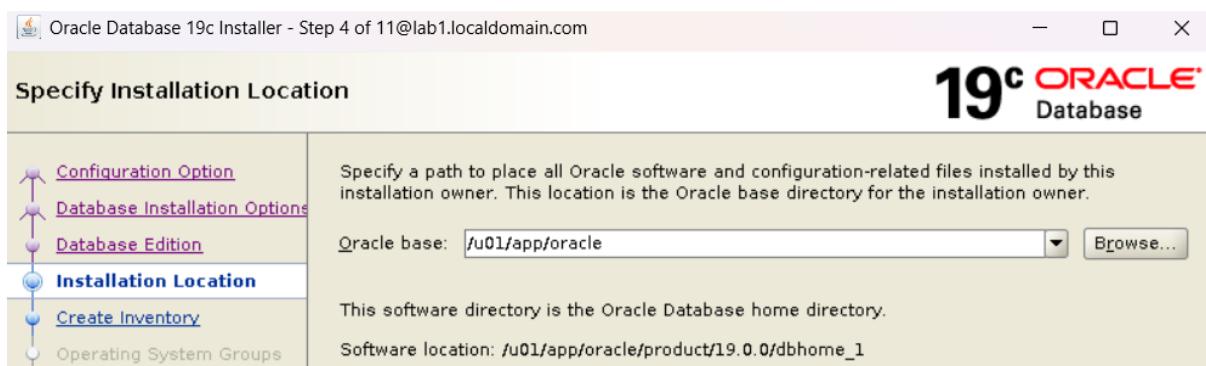
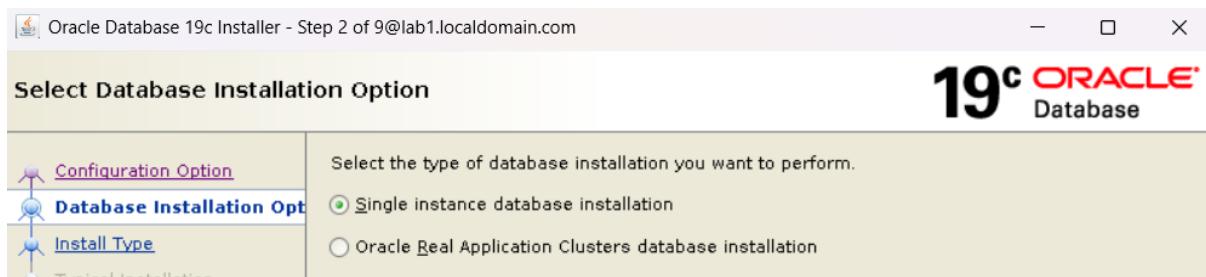
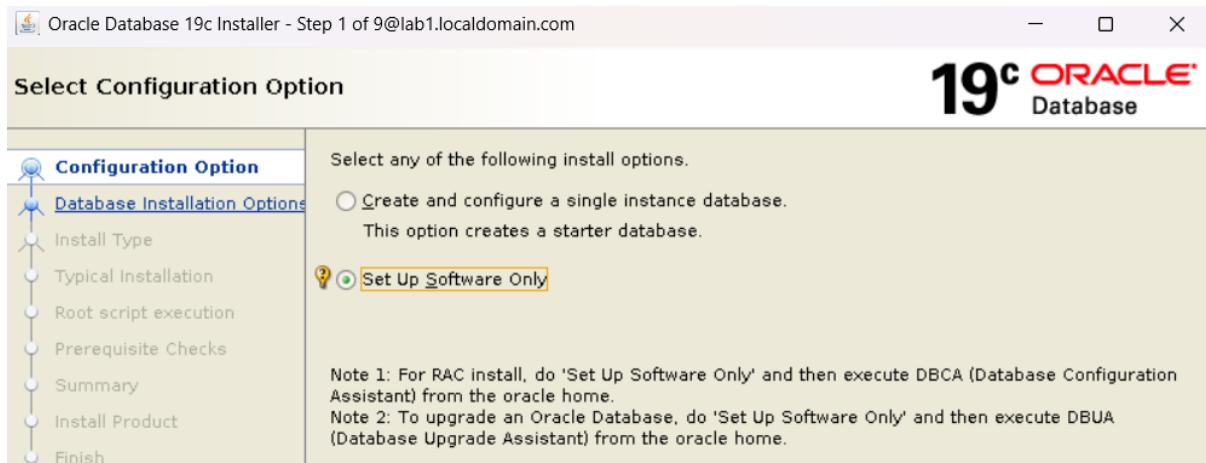
```
export PATH=$ORACLE_HOME/bin:$PATH
```

```
export LD_LIBRARY_PATH=/u01/app/oracle/lib:$LD_LIBRARY_PATH
```

```
[oracle@lab1 ~]$ export CV_ASSUME_DISTID=OL8
export ORACLE_SID=TESTDB
export ORACLE_BASE=/u01/app/oracle
export ORACLE_HOME=/u01/app/oracle/product/19.0.0/dbhome_1
export PATH=$ORACLE_HOME/bin:$PATH
export LD_LIBRARY_PATH=/u01/app/oracle/lib:$LD_LIBRARY_PATH
[oracle@lab1 ~]$
[oracle@lab1 ~]$ cd /u01/app/oracle/product/19.0.0/dbhome_1
[oracle@lab1 dbhome_1]$
[oracle@lab1 dbhome_1]$ ls
addnode  crs  dbjava  dmu  hs  jdbc  md  olap  ord  perl  racg  root.sh.old.1  sqldeveloper  suptools  xdk
apex   css  dbs  drdaas  install  jdk  mgw  OPatch  ords  plsql  rdbms  runInstaller  sqlj  ucp
assistants  ctx  deinstall  dv  instantclient  jlib  network  OPatch_old  oss  precomp  relnotes  schagent.conf  sqlpatch  usm
bin    cv  demo  env.ora  inventory  ldap  nls  opmn  oui  OOpatch  root.sh  sdk  sqlplus  utl
clone  data  diagnostics  has  javavm  lib  odbc  oracore  ovm  R  root.sh.old  slax  srvm  wwg
[oracle@lab1 dbhome_1]$
```

```
./runInstaller -applyRU /home/software/patch/36912597
```

```
[oracle@lab1 dbhome_1]$ ./runInstaller -applyRU /home/software/patch/36912597
Preparing the home to patch...
Applying the patch /home/software/patch/36912597...
Successfully applied the patch.
The log can be found at: /tmp/InstallActions2025-09-21_04-23-21PM/installerPatchActions_2025-09-21_04-23-21PM.log
Launching Oracle Database Setup Wizard...
```



Oracle Database 19c Installer - Step 5 of 11@lab1.localdomain.com

Create Inventory

You are starting your first installation on this host. Specify a directory for installation metadata files (for example, install log files). This directory is called the "inventory directory". The installer automatically sets up subdirectories for each product to contain inventory data. The subdirectory for each product typically requires 150 kilobytes of disk space.

Inventory Directory: /u01/app/oralnventory

Specify an operating system group whose members have write permission to the inventory directory (oralnventory).

oralnventory Group Name: oinstall

Privileged Operating System groups

SYS privileges are required to create a database using operating system (OS) authentication. Membership in OS Groups grants the corresponding SYS privilege, e.g. membership in OSDBA grants the SYSDBA privilege.

Database Administrator (OSDBA) group: oinstall

Database Operator (OSOPER) group (Optional): oinstall

Database Backup and Recovery (OSBACKUPDBA) group: oinstall

Data Guard administrative (OSDGDBA) group: oinstall

Encryption Key Management administrative (OSKMDBA) group: oinstall

Real Application Cluster administrative (OSRACDBA) group: oinstall

Root script execution configuration

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

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

Checking [Group Membership] ...

43%

```
wget https://yum.oracle.com/repo/OracleLinux/OL7/latest/x86_64/getPackage/compat-libcap1-1.10-7.el7.x86_64.rpm
```

```
rpm -ivh compat-libcap1-1.10-7.el7.x86_64.rpm
```

```
[root@lab1 dbhome_1]# cd /home/software/
[root@lab1 software]# wget https://yum.oracle.com/repo/OracleLinux/OL7/latest/x86_64/getPackage/compat-libcap1-1.10-7.el7.x86_64.rpm
--2025-09-21 16:36:05-- https://yum.oracle.com/repo/OracleLinux/OL7/latest/x86_64/getPackage/compat-libcap1-1.10-7.el7.x86_64.rpm
Resolving yum.oracle.com (yum.oracle.com)... 23.209.193.239, 2600:140f:4:da2::2a7d, 2600:140f:4:da0::2a7d
Connecting to yum.oracle.com (yum.oracle.com)|23.209.193.239|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 17624 (17K) [application/x-rpm]
Saving to: 'compat-libcap1-1.10-7.el7.x86_64.rpm'

compat-libcap1-1.10-7.el7.x86_64.rpm      100%[=====] 17.21K --.-KB/s   in 0s
2025-09-21 16:36:06 (148 MB/s) - 'compat-libcap1-1.10-7.el7.x86_64.rpm' saved [17624/17624]

[root@lab1 software]# rpm -ivh compat-libcap1-1.10-7.el7.x86_64.rpm
warning: compat-libcap1-1.10-7.el7.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID ec551f03: NOKEY
Verifying... #####
Preparing... #####
Updating / installing...
 1:compat-libcap1-1.10-7.el7          #####
[root@lab1 software]#
```

Perform Prerequisite Checks



Prerequisite Checks

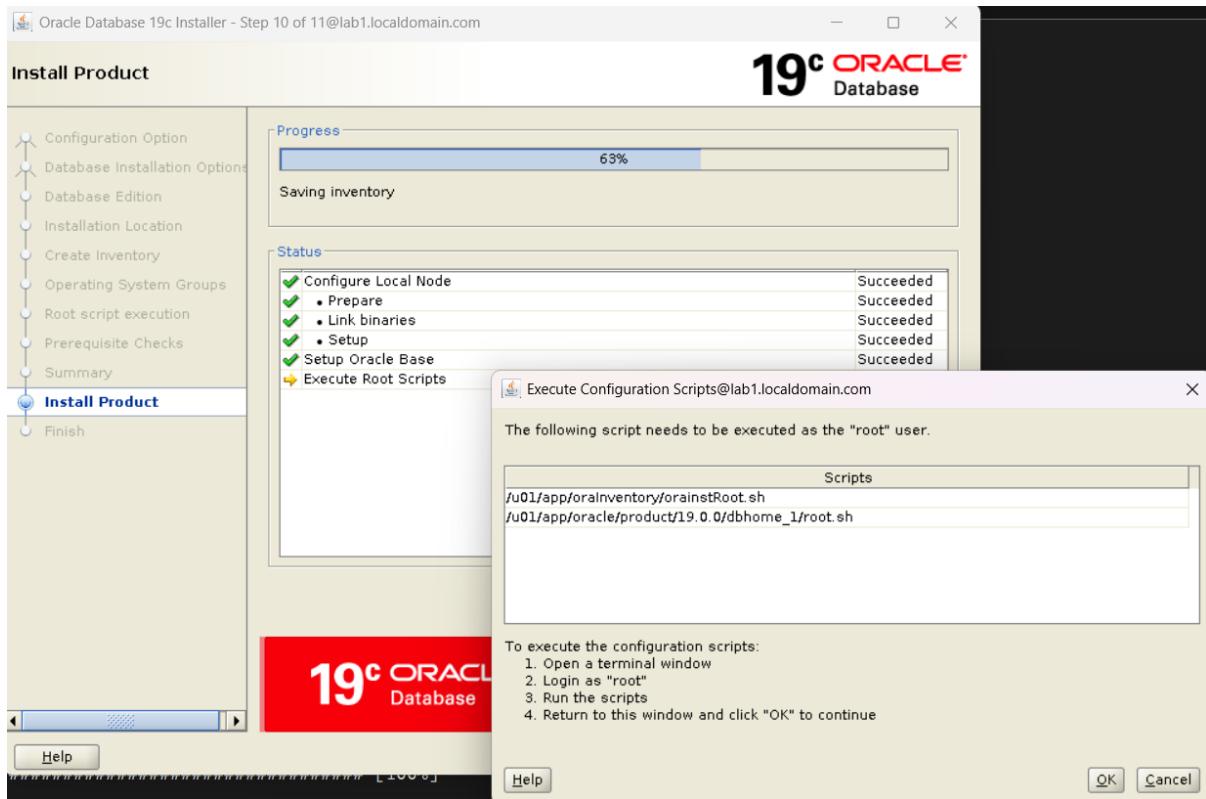
| Checks | Status | Fixable |
|-----------|---------|---------|
| Swap Size | Ignored | No |

Summary



Oracle Database 19c Installer

- Global settings**
 - Database edition: Enterprise Edition (Set Up Software Only) [\[Edit\]](#)
 - Oracle base: /u01/app/oracle [\[Edit\]](#)
 - Software location: /u01/app/oracle/product/19.0.0/dbhome_1
 - Privileged Operating System groups: oinstall (OSDBA), oinstall (OSOPER), oinstall (OSBAS)
 - Root script execution configuration: Manual configuration [\[Edit\]](#)
- Inventory information**
 - Inventory location: /u01/app/orainventory [\[Edit\]](#)
 - orainventory group: oinstall [\[Edit\]](#)



/u01/app/orainventory/orainstRoot.sh

```
[root@lab1 software]# /u01/app/orainventory/orainstRoot.sh
Changing permissions of /u01/app/orainventory.
Adding read,write permissions for group.
Removing read,write,execute permissions for world.

Changing groupname of /u01/app/orainventory to oinstall.
The execution of the script is complete.
[root@lab1 software]#
```

/u01/app/oracle/product/19.0.0/dbhome_1/root.sh

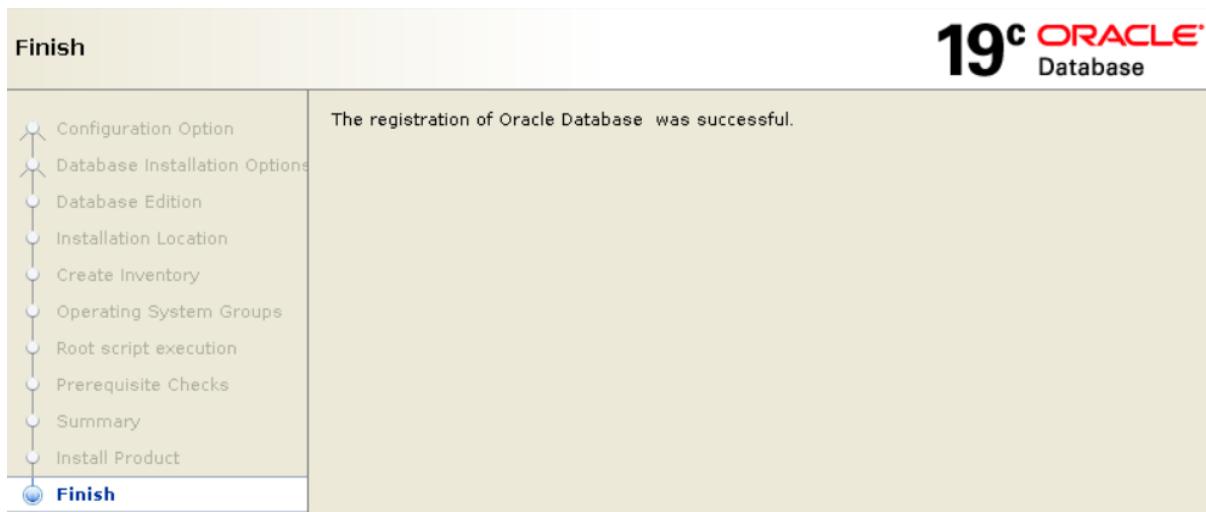
```
[root@lab1 software]# /u01/app/oraInventory/orainstRoot.sh
Changing permissions of /u01/app/oraInventory.
Adding read,write permissions for group.
Removing read,write,execute permissions for world.

Changing groupname of /u01/app/oraInventory to oinstall.
The execution of the script is complete.
[root@lab1 software]#
[root@lab1 software]# /u01/app/oracle/product/19.0.0/dbhome_1/root.sh
Performing root user operation.

The following environment variables are set as:
ORACLE_OWNER= oracle
ORACLE_HOME= /u01/app/oracle/product/19.0.0/dbhome_1

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.
[root@lab1 software]#
```



```
[oracle@lab1 dbhome_1]$ ./runInstaller -applyRU /home/software/patch/36912597
Preparing the home to patch...
Applying the patch /home/software/patch/36912597...
Successfully applied the patch.
The log can be found at: /tmp/InstallActions2025-09-21_04-23-21PM/installerPatchActions_2025-09-21_04-23-21PM.log
Launching Oracle Database Setup Wizard...

The response file for this session can be found at:
/u01/app/oracle/product/19.0.0/dbhome_1/install/response/db_2025-09-21_04-23-21PM.rsp

You can find the log of this install session at:
/tmp/InstallActions2025-09-21_04-23-21PM/installActions2025-09-21_04-23-21PM.log
Moved the install session logs to:
/u01/app/oraInventory/logs/InstallActions2025-09-21_04-23-21PM
[oracle@lab1 dbhome_1]$
```

cd /bin

```
./dbca
```

```
[oracle@lab1 dbhome_1]$ cd bin/  
[oracle@lab1 bin]$ ./dbca
```

19^c **ORACLE**
Database

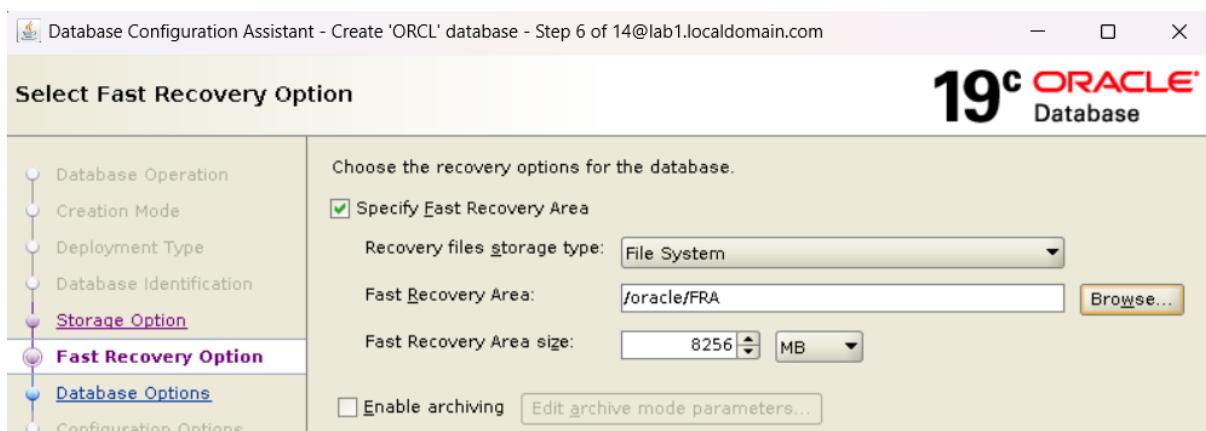
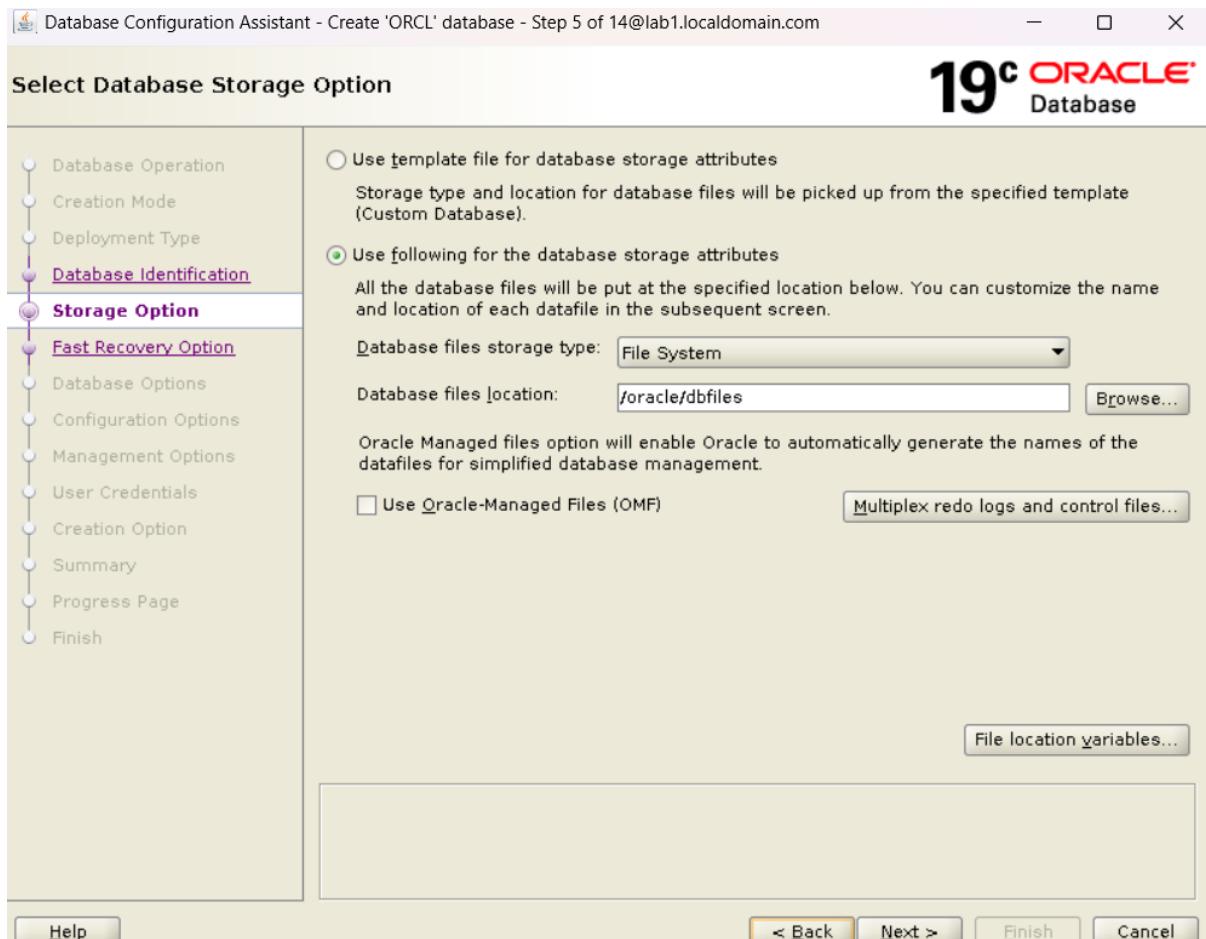
Select Database Operation

| | |
|--|--|
| <input checked="" type="radio"/> Database Operation | Select the operation that you want to perform. |
| <input type="radio"/> <u>Creation Mode</u> | <input checked="" type="radio"/> Create a database |

```
chown -R oracle:oinstall /oracle/*
```

```
chmod -R 755 /oracle/*
```

```
[root@lab1 oracle]# chown -R oracle:oinstall /oracle/*  
[root@lab1 oracle]# chmod -R 755 /oracle/*  
[root@lab1 oracle]#  
[root@lab1 oracle]# pwd  
/oracle  
[root@lab1 oracle]#  
[root@lab1 oracle]# ls -ltr  
total 0  
drwxr-xr-x. 2 oracle oinstall 6 Sep 21 13:09 archive  
drwxr-xr-x. 2 oracle oinstall 6 Sep 21 13:09 redo1  
drwxr-xr-x. 2 oracle oinstall 6 Sep 21 13:09 indexes  
drwxr-xr-x. 2 oracle oinstall 6 Sep 21 13:09 FRA  
drwxr-xr-x. 2 oracle oinstall 6 Sep 21 16:52 dbfiles  
[root@lab1 oracle]#  
[root@lab1 oracle]#
```



Specify Network Configuration Details

19c ORACLE
Database

Database Operation
Creation Mode
Deployment Type
Database Identification
Storage Option
Fast Recovery Option
Network Configuration
Configuration Options
Management Options
User Credentials
Creation Option
Summary
Progress Page
Finish

Listener selection
Listeners from current Oracle home are listed below. Specify the listener name and port to create a new listener in current Oracle home.

| Name | Port | Oracle home | Status |
|------|------|-------------|--------|
| | | | |

Create a new listener

Listener name:

Listener port:

Oracle home:

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

Select Oracle Data Vault Config Option

19c ORACLE
Database

Database Operation
Creation Mode
Deployment Type
Database Identification
Storage Option
Fast Recovery Option
Network Configuration
Data Vault Option
Configuration Options
Management Options

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

Select Database Creation Option

19c ORACLE
Database

Database Operation
Creation Mode
Deployment Type
Database Identification
Storage Option
Fast Recovery Option
Network Configuration
Data Vault Option
Configuration Options
Management Options
User Credentials

Creation Option

Summary
Progress Page
Finish

Select the database creation options.

Create database
Specify the SQL scripts you want to run after the database is created. The scripts are run in the order listed below.
Post DB creation scripts:

Save as a database template
Template name:
Template location:
Description:

Generate database creation scripts
Destination directory:

Following advanced configuration options can be used to configure initialization parameters and customize database storage locations.

Database Configuration Assistant - Create 'ORCL' database - Step 12 of 15@lab1.localdomain.com

Select Database Creation Option

All initialization parameters@lab1.localdomain.com

Creation Option

Summary
Progress Page
Finish

Warning: Update the initialization parameters only when it is required. Refer to the Oracle documentation to learn more about each initialization parameter and its valid set of values.

(Storage related parameter(s) value is shown in MB)

| Name | Value | Include in spfile | Category |
|---------------------------------|---------------|-------------------------------------|----------------------------|
| parallel_instance_group | | <input type="checkbox"/> | Cluster Database |
| instance_abort_delay_time | 0 | <input type="checkbox"/> | Cluster Database |
| thread | 0 | <input type="checkbox"/> | Cluster Database |
| instance_mode | READ-WRITE | <input type="checkbox"/> | Cluster Database |
| cluster_interconnects | | <input type="checkbox"/> | Cluster Database |
| instance_number | 0 | <input type="checkbox"/> | Cluster Database |
| open_cursors | 300 | <input checked="" type="checkbox"/> | Cursors and Library Cache |
| cursor_bind_capture_destination | memory+disk | <input type="checkbox"/> | Cursors and Library Cache |
| cursor_invalidation | IMMEDIATE | <input type="checkbox"/> | Cursors and Library Cache |
| session_cached_cursors | 50 | <input type="checkbox"/> | Cursors and Library Cache |
| cursor_sharing | EXACT | <input checked="" type="checkbox"/> | Cursors and Library Cache |
| db_name | ORCL | <input checked="" type="checkbox"/> | Database Identification |
| db_domain | | <input type="checkbox"/> | Database Identification |
| diagnostic_dest | {ORACLE_BASE} | <input checked="" type="checkbox"/> | Diagnostics and Statistics |
| core_dump_dest | 7/dbs | <input type="checkbox"/> | Diagnostics and Statistics |
| client_statistics_level | TYPICAL | <input type="checkbox"/> | Diagnostics and Statistics |
| shadow_core_dump | partial | <input type="checkbox"/> | Diagnostics and Statistics |
| db_block_checksum | TYPICAL | <input type="checkbox"/> | Diagnostics and Statistics |
| statistics_level | TYPICAL | <input type="checkbox"/> | Diagnostics and Statistics |

Show advanced parameters

Description:
cursor_sharing: Controls the kind of SQL statements that can end up sharing the same shared cursor. Range of Values: FORCE: forces statements that may differ in some literals, but are otherwise identical, to share a cursor, unless the literals affect the meaning of the statement. EXACT: causes only identical SQL statements to share a cursor. Default Value: EXACT

| | | | |
|--|------------------------|-------------------------------------|--|
| <code>cursor_sharing</code> | <code>EXACT</code> | <input checked="" type="checkbox"/> | <code>Cursors and Library Cache</code> |
| <code>nls_date_format</code> | <code>DD-MON-RR</code> | <input checked="" type="checkbox"/> | <code>NLS</code> |
| <code>open_cursors</code> | <code>30000</code> | <input checked="" type="checkbox"/> | <code>Cursors and Library Ca...</code> |
| <code>optimizer_features_enable</code> | <code>12.2.0.2</code> | <input checked="" type="checkbox"/> | <code>Optimizer</code> |
| <code>optimizer_mode</code> | <code>ALL_ROWS</code> | <input checked="" type="checkbox"/> | <code>Optimizer</code> |

All initialization parameters@lab1.localdomain.com X

⚠ Update the initialization parameters only when it is required. Refer to the Oracle documentation to learn more about each initialization parameter and its valid set of values.

(Storage related parameter(s) value is shown in MB)

Show advanced parameters

| Name | Value | Include in spfile ▲ | Category |
|---|---|-------------------------------------|---|
| <code>db_block_size (bytes)</code> | 8192 | <input checked="" type="checkbox"/> | Cache and I/O |
| <code>undo_tablespace</code> | <code>UNDOTBS1</code> | <input checked="" type="checkbox"/> | Cluster Database |
| <code>cursor_sharing</code> | <code>EXACT</code> | <input checked="" type="checkbox"/> | <code>Cursors and Library Cache</code> |
| <code>open_cursors</code> | <code>30000</code> | <input checked="" type="checkbox"/> | <code>Cursors and Library Cache</code> |
| <code>db_name</code> | <code>ORCL</code> | <input checked="" type="checkbox"/> | Database Identification |
| <code>diagnostic_dest</code> | <code>{ORACLE_BASE}</code> | <input checked="" type="checkbox"/> | <code>Diagnostics and Statistics</code> |
| <code>control_files</code> | <code>{"/oracle/dbfiles/{DB_UN...}</code> | <input checked="" type="checkbox"/> | File Configuration |
| <code>db_recovery_file_dest</code> | <code>/oracle/FRA</code> | <input checked="" type="checkbox"/> | File Configuration |
| <code>db_recovery_file_dest_size</code> | <code>8256</code> | <input checked="" type="checkbox"/> | File Configuration |
| <code>compatible</code> | <code>19.0.0</code> | <input checked="" type="checkbox"/> | Miscellaneous |
| <code>local_listener</code> | <code>LISTENER_ORCL</code> | <input checked="" type="checkbox"/> | <code>Network Registration</code> |
| <code>nls_date_format</code> | <code>DD-MON-RR</code> | <input checked="" type="checkbox"/> | <code>NLS</code> |
| <code>nls_language</code> | <code>AMERICAN</code> | <input checked="" type="checkbox"/> | <code>NLS</code> |
| <code>nls_territory</code> | <code>AMERICA</code> | <input checked="" type="checkbox"/> | <code>NLS</code> |
| <code>optimizer_features_enable</code> | <code>12.2.0.2</code> | <input checked="" type="checkbox"/> | <code>Optimizer</code> |
| <code>optimizer_mode</code> | <code>ALL_ROWS</code> | <input checked="" type="checkbox"/> | <code>Optimizer</code> |
| <code>processes</code> | <code>300</code> | <input checked="" type="checkbox"/> | Processes and Sessions |
| <code>audit_file_dest</code> | <code>{ORACLE_BASE}/admin/{...}</code> | <input checked="" type="checkbox"/> | <code>Security and Auditing</code> |
| <code>audit_trail</code> | <code>db</code> | <input checked="" type="checkbox"/> | <code>Security and Auditing</code> |

Description:

-- ✓ Check for XML and XDB components

```
SELECT comp_id, status FROM dba_registry WHERE comp_id IN ('XML', 'XDB');
```

-- ⚠ Grant EXECUTE on DBMS_CRYPTO

```
GRANT EXECUTE ON DBMS_CRYPTO TO your_user;
```

-- 📊 Grant access to dictionary views

```
GRANT SELECT ON DBA_TABLES TO your_user;
```

```
GRANT SELECT ON V_$SEGMENT_STATISTICS TO your_user;
```

-- 🌐 Setup ACL privileges for network access

```
BEGIN

DBMS_NETWORK_ACL_ADMIN.APPEND_HOST_ACE(
    host => 'example.com', -- Replace with actual host
    ace => xs$ace_type(
        privilege_list => xs$name_list('connect'),
        principal_name => 'your_user', -- Replace with actual user
        principal_type => xs_acl.ptype_db));
END;
/

--  Optional: Verify ACL setup
SELECT * FROM DBA_NETWORK_ACLS;
SELECT * FROM DBA_NETWORK_ACL_PRIVILEGES;

--  Set cursor sharing behavior
ALTER SYSTEM SET cursor_sharing = 'EXACT' SCOPE = BOTH;

--  Set default date format
ALTER SYSTEM SET nls_date_format = 'DD-MON-RR' SCOPE = BOTH;

--  Increase open cursors limit
ALTER SYSTEM SET open_cursors = 30000 SCOPE = BOTH;

--  Set optimizer features to match version 12.1.0.2
ALTER SYSTEM SET optimizer_features_enable = '12.1.0.2' SCOPE = BOTH;

--  Set optimizer mode to favor throughput
ALTER SYSTEM SET optimizer_mode = 'ALL_ROWS' SCOPE = BOTH;

SHOW PARAMETER cursor_sharing;
```

```
SHOW PARAMETER nls_date_format;  
SHOW PARAMETER open_cursors;  
SHOW PARAMETER optimizer_features_enable;  
SHOW PARAMETER optimizer_mode;
```

Progress Page

19c ORACLE Database

The screenshot shows the Oracle Database 19c Progress Page. On the left, a sidebar lists various configuration options: Database Operation, Creation Mode, Deployment Type, Database Identification, Storage Option, Fast Recovery Option, Network Configuration, Data Vault Option, Configuration Options, Management Options, User Credentials, Creation Option, Summary, and Progress Page (which is currently selected). At the bottom of the sidebar is a Finish button. The main area is titled "Progress" and shows a progress bar at 10% with the message "Copying database files : In Progress". Below this is a "Status" section containing a table:

| Step | Status |
|---|-------------|
| DB Creation | In Progress |
| • Prepare for db operation | Succeeded |
| • Copying database files | In Progress |
| • Creating and starting Oracle instance | Pending |
| • Completing Database Creation | Pending |
| • Executing Post Configuration Actions | Pending |

At the bottom right of the status section are buttons for Details, Revert All, Revert, Retry, and Skip. Log locations are listed at the bottom:

Database Alert Log Location:
/u01/app/oracle/diag/rdbms/orcl/ORCL/trace/alert_ORCL.log

DBCA Log Location:
/u01/app/oracle/cfgtoollogs/dbca/ORCL/trace.log_2025-09-21_05-23-46PM