

# *Oracle Database 19c(rpm & zip) on SUSE Linux Enterprise Server 16 for x86-64*

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## Introduction

*This document provides details on installing Oracle Database 19c(rpm & zip) on SUSE Linux Enterprise Server 16. It covers x86\_64 version but installation steps are same for other supported platforms. (x86, ia64, System z, etc.).*

*Official Oracle product documentation is available at: <http://docs.oracle.com/en/>*

## System Requirements and Specifications

### Hardware Requirements

| Requirement                   | Minimum                       |
|-------------------------------|-------------------------------|
| RAM                           | 32 GB                         |
| Swap space                    | Approx. twice the size of RAM |
| Disk space in /tmp            | 8 GB                          |
| Disk space for software files | 8 GB                          |
| Disk space for database files | 8 GB                          |

### Software Requirements

#### SUSE

- *SUSE Linux Enterprise Server 16 Beta4 (x86\_64)*  
(<https://www.suse.com/products/server/download>)

#### Oracle

- *Oracle Database 19c(19.3) (x86\_64) - (oracle-database-ee-19c-1.0-1.x86\_64.rpm)*  
(<https://www.oracle.com/database/technologies/oracle19c-linux-downloads.html>)
- *Oracle Database 19c(19.3) (x86\_64) - (LINUX.X64\_193000\_db\_home.zip)*  
(<https://www.oracle.com/database/technologies/oracle19c-linux-downloads.html>)
- *Patch 37260974: DATABASE RELEASE UPDATE 19.26.0.0.0*
- *Patch 37268031: OCW RELEASE UPDATE 19.26.0.0.0*
- *Patch 37102264: OJVM RELEASE UPDATE 19.26.0.0.0*
- *Patch 6880880: OPatch utility 12.2.0.1.44 for DB 23.0.0.0.0(Oct 2024)*  
(<https://support.oracle.com>)

## Testing Machine Information

Dell Laptop Precision 5530

CPU: 6 \* Intel(R) Core(TM) i7-8850H CPU @ 2.60GHz

RAM: 32 GB

NIC: 2

Local HDD: 1TB + 512GB

OS: SUSE Linux Enterprise Server 16 Beta4 (x86-64) - Kernel version: 6.12.0-160000.11-default

# Prerequisites

## 1. Installing SUSE Linux Enterprise Server 16

Install SUSE Linux Enterprise Server 16 with “Base, Base Traditional, Minimal Base, Selinux, Cockpit” pattern. Please follow official Oracle Database Installation manual for selective SLES OS required rpms.

**Figure 1-1 Software Installed as shown below**

```

Dell5530:~ # zypper pt | grep Beta4
i | base | 20241218-160000.11.1 | SLES-16.0-Beta4-Install |
i+ | cockpit | 16.0-160000.4.2 | SLES-16.0-Beta4-Install |
  | container_runtime_docker | 0.1-160000.2.3 | SLES-16.0-Beta4-Install |
i+ | devel_basis | 20170319-160000.1.3 | SLES-16.0-Beta4-Install |
  | devel_kernel | 20170319-160000.1.3 | SLES-16.0-Beta4-Install |
  | dhcp_dns_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
  | directory_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
  | documentation | 20241218-160000.11.1 | SLES-16.0-Beta4-Install |
i | enhanced_base | 20241218-160000.11.1 | SLES-16.0-Beta4-Install |
  | file_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
  | fips | 20241218-160000.11.1 | SLES-16.0-Beta4-Install |
  | gateway_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
i+ | gnome | 20250310-160000.4.1 | SLES-16.0-Beta4-Install |
i | gnome_basic | 20250310-160000.4.1 | SLES-16.0-Beta4-Install |
  | ha_sles | 16.0-160000.5.1 | SLES-16.0-Beta4-Install |
i+ | kvm_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
i+ | kvm_tools | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
  | lamp_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
  | mail_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
i | minimal_base | 20241218-160000.11.1 | SLES-16.0-Beta4-Install |
  | print_server | 20250225-160000.1.3 | SLES-16.0-Beta4-Install |
i+ | selinux | 20241218-160000.11.1 | SLES-16.0-Beta4-Install |
  | sles_sap_addons | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_APP | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_automation | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_base_sap_server | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_DB | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_debug | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_gui | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_HAAPP | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_HADB | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_minimal_sap | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_monitoring | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_security | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_trento_agent | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
  | sles_sap_trento_server | 16.0-160000.14.2 | SLES-16.0-Beta4-Install |
i+ | sw_management | 20241218-160000.11.1 | SLES-16.0-Beta4-Install |
Dell5530:~ # 

```

**Figure 1-2 OS release information and kernel version**

```
0ell5530:~ # more /etc/os-release
# The NAME and PRETTY_NAME fields have been chosen to state compatibility between our products.
# The use of "SLES" and "SUSE Linux Enterprise" rather than a more generic name is due to backward compatibility with existing OS detection code in applications of third party vendors.
NAME="SLES"
PRETTY_NAME="SUSE Linux Enterprise Server 16.0"
VARIANT="Enterprise Server"
VARIANT_ID="server"
VERSION="16.0 Beta4"
VERSION_ID="16.0"
ANSI_COLOR="0;32"
ID="SLES"
ID_LIKE="suse opensuse"
CPE_NAME="cpe:/o:suse:sles:16:16.0"
SUSE_SUPPORT_PRODUCT="SUSE Linux Enterprise Server"
SUSE_SUPPORT_PRODUCT_VERSION="16.0"
HOME_URL="https://www.suse.com/products/server/"
DOCUMENTATION_URL="https://documentation.suse.com/sles/16.0/"
LOGO="distributor-logo"
0ell5530:~ # uname -a
Linux 0ell5530 6.12.0-160000.11-default #1 SMP PREEMPT_DYNAMIC Wed Apr 23 19:46:18 UTC 2025 (e86f39b) x86_64 x86_64 x86_64 GNU/Linux
0ell5530:~ #
```

## 2. Download Oracle Software

Login to the SLES 16 64-bit OS as a non-admin user.

Download Oracle Database 19c(19.3 rpm version) for Linux x86-64 (oracle-database-ee-19c-1.0-1.x86\_64.rpm) from:

<https://www.oracle.com/database/technologies/oracle19c-linux-downloads.html>.

Download oracle-database-preinstall-19c EL9 Version(oracle-database-preinstall-19c-1.0-1.el9.x86\_64.rpm) from Oracle Linux home:

[https://yum.oracle.com/repo/OracleLinux/OL9/appstream/x86\\_64/](https://yum.oracle.com/repo/OracleLinux/OL9/appstream/x86_64/).

Download Oracle Database 19c(19.3 zip version) for Linux x86-64 (LINUX.X64\_193000\_db\_home.zip) from:

<https://www.oracle.com/database/technologies/oracle19c-linux-downloads.html>.

Download following patches from Oracle Support (MOS): <https://support.oracle.com>.

DATABASE RELEASE UPDATE 19.26.0.0.0 (Patch 37260974)

OCW RELEASE UPDATE 19.26.0.0.0 (Patch 37268031)

OJVM RELEASE UPDATE 19.26.0.0.0 (Patch 37102264)

OPatch utility 12.2.0.1.44 for DB 23.0.0.0.0(Oct 2024) (Patch 6880880)

# Oracle Database 19c Installation

## Case 1 - Installing Oracle Database 19c(rpm version) for x86-64 with patch 19.26.0.0.0

Pre-install the oracle-database-preinstall-19c EL9 version, and subsequently install the Oracle Database 19c rpm package. Ensure that all necessary dependencies and configurations are in place before installing the Oracle Database 19c RPM package.

1. Please make sure that the following packages are installed with SLES16.

```
-----  
bc  
binutils  
glibc  
glibc-devel  
insserv-compat  
libaio-devel  
libaio1  
libX11-6  
libXau6  
libXext-devel  
libXext6  
libXi-devel  
libXi6  
libXrender-devel  
libXrender1  
libXtst6  
libcap-ng-utils  
libcap-ng0  
libcap-progs  
libcap1  
libcap2  
libelf1  
libgcc_s1  
libjpeg8  
libpcap1  
libpcre1  
libpcre16-0  
libpng16-16  
libstdc++6  
libtiff6  
libgfortran5  
mksh  
make  
pixz  
rdma-core  
rdma-core-devel  
smartmontools  
sysstat  
xorg-x11-libs  
xz  
+ libnsl-stub1 (Newly added in Beta3)  
-----
```

2. Installing “oracle-database-preinstall-19c-1.0-1.el9.x86\_64.rpm”, then install the Oracle Database 19c rpm package.

```
# sudo rpm -ivh --nodeps oracle-database-preinstall-19c-1.0-1.el9.x86_64.rpm
```

```

oracle@Dell5530:...e/ORACLE_SW/DB/19c
/home/ORACLE_SW/DB/19c
Dell5530:/home/ORACLE_SW/DB/19c # rpm -ivh oracle-database-preinstall-19c-1.0-1.el9.x86_64.rpm
warning: oracle-database-preinstall-19c-1.0-1.el9.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID 8d8b756f: NOKEY
error: Failed dependencies:
    /etc/redhat-release is needed by oracle-database-preinstall-19c-1.0-1.el9.x86_64
    initscripts is needed by oracle-database-preinstall-19c-1.0-1.el9.x86_64
    libgcc is needed by oracle-database-preinstall-19c-1.0-1.el9.x86_64
    libnsl is needed by oracle-database-preinstall-19c-1.0-1.el9.x86_64
    libstdc++ is needed by oracle-database-preinstall-19c-1.0-1.el9.x86_64
    util-linux-ng is needed by oracle-database-preinstall-19c-1.0-1.el9.x86_64
    xorg-x11-utils is needed by oracle-database-preinstall-19c-1.0-1.el9.x86_64
Dell5530:/home/ORACLE_SW/DB/19c # rpm -ivh --nodeps oracle-database-preinstall-19c-1.0-1.el9.x86_64.rpm
warning: oracle-database-preinstall-19c-1.0-1.el9.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID 8d8b756f: NOKEY
Verifying... ##### [100%]
Preparing... ##### [100%]
Updating / installing...
 1:oracle-database-preinstall-19c-1.0-1.el9.x86_64.rpm ##### [100%]
Dell5530:/home/ORACLE_SW/DB/19c #

```

```
# sudo rpm -ivh oracle-database-ee-19c-1.0-1.x86_64.rpm
```

```

oracle@Dell5530:...e/ORACLE_SW/DB/19c
/home/ORACLE_SW/DB/19c
Dell5530:/home/ORACLE_SW/DB/19c # rpm -ivh oracle-database-ee-19c-1.0-1.x86_64.rpm
warning: oracle-database-ee-19c-1.0-1.x86_64.rpm: Header V3 RSA/SHA256 Signature, key ID ec551f03: NOKEY
Verifying... ##### [100%]
Preparing... ##### [100%]
Updating / installing...
 1:oracle-database-ee-19c-1.0-1.x86_64.rpm ##### [100%]
[INFO] Executing post installation scripts...
[INFO] Oracle home installed successfully and ready to be configured.
To configure a sample Oracle Database you can execute the following service configuration script as root: /etc/init.d/oracledb_ORCLCDB-19c
configure
Dell5530:/home/ORACLE_SW/DB/19c #

```

3. Apply the following patches using the OPatch utility (version 12.2.0.1.44):

37260974(DATABASE RELEASE UPDATE 19.26.0.0.0),  
 37268031(OCW RELEASE UPDATE 19.26.0.0.0),  
 37102264(OJVM RELEASE UPDATE 19.26.0.0.0)

```
# mv /opt/oracle/product/19c/dbhome_1/OPatch /opt/oracle/product/19c/dbhome_1/OPatch.bak
# unzip p6880880_230000_Linux-x86-64.zip -d /opt/oracle/product/19c/dbhome_1/

# $STAGE/37260974> /opt/oracle/product/19c/dbhome_1/OPatch/patch apply
```

```
Q oracle@Dell5530:...RU_192600/37260974
/home/ORACLE_SW/DB/19c/DB_patch_RU_192600/37260974
oracle@Dell5530:...e/ORACLE_SW/DB/19c oracle@Dell5530:...RU_192600/37260974 x
Patching component oracle.nlsrtl.rsflbuilder, 19.0.0.0.0...
Patching component oracle.ldap.ssl, 19.0.0.0.0...
Patching component oracle.network.listener, 19.0.0.0.0...
Patching component oracle.ldap.rsfc, 19.0.0.0.0...
Patching component oracle.rdbms.hsodbc, 19.0.0.0.0...
Patching component oracle.xdk.xquery, 19.0.0.0.0...
Patching component oracle.rdbms.dm, 19.0.0.0.0...
Patching component oracle.dbtoolslistener, 19.0.0.0.0...
Patching component oracle.ldap.client, 19.0.0.0.0...
Patching component oracle.javavm.server, 19.0.0.0.0...
Patching component oracle.rdbms.dv, 19.0.0.0.0...
Patching component oracle.rdbms.install.common, 19.0.0.0.0...
Patching component oracle.rdbms.lbac, 19.0.0.0.0...
Patching component oracle.rdbms.rat, 19.0.0.0.0...
Patching component oracle.oraolap.api, 19.0.0.0.0...
Patching component oracle.rdbms.locator, 19.0.0.0.0...
Patching component oracle.network.client, 19.0.0.0.0...
Patching component oracle.nlsrtl.rsfc, 19.0.0.0.0...
Patching component oracle.nlsrtl.rsfc.core, 19.0.0.0.0...
Patching component oracle.nlsrtl.rsfc.ic, 19.0.0.0.0...
Patching component oracle.precomp.common, 19.0.0.0.0...
Patching component oracle.precomp.lang, 19.0.0.0.0...
Patching component oracle.jdk, 1.8.0.201.0...
Patch 37260974 successfully applied.
Sub-set patch [29517242] has become inactive due to the application of a super-set patch [37260974].
Please refer to Doc ID 2161861.1 for any possible further required actions.
Log file location: /opt/oracle/product/19c/dbhome_1/cfgtoollogs/patch/patch2025-05-21_19-09-38PM_1.log
OPatch succeeded.
oracle@Dell5530:/home/ORACLE_SW/DB/19c/DB_patch_RU_192600/37260974>
```

```
# $STAGE/37257886/37268031> /opt/oracle/product/19c/dbhome_1/OPatch/opatch apply
```

```
oracle@Dell5530:~/37257886/37268031
/home/ORACLE_SW/DB/19c/DB_patch_OneOffs_192600/GI/37257886/37268031
oracle@Dell5530:~/ORACLE_SW/DB/19c
oracle@Dell5530:~/37257886/37268031

Verifying environment and performing prerequisite checks...
OPatch continues with these patches: 37268031

Do you want to proceed? [y|n]
y
User Responded with: Y
All checks passed.

Please shutdown Oracle instances running out of this ORACLE_HOME on the local system.
(Oracle Home = '/opt/oracle/product/19c/dbhome_1')

Is the local system ready for patching? [y|n]
y
User Responded with: Y
Backing up files...
Applying interim patch '37268031' to OH '/opt/oracle/product/19c/dbhome_1'
ApplySession: Optional component(s) [ oracle.has.crs.cvu, 19.0.0.0.0 ], [ oracle.rhp.crs, 19.0.0.0.0 ], [ oracle.has.crs, 19.0.0.0.0 ],
[ oracle.has.cvu, 19.0.0.0.0 ], [ oracle.xag, 19.0.0.0.0 ] not present in the Oracle Home or a higher version is found.

Patching component oracle.rdbms, 19.0.0.0.0...

Patching component oracle.has.db.cvu, 19.0.0.0.0...

Patching component oracle.has.db, 19.0.0.0.0...

Patching component oracle.rhp.db, 19.0.0.0.0...

Patching component oracle.has.rsfs, 19.0.0.0.0...

Patching component oracle.has.common.cvu, 19.0.0.0.0...

Patching component oracle.has.common, 19.0.0.0.0...

Patching component oracle.rhp.common, 19.0.0.0.0...

OPatch found the word "warning" in the stderr of the make command.
Please look at this stderr. You can re-run this make command.
Stderr output:
/usr/bin/ld: /opt/oracle/product/19c/dbhome_1/rdbms/lib/config.o: warning: relocation in read-only section `.rodata'
/usr/bin/ld: warning: creating DT_TEXTREL in a shared object
/usr/bin/ld: /opt/oracle/product/19c/dbhome_1/rdbms/lib/config.o: warning: relocation in read-only section `.rodata'
/usr/bin/ld: warning: creating DT_TEXTREL in a PIE

Patch 37268031 successfully applied.
Sub-set patch [29585399] has become inactive due to the application of a super-set patch [37268031].
Please refer to Doc ID 2161861.1 for any possible further required actions.
OPatch Session completed with warnings.
Log file location: /opt/oracle/product/19c/dbhome_1/cfgtoollogs/opatch/opatch2025-05-21_19-26-08PM.1.log

OPatch completed with warnings.
oracle@Dell5530:/home/ORACLE_SW/DB/19c/DB_patch_OneOffs_192600/GI/37257886/37268031>
```

```
# $STAGE/37102264> /opt/oracle/product/19c/dbhome_1/OPatch/opatch apply
```

```

oracle@Dell5530:...2600/OJVM/37102264
/home/ORACLE_SW/DB/19c/DB_patch_OneOffs_192600/OJVM/37102264

oracle@Dell5530:...e/ORACLE_SW/DB/19c
oracle@Dell5530:...e/ORACLE_SW/DB/19c
oracle@Dell5530:...2600/OJVM/37102264 x

oracle@Dell5530:/home/ORACLE_SW/DB/19c/DB_patch_OneOffs_192600/OJVM/37102264> /opt/oracle/product/19c/dbhome_1/OPatch/patch apply
Oracle Interim Patch Installer version 12.2.0.1.44
Copyright (c) 2025, Oracle Corporation. All rights reserved.

Oracle Home      : /opt/oracle/product/19c/dbhome_1
Central Inventory : /opt/oracle/orainventory
   from           : /opt/oracle/product/19c/dbhome_1/orainst.loc
OPatch version   : 12.2.0.1.44
OUI version      : 12.2.0.7.0
Log file location : /opt/oracle/product/19c/dbhome_1/cfgtoollogs/patch/patch2025-05-21_19-30-23PM_1.log

Verifying environment and performing prerequisite checks...
OPatch continues with these patches: 37102264

Do you want to proceed? [y|n]
y
User Responded with: Y
All checks passed.

Please shutdown Oracle instances running out of this ORACLE_HOME on the local system.
(Oracle Home = '/opt/oracle/product/19c/dbhome_1')

Is the local system ready for patching? [y|n]
y
User Responded with: Y
Backing up files...
Applying interim patch '37102264' to OH '/opt/oracle/product/19c/dbhome_1'

Patching component oracle.javavm.server, 19.0.0.0.0...

Patching component oracle.javavm.server.core, 19.0.0.0.0...

Patching component oracle.rdbms.dbscripts, 19.0.0.0.0...

Patching component oracle.rdbms, 19.0.0.0.0...

Patching component oracle.javavm.client, 19.0.0.0.0...
Patch 37102264 successfully applied.
Log file location: /opt/oracle/product/19c/dbhome_1/cfgtoollogs/patch/patch2025-05-21_19-30-23PM_1.log

OPatch succeeded.
oracle@Dell5530:/home/ORACLE_SW/DB/19c/DB_patch_OneOffs_192600/OJVM/37102264>

```

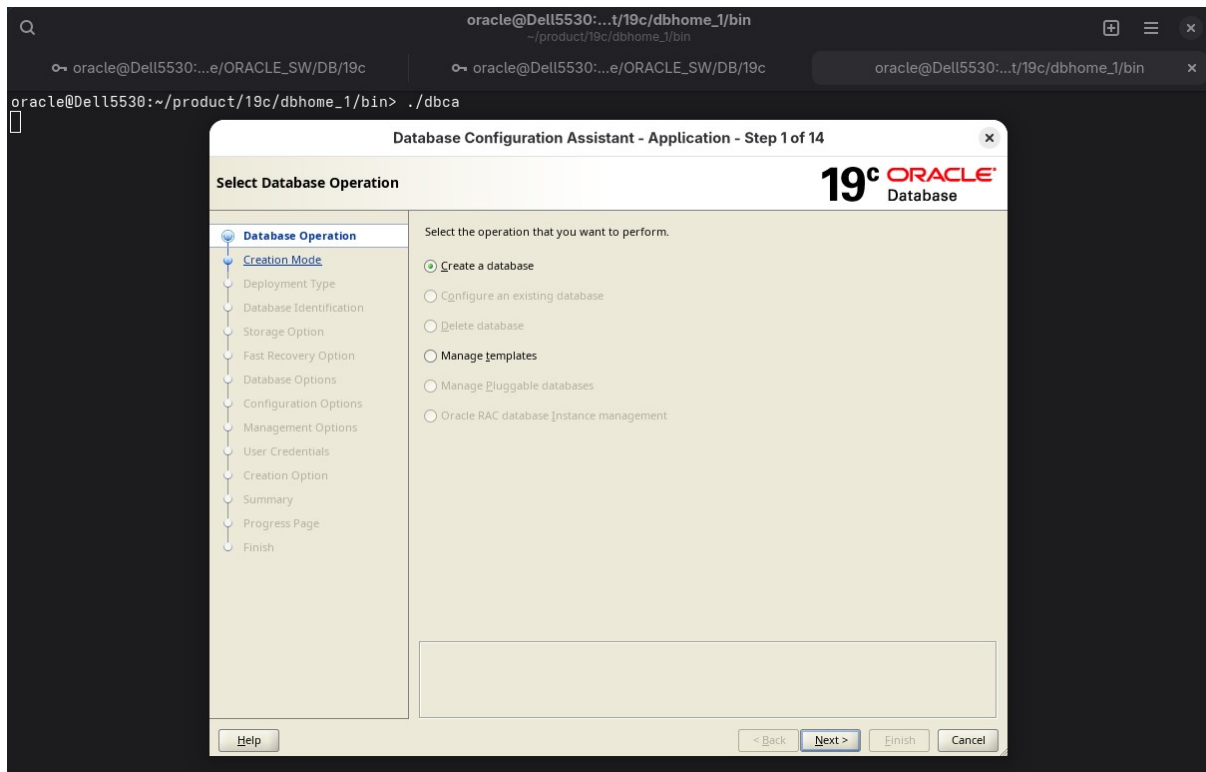
4. Check and ensure the successful installation of the above patches.

```
oracle@Dell5530:~/product/19c/dbhome_1/OPatch> ./opatch lspatches
37102264;OJVM RELEASE UPDATE: 19.26.0.0.250121 (37102264)
37268031;OCW RELEASE UPDATE 19.26.0.0.0 (37268031)
37260974;Database Release Update : 19.26.0.0.250121 (37260974)

OPatch succeeded.
oracle@Dell5530:~/product/19c/dbhome_1/OPatch> █
```

## 5. Using DBCA to create a database.

### 1). Select Database Operation.



Select Create a database, then click **Next** to continue.

## 2). Select Database Creation Mode.

Database Configuration Assistant - Create a database - Step 2 of 14

### Select Database Creation Mode

**19c ORACLE Database**

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

☒ Typical configuration

Global database name:

Storage type:

Database files location:

Fast Recovery Area (FRA):

Database character set:

Administrative password:

Confirm password:

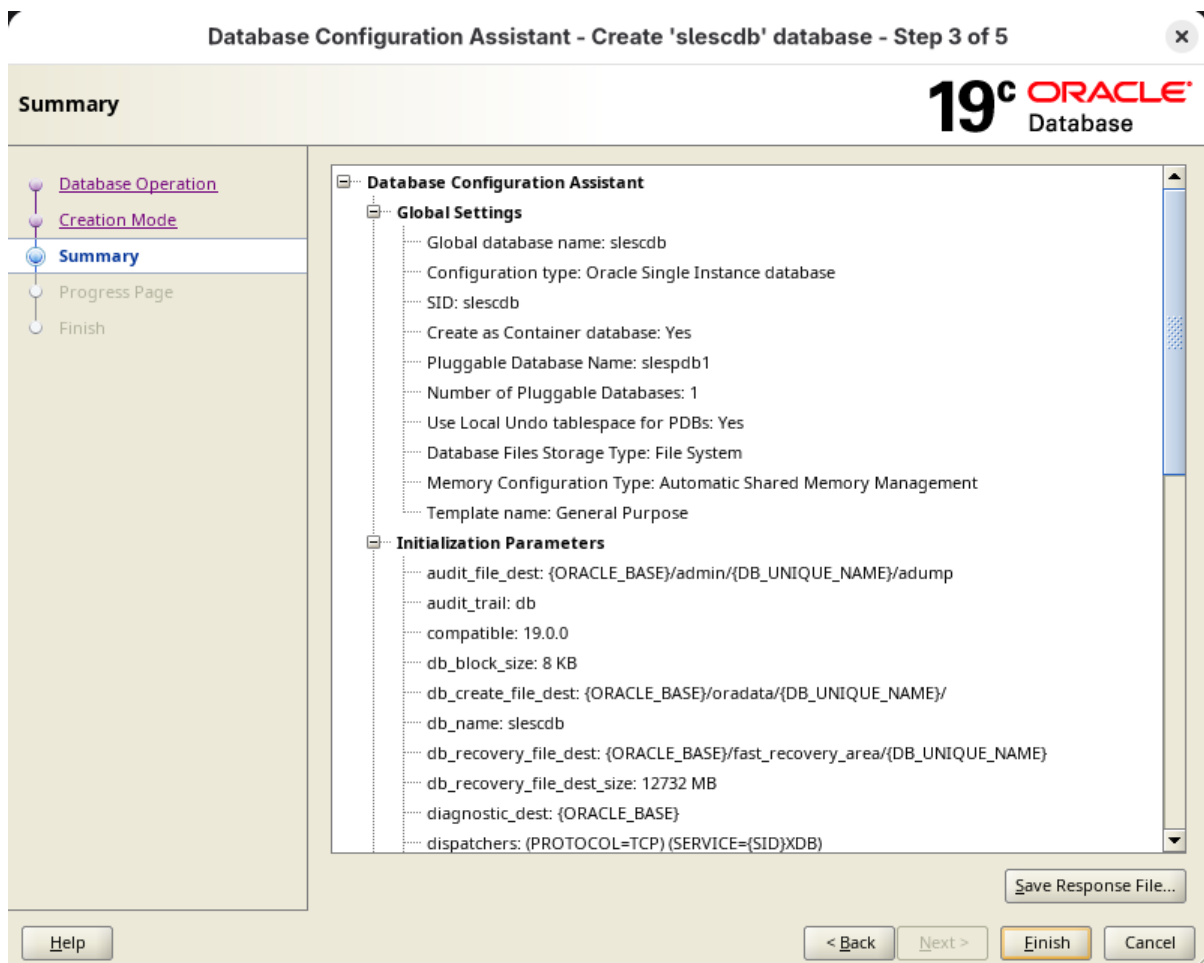
☒ Create as Container database

Pluggable database name:

☐ Advanced configuration

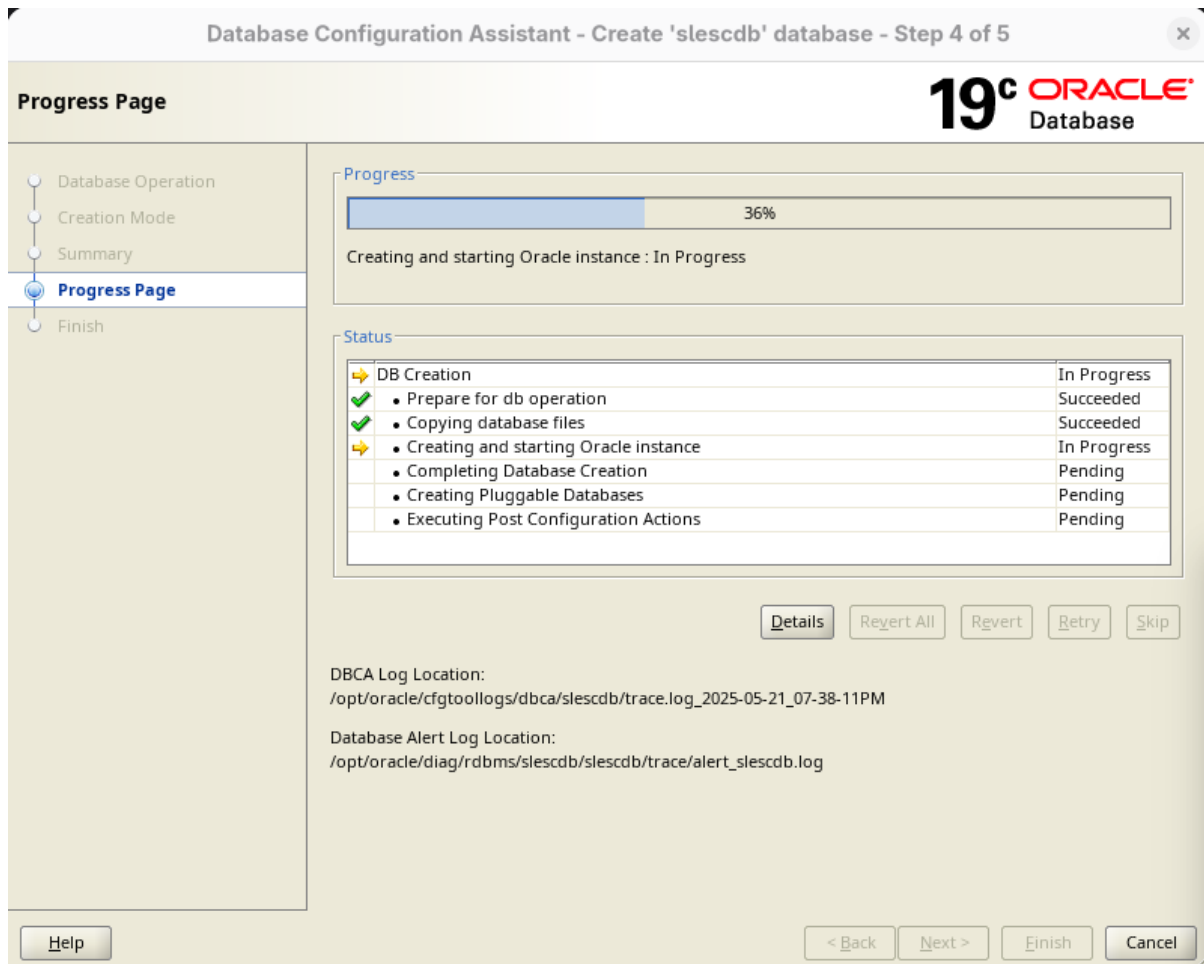
Select option "**Typical configuration**" and fill in administrator password. Then, click **Next** to continue.

## 3). Summary.



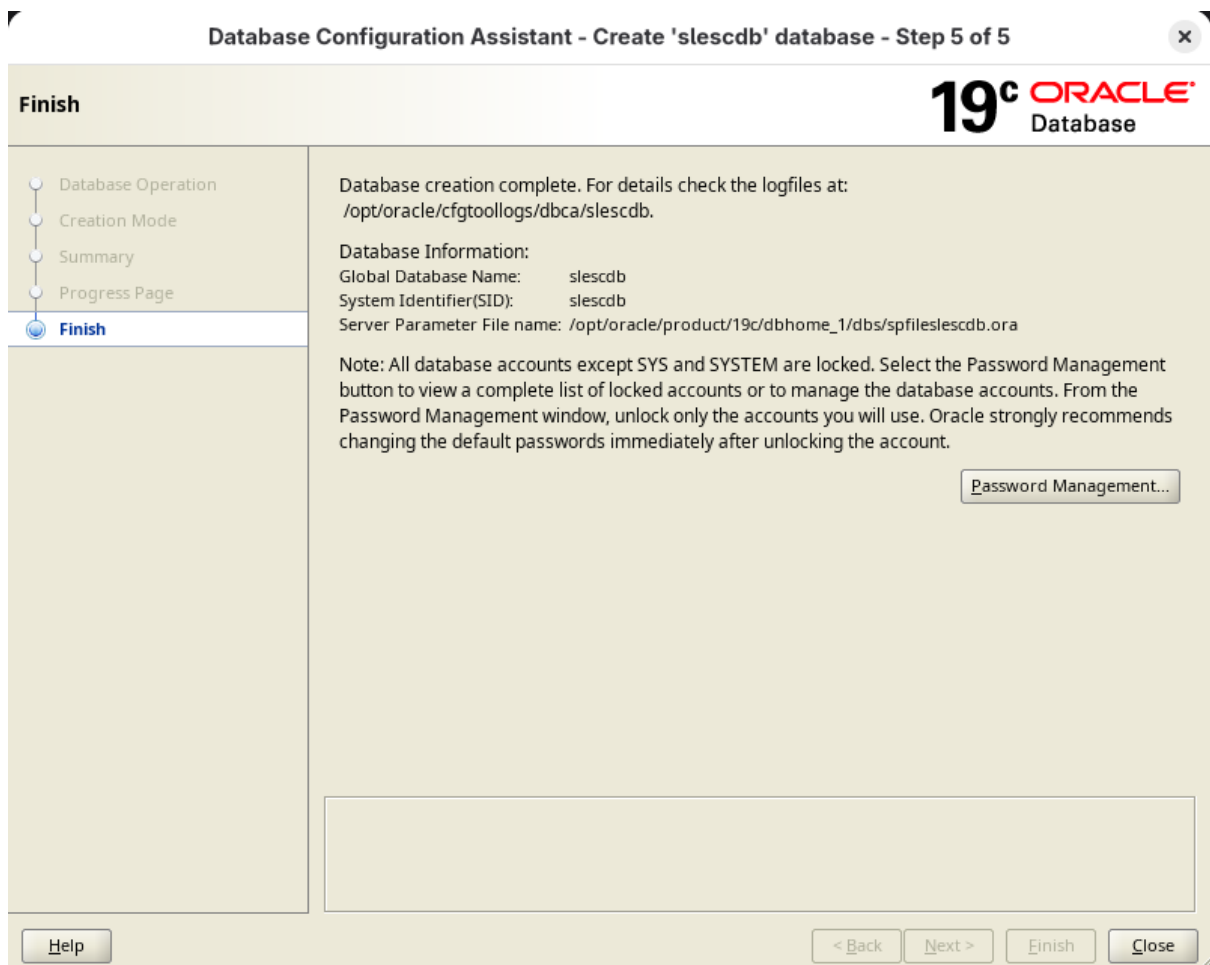
Database Configuration Summary as shown above, review the information, then click **Finish** to continue.

## 4). Progress Page.



Database creating progress as shown above, waiting until the creation is complete.

5). Finish.



Database creation complete, some details as shown above. Click **Close** to dismiss the screen.

## 6. Oracle Database 19c(19.26.0.0.0) Post-Install Checks

## 1). Checking database status

```

oracle@Dell5530:~> export ORACLE_HOME=/opt/oracle/product/19c/dbhome_1/
oracle@Dell5530:~> export ORACLE_SID=slescdb
oracle@Dell5530:~> /opt/oracle/product/19c/dbhome_1/bin/sqlplus /nolog

SQL*Plus: Release 19.0.0.0.0 - Production on Wed May 21 20:59:07 2025
Version 19.26.0.0.0

Copyright (c) 1982, 2024, Oracle. All rights reserved.

SQL> conn sys/ORACLEcom111@Dell5530:1521/slescdb as sysdba
Connected.
SQL> show sga

Total System Global Area 9999216776 bytes
Fixed Size 13922440 bytes
Variable Size 1610612736 bytes
Database Buffers 8355053568 bytes
Redo Buffers 19628032 bytes
SQL> show pdbs

  CON_ID CON_NAME                                OPEN MODE RESTRICTED
-----
      2 PDB$SEED                                READ ONLY NO
      3 SLESPDB1                                READ WRITE NO
SQL> exec DBMS_XDB_CONFIG.SETHTTPSPORT(5500);

PL/SQL procedure successfully completed.

SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.26.0.0.0

```

```

Q oracle@Dell5530:~
  oracle@Dell5530:...e/ORACLE_SW/DB/19c  oracle@Dell5530:...e/ORACLE_SW/DB/19c  oracle@Dell5530:~
oracle@Dell5530:~> export ORACLE_HOME=/opt/oracle/product/19c/dbhome_1/
oracle@Dell5530:~> export ORACLE_SID=slescdb
oracle@Dell5530:~> /opt/oracle/product/19c/dbhome_1/bin/lsnrctl status

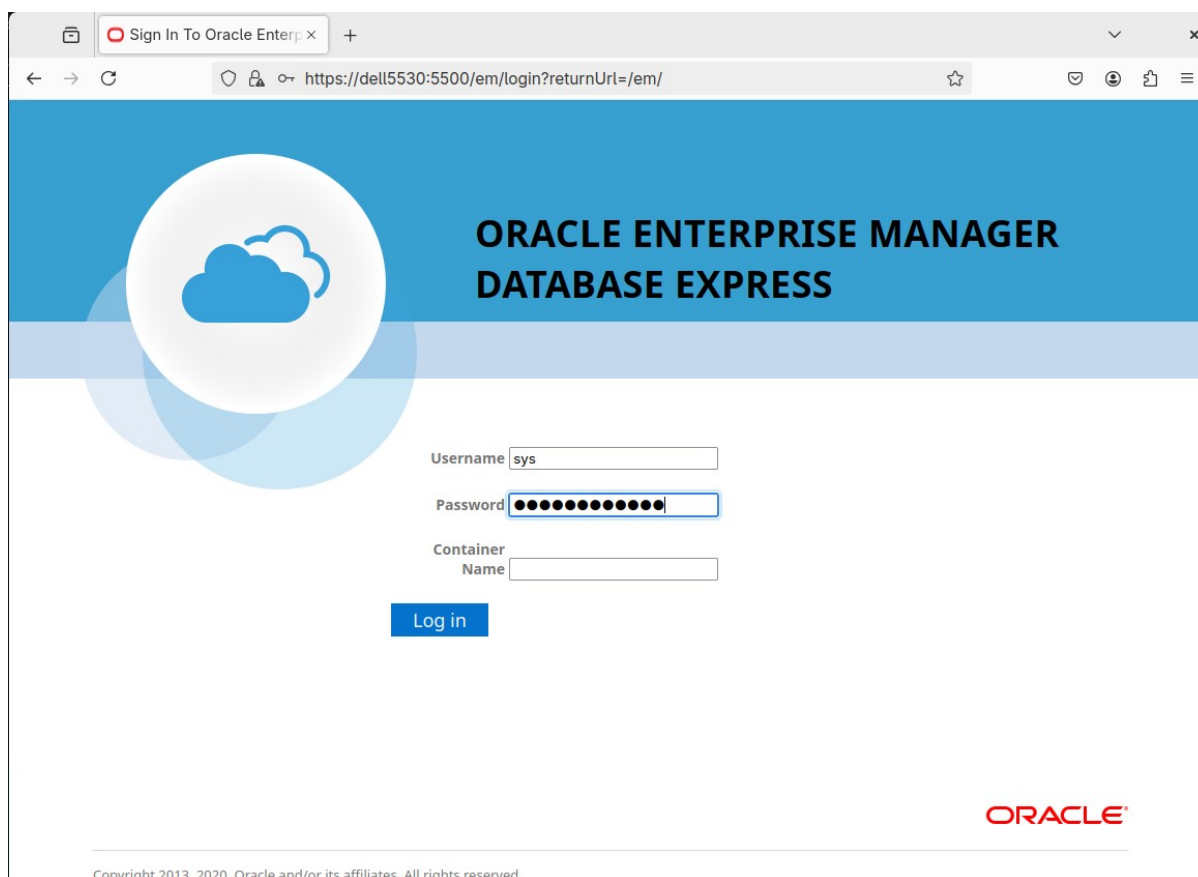
LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 21-MAY-2025 21:22:41

Copyright (c) 1991, 2024, Oracle. All rights reserved.

Connecting to (ADDRESS=(PROTOCOL=tcp)(HOST=)(PORT=1521))
STATUS of the LISTENER
-----
Alias                LISTENER
Version              TNSLSNR for Linux: Version 19.0.0.0.0 - Production
Start Date            21-MAY-2025 20:28:19
Uptime                0 days 0 hr. 54 min. 22 sec
Trace Level           off
Security              ON: Local OS Authentication
SNMP                 OFF
Listener Log File     /opt/oracle/diag/tnslsnr/Dell5530/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=Dell5530)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcps)(HOST=Dell5530)(PORT=5500))(Security=(my_wallet_directory=/opt/oracle/admin/slescdb/xdw_wallet))
  )(Presentation=HTTP)(Session=RAW))
Services Summary...
Service "35a54b178d4b689be0630700a8c07108" has 1 instance(s).
  Instance "slescdb", status READY, has 1 handler(s) for this service...
Service "86b637b62fdf7a65e053f706e80a27ca" has 1 instance(s).
  Instance "slescdb", status READY, has 1 handler(s) for this service...
Service "slescdb" has 1 instance(s).
  Instance "slescdb", status READY, has 1 handler(s) for this service...
Service "slescdbXDB" has 1 instance(s).
  Instance "slescdb", status READY, has 1 handler(s) for this service...
Service "slespdb1" has 1 instance(s).
  Instance "slescdb", status READY, has 1 handler(s) for this service...
The command completed successfully
oracle@Dell5530:~>

```

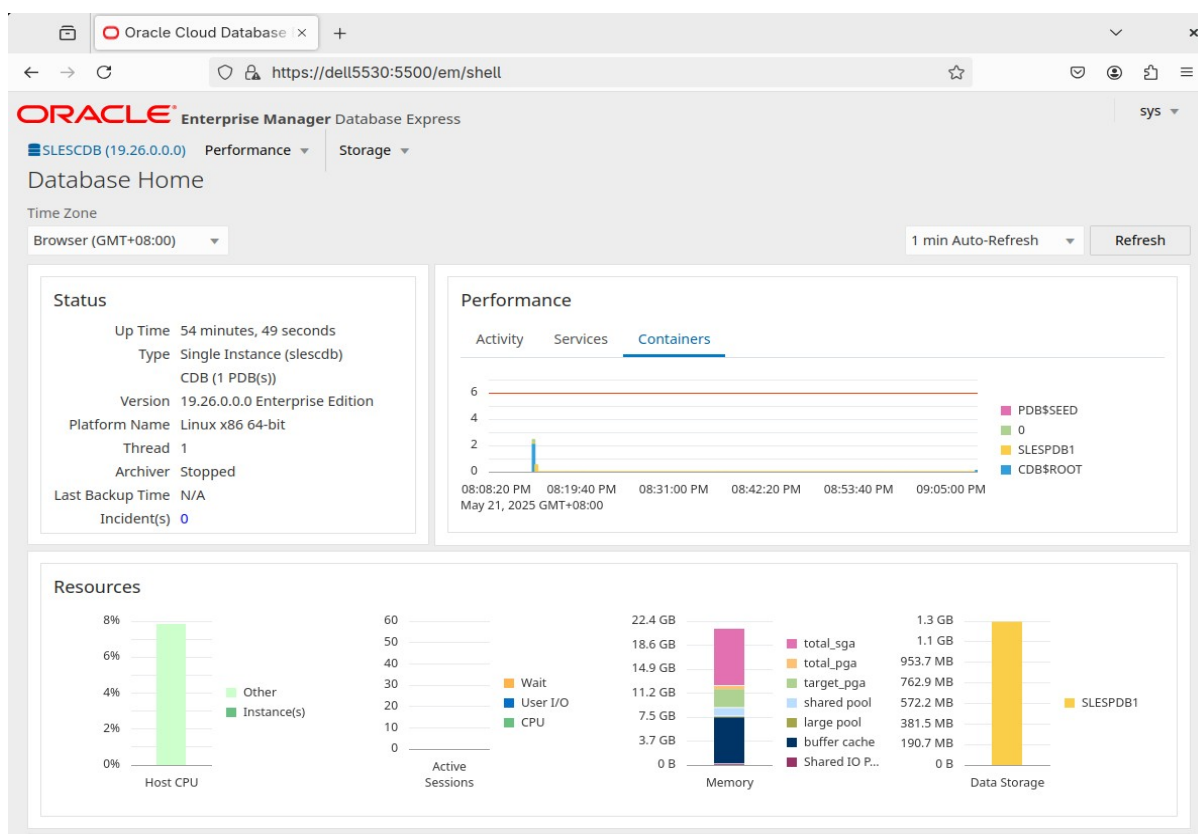
## 2). Access to Oracle Enterprise Manager.



The screenshot shows the Oracle Enterprise Manager Database Express login page. The browser address bar displays `https://dell5530:5500/em/login?returnUrl=/em/`. The page features a blue header with the Oracle Cloud logo and the text "ORACLE ENTERPRISE MANAGER DATABASE EXPRESS". Below the header, there is a login form with the following fields:

- Username: `sys`
- Password: (masked with dots)
- Container Name: (empty)

A blue "Log in" button is positioned below the password field. The Oracle logo is visible in the bottom right corner. At the bottom of the page, a copyright notice states: "Copyright 2013, 2020, Oracle and/or its affiliates. All rights reserved."



## Case 2 - Installing Oracle Database 19c(zip version) for x86-64 with patch 19.26.0.0.0

1. Please make sure that the following packages are installed with SLES16.

```
-----  
bc  
binutils  
glibc  
glibc-devel  
insserv-compat  
libaio-devel  
libaio1  
libX11-6  
libXau6  
libXext-devel  
libXext6  
libXi-devel  
libXi6  
libXrender-devel  
libXrender1  
libXtst6  
libcap-ng-utils  
libcap-ng0  
libcap-progs  
libcap1  
libcap2  
libelf1  
libgcc_s1  
libjpeg8  
libpcap1  
libpcre1  
libpcre16-0  
libpng16-16  
libstdc++6  
libtiff6  
libgfortran5  
mksh  
make  
pixz  
rdma-core  
rdma-core-devel  
smartmontools  
sysstat  
xorg-x11-libs  
xz  
+ libnsl-stub1 (Newly added in Beta3)  
-----
```

## 2. Installing Oracle Database 19c(zip version).

2-1. Extract LINUX.X64\_193000\_db\_home.zip and replace the OPatch directory located in the Database 19.3 ShipHome with OPatch version 12.2.0.1.44.

```
# mv /opt/oracle/db_19c/OPatch /opt/oracle/db_19c/OPatch.bak
# unzip p6880880_230000_Linux-x86-64.zip -d /opt/oracle/db_19c/
```

2-2. Launch the Oracle Universal Installer (runInstaller) from the Database ShipHome.

```
# export CV_ASSUME_DISTID=SLES16;
```

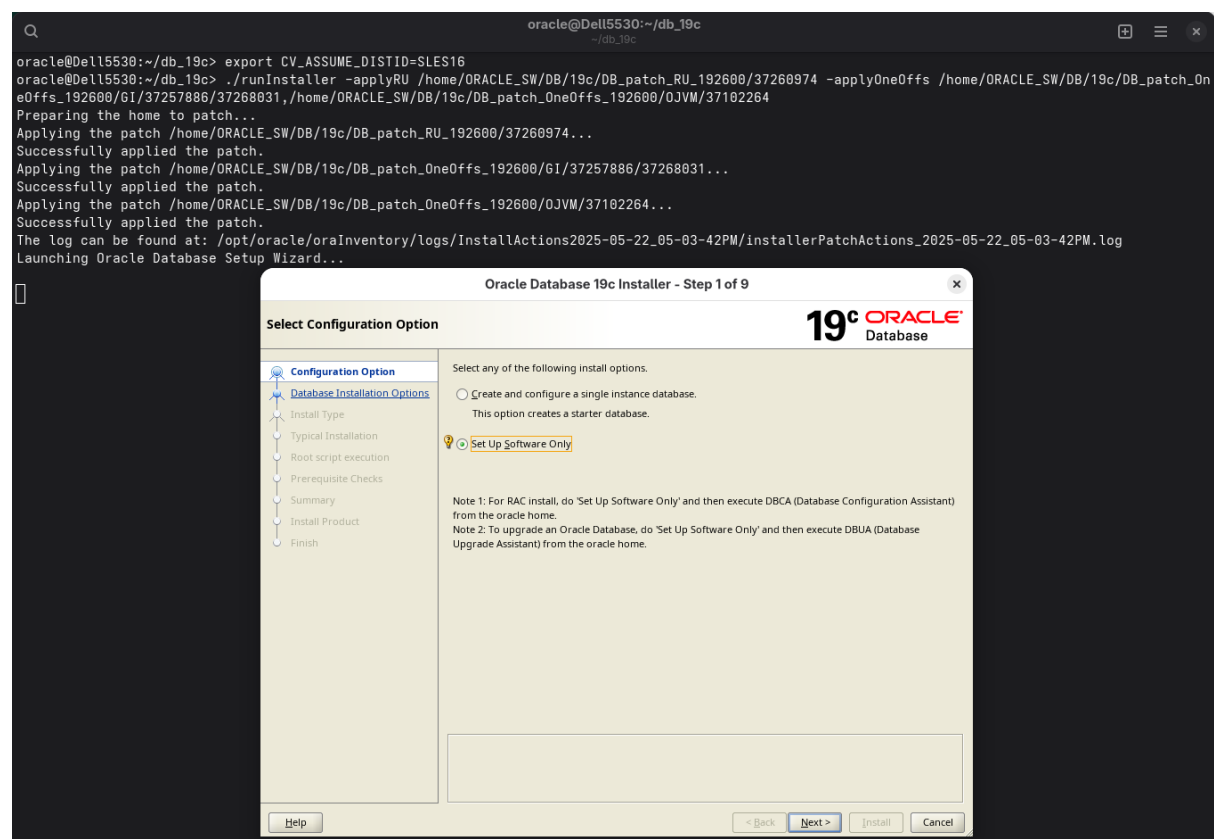
Then, launch the Oracle Universal Installer(runInstaller) from the Database ShipHome with the parameters to apply the required patches:

```
-applyRU $STAGE/37260974
-applyOneOffs $STAGE/37257886/37268031,$STAGE/37102264
```

These parameters will apply the recommended 19.26.0.0.0 release updates (RUs) and one-off patches to the database.

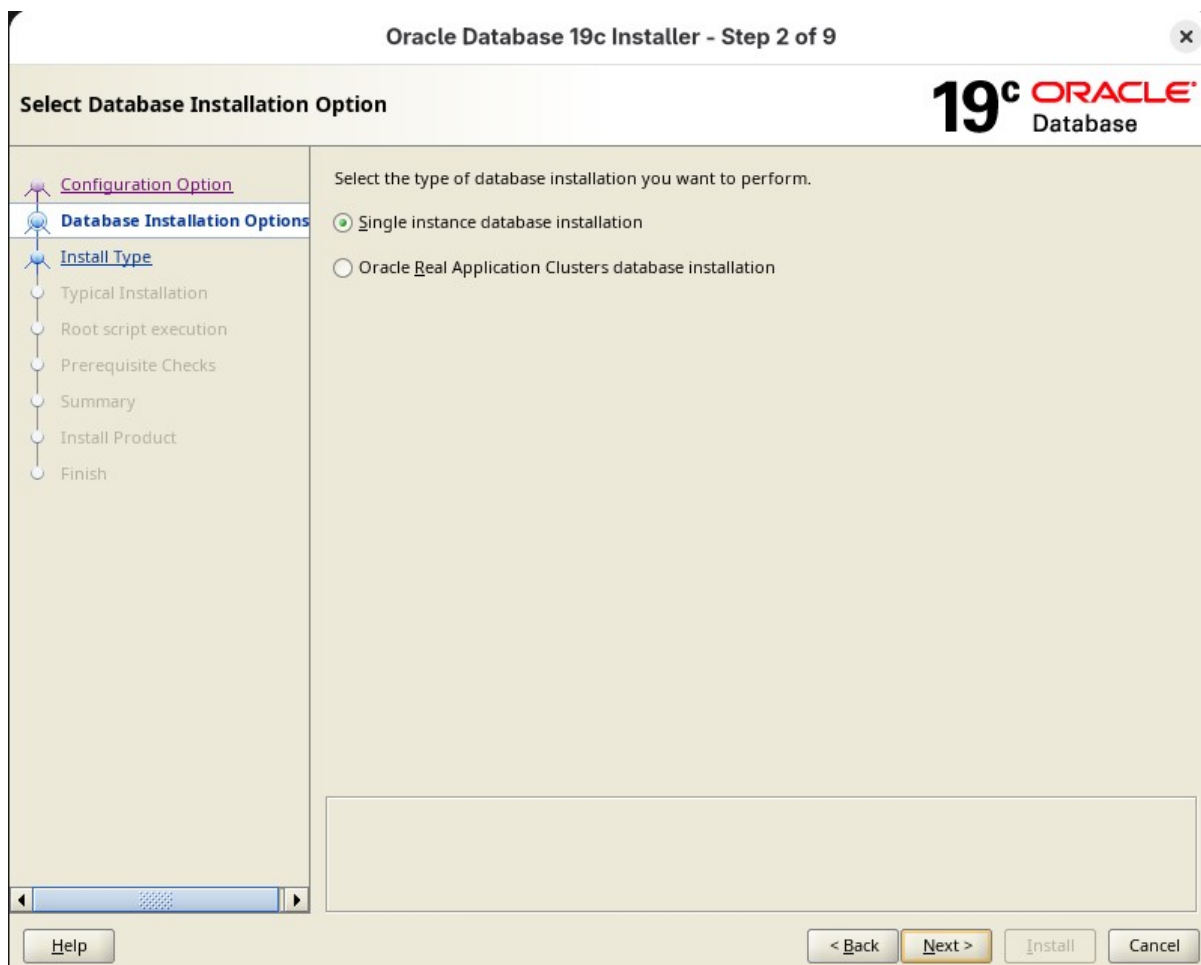
### Install Flow:

1). Select Configuration Option.



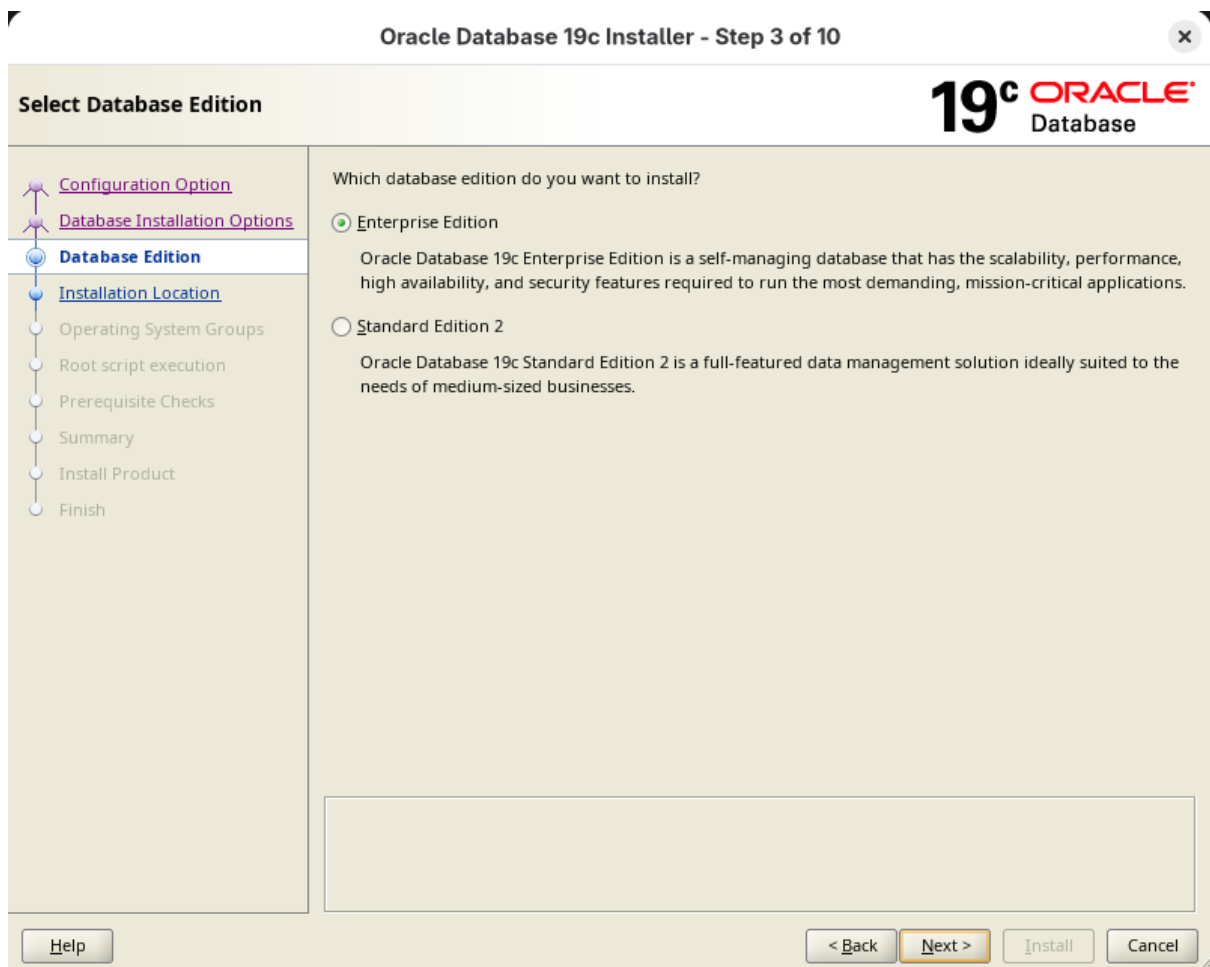
Select option "Set Up Software Only", then click **Next** to continue.

2). Select Database Installation Option.



Choose option **"Single instance database installation"**, then click **Next** to continue.

## 3). Select Database Edition.



Choose option **"Enterprise Edition"**, then click **Next** to continue.

## 4). Specify Installation Location.

Oracle Database 19c Installer - Step 4 of 10

### Specify Installation Location

**19c ORACLE Database**

Specify a path to place all Oracle software and configuration-related files installed by this installation owner. This location is the Oracle base directory for the installation owner.

Oracle base:

This software directory is the Oracle Database home directory.

Software location: /opt/oracle/db\_19c

Fill in **Oracle base** as shown above, then click **Next** to continue.

## 5). Privileged Operating System groups.

Oracle Database 19c Installer - Step 5 of 10

### Privileged Operating System groups

**19c ORACLE Database**

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

Database Administrator (OSDBA) group: dba

Database Operator (OSOPER) group (Optional): oper

Database Backup and Recovery (OSBACKUPDBA) group: backupdba

Data Guard administrative (OSDGDBA) group: dgdba

Encryption Key Management administrative (OSKMDBA) group: kmdba

Real Application Cluster administrative (OSRACDBA) group: racdba

Help < Back Next > Install Cancel

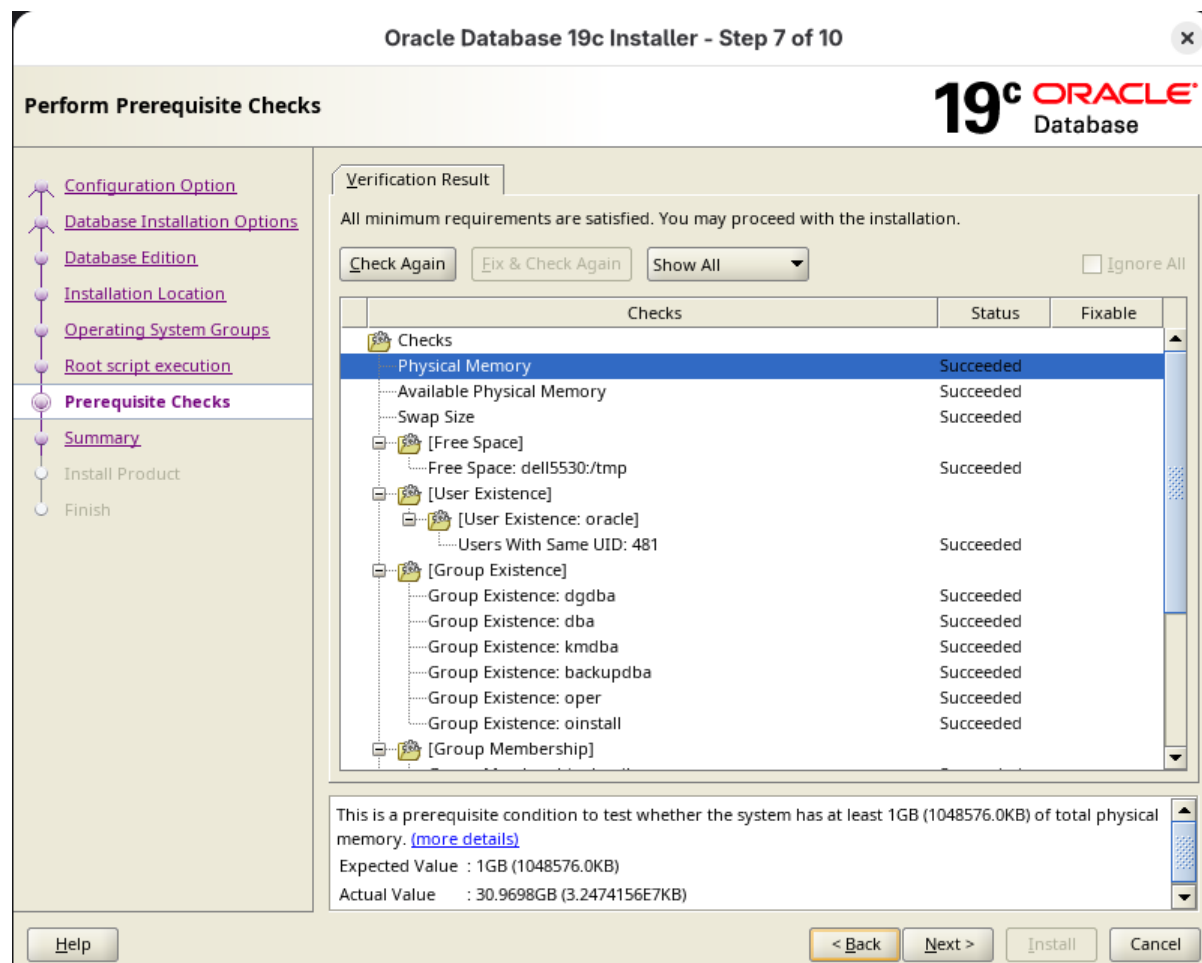
Selected by default, then click **Next** to continue.

## 6). Root script execution configuration.

The screenshot shows the 'Oracle Database 19c Installer - Step 6 of 10' window. The title bar includes a close button (X). The main window has a header with '19c ORACLE Database'. Below the header, the title 'Root script execution configuration' is displayed. On the left is a navigation pane with a tree view containing the following items: 'Configuration Option', 'Database Installation Options', 'Database Edition', 'Installation Location', 'Operating System Groups', 'Root script execution' (which is highlighted with a blue circle), 'Prerequisite Checks', 'Summary', 'Install Product', and 'Finish'. The main content area contains the following text: '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.' Below this text is a checked checkbox labeled 'Automatically run configuration scripts'. Under this checkbox, there are two radio button options: 'Use "root" user credential' (which is selected) and 'Use sudo'. The 'Use "root" user credential' option has a 'Password:' label followed by a text input field containing six dots. The 'Use sudo' option has three input fields: 'Program path:' with the value '/usr/bin/sudo' and a 'Browse...' button, 'User name:' with the value 'oracle', and 'Password:' with an empty text input field. At the bottom of the window, there is a 'Help' button on the left and a group of four buttons on the right: '< Back', 'Next >' (which is highlighted with a blue border), 'Install', and 'Cancel'.

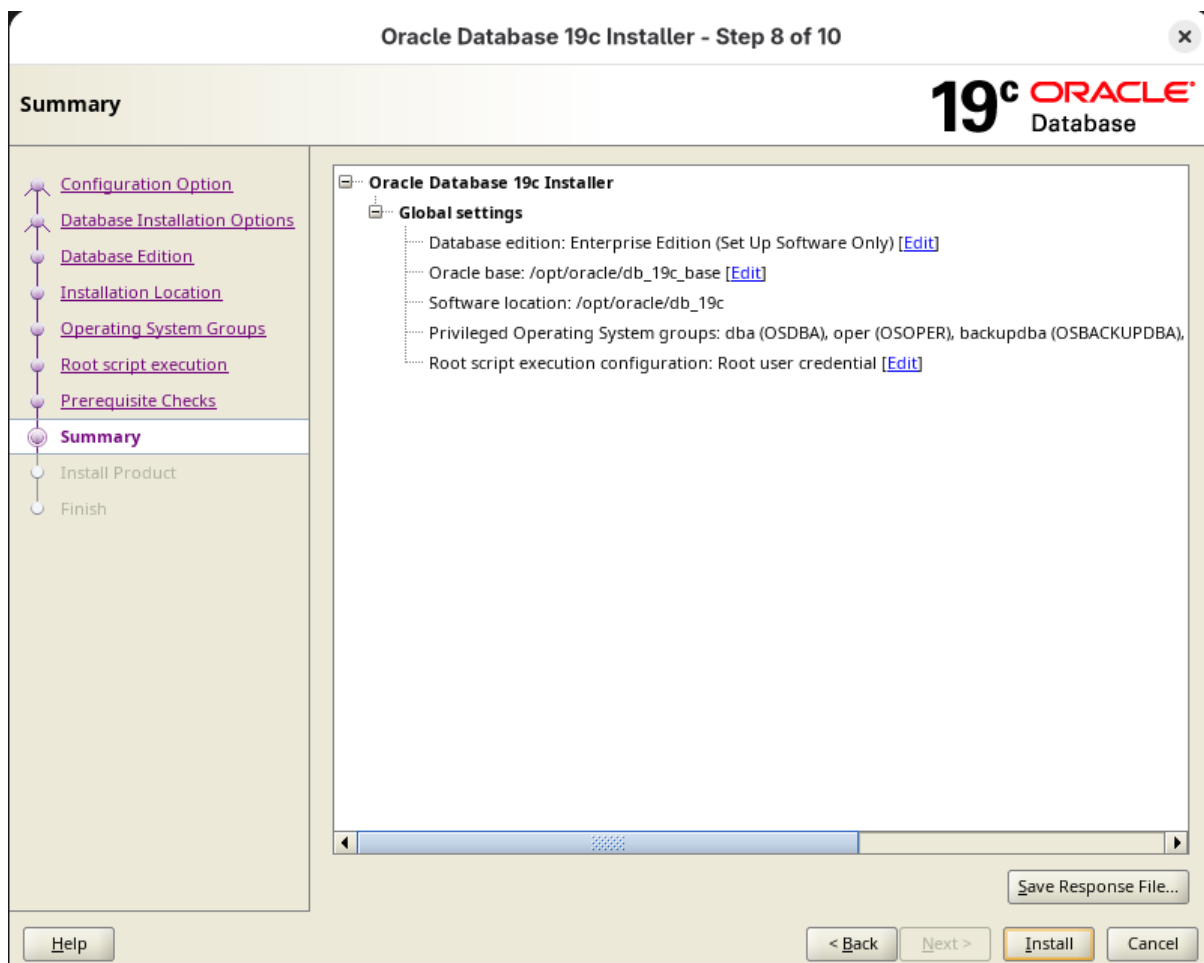
If select the option **Automatically run configuration scripts**, enter the credentials for the root user or a sudo account. Alternatively, run the scripts manually as the root user at the installation process when prompted by the installer. Click **Next** to continue.

## 7). Perform Prerequisite Checks.



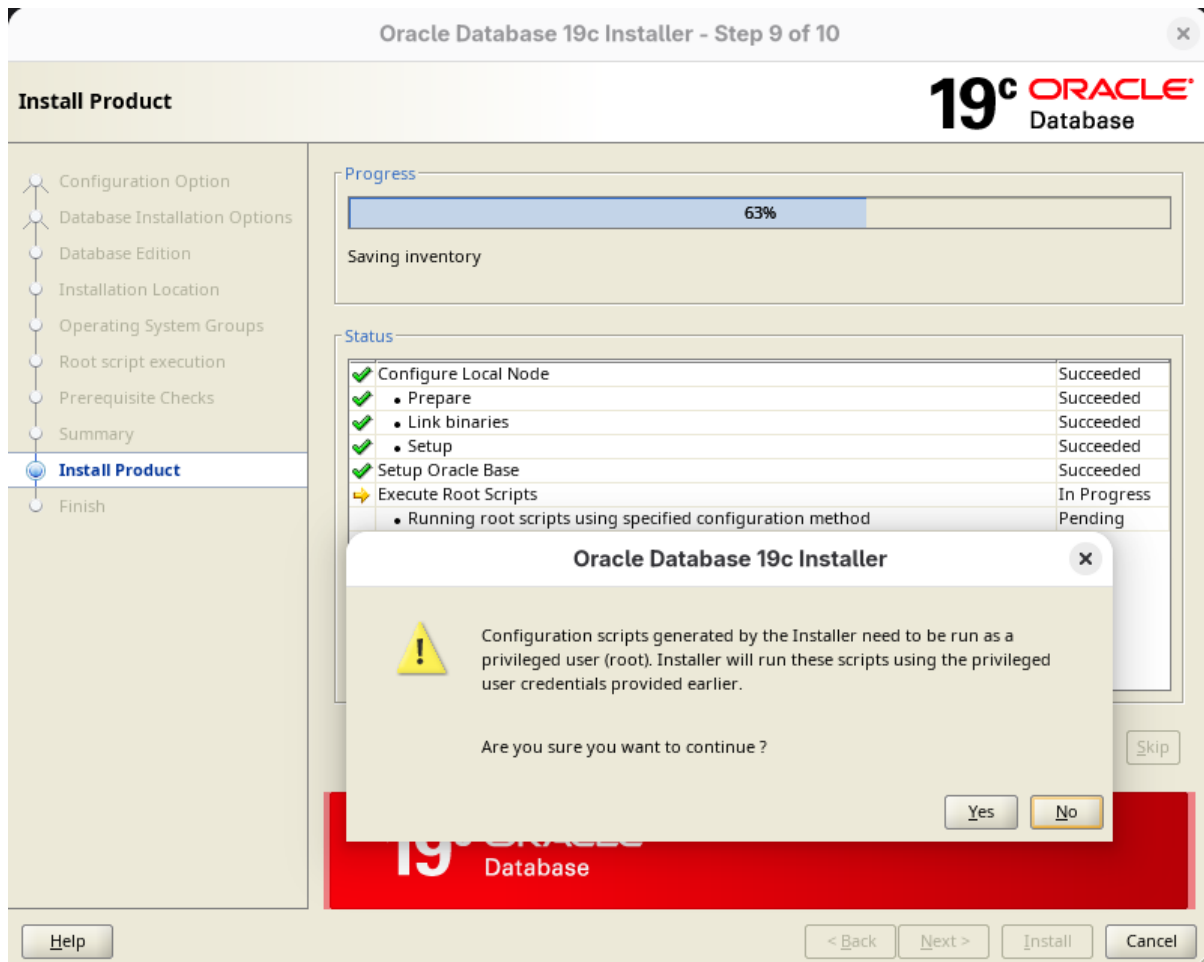
Perform Pre-Check as shown above. Select **Ignore All**, then click **Next** to continue.

8). Summary.



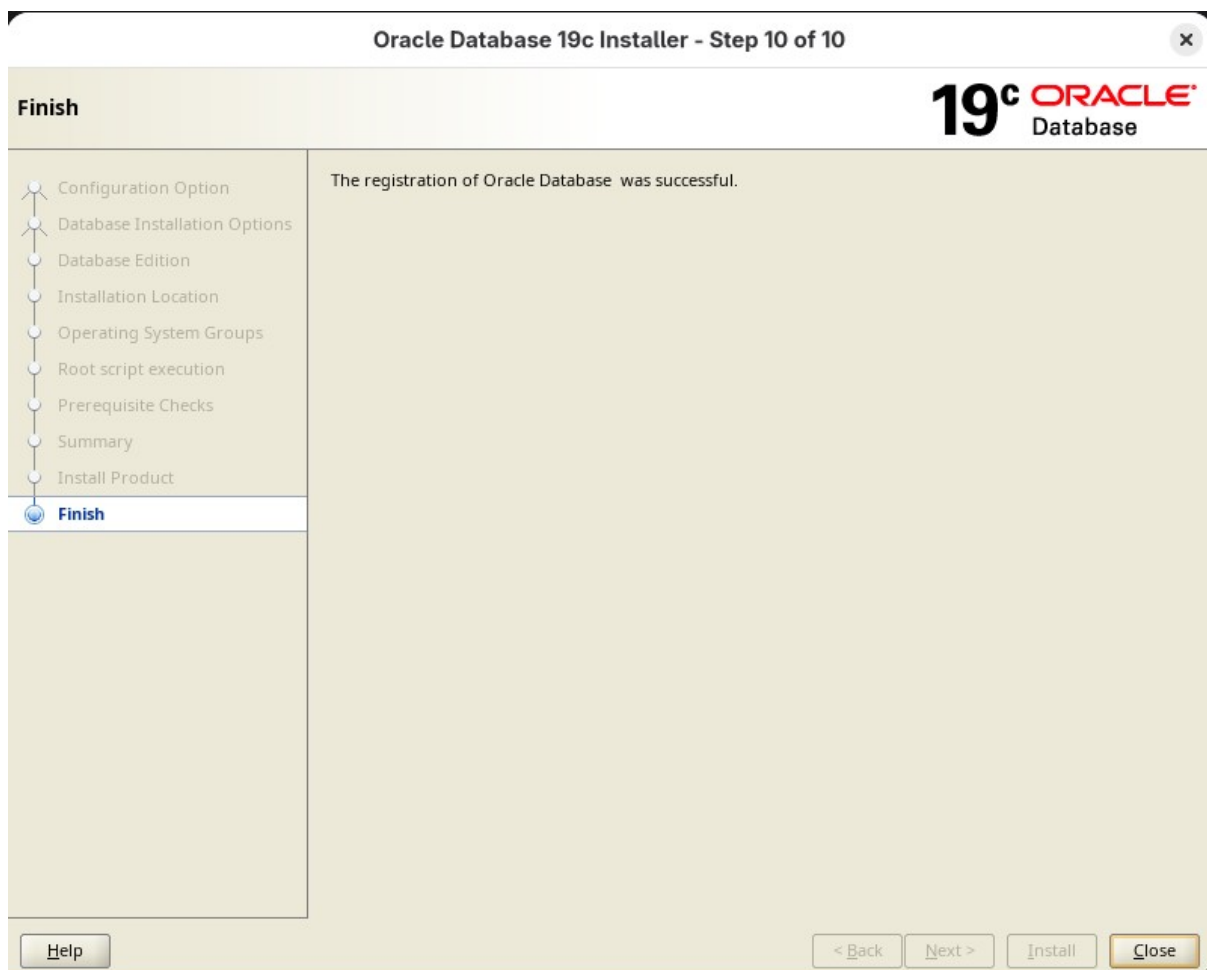
Installation Summary as shown above, click **Install** to continue.

## 9). Install Product.



Installer prompted you to run the root.sh scripts. Click **Yes** to continue. Monitoring the installation until the Finish window appears.

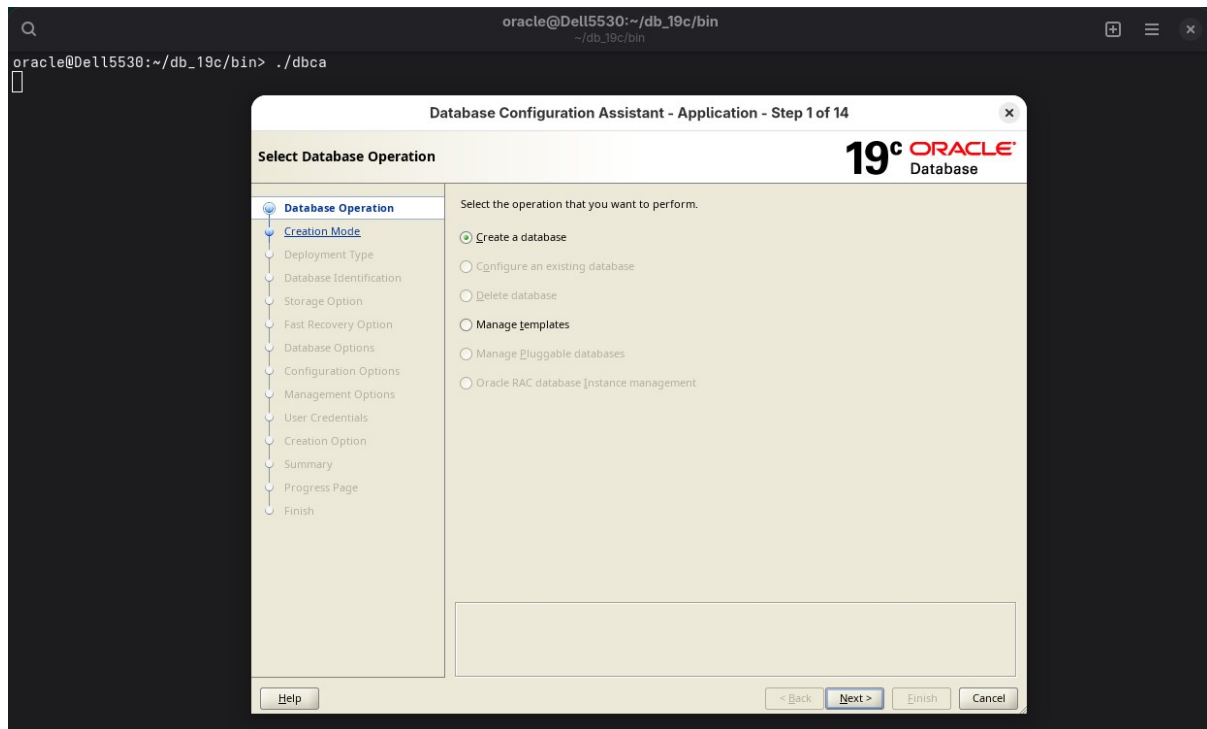
## 10). Finish



The installation of Oracle Database is finished, click **Close** to dismiss the screen.

### 3. Using DBCA to create a database.

#### 1). Select Database Operation.

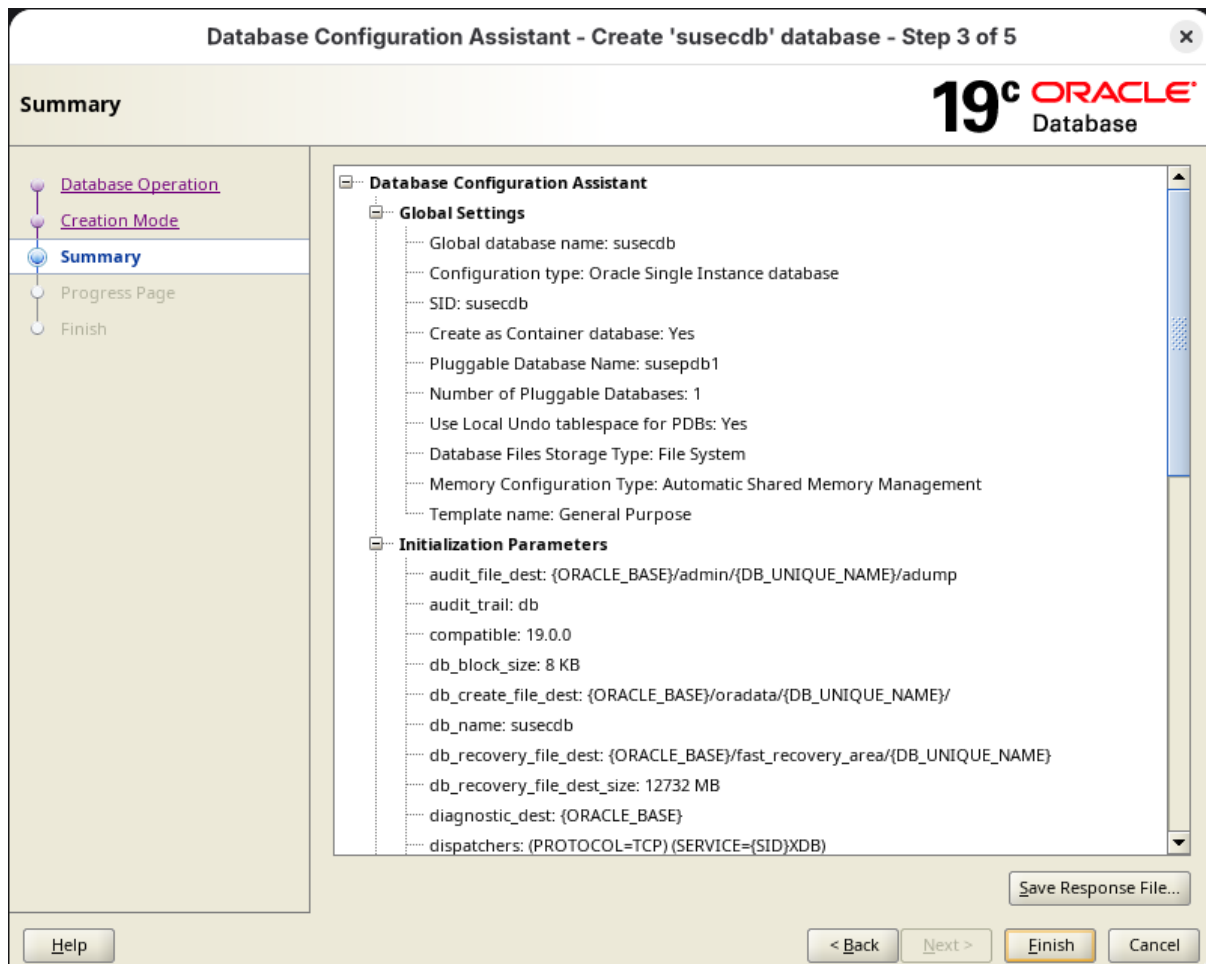


Select Create a database, then click **Next** to continue.

2). Select Database Creation Mode.

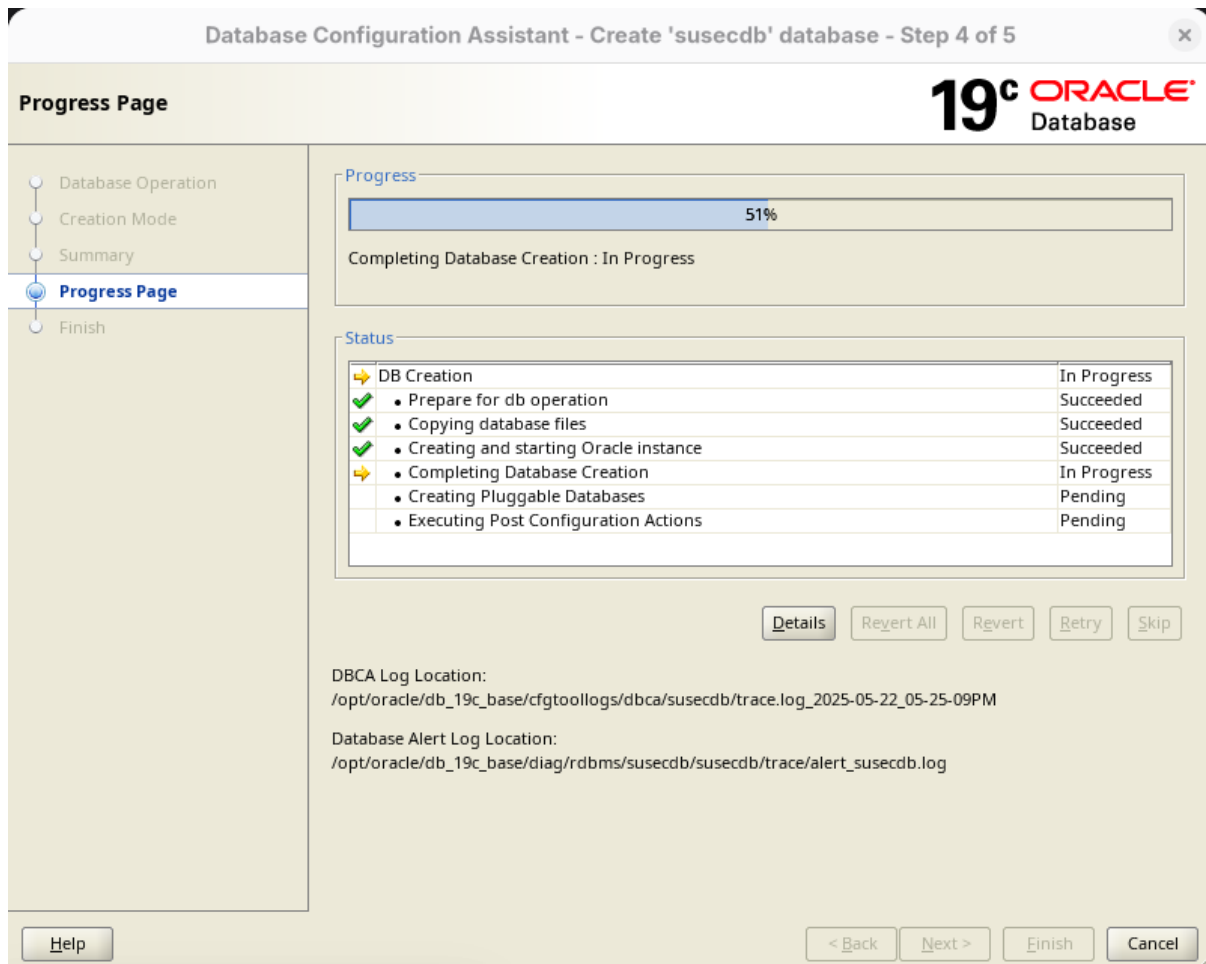
Select option "**Typical configuration**" and fill in administrator password. Then, click **Next** to continue.

## 3). Summary.



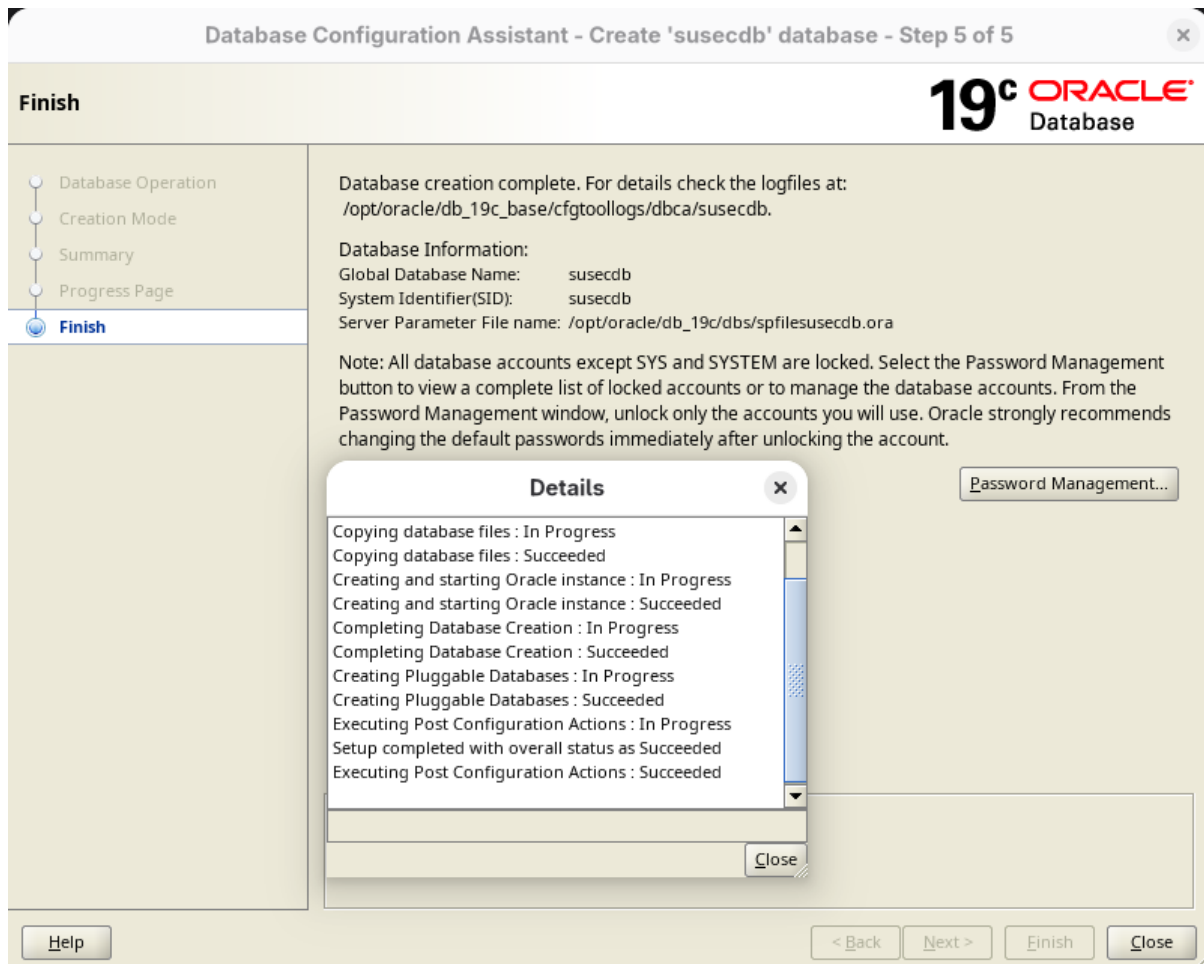
Database Configuration Summary as shown above, review the information, then click **Finish** to continue.

## 4). Progress Page.



Database creating progress as shown above, waiting until the creation is complete.

5). Finish.



Database creation complete, some details as shown above. Click **Close** to dismiss the screen.

## 4. Oracle Database 19c(19.26.0.0.0) Post-Install Checks

### 1. Checking database status

```
oracle@Dell5530:~> export ORACLE_HOME=/opt/oracle/db_19c
oracle@Dell5530:~> export ORACLE_SID=susecdb
oracle@Dell5530:~> /opt/oracle/db_19c/bin/sqlplus /nolog

SQL*Plus: Release 19.0.0.0.0 - Production on Thu May 29 18:32:59 2025
Version 19.26.0.0.0

Copyright (c) 1982, 2024, Oracle. All rights reserved.

SQL> conn /as sysdba
Connected to an idle instance.
SQL> startup
ORACLE instance started.

Total System Global Area 9999216776 bytes
Fixed Size 13922440 bytes
Variable Size 1610612736 bytes
Database Buffers 8355053568 bytes
Redo Buffers 19628032 bytes
Database mounted.
Database opened.
SQL> show pdbs

  CON_ID CON_NAME                                OPEN MODE RESTRICTED
  -----
         2 PDB$SEED                                READ ONLY NO
         3 SUSEPDB1                                MOUNTED

SQL> exec DBMS_XDB_CONFIG.SETHTTPSPORT(5500);

PL/SQL procedure successfully completed.

SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.26.0.0.0
oracle@Dell5530:~> █
```

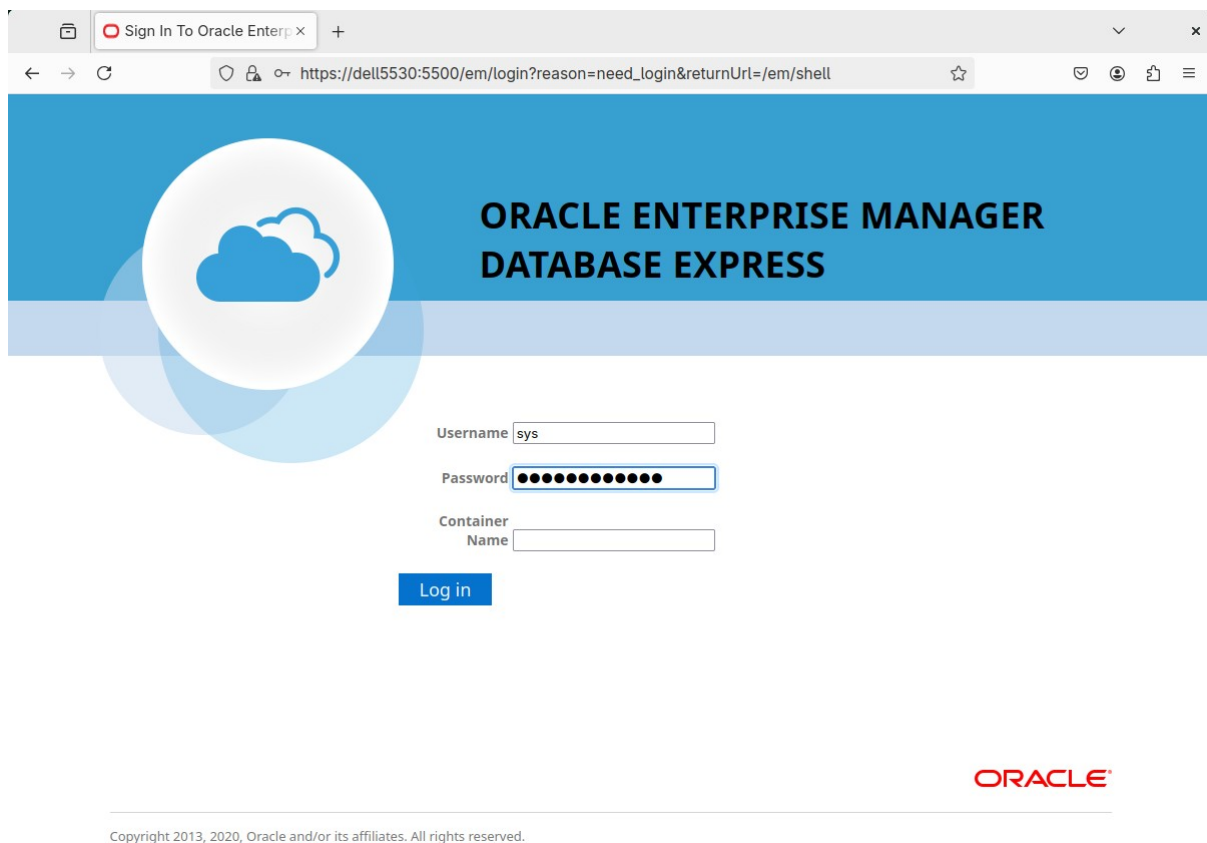
```
oracle@Dell5530:~> /opt/oracle/db_19c/bin/lsnrctl status

LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 29-MAY-2025 18:36:45

Copyright (c) 1991, 2024, Oracle. All rights reserved.

Connecting to (ADDRESS=(PROTOCOL=tcp)(HOST=)(PORT=1521))
STATUS of the LISTENER
-----
Alias                     LISTENER
Version                   TNSLSNR for Linux: Version 19.0.0.0.0 - Production
Start Date                29-MAY-2025 18:34:36
Uptime                    0 days 0 hr. 2 min. 9 sec
Trace Level               off
Security                  ON: Local OS Authentication
SNMP                      OFF
Listener Log File         /opt/oracle/db_19c_base/diag/tnslsnr/Dell5530/listener/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=Dell5530)(PORT=1521)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=Dell5530)(PORT=5500))(Security=(my_wallet_directory=/opt/oracle/db_19c/admin/susecdb/xdb_wallet))(Presentation=HTTP)(Session=RAW))
Services Summary...
Service "35b78be038444ad5e0630700a8c0b997" has 1 instance(s).
  Instance "susecdb", status READY, has 1 handler(s) for this service...
Service "86b637b62fdf7a65e053f706e80a27ca" has 1 instance(s).
  Instance "susecdb", status READY, has 1 handler(s) for this service...
Service "susecdb" has 1 instance(s).
  Instance "susecdb", status READY, has 1 handler(s) for this service...
Service "susecdbXDB" has 1 instance(s).
  Instance "susecdb", status READY, has 1 handler(s) for this service...
Service "susepdb1" has 1 instance(s).
  Instance "susecdb", status READY, has 1 handler(s) for this service...
The command completed successfully
oracle@Dell5530:~> █
```

## 2. Access to Oracle Enterprise Manager.



Sign In To Oracle Enterp x

https://dell5530:5500/em/login?reason=need\_login&returnUrl=/em/shell

# ORACLE ENTERPRISE MANAGER DATABASE EXPRESS

Username

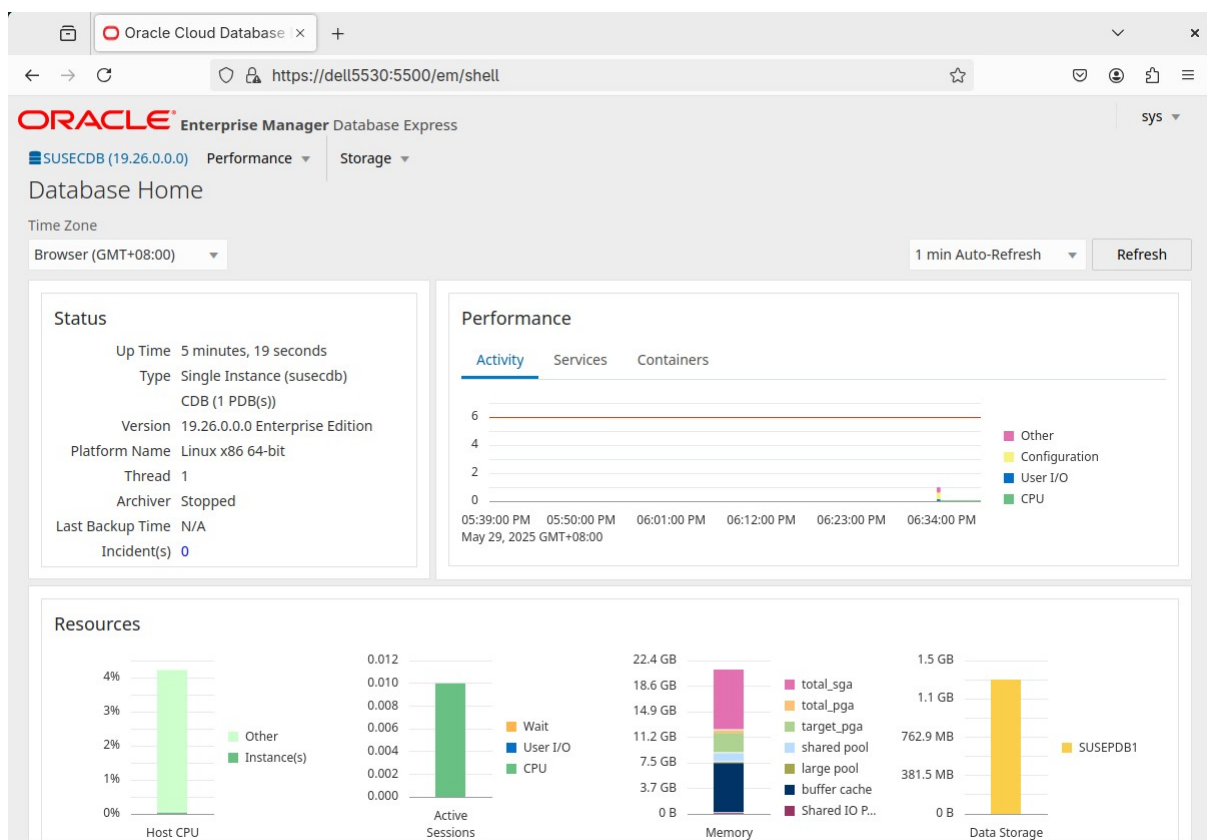
Password

Container Name

[Log in](#)

ORACLE

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## Troubleshooting

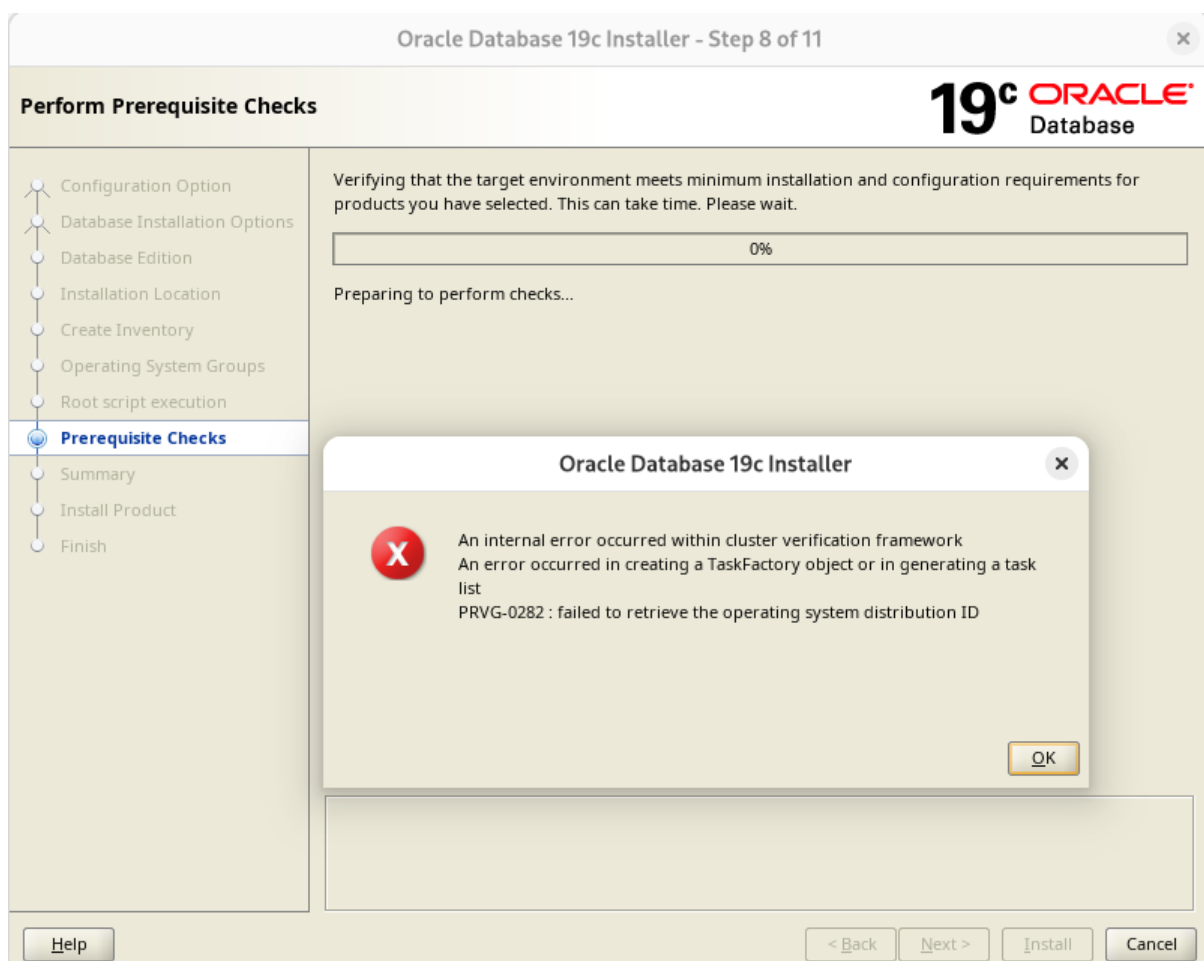
- *Dependency issue - When installing the "oracle-database-ee-19c-1.0-1.x86\_64.rpm" and "oracle-database-preinstall-19c-1.0-1.el9.x86\_64.rpm" packages, dependency issues may arise.*

*Workaround: Use the "--nodeps" option to resolve dependency issues during rpm installation.*

```
rpm -ivh --nodeps oracle-database-preinstall-19c-1.0-1.el9.x86_64.rpm
```

```
rpm -ivh --nodeps oracle-database-ee-19c-1.0-1.x86_64.rpm
```

- *PRVG-0282: failed to retrieve the operating system distribution ID*



*Workaround: Specify the "CV\_ASSUME\_DISTID".*

*For example:*

```
#export CV_ASSUME_DISTID=SUSE16
```

## Additional Comments

*This document provides a brief instruction to install Oracle Database 19c on SLES 16. You can extend this topology to make it highly available and secure so it is suitable for a production system.*

*Thanks for selecting **SUSE Linux Enterprise Server** as your Linux platform of choice!*