

Basic Installation Guide: Oracle Database 19c on Oracle Linux 8

Prerequisites:

- **Server:** A server running Oracle Linux 8 (64-bit).
- **RAM:** Minimum 2GB free RAM (8GB or more recommended).
- **CPU:** 2 cores or more.
- **Disk Space:** Sufficient space for software installation (around 6.5 GB) and your intended database size.
- **User:** A system user named `oracle` with privileges to install software and create the database.

Initial Setup:

1. **SELinux:** Temporarily set SELinux to permissive mode:

Bash

```
sudo setenforce 0
```

2. **Hostname:** Set the hostname permanently in `/etc/hostname`:

Bash

```
sudo hostnamectl set-hostname <your_hostname>
```

Then, update `/etc/hosts`:

Bash

```
sudo nano /etc/hosts
```

Add a line like (replace with your actual IP and hostname):

```
192.168.1.100 ol8-19c.localdomain ol8-19c
```

Note: Ensure your chosen hostname aligns with your network configuration.

3. **Partitions (If Needed):**
 - o **Verify:** Check if `/u01` and `/u02` exist and have enough space:

Bash

```
df -h
```

- o **Create (If Not Exist):** If necessary, create and format partitions:

Bash

```
sudo fdisk /dev/sdX # Replace X with the appropriate device
sudo mkfs.ext4 /dev/sdX1
```

```
sudo mkfs.ext4 /dev/sdX2
```

- o **Mount:**

Bash

```
sudo mkdir /u01 /u02
sudo mount /dev/sdX1 /u01
sudo mount /dev/sdX2 /u02
```

- o **Set Permissions (Important):**

Bash

```
sudo chown -R oracle:oinstall /u01 /u02
sudo chmod -R 775 /u01 /u02
```

4. **Firewall (Optional):** Disabling the firewall is not always necessary. If you do, use caution:

Bash

```
sudo systemctl stop firewalld
sudo systemctl disable firewalld
```

5. **Reboot (Optional):** A reboot is generally not required unless you made major changes to partitions.

Preinstallation Steps:

1. **Download Software and update:**

Bash

```
dnf install -y oracle-database-preinstall-19c
dnf update -y
```

2. **Prepare the Environment:**

- o Switch to the `oracle` user and change password:

Bash

```
sudo su - oracle
passwd
```

- o Create and edit the `setEnv.sh` script (adjust paths as needed):

Bash

```
mkdir /home/oracle/scripts
cat > /home/oracle/scripts/setEnv.sh <<EOF
# Oracle Settings
export TMP=/tmp
```

```
export TMPDIR=\$TMP
export ORACLE_HOSTNAME=ol8-19c.localdomain
export ORACLE_UNQNAME=cdb1
export ORACLE_BASE=/u01/app/oracle
export ORACLE_HOME=\$ORACLE_BASE/product/19.0.0/dbhome_1
export ORA_INVENTORY=/u01/app/oraInventory
export ORACLE_SID=cdb1
export PDB_NAME=pdb1
export DATA_DIR=/u01/oradata

export PATH=/usr/sbin:/usr/local/bin:\$PATH
export PATH=\$ORACLE_HOME/bin:\$PATH

export LD_LIBRARY_PATH=\$ORACLE_HOME/lib:/lib:/usr/lib
export CLASSPATH=\$ORACLE_HOME/jlib:\$ORACLE_HOME/rdbms/jlib
EOF
```

- o Add a reference to the "setEnv.sh" file:

Bash

```
echo ". /home/oracle/scripts/setEnv.sh" >>
/home/oracle/.bash_profile
```

- o Create the directories in which the Oracle software will be installed.

```
chown -R oracle:oinstall /u01 /u02
chmod -R 775 /u01 /u02
mkdir -p /u01/app/oracle/product/19.0.0/dbhome_1
mkdir -p /u01/oradata
```

- o Edit sshd_config.

```
vi /etc/ssh/sshd_config
X11Forwarding yes
```

Installation Steps:

1. Download Software:

Download “LINUX.X64_193000_db_home.zip” file from the oracle website and transfer it to /home/oracle/ in the server:

2. Change directory and unzip:

Bash

```
cd $ORACLE_HOME
unzip -oq /path/to/software/LINUX.X64_193000_db_home.zip
```

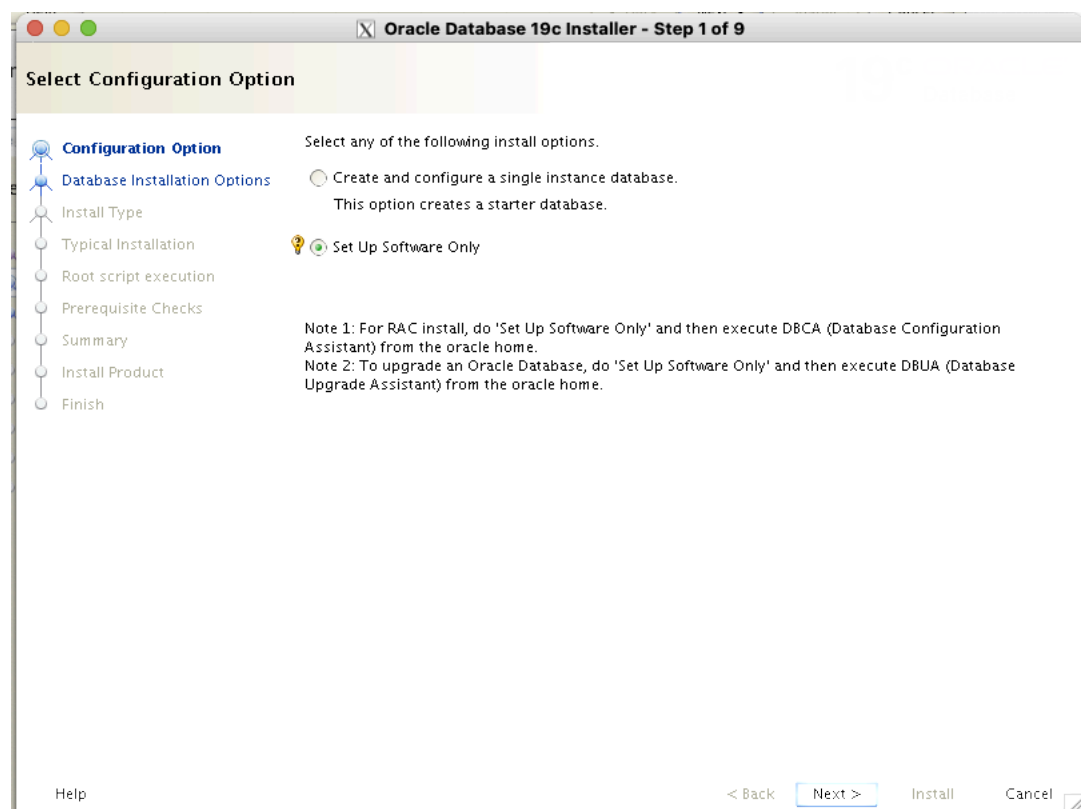
3. Run installer:

Bash

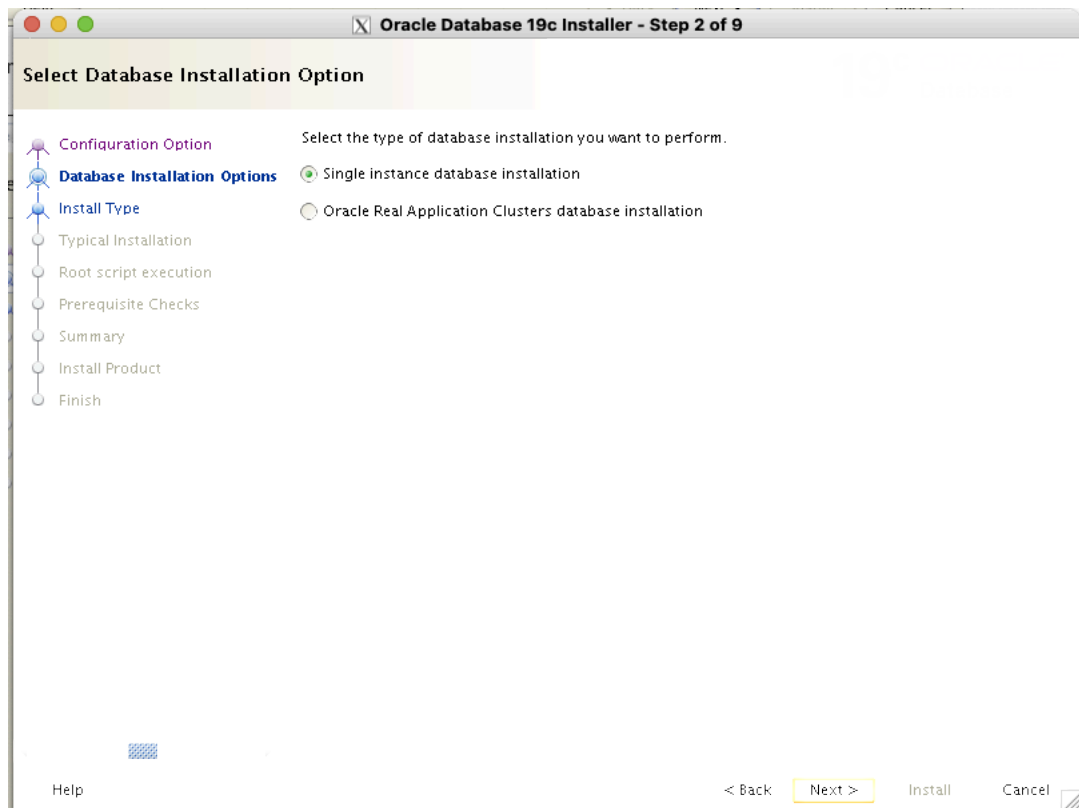
```
./runInstaller
```

A window will appear to guide you through the installation process.

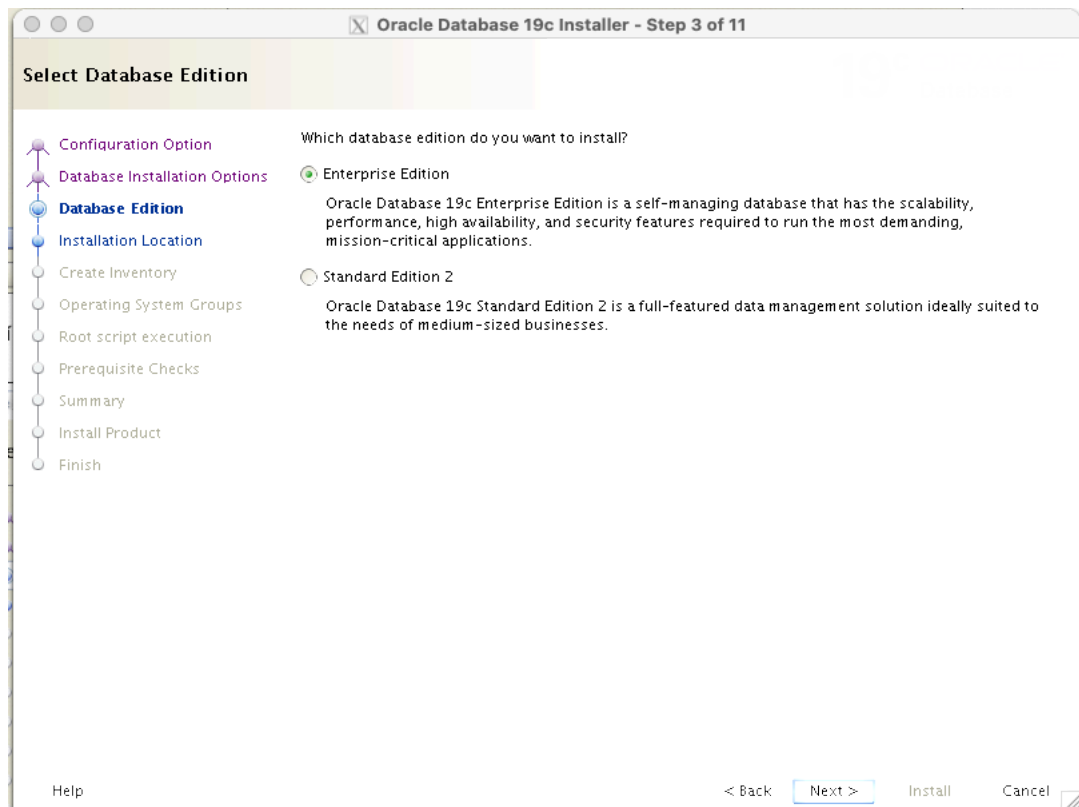
4. Choose “Set up Software only”



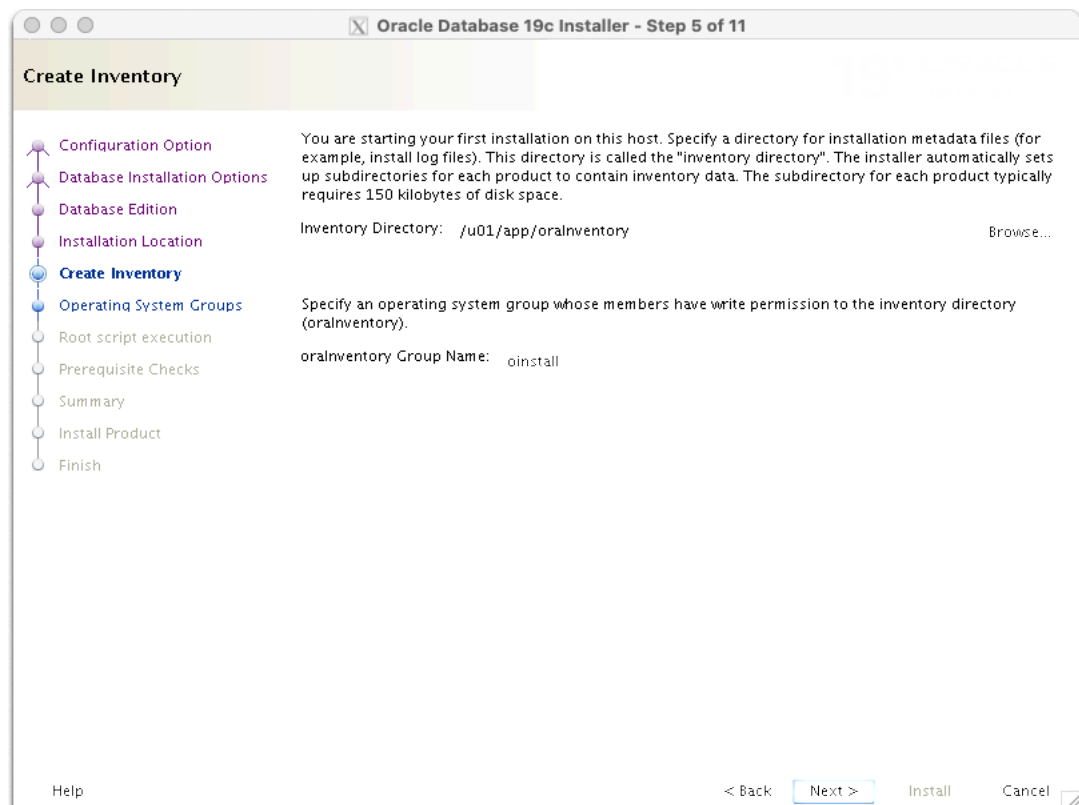
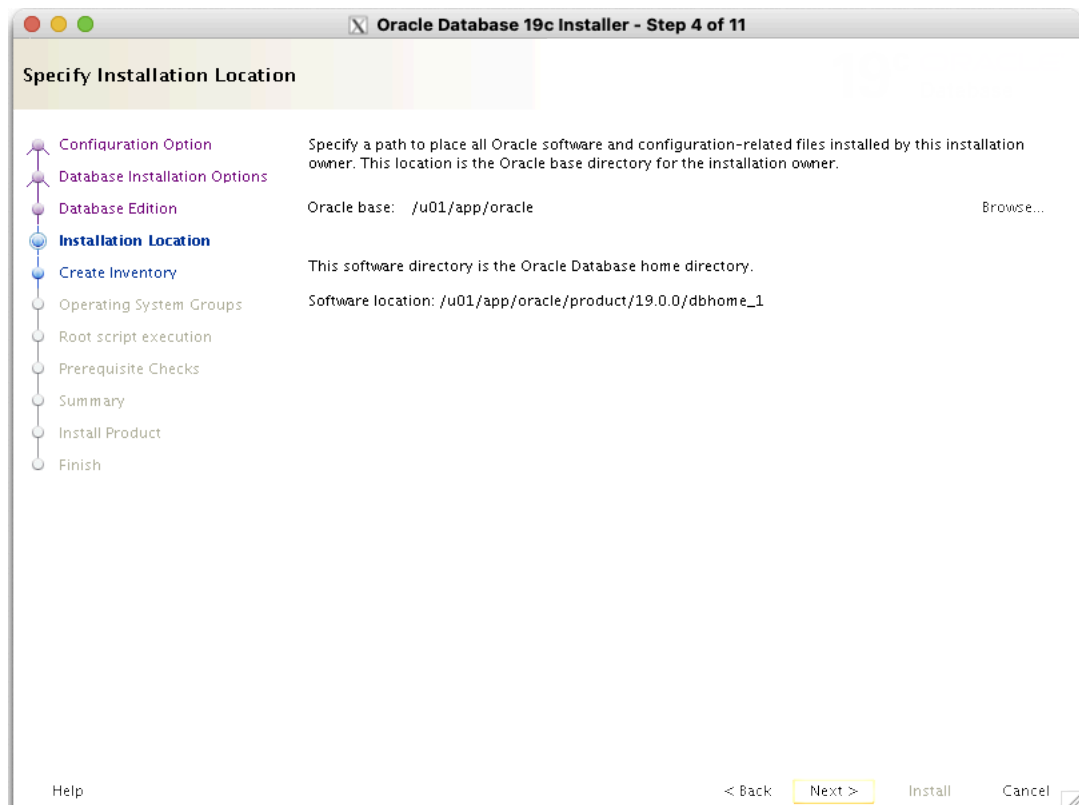
5. We are going to install a single-instance database.

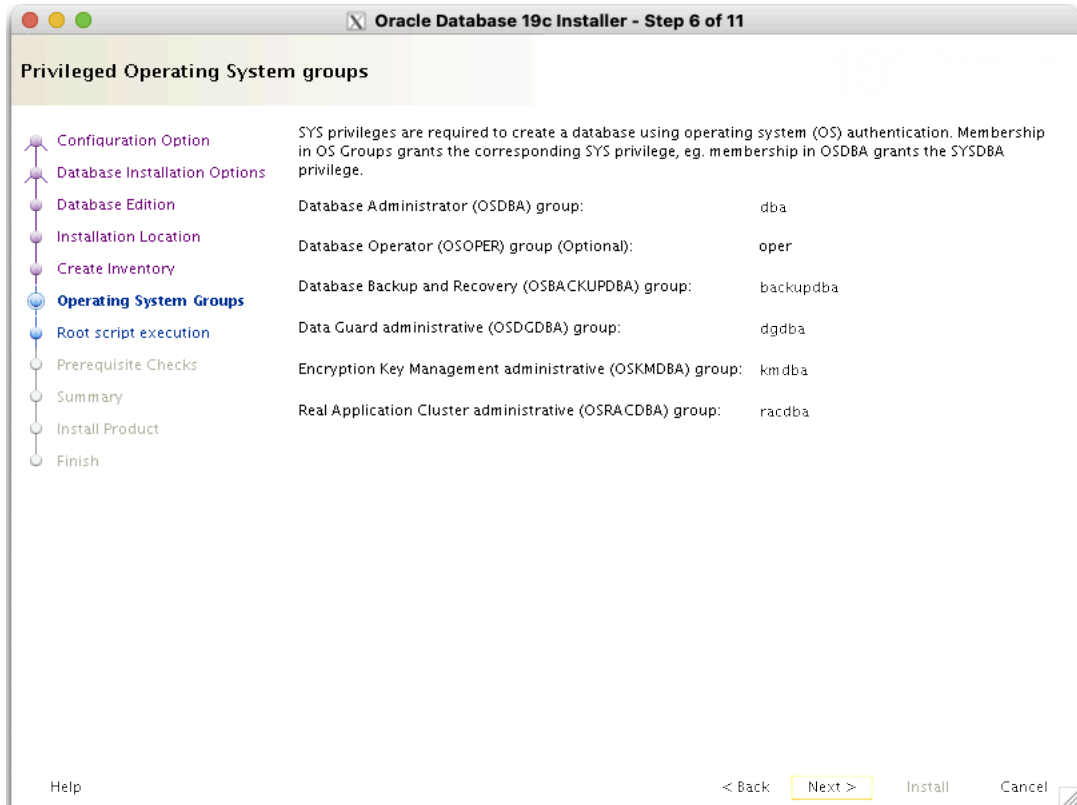


6. We are also going to install the Enterprise Edition.

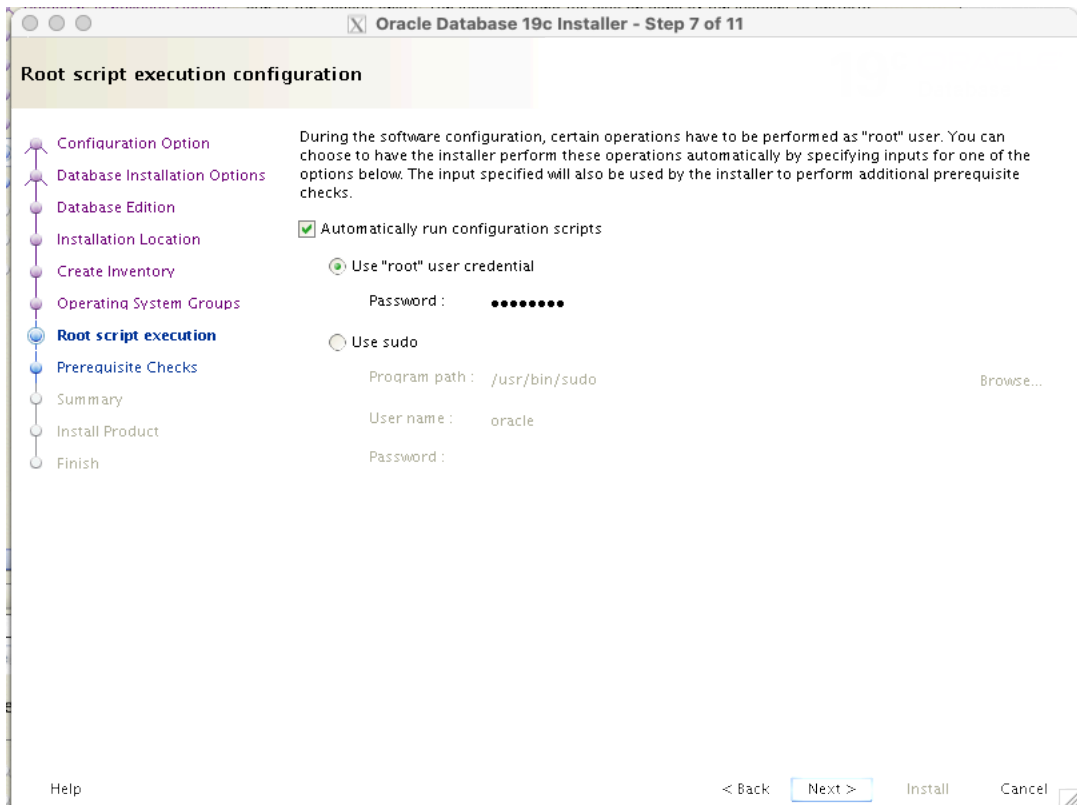


7. The **ORACLE_BASE** is usually taken automatically, but here is the location for it.



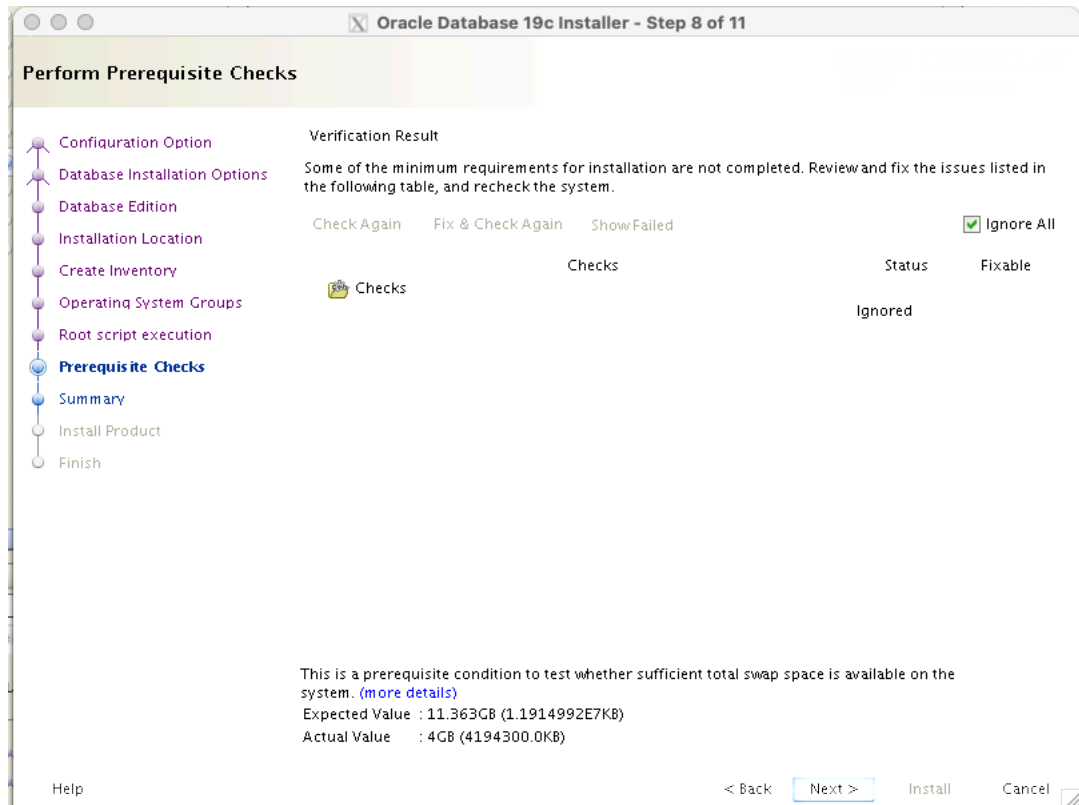


- We will provide the root user password, as the software requires running some actions with root privileges. This way, we won't have to do it manually**

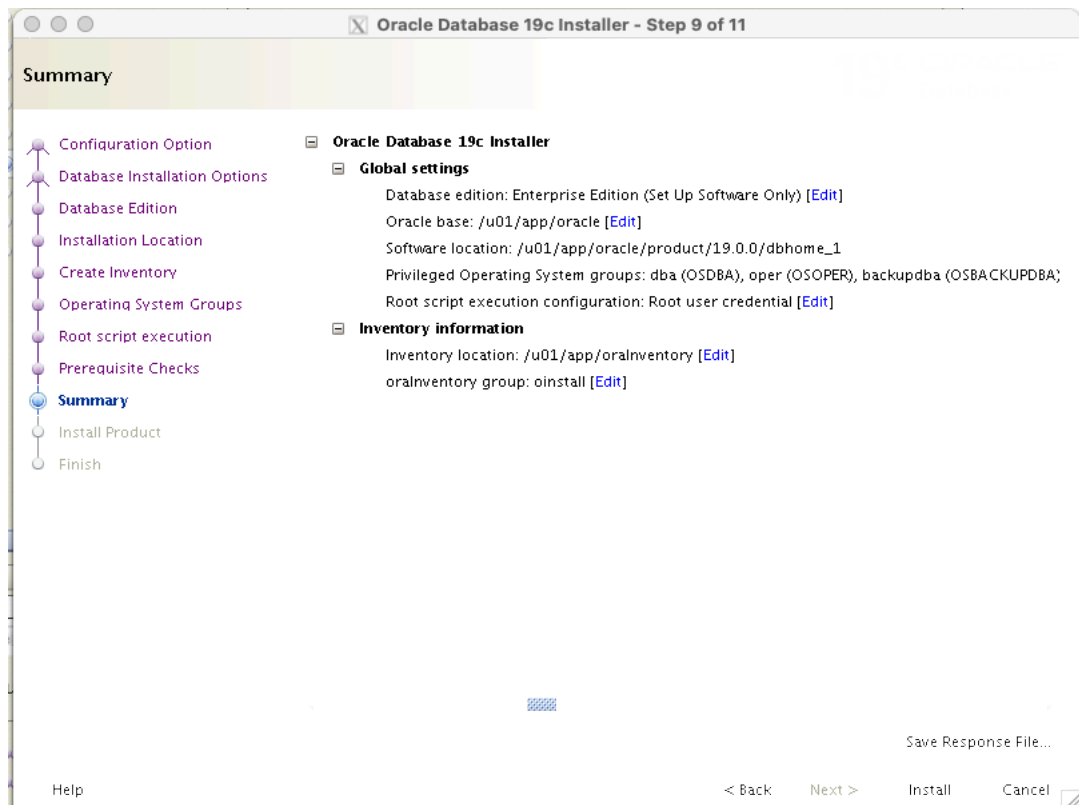


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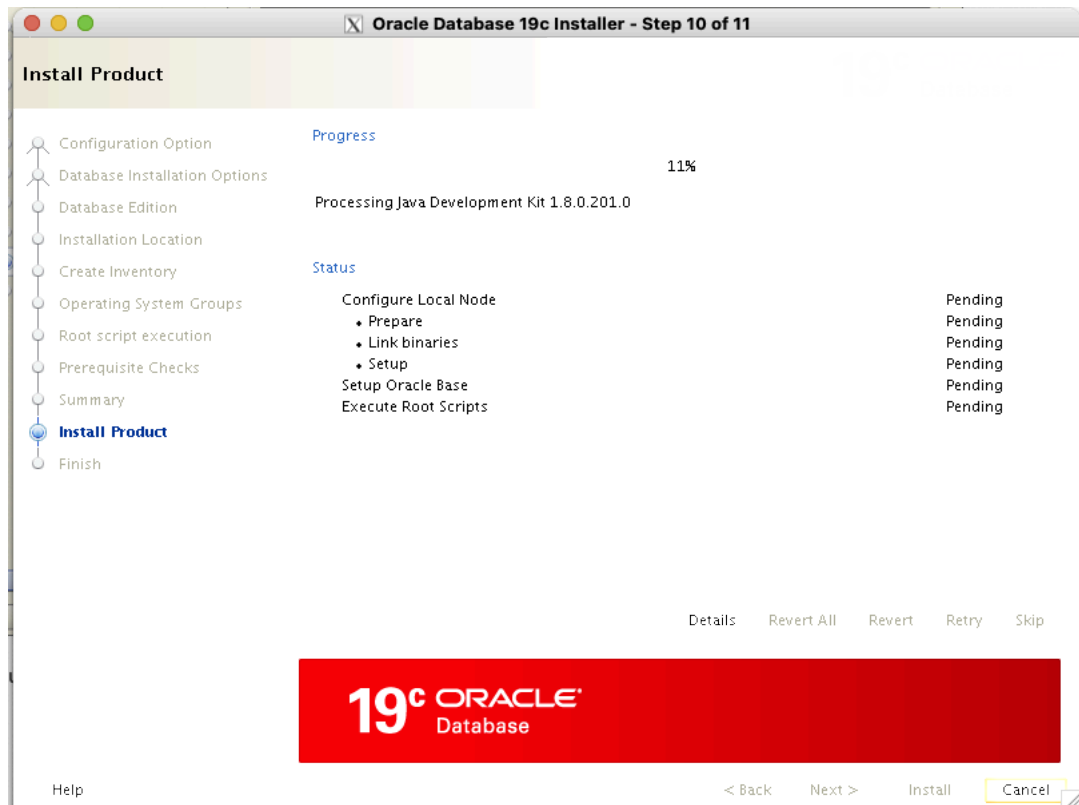
10. Optionally, if you have a problem with the installation, you can review it or ignore it.



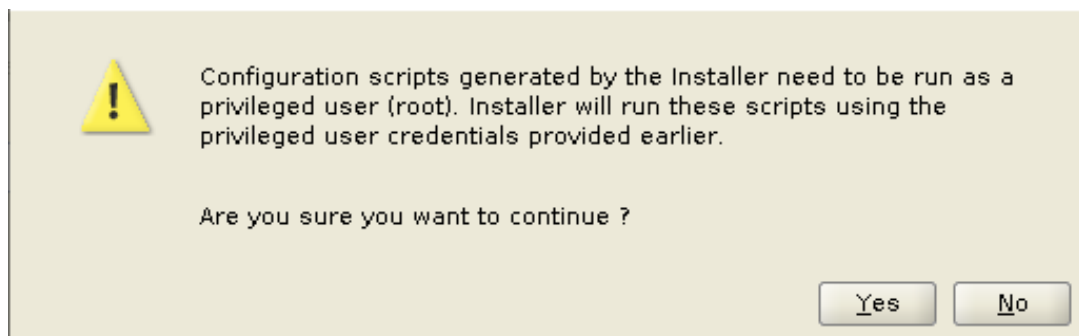
11. Here click install



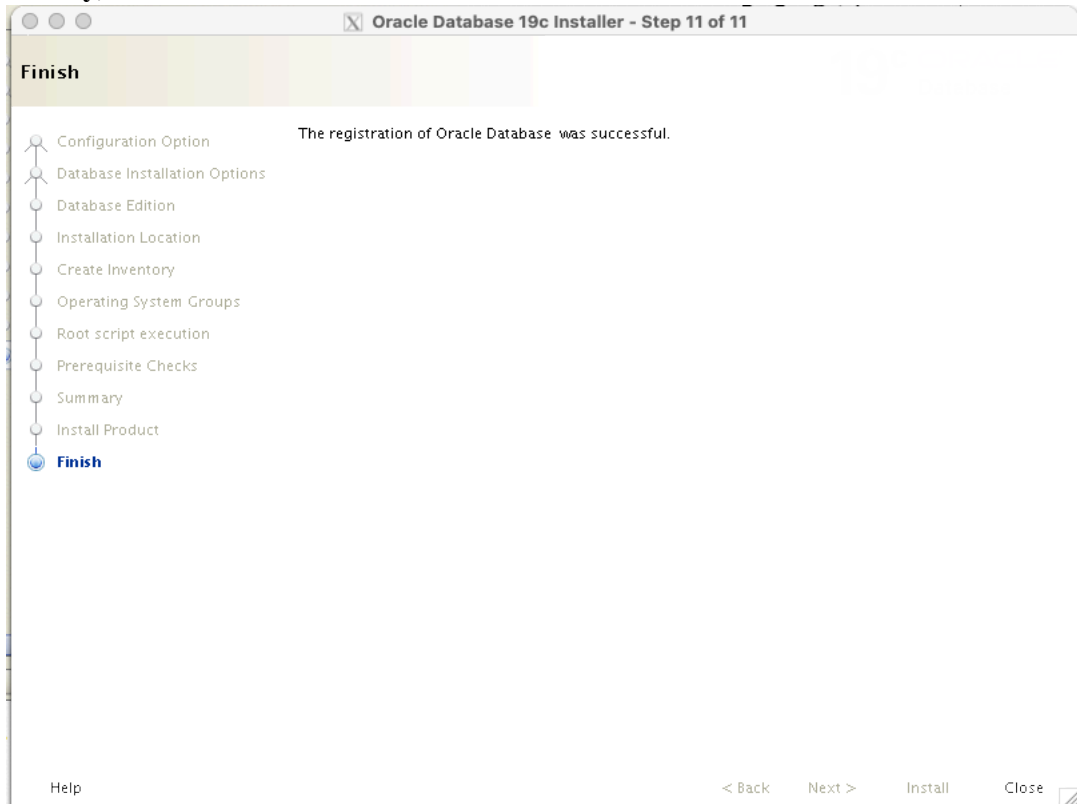
12.



13. Here, we will answer yes



14. Finally, our software will be installed



Important Notes:

- **X11 Forwarding:** If you're installing remotely, ensure X11 forwarding is enabled in your SSH client.