

Oracle Database 21c

Download the following software:

- [Oracle Linux 8 \(x86_64\)](#)
- [Oracle Database 21c Enterprise Edition \(x86_64\)](#)

NOTICE

This is a very basic install. It should only be used as a guide.

OS setup

Install Oracle Linux 8. "Minimal" installation.

As the root user, configure the OS and create the required directory structure.

```
dnf install -y oracle-database-preinstall-21c wget
mkdir -p /u01/app/oracle/product/21.0.0/dbhome_1
mkdir -p /u02/oradata
chown -R oracle:oinstall /u01 /u02
chmod -R 775 /u01 /u02
```

Database installation

As the oracle user:

Create a scripts folder:

```
mkdir /home/oracle/scripts
```

Create an environment script. This will hold all the necessary settings.

```
cat > /home/oracle/scripts/setEnv.sh <<EOF
# Oracle Settings
export TMP=/tmp
export TMPDIR=$TMP
export ORACLE_HOSTNAME=ora21c.example.com
export ORACLE_UNQNAME=cdb1
```

```
export ORACLE_BASE=/u01/app/oracle
export ORACLE_HOME=\$ORACLE_BASE/product/21.0.0/dbhome_1
export ORA_INVENTORY=/u01/app/oraInventory
export ORACLE_SID=cdb1
export PDB_NAME=pdb1
export DATA_DIR=/u02/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
```

Add the contents of `setEnv.sh` to Oracle's `.bash_profile`.

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

Create a start script.

```
cat > /home/oracle/scripts/start_all.sh <<EOF
#!/bin/bash
. /home/oracle/scripts/setEnv.sh

export ORAENV_ASK=NO
. oraenv
export ORAENV_ASK=YES

dbstart \$ORACLE_HOME
EOF
```

Create a stop script.

```
cat > /home/oracle/scripts/stop_all.sh <<EOF
#!/bin/bash
. /home/oracle/scripts/setEnv.sh

export ORAENV_ASK=NO
. oraenv
export ORAENV_ASK=YES

dbshut \$ORACLE_HOME
EOF
```

Set the owner and permissions for the scripts.

```
chown -R oracle:oinstall /home/oracle/scripts
chmod u+x /home/oracle/scripts/*.sh
```

Load the environment.

```
source /home/oracle/.bash_profile
```

Unzip the database installer.

```
cd $ORACLE_HOME
unzip -oq /tmp/LINUX.X64_210000_db_home.zip
```

Run the installer.

```
./runInstaller -ignorePrereq -waitforcompletion -silent \
  -responseFile ${ORACLE_HOME}/install/response/db_install.rsp \
  oracle.install.option=INSTALL_DB_SWONLY \
  ORACLE_HOSTNAME=${ORACLE_HOSTNAME} \
  UNIX_GROUP_NAME=oinstall \
  INVENTORY_LOCATION=${ORA_INVENTORY} \
  SELECTED_LANGUAGES=en,en_US \
  ORACLE_HOME=${ORACLE_HOME} \
  ORACLE_BASE=${ORACLE_BASE} \
  oracle.install.db.InstallEdition=EE \
  oracle.install.db.OSDBA_GROUP=dba \
  oracle.install.db.OSBACKUPDBA_GROUP=dba \
  oracle.install.db.OSDGDBA_GROUP=dba \
  oracle.install.db.OSKMDBA_GROUP=dba \
  oracle.install.db.OSRACDBA_GROUP=dba \
  SECURITY_UPDATES_VIA_MYORACLESUPPORT=false \
  DECLINE_SECURITY_UPDATES=true
```

As a **root** user, execute the following:

```
/u01/app/oraInventory/orainstRoot.sh
/u01/app/oracle/product/21.0.0/dbhome_1/root.sh
```

As the **oracle** user:

Start the listener.

```
lsnrctl start
```

Create the database.

```
dbca -silent -createDatabase \
  -templateName General_Purpose.dbc \
  -gdbname ${ORACLE_SID} -sid ${ORACLE_SID} -responseFile NO_VALUE \
  -characterSet AL32UTF8 \
  -sysPassword Som3bTt3rpwd \
  -systemPassword Som3bTt3rpwd \
  -createAsContainerDatabase true \
  -numberOfPDBs 1 \
  -pdbName ${PDB_NAME} \
  -pdbAdminPassword Som3bTt3rpwd \
  -databaseType MULTIPURPOSE \
  -automaticMemoryManagement false \
  -totalMemory 2000 \
  -storageType FS \
  -datafileDestination "${DATA_DIR}" \
  -redoLogFileSize 50 \
  -emConfiguration NONE \
  -ignorePreReqs
```

Edit the `/etc/oratab` file setting the restart flag for each instance to 'Y'.

Example:

```
cdb1:/u01/app/oracle/product/21.0.0/db_1:Y
```

Enable Oracle Managed Files and make the PDB start when the instance starts.

```
sqlplus / as sysdba <<EOF
alter system set db_create_file_dest='/u02/oradata';
alter pluggable database pdb1 save state;
exit;
EOF
```

Revision #1

Created 6 February 2024 12:55:35 by Michael Cleary

Updated 6 February 2024 13:25:52 by Michael Cleary