

Oracle 19c Installation

- Before installing the oracle database it's a good practice to update the package lists on your system using the update command.

```
sudo apt update
```

- To Clone the repository to your server use the following command.

```
git clone https://github.com/oracle/docker-images.git
```

```
chandrababu@DESKTOP-C275ADE:~$ git clone https://github.com/oracle/docker-images.git
Cloning into 'docker-images'...
remote: Enumerating objects: 17180, done.
remote: Counting objects: 100% (1872/1872), done.
remote: Compressing objects: 100% (450/450), done.
remote: Total 17180 (delta 1536), reused 1603 (delta 1399), pack-reused 15308
Receiving objects: 100% (17180/17180), 10.80 MiB | 3.25 MiB/s, done.
Resolving deltas: 100% (10122/10122), done.
```

- The repository has been successfully cloned to our server

```
cd docker-images/
```

- Go to the docker-images as shown below.

```
chandrababu@DESKTOP-C275ADE:~$ cd docker-images/
chandrababu@DESKTOP-C275ADE:~/docker-images$ ls
Archive                               OracleEssbase                        OracleLinuxDevelopers               OracleUnifiedDirectorySM           SECURITY.md
CODEOWNERS                           OracleAccessManagement              OracleFMWInfrastructure             OracleManagementAgent              OracleVeridata                     scripts
CODE_OF_CONDUCT.md                  OracleAnalytics                     OracleGoldenGate                   OracleOpenJDK                      OracleWebCenterContent
CONTRIBUTING.md                    OracleBI                             OracleHTTPServer                   OracleRestDataServices             OracleWebCenterPortal
Contrib                              OracleCloudInfrastructure            OracleIdentityGovernance           OracleSOASuite                     OracleWebCenterSites
GraalVM                             OracleCoherence                     OracleInstantClient                 OracleTuxedo                       OracleWebLogic
LICENSE.txt                         OracleDatabase                      OracleJava                          OracleUnifiedDirectory             README.md
```

```
cd docker-images/OracleDatabase/SingleInstance/dockerfiles/19.3.0/ls
```

```
chandrababu@DESKTOP-C275ADE:~/docker-images/OracleDatabase/SingleInstance/dockerfiles/19.3.0$ ls
Checksum.ee      Dockerfile      configTcps.sh   db_inst.rsp     relinkOracleBinary.sh  setPassword.sh
Checksum.ee.arm64  checkDBStatus.sh  createDB.sh     dbca.rsp.tmpl   runOracle.sh           setupLinuxEnv.sh
Checksum.se2      checkSpace.sh    createObserver.sh  installDBBinaries.sh  runUserScripts.sh      startDB.sh
```

- Download the Oracle Database 19c binary from <http://www.oracle.com/technetwork/database/enterprise-edition/downloads/index.html>
 - For X86, get LINUX.X64_193000_db_home.zip.
 - For ARM, get LINUX.ARM64_1919000_db_home.zip.

```
https://www.oracle.com/database/technologies/oracle-database-software-downloads.html#db\_free
```

- Once the oracle database 19c binary is downloaded. You can build the image.

```
chandrababu@DESKTOP-C275ADE:~/docker-images/OracleDatabase/SingleInstance/dockerfiles/19.3.0$ ls
Checksum.ee      Dockerfile      checkSpace.sh  createObserver.sh  installDBBinaries.sh  runUserScripts.sh  startDB.sh
Checksum.ee.arm64  LINUX.X64_193000_db_home.zip  configTcps.sh  db_inst.rsp      relinkOracleBinary.sh  setPassword.sh
Checksum.se2      checkDBStatus.sh  createDB.sh    dbca.rsp.tmpl     runOracle.sh          setupLinuxEnv.sh
```

```
./buildcontainerimage.sh -e -v 19.3.0
```

- With the command provided above, you can build the oracle docker image.

```
chandrababu@DESKTOP-C275ADE:~/docker-images/OracleDatabase/SingleInstance/dockerfiles$ ls
11.2.0.2 12.1.0.2 12.2.0.1 18.3.0 18.4.0 19.3.0 21.3.0 23.2.0 buildContainerImage.sh
chandrababu@DESKTOP-C275ADE:~/docker-images/OracleDatabase/SingleInstance/dockerfiles$ ./buildContainerImage.sh -e -v 19.3.0
WARNING: No blkio throttle.read_bps_device support
WARNING: No blkio throttle.write_bps_device support
WARNING: No blkio throttle.read_iops_device support
WARNING: No blkio throttle.write_iops_device support
Checking Docker version.
Dockerfile
Checking if required packages are present and valid...
LINUX.X64_193000_db_home.zip: OK
=====
Container runtime info:
```

- Once the image has been downloaded successfully. You can create the docker container using the docker image.

```
docker run -d --name oracle2 -p 1521:1521 -p 5500:5500 -e ORACLE_SID=ORCL
-e ORACLE_PDB=ORCLCDB -e ORACLE_PWD=Chandu0616
oracle/database:19.3.0-ee
```

- Check the docker container using docker ps command.

```
chandrababu@DESKTOP-C275ADE:~$ docker run -d --name oracle2 -p 1521:1521 -p 5500:5500 -e ORACLE_SID=ORCL -e ORACLE_PWD=Chandu0616 or
acle/database:19.3.0-ee
7a1df482fc8f8fae0451826612e68ec78f4b43999bc43d647639f969fddc071
chandrababu@DESKTOP-C275ADE:~$ docker ps
```

CONTAINER ID	IMAGE	NAMES	COMMAND	CREATED	STATUS	PORTS
7a1df482fc8f	oracle/database:19.3.0-ee	oracle2	"/bin/bash -c 'exec ..."	7 seconds ago	Up 6 seconds (health: starting)	0.0.0.0:1521->1521/tcp, 0.0.0.0:5500->5500/tcp

```
docker logs -f 7a1df482fc8f
```

```
chandrababu@DESKTOP-C275ADE:~$ docker logs -f 7a1df482fc8f
ORACLE EDITION: ENTERPRISE

LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 09-SEP-2023 09:35:23

Copyright (c) 1991, 2019, Oracle. All rights reserved.

Starting /opt/oracle/product/19c/dbhome_1/bin/tnslsnr: please wait...

TNSLSNR for Linux: Version 19.0.0.0.0 - Production
System parameter file is /opt/oracle/product/19c/dbhome_1/network/admin/listener.ora
Log messages written to /opt/oracle/diag/tnslsnr/7a1df482fc8f/listener/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1)))
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=0.0.0.0)(PORT=1521)))
```

- Once the docker container has been running we can connect to the oracle database using the following command.

```
docker exec -it oracle2 /bin/bash
```

```
chandrababu@DESKTOP-C275ADE:~$ docker exec -it oracle2 /bin/bash
```

- After that you need to run the sqlplus command with username and password.

```
sqlplus sys/Chandu0616@ORCL as sysdba
```

```
bash-4.2$ sqlplus sys/Chandu0616@ORCL as sysdba

SQL*Plus: Release 19.0.0.0.0 - Production on Sun Sep 10 14:07:33 2023
Version 19.3.0.0.0

Copyright (c) 1982, 2019, Oracle. All rights reserved.

Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0

SQL>
```

- Once the user is created you can connect to the sql developer tool using username and password.

New / Select Database Connection

Connection Name	Connection Details
TEST	sys@//localhost:...

Name:

Database Type:

User Info Proxy User

Authentication Type:

Username: Role:

Password: ☐ Save Password

Connection Type:

Details Advanced

Hostname:

Port:

☒ SID

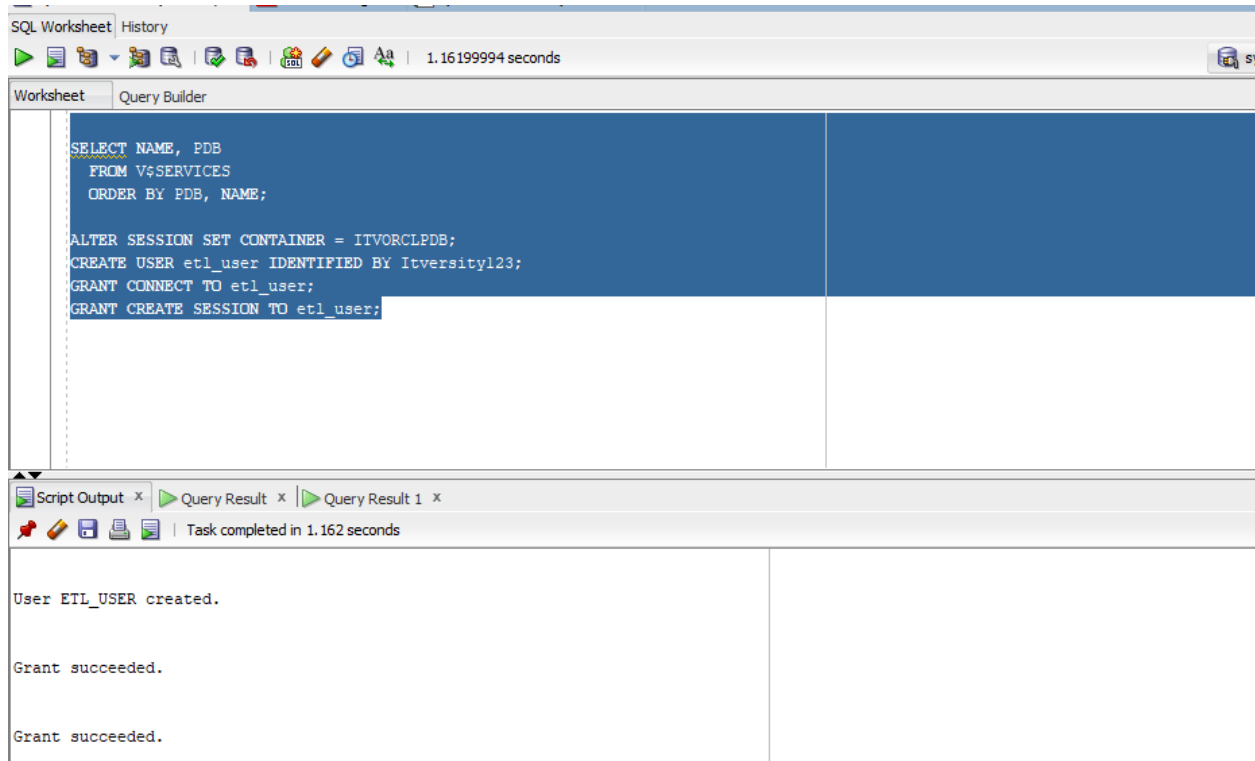
☐ Service name

Status :

- After logging in to the sql developer you can create another user using the following command.

```
SELECT NAME, PDB
FROM V$SERVICES
ORDER BY PDB, NAME;
```

```
ALTER SESSION SET CONTAINER = ITVORCLPDB;
CREATE USER etl_user IDENTIFIED BY Itversity123;
GRANT CONNECT TO etl_user;
GRANT CREATE SESSION TO etl_user;
ALTER USER etl_user QUOTA UNLIMITED ON USERS;
GRANT ALL PRIVILEGES TO etl_user IDENTIFIED BY Itversity123;
```



- Once a new user is created we can connect to the new user using the following command.

