

Lab: Uninstalling Oracle 19c and Installing Oracle 21c

Using wget

Objective:

To find and terminate all running Oracle instances and listeners, uninstall Oracle 19c, download and install Oracle 21c, create a new CDB and PDB, and verify the installation using SQL Developer.

Prerequisites:

- Root or sudo privileges on the server.
- Internet access to download the Oracle binaries.

Steps:

1. Find and Terminate All Running Oracle Instances and Listeners

Explanation: Before uninstalling Oracle, it's crucial to terminate all running Oracle instances and listeners.

1. Find All Running Oracle Instances and Listeners:

- Use the following commands to identify all running Oracle processes.

```
ps -ef | grep pmon
ps -ef | grep lsnrctl
```

2. Terminate All Running Oracle Instances and Listeners:

- Use `kill -9` to terminate all identified Oracle processes.

```
for pid in $(ps -ef | grep pmon | grep -v grep | awk '{print $2}'); do
    sudo kill -9 $pid
done

for pid in $(ps -ef | grep lsnrctl | grep -v grep | awk '{print $2}'); do
    sudo kill -9 $pid
done
```

3. Verify Termination:

- Ensure that no Oracle processes are running.

```
ps -ef | grep pmon
ps -ef | grep lsnrctl
```

2. Uninstall Existing Oracle 19c Installation

Explanation: Before installing a new copy of Oracle, it's essential to remove the existing installation completely.

1. Stop Oracle Services:

- Switch to the Oracle user and stop any remaining Oracle services.

```
su - oracle
sqlplus / as sysdba
SHUTDOWN IMMEDIATE;
exit
lsnrctl stop
```

2. Remove Oracle Directories:

- Remove the Oracle installation directories. Ensure you have the correct paths.

```
su - root
rm -rf /u01/app/oracle
rm -rf /u01/app/oraInventory
rm -rf /etc/oratab
```

3. Remove Oracle User and Groups:

- Remove the Oracle user and groups.

```
userdel -r oracle
groupdel oinstall
groupdel dba
```

3. Download Oracle 21c Installation Files

Explanation: Use `wget` to download the Oracle binaries from the Oracle website.

1. Create Download Directory:

- Create a directory to store the Oracle installation files.

```
mkdir -p /opt/oracle/install
cd /opt/oracle/install
```

2. Download Oracle Binaries Using wget:

- Download the Oracle binaries. Note that you may need to accept the Oracle license agreement and use the appropriate `wget` command with cookies. Replace `<URL>` with the actual download link obtained from the Oracle website.

```
wget --no-cookies --no-check-certificate --header "Cookie:
oraclelicense=accept-securebackup-cookie" -O oracle-database-xe-21c-1.0-
1.017.x86_64.rpm https://download.oracle.com/otn-
pub/otn_software/database/oracle-database-xe-21c-1.0-1.017.x86_64.rpm
```

4. Install Oracle Database

Explanation: Follow the steps to install Oracle Database using the downloaded binary.

1. Install Prerequisites:

- Install any required prerequisites for Oracle.

```
sudo yum install -y oracle-database-preinstall-21c
```

2. Install Oracle Database:

- Install the Oracle Database RPM package.

```
sudo yum localinstall -y oracle-database-xe-21c-1.0-1.017.x86_64.rpm
```

3. Configure Oracle Database:

- Run the configuration script to set up Oracle Database.

```
sudo /etc/init.d/oracle-xe-21c configure
```

5. Create a New CDB and PDB

Explanation: Use DBCA to create a new CDB named `CDBLAB2` and a PDB named `PDBLAB1_CDBLAB2`.

1. Run DBCA to Create a New CDB and PDB:

```
dbca -silent -createDatabase -gdbname CDBLAB2 -sid CDBLAB2 -  
createAsContainerDatabase true -numberOfPDBs 1 -pdbName PDBLAB1_CDBLAB2 -  
pdbAdminPassword PDBAdminPassword1 -templateName General_Purpose.dbc -  
responseFile NO_VALUE -characterSet AL32UTF8 -sysPassword SysPassword1 -  
systemPassword SystemPassword1 -createListener -emConfiguration LOCAL
```

2. Verify the Database Creation:

- Connect to the new CDB and PDB using SQL*Plus to verify.

```
sqlplus / as sysdba  
SELECT NAME, OPEN_MODE FROM V$PDBS;
```

6. Verify Installation and Connectivity with SQL Developer

Explanation: Verify the new Oracle installation and connectivity using SQL Developer.

1. Download and Install SQL Developer:

- If not already installed, download and install SQL Developer from the Oracle website.

2. Create a Connection to CDBLAB2:

- Open SQL Developer and create a new connection:
 - Connection Name: `CDBLAB2`
 - Username: `sys`
 - Password: `SysPassword1`
 - Connection Type: `Basic`
 - Role: `SYSDBA`
 - Hostname: `localhost`
 - Port: `1521`
 - Service Name: `CDBLAB2`

3. Create a Connection to PDBLAB1_CDBLAB2:

- Create another connection:

- Connection Name: PDBLAB1_CDBLAB2
- Username: pdbadmin
- Password: PDBAdminPassword1
- Connection Type: Basic
- Hostname: localhost
- Port: 1521
- Service Name: PDBLAB1_CDBLAB2

4. Test and Verify Connections:

- Click the `Test` button for each connection to verify connectivity.
- Once verified, click `Connect` to open the connection.

Summary:

By following these steps, you will have successfully uninstalled the existing Oracle 19c installation, downloaded and installed Oracle 21c, created a new CDB named `CDBLAB2` with a PDB named `PDBLAB1_CDBLAB2`, and verified the installation and connectivity using SQL Developer. This lab provides a comprehensive guide to managing Oracle installations, ensuring you have a clean and up-to-date Oracle environment.