# Practices for Lesson 4: Creating an Oracle Database by Using a SQL Command

Practices for Lesson 4: Overview

Practices Overview

In this practice, you will use the CREATE DATABASE SQL command to create a new CDB.

Practice 4-1: Creating a New CDB

Overview

In this practice, you will create a new CDB named CDBDEV by using the CREATE DATABASE

SQL command. This CDB will have the following characteristics:

The users SYS and SYSTEM will have the same password as the one used for the same users in orclcdb. See *Course Practice Environment: Security Credentials* for the password.

Oracle Managed Files (OMF) is used for data and redo log files. Set the location of these files to the /u01/app/oracle/oradata directory.

The CDB root will contain:

A default temporary tablespace named TEMP

A default permanent tablespace named USERS

An undo tablespace named UNDOTBS

The port used for EM Express is 5501.

The CDB is created with no PDBs, except the PDB seed.

Tasks

Verify that CDBDEV is not already recorded in /etc/oratab. If this is the case, remove the entry.

Create the CDB by using the CREATE DATABASE command.

Change the directory to /home/oracle/labs/DBMod\_CreateDB

Use the editor of your choice (vi and gedit are available) to edit the file:

/home/oracle/labs/DBMod\_CreateDB/CrCDBDEV.sql.

Change ***password*** to the correct password shown in *Course Practice Environment: Security Credentials* before executing the command. Save the file.

Set the oracle environment variables using the oraenv script.

Create an initialization parameter file named $ORACLE\_HOME/dbs/initCDBDEV.ora

from the sample init.ora file.

Use the editor of your choice (vi and gedit are available) , add the following initialization parameters to the end of the file

$ORACLE\_HOME/dbs/initCDBDEV.ora.

With the editor still open, change the following initialization parameters to:

**Note:** Change the <ORACLE\_BASE> to the actual value wherever <ORACLE\_BASE> occurs. Change the COMPATIBLE parameter to the database version you are using.

The COMPATIBLE parameter must be at least 12.0.0.0 to create a container database.

Save the modified file.

Verify that the DB\_CREATE\_FILE\_DEST, AUDIT\_FILE\_DEST, and the DB\_RECOVERY\_FILE\_DEST directories exist. The mkdir -p will create the directory if it does not exist and does not report an error if the directory exists. If the ls command returns anything, the directory exists.

Start the database instance in NOMOUNT mode.

Execute the script with the CREATE DATABASE command. This command will take approximately two minutes.

If you receive errors from the CREATE DATABASE command, use the SQL\*Plus command SHUTDOWN ABORT, correct the errors, and restart with step 2.i. Check for typos in the initialization file.

Execute catalog and catproc scripts. The catalog.sql script takes ~ 3 minutes. The catproc.sql script takes ~30 minutes

**Note:** ? is shorthand for $ORACLE\_HOME in SQL\*Plus.

Exit from SQL\*Plus.

Add a new entry in the /etc/oratab file with the following command.

Verify the entry was added to the /etc/oratab file using the cat command:

Verify that the characteristics of the database are correct.

Set the environment variables for your new database.

Verify that the database is a CDB.

Verify that the data files are in the correct location.

**Note:** When using Oracle Managed Files (OMF), the file names are harder to read, and the PDB names are not included in the directory path. In this case, the PDB\_SEED files are shown with the GUID, 888B23FF74E42ED6E0530100007F6226 in the path name.

Verify that the specified tablespaces are created for the CDB$ROOT.

**Note:** Selecting from the DBA\_TABLESPACES view shows only the tablespaces associated with the current container, in this case the CDB$ROOT container. Selecting from the CDB\_TABLESPACES view would show all the tablespaces for all the open containers.

Verify that the EM Express port is correctly set

**Note:** Manually creating the database does not set the EM Express port. The EM Express port must be set manually.

Exit SQL\*Plus.

Close all terminal windows.