

Lab 14: Renaming a PDB and Setting Parameter Values for PDBs

Overview

In this lab, you will rename a PDB and set parameter values for PDBs using the environment created in Lab 13.

Part A: Renaming a PDB

Tasks

1. Re-create ORCLPDB3

- a. Open a terminal window and set the environment variables for CDBLAB :

```
. oraenv
ORACLE_SID = [CDBLAB] ? CDBLAB
The Oracle base remains unchanged with value /u01/app/oracle
```

- b. Start SQL*Plus and log in as a user with SYSDBA privileges:

```
sqlplus / as sysdba
```

- c. Create the new PDB ORCLPDB3 from the seed:

```
CREATE PLUGGABLE DATABASE ORCLPDB3
ADMIN USER pdb_admin IDENTIFIED BY password
FILE_NAME_CONVERT = ('/u01/app/oracle/oradata/CDBLAB/pdbseed',
'/u01/app/oracle/oradata/CDBLAB/orclpdb3');
```

Expected Output:

```
Pluggable database created.
```

2. Connect to CDBLAB and List the PDBs

- a. List the PDBs to confirm the creation of ORCLPDB3 :

```
SHOW PDBS;
```

Expected Output:

CON_ID	CON_NAME	OPEN MODE	RESTRICTED
2	PDB\$SEED	READ ONLY	NO
3	ORCLPDB1	READ WRITE	NO
4	ORCLPDB2	READ WRITE	NO
5	ORCLPDB3	MOUNTED	NO

3. Rename ORCLPDB3 to PDB3_ORCL

- a. Open ORCLPDB3 in read/write mode:

```
ALTER PLUGGABLE DATABASE ORCLPDB3 OPEN;
```

- b. Connect to ORCLPDB3 as sysdba :

```
CONNECT sys@orclpdb3 AS SYSDBA
Enter password: password
```

c. Rename ORCLPDB3 to PDB3_ORCL :

```
ALTER PLUGGABLE DATABASE RENAME GLOBAL_NAME TO pdb3_orcl;
```

Expected Output:

```
ORA-65045: pluggable database not in a restricted mode
```

4. Open ORCLPDB3 in Restricted Mode

a. Close ORCLPDB3 :

```
ALTER PLUGGABLE DATABASE ORCLPDB3 CLOSE IMMEDIATE;
```

b. Open ORCLPDB3 in restricted mode:

```
ALTER PLUGGABLE DATABASE ORCLPDB3 OPEN RESTRICTED;
```

Expected Output:

```
Pluggable database altered.
```

5. Change the Global Database Name

a. Connect to ORCLPDB3 as sysdba :

```
CONNECT sys@orclpdb3 AS SYSDBA
Enter password: password
```

b. Rename ORCLPDB3 to PDB3_ORCL :

```
ALTER PLUGGABLE DATABASE RENAME GLOBAL_NAME TO pdb3_orcl;
```

Expected Output:

```
Pluggable database altered.
```

6. Verify the PDB Renaming

a. List the PDBs to verify the renaming:

```
SHOW PDBS;
```

Expected Output:

CON_ID	CON_NAME	OPEN MODE	RESTRICTED
2	PDB\$SEED	READ ONLY	NO
3	PDB3_ORCL	READ WRITE	YES
4	ORCLPDB2	READ WRITE	NO
5	ORCLPDB3	READ WRITE	NO

7. Open PDB3_ORCL

a. Close PDB3_ORCL :

```
ALTER PLUGGABLE DATABASE PDB3_ORCL CLOSE IMMEDIATE;
```

b. Open PDB3_ORCL :

```
ALTER PLUGGABLE DATABASE PDB3_ORCL OPEN;
```

Expected Output:

```
Pluggable database altered.
```

8. Verify the Open Mode

a. List the PDBs to confirm the open mode:

```
SHOW PDBS;
```

Expected Output:

CON_ID	CON_NAME	OPEN MODE	RESTRICTED
2	PDB\$SEED	READ ONLY	NO
3	PDB3_ORCL	READ WRITE	NO
4	ORCLPDB2	READ WRITE	NO
5	ORCLPDB3	READ WRITE	NO

Part B: Setting Parameter Values for PDBs

Tasks

1. Verify the Parameter Modifiability

a. Connect to CDBLAB :

```
. oraenv
ORACLE_SID = [CDBLAB] ? CDBLAB
The Oracle base remains unchanged with value /u01/app/oracle
$ sqlplus / as sysdba
```

b. Verify if OPTIMIZER_USE_SQL_PLAN_BASELINES is modifiable at the PDB level:

```
SELECT ispdb_modifiable FROM v$parameter WHERE name =
'optimizer_use_sql_plan_baselines';
```

Expected Output:

```
ISPDB
-----
TRUE
```

2. Check the Current Parameter Value in CDBLAB

- a. Check the current value of `OPTIMIZER_USE_SQL_PLAN_BASELINES` :

```
SHOW PARAMETER optimizer_use_sql_plan_baselines;
```

Expected Output:

NAME	TYPE	VALUE
optimizer_use_sql_plan_baselines	boolean	TRUE

3. Check and Modify the Parameter in PDB3_ORCL

- a. Connect to `PDB3_ORCL` as `sysdba` :

```
CONNECT sys@pdb3_orcl AS SYSDBA
Enter password: password
```

- b. Check the current value of the parameter:

```
SHOW PARAMETER optimizer_use_sql_plan_baselines;
```

Expected Output:

NAME	TYPE	VALUE
optimizer_use_sql_plan_baselines	boolean	TRUE

- c. Change the parameter value to `FALSE` :

```
ALTER SYSTEM SET optimizer_use_sql_plan_baselines=FALSE SCOPE=BOTH;
```

Expected Output:

```
System altered.
```

4. Create and Verify a New PDB

- a. Create a new PDB named `TEST` :

```
CONNECT / AS SYSDBA
CREATE PLUGGABLE DATABASE test
ADMIN USER admin IDENTIFIED BY password
CREATE_FILE_DEST='/u01/app/oracle/oradata/CDBLAB/test';
ALTER PLUGGABLE DATABASE test OPEN;
```

Expected Output:

```
Pluggable database created.
Pluggable database altered.
```

- b. Add a service name `TEST` to the `tnsnames.ora` file.

- c. Connect to the `TEST` PDB and verify the parameter value:

```
CONNECT sys@test AS SYSDBA
SHOW PARAMETER optimizer_use_sql_plan_baselines;
```

Expected Output:

NAME	TYPE	VALUE
optimizer_use_sql_plan_baselines	boolean	TRUE

5. Close and Reopen PDB3_ORCL

a. Close PDB3_ORCL :

```
CONNECT sys@pdb3_orcl AS SYSDBA
ALTER PLUGGABLE DATABASE CLOSE IMMEDIATE;
```

b. Open PDB3_ORCL :

```
ALTER PLUGGABLE DATABASE OPEN;
SHOW PARAMETER optimizer_use_sql_plan_baselines;
```

Expected Output:

NAME	TYPE	VALUE
optimizer_use_sql_plan_baselines	boolean	FALSE

6. Verify the Parameter Value After CDB Restart

a. Shut down and restart the CDB:

```
CONNECT / AS SYSDBA
SHUTDOWN IMMEDIATE;
STARTUP;
```

Expected Output:

```
ORACLE instance started.
```

b. Open all PDBs:

```
ALTER PLUGGABLE DATABASE ALL OPEN;
SHOW PDBS;
```

Expected Output:

CON_ID	CON_NAME	OPEN MODE	RESTRICTED
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2 PDB\$SEED READ ONLY NO 3 PDB3_ORCL READ WRITE NO 4 TEST READ WRITE NO

c. Verify the parameter value in `PDB3_ORCL`:

```

```sql
CONNECT sys@pdb3_orcl AS SYSDBA
SHOW PARAMETER optimizer_use_sql_plan_baselines;

```

#### Expected Output:

NAME	TYPE	VALUE
-----	-----	-----
optimizer_use_sql_plan_baselines	boolean	FALSE

### 7. Drop the PDBs

- Close and drop the `TEST` and `PDB3_ORCL` PDBs:

```

ALTER PLUGGABLE DATABASE test CLOSE IMMEDIATE;
ALTER PLUGGABLE DATABASE pdb3_orcl CLOSE IMMEDIATE;
DROP PLUGGABLE DATABASE test INCLUDING DATAFILES;
DROP PLUGGABLE DATABASE pdb3_orcl INCLUDING DATAFILES;

```

#### Expected Output:

```

Pluggable database dropped.

```

### 8. Verify the PDBs

- Verify that the PDBs are dropped:

```

SHOW PDBS;

```

#### Expected Output:

CON_ID	CON_NAME	OPEN MODE	RESTRICTED
-----	-----	-----	-----
2	PDB\$SEED	READ ONLY	NO
3	ORCLPDB1	READ WRITE	NO
4	ORCLPDB2	READ WRITE	NO

### 9. Close All Terminals

- Exit SQL\*Plus and close all terminal windows:

```

EXIT;

```

This lab guides you through renaming a PDB and modifying initialization parameters at the PDB level, ensuring a thorough understanding of these operations.