Practical Exercise 1
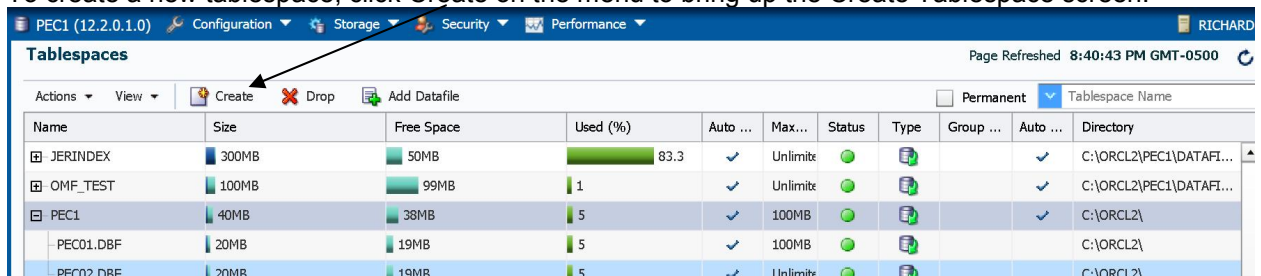# (Manage Database Storage Structures)

ORACLE DBA I

Practical Exercise 2
Manage Database Storage Structures

DIRECTIONS: This is a hands-on performance exercise. Follow the directions provided. You will have
50 minutes to complete this exercise. DO YOUR OWN WORK!
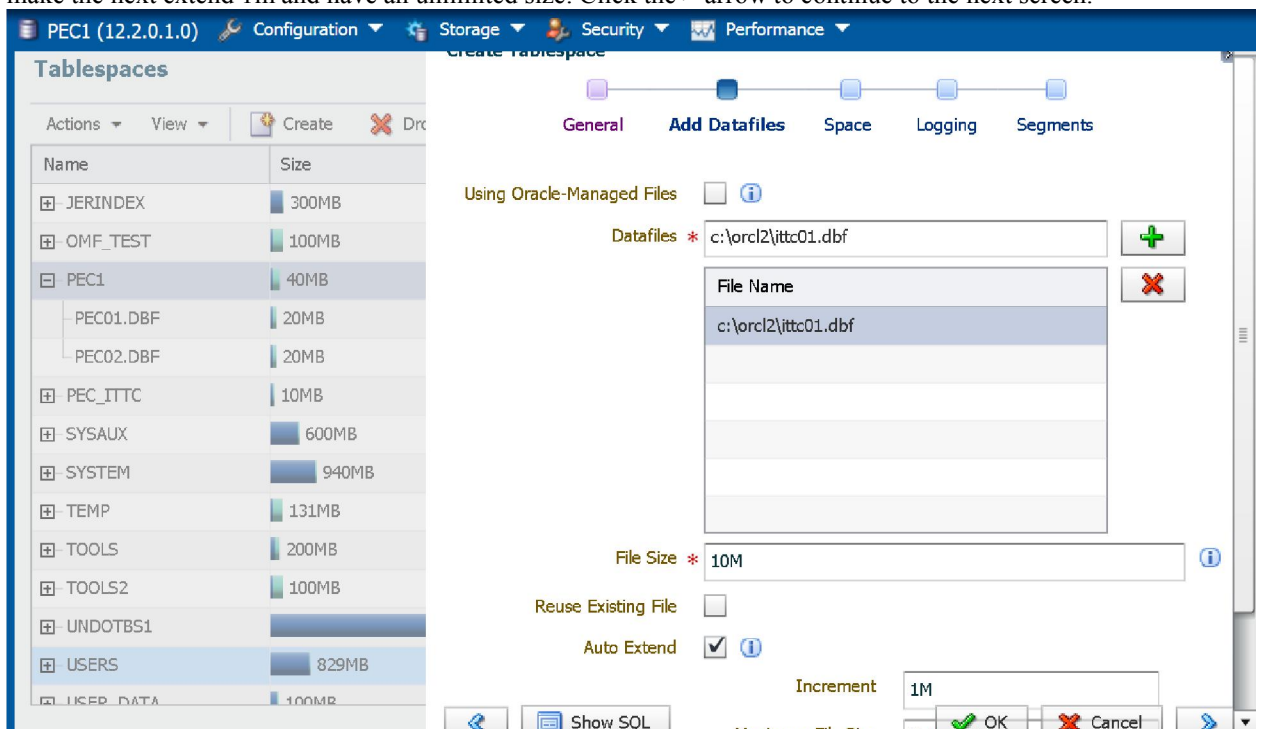
Perform the following steps:

1. Start a web browser and connect to the Enterprise Manager Database Express URL on your
   Oracle database server.
2. Log in to your database as the user SIDPERS with the password of password.
3. On the Enterprise Manager main page, click the Storage hyperlink to display the EM Express
   Home page.
4. Click the Tablespaces hyperlink under Storage to display the current tablespaces in the database
   and their space utilization.
5. To create a new tablespace, click Create on the menu to bring up the Create Tablespace screen.

6. In the name box, enter ITTC. Leave your tablespace at the default values of Locally Managed,
   Permanent, and Read Write and as a smallfile tablespace with a status of online.
7. Under the Add Datafiles heading, Do not use the OMF option so leave unchecked and use a

   name of c:\orcl2\ITTC01.dbf and click the big green PLUS Symbol to move the
   information so it will be used in the tablespace creation. Make the file size 10m and check auto extend and
   make the next extend 1m and have an unlimited size. Click the > arrow to continue to the next screen.

8. Next, make sure that automatic allocation is selected and since we are done click on OK.

9. Next you will receive a confirmation message.

10. Now Select the New ITTC tablespace and right click on the Action Menu. Here you can add new datafiles as needed for your new tablespace.

.

11. After the tablespace has been created, you will be returned to the Tablespaces page of Enterprise Manager Database Express.

12. Now let's create a tablespace in SQL Developer. Go to SQL Developer and under DBA Connections click on Storage | Tablespaces and right click and select Create New tablespace with the following information:
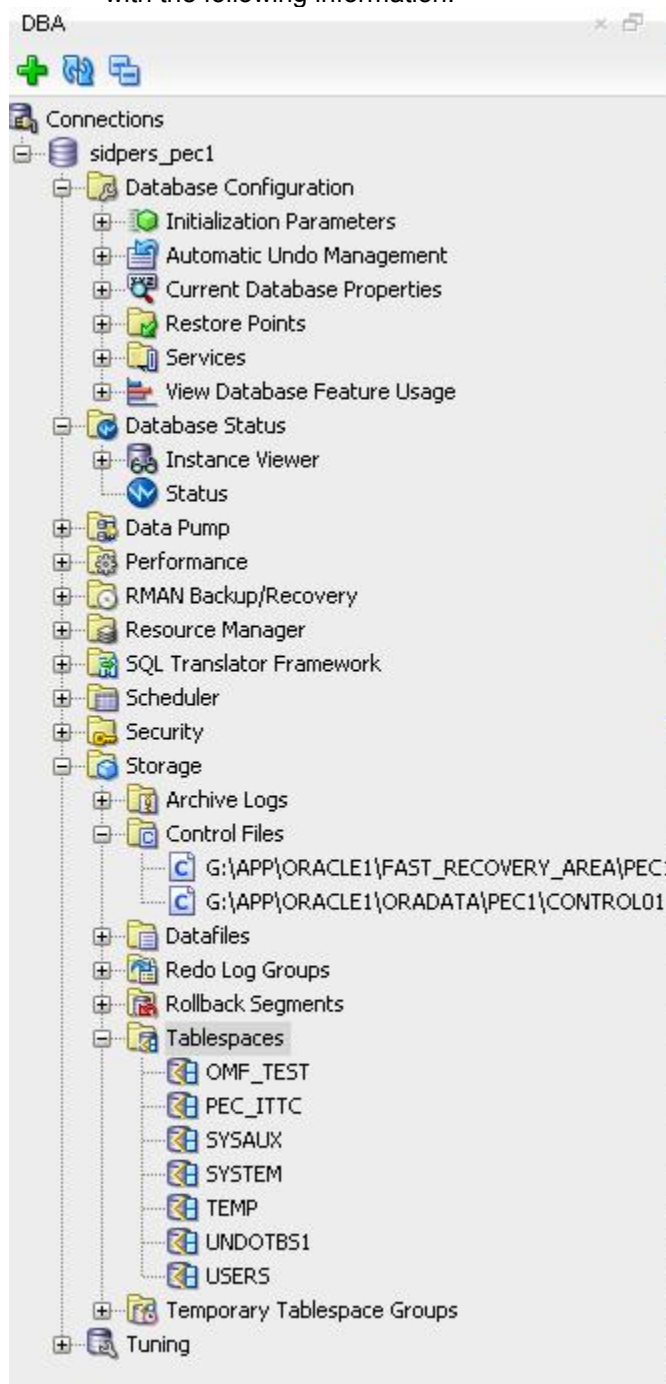
Tablespace Name: PEC1
Values: Locally Managed, Permanent, and Read Write
Datafiles: Leave Bigfile Tablespace box unchecked.
Add Datafile: c:\oracle2\oradata\pec01.dbf
Size: 100M, autogrow in increments of 50M, maximum of 500M
Storage: Extent Allocation – Automatic; Segment Space Management – Automatic; Enable Logging – Yes
No changes to Thresholds

13. Fill out the information as shown below to add your datafile and directory information. Then select Properties.

14. Go to Properties and fill out the appropriate Values as indicated: Leave Block Size blank

1. Go to the DBA Connections.
2. Select Tablespaces hyperlink under Storage and Select PEC1.
3. Then right click and select Edit. In the File Specifications, Change the File Size to 40m and ensure that auto-extend is on. Make the next extend 1m and the maximum size 100m.

4. Go to Properties and Click the drop-down list on Online Status and notice the different options to take the tablespace offline: Return the Online Status to Online otherwise you will be unable to save your current changes.

5. If you want to see the SQL you have generated click on DDL and you will see all the changes from your current Edit session.

Edit Tablespace

Name: PEC1

Tablespace Type: Permanent

File Specifications | Properties | Default Parameters | DDL

SQL Statement(s):
○ Create   ● Update (for current edit)

ALTER TABLESPACE PEC1 **OFFLINE**;

ALTER DATABASE
DATAFILE 'C:\ORCL2\PEC01.DBF'
AUTOEXTEND ON NEXT 1048576 **MAXSIZE** 104857600;

ALTER DATABASE
DATAFILE 'C:\ORCL2\PEC01.DBF' **RESIZE** 41943040;

Save...

Help   OK   Cancel

6. To add another datafile to PEC1, go to Storage | Tablespaces and select PEC. Right click and select add datafile.
7. Make the new datafile 20m and automatically extend by 1m and have an unlimited size. Notice the backslash after the File Directory. This is necessary. Click Apply to save your changes.

Add Datafile

Properties | SQL

|	
Tablespace	PEC1
File Name	pec02.dbf
File Directory	C:\orcl2\
File Size	20 MB ▼
Reuse Existing File	☐
Automatically Extend When Full	☑
Increment	1 MB ▼
Unlimited Maximum Size	☑
Maximum Size	1000 KB ▼

Apply   Cancel

8. Select the tablespace called PEC1 and right click and notice at the bottom of the menu is a Drop Tablespace menu. Select the Drop Tablespace
9. To ensure that you Delete Associated Datafiles, Contents and Constraints are deleted from the OS check all the boxes then click Apply to delete the tablespace.
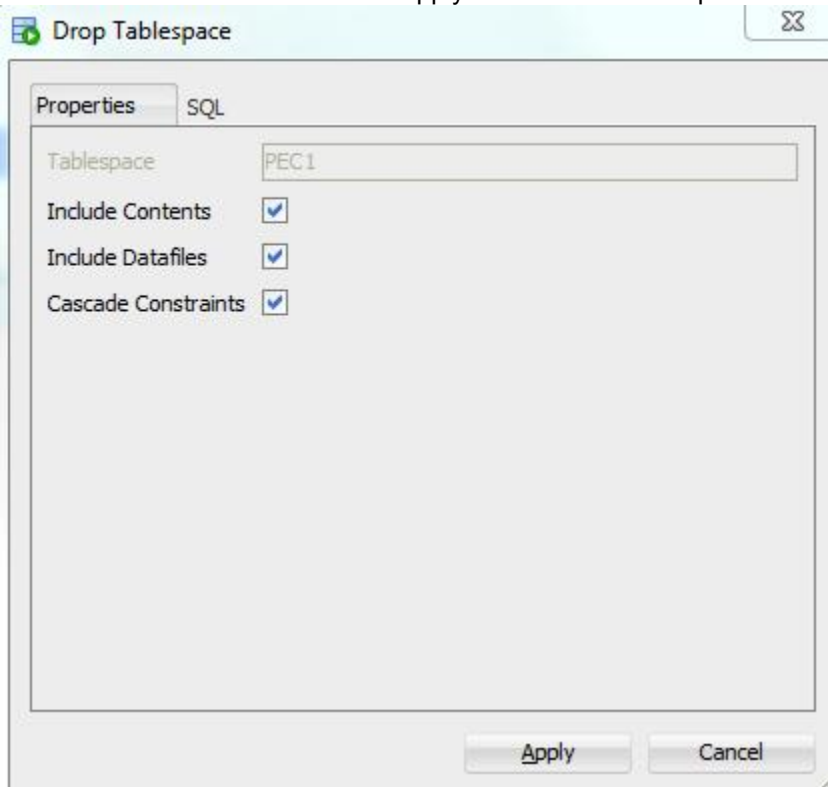
10. Notice that the tablespace is no longer listed on the Tablespaces page.

From your computer, verify that the datafile has been removed by using cd to change directories to /orcl2/ directory, then perform the following:

> From sql*plus, or Sql Developer login in as sidpers/password, display the information from the data dictionary by issuing a query for dba_data_files as shown below.
> SELECT file_name, tablespace_name, bytes,
> autoextensible, increment_by
> FROM DBA_DATA_FILES;

> Query the dynamic performance view V$DATAFILE to verify the result.
> select name, bytes, create_bytes FROM v$datafile;

> THIS COMPLETES THE LAB.