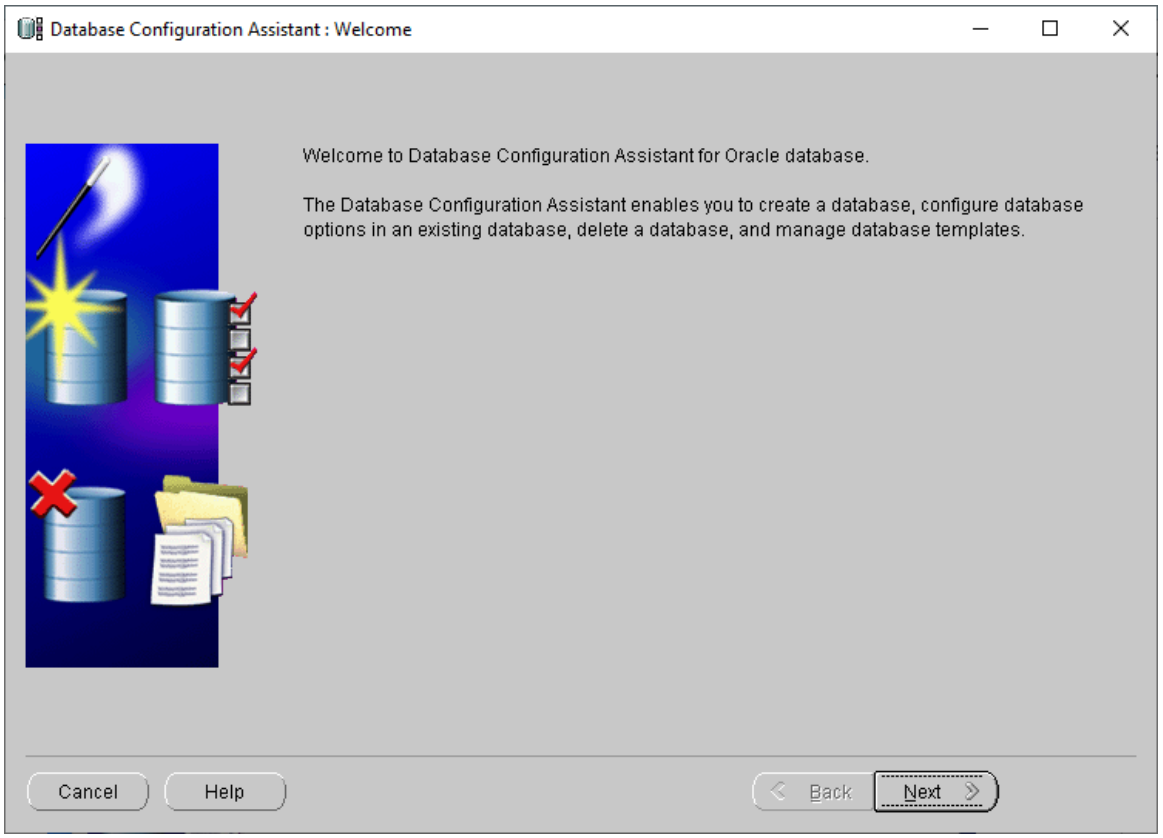
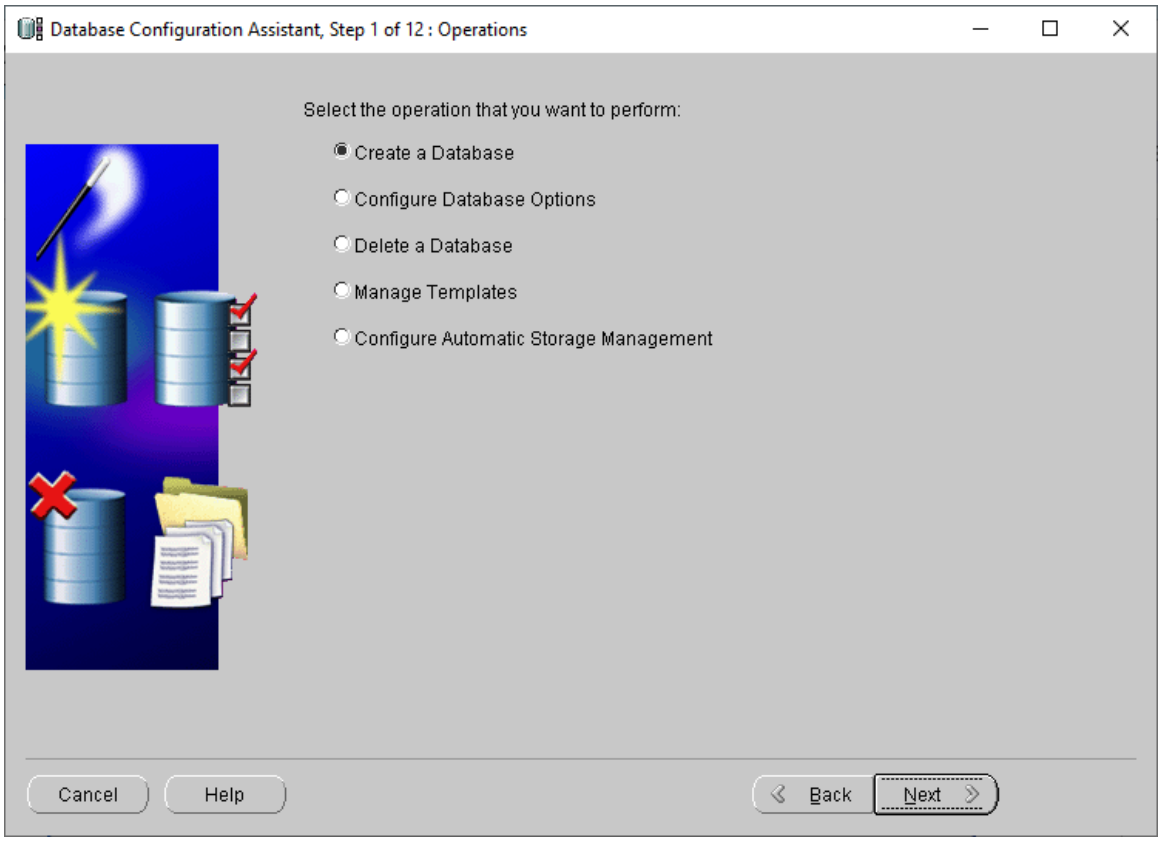
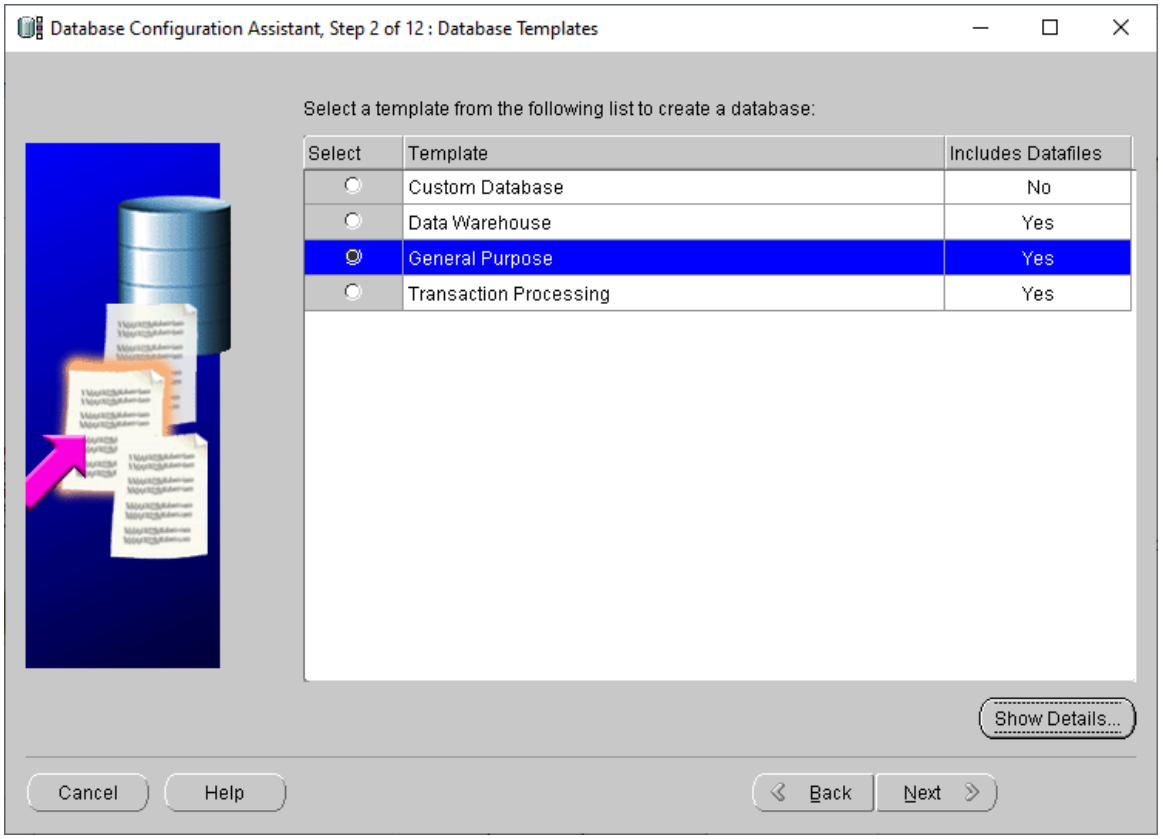
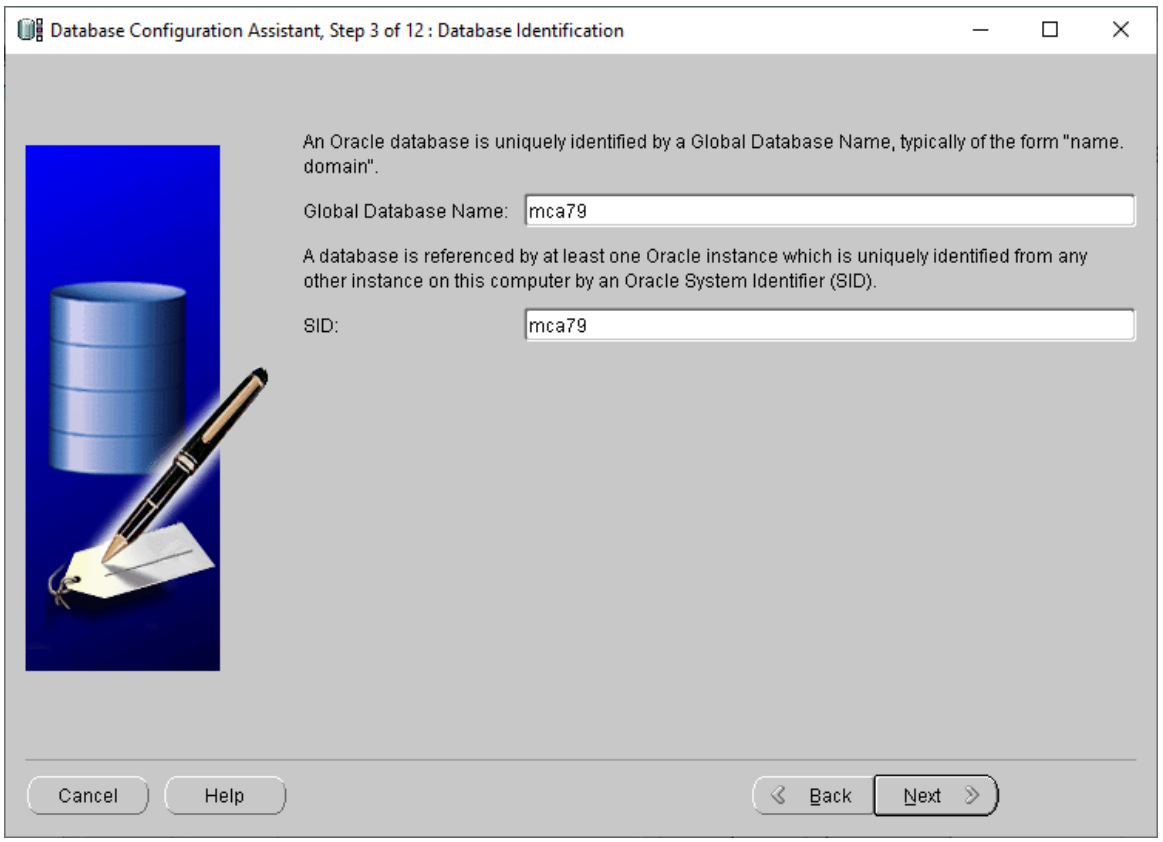
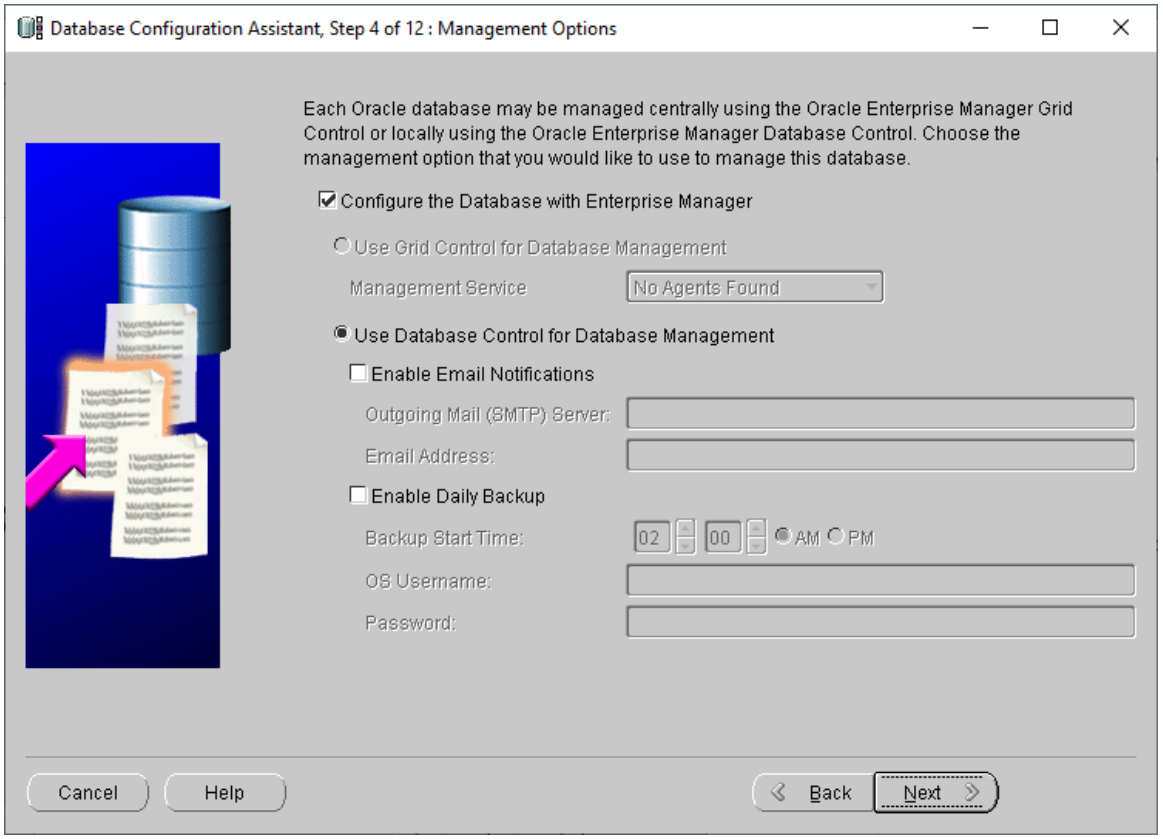
1. Create a new database using Database Configuration Assistant (DBCA).

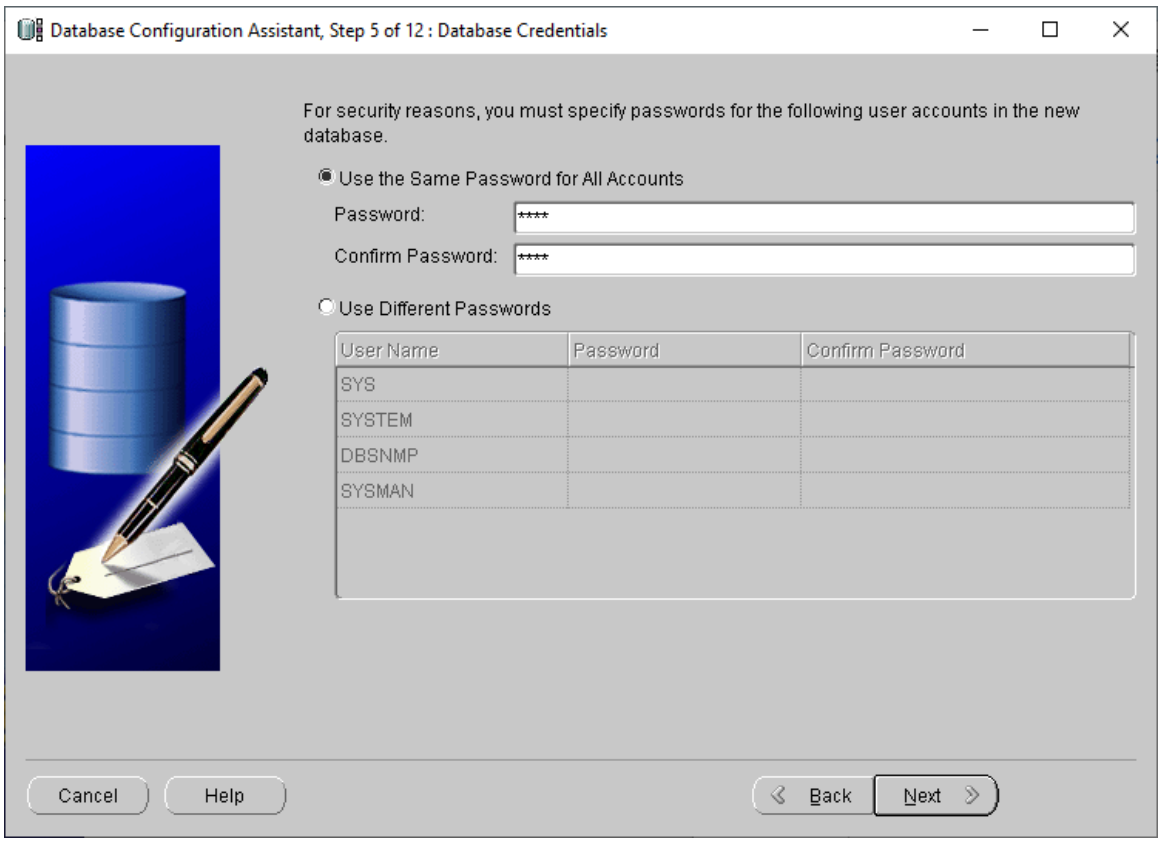


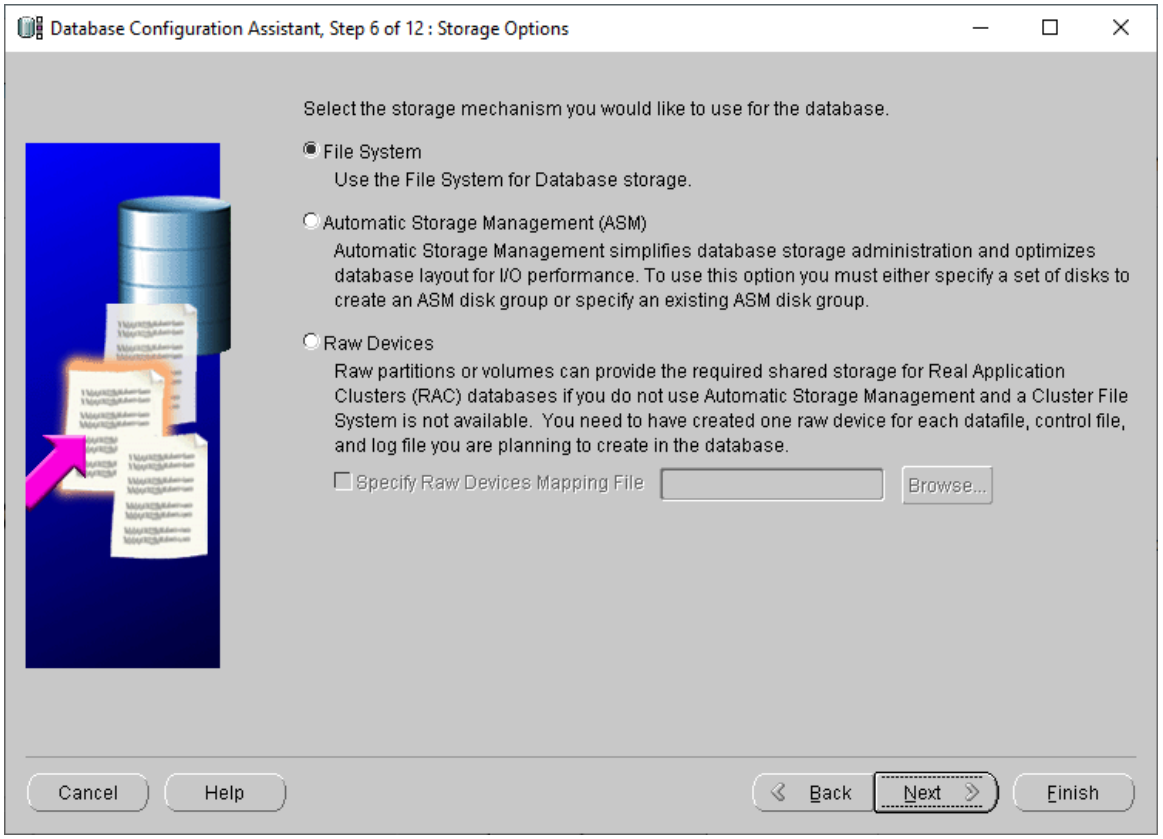


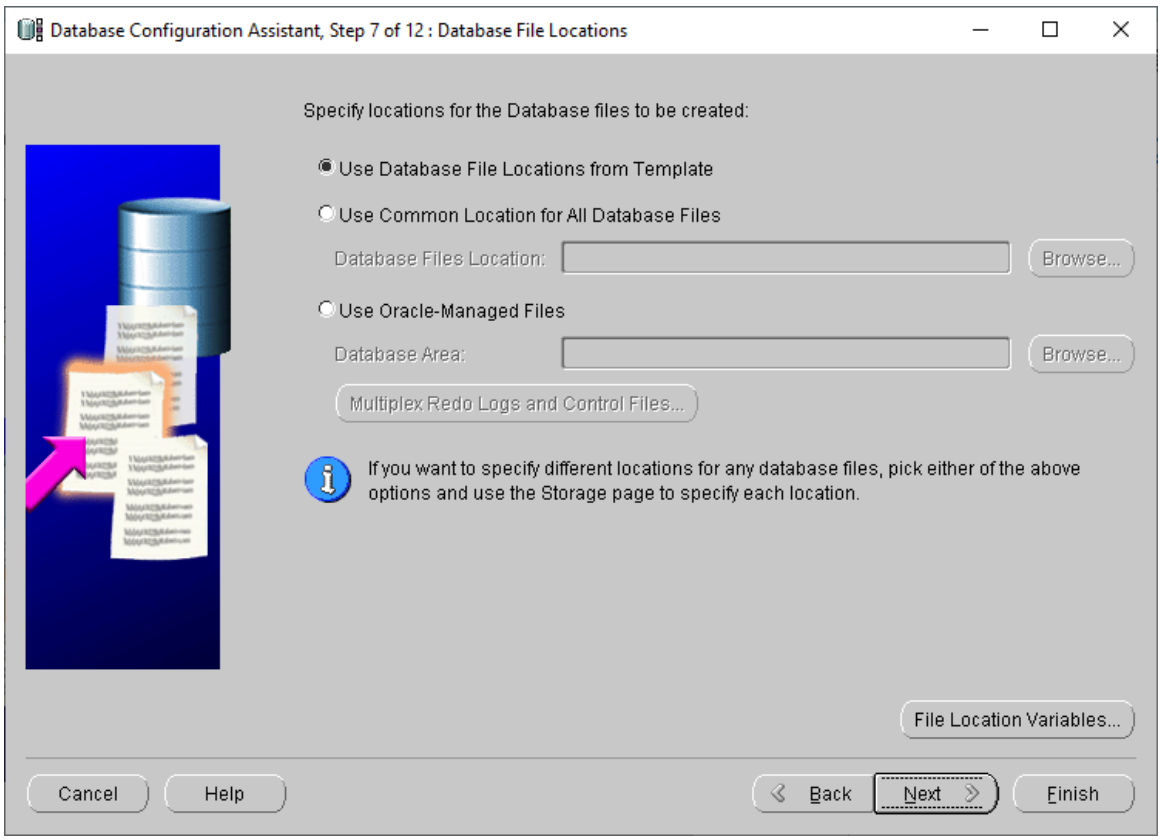

Database Configuration Assistant, Step 2 of 12 : Database Templates
Select a template from the following list to create a database:
Select
Template
Includes Datafiles
Custom Database
No
Data Warehouse
Yes
General Purpose
Yes
Transaction Processing
Yes
Show Details...
Cancel
Help
Back
Next

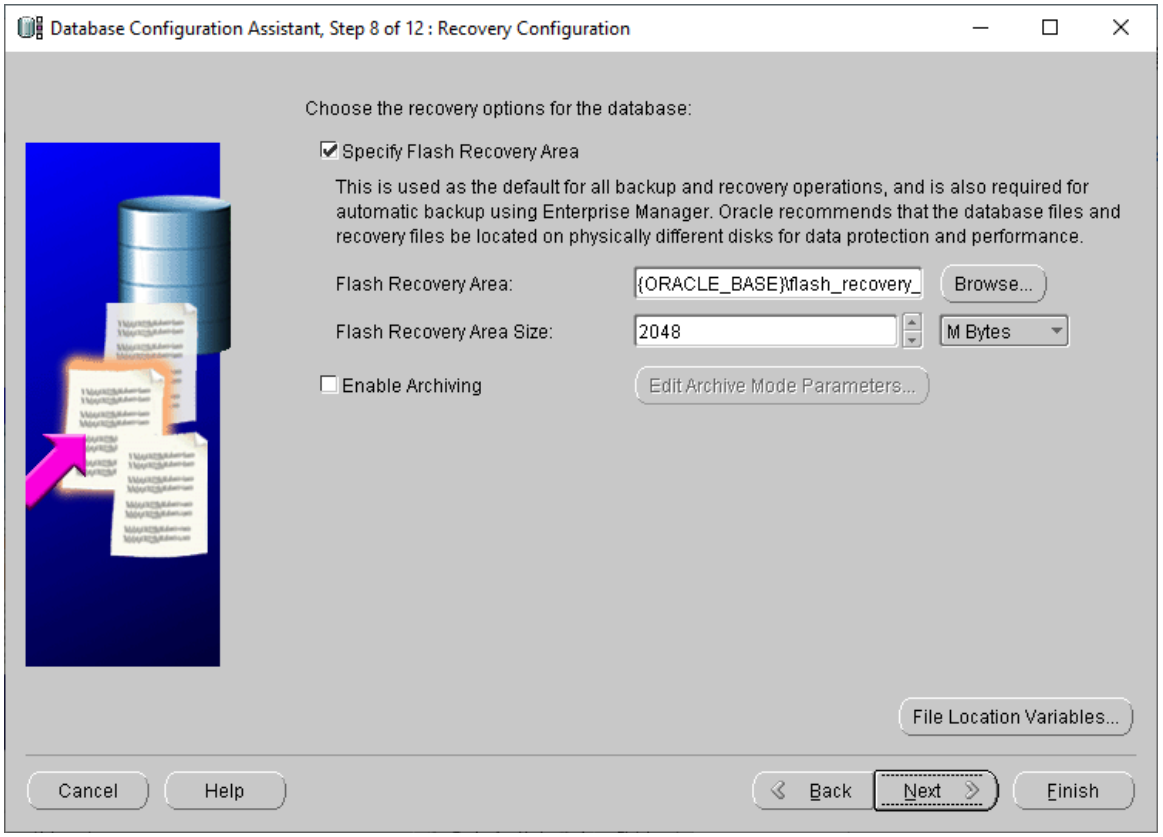

Database Configuration Assistant, Step 3 of 12 : Database Identification
An Oracle database is uniquely identified by a Global Database Name, typically of the form "name.domain".
Global Database Name:
mca79
A database is referenced by at least one Oracle instance which is uniquely identified from any other instance on this computer by an Oracle System Identifier (SID).
SID:
mca79
Cancel
Help
Back
Next

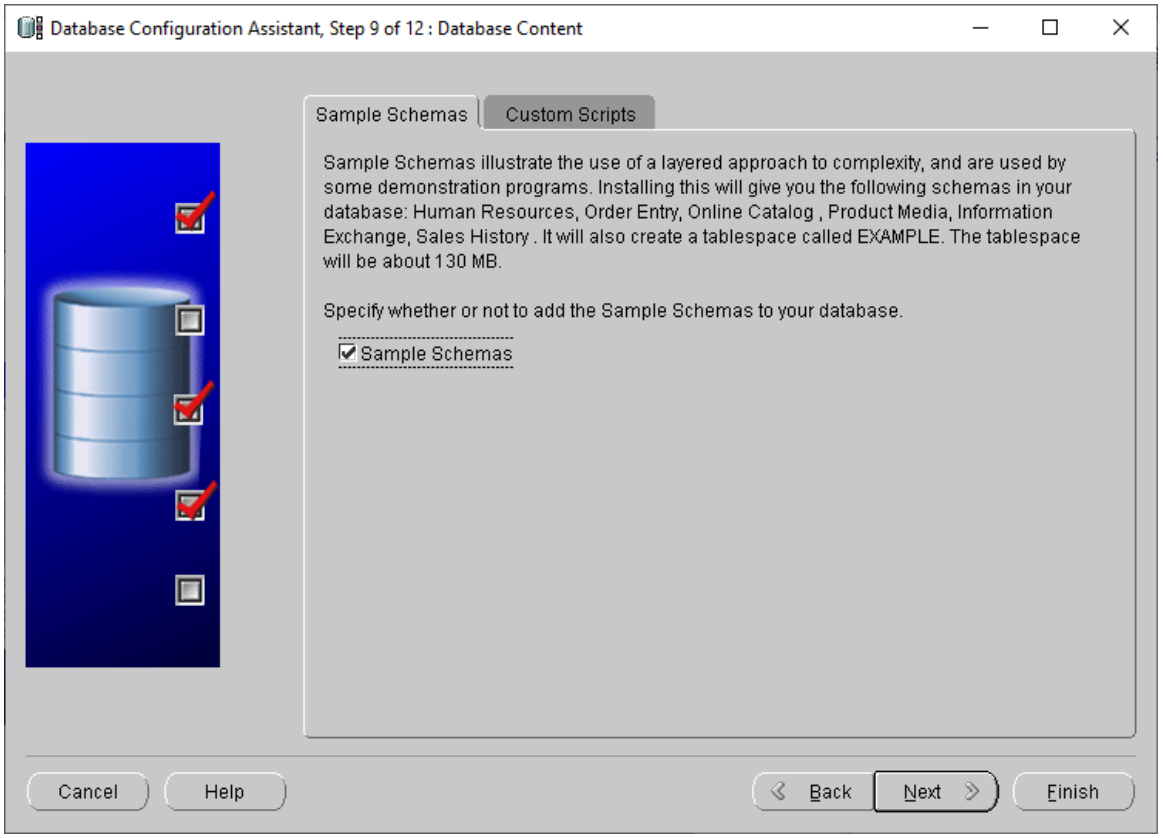

Database Configuration Assistant, Step 4 of 12 : Management Options
Each Oracle database may be managed centrally using the Oracle Enterprise Manager Grid Control or locally using the Oracle Enterprise Manager Database Control. Choose the management option that you would like to use to manage this database.
Configure the Database with Enterprise Manager
Use Grid Control for Database Management
Management Service
No Agents Found
Use Database Control for Database Management
Enable Email Notifications
Outgoing Mail (SMTP) Server:
Email Address:
Enable Daily Backup
Backup Start Time:
02
00
AM
PM
OS Username:
Password:
Cancel
Help
Back
Next

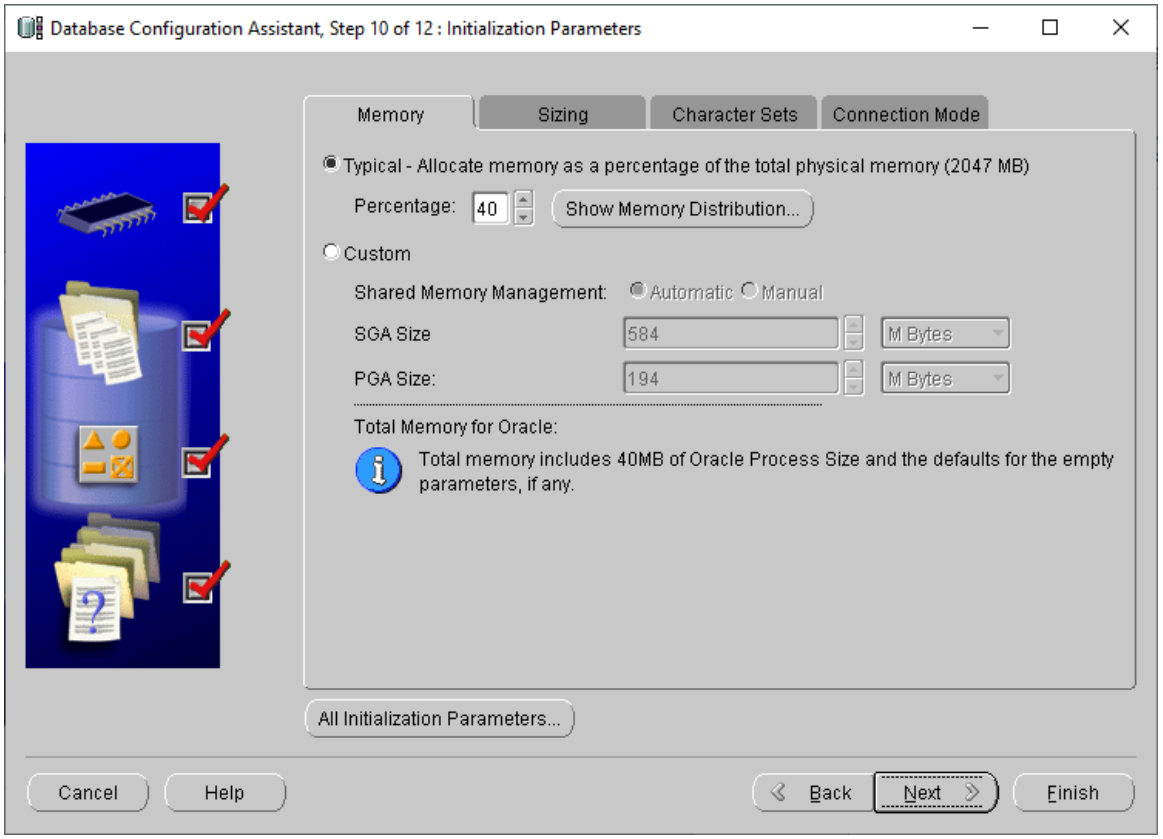

Database Configuration Assistant, Step 5 of 12 : Database Credentials
For security reasons, you must specify passwords for the following user accounts in the new database.
Use the Same Password for All Accounts
Password:
Confirm Password:
Use Different Passwords
User Name
Password
Confirm Password
SYS
SYSTEM
DBSNMP
SYSMAN
Cancel
Help
Back
Next

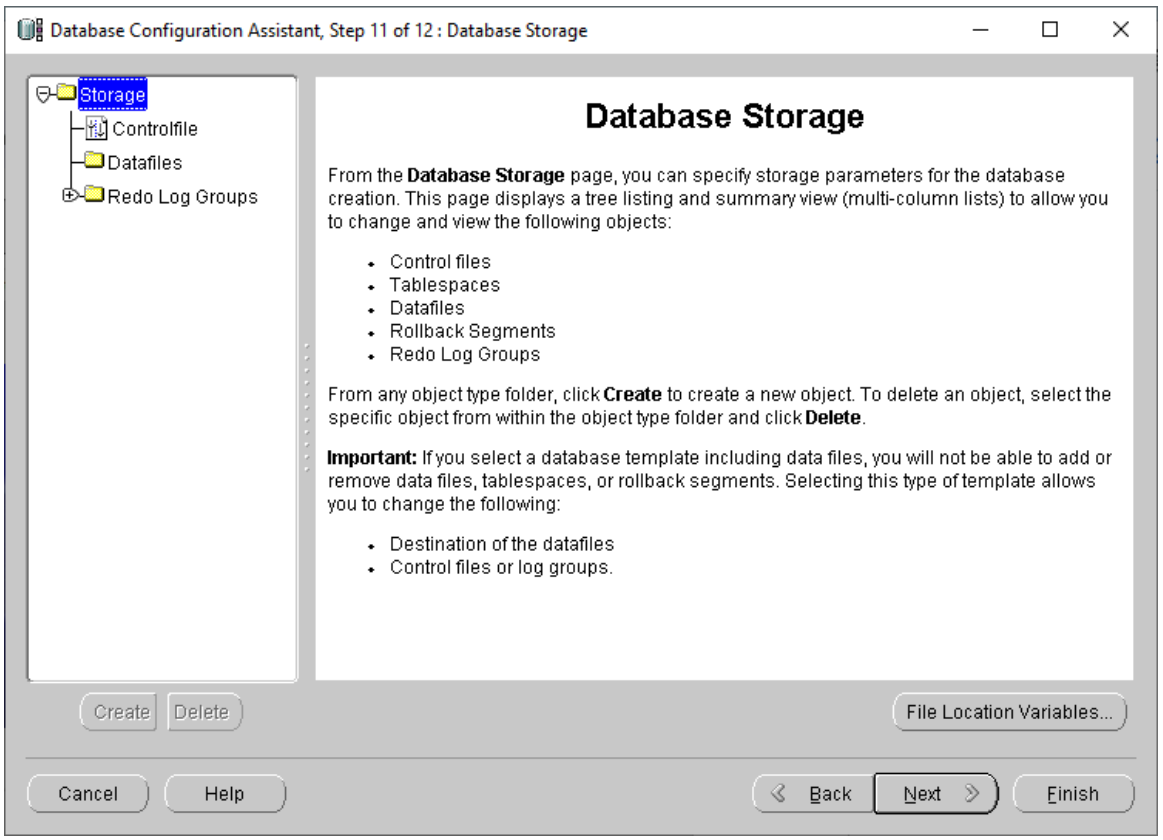

Database Configuration Assistant, Step 6 of 12 : Storage Options
Select the storage mechanism you would like to use for the database.
File System
Use the File System for Database storage.
Automatic Storage Management (ASM)
Automatic Storage Management simplifies database storage administration and optimizes database layout for I/O performance. To use this option you must either specify a set of disks to create an ASM disk group or specify an existing ASM disk group.
Raw Devices
Raw partitions or volumes can provide the required shared storage for Real Application Clusters (RAC) databases if you do not use Automatic Storage Management and a Cluster File System is not available. You need to have created one raw device for each datafile, control file, and log file you are planning to create in the database.
Specify Raw Devices Mapping File
Browse...
Cancel
Help
Back
Next
Finish

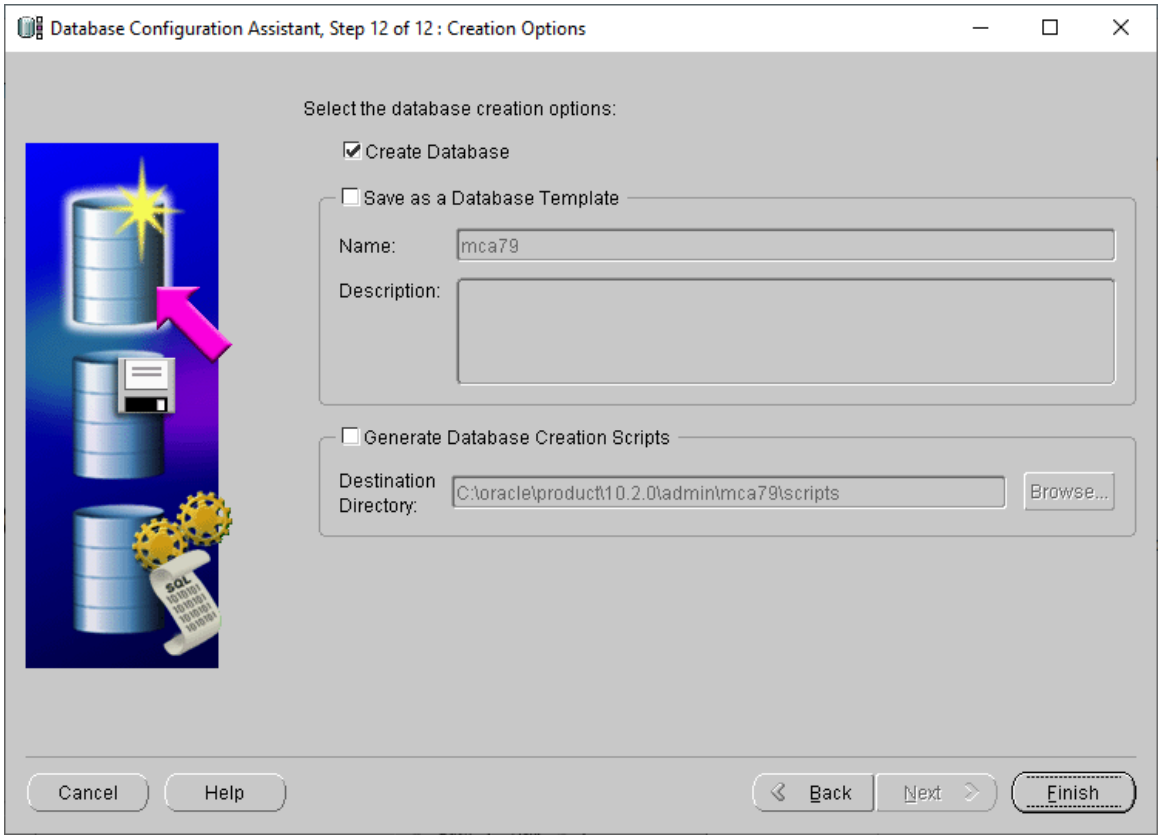

Database Configuration Assistant, Step 7 of 12 : Database File Locations
Specify locations for the Database files to be created:
Use Database File Locations from Template
Use Common Location for All Database Files
Database Files Location:
Browse...
Use Oracle-Managed Files
Database Area:
Browse...
Multiplex Redo Logs and Control Files...
If you want to specify different locations for any database files, pick either of the above options and use the Storage page to specify each location.
File Location Variables...
Cancel
Help
Back
Next
Finish

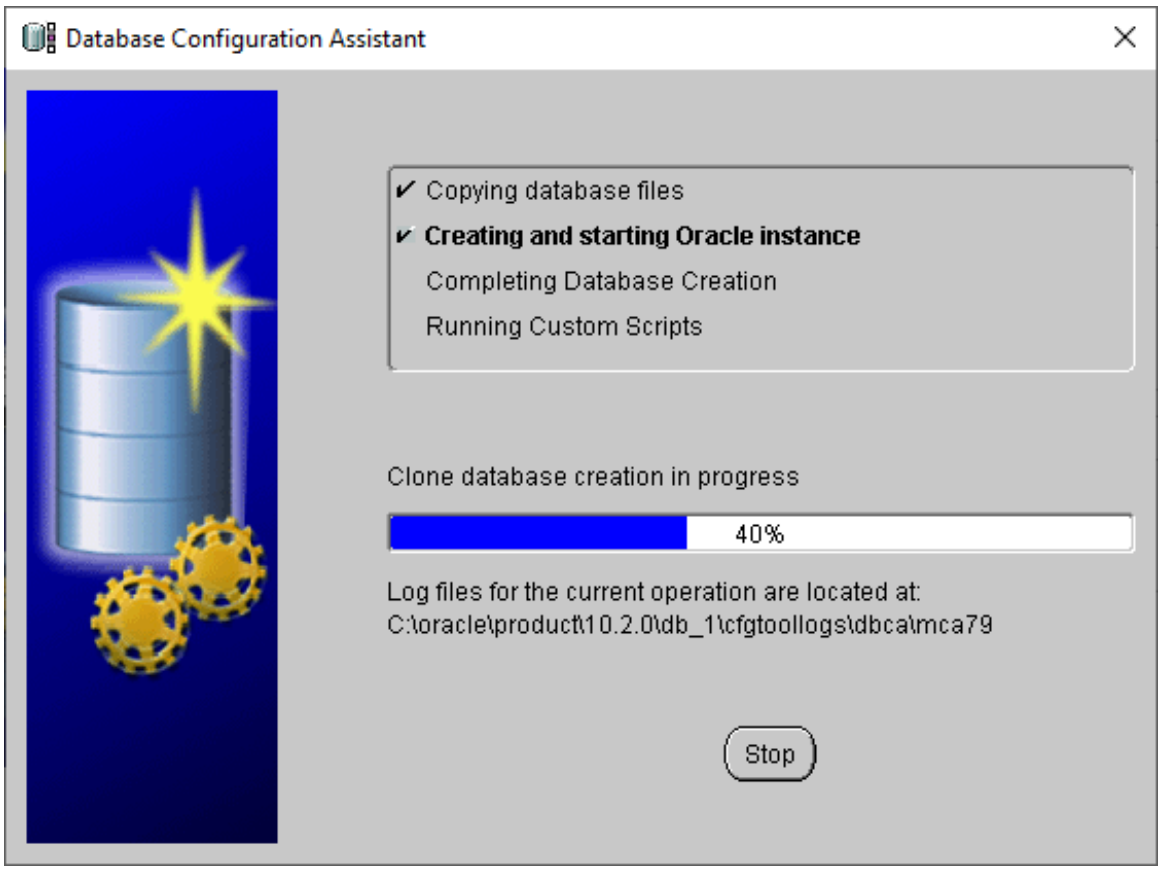

Database Configuration Assistant, Step 8 of 12 : Recovery Configuration
Choose the recovery options for the database:
Specify Flash Recovery Area
This is used as the default for all backup and recovery operations, and is also required for automatic backup using Enterprise Manager. Oracle recommends that the database files and recovery files be located on physically different disks for data protection and performance.
Flash Recovery Area:
{ORACLE_BASE}\flash_recovery_
Browse...
Flash Recovery Area Size:
2048
M Bytes
Enable Archiving
Edit Archive Mode Parameters...
File Location Variables...
Cancel
Help
Back
Next
Finish

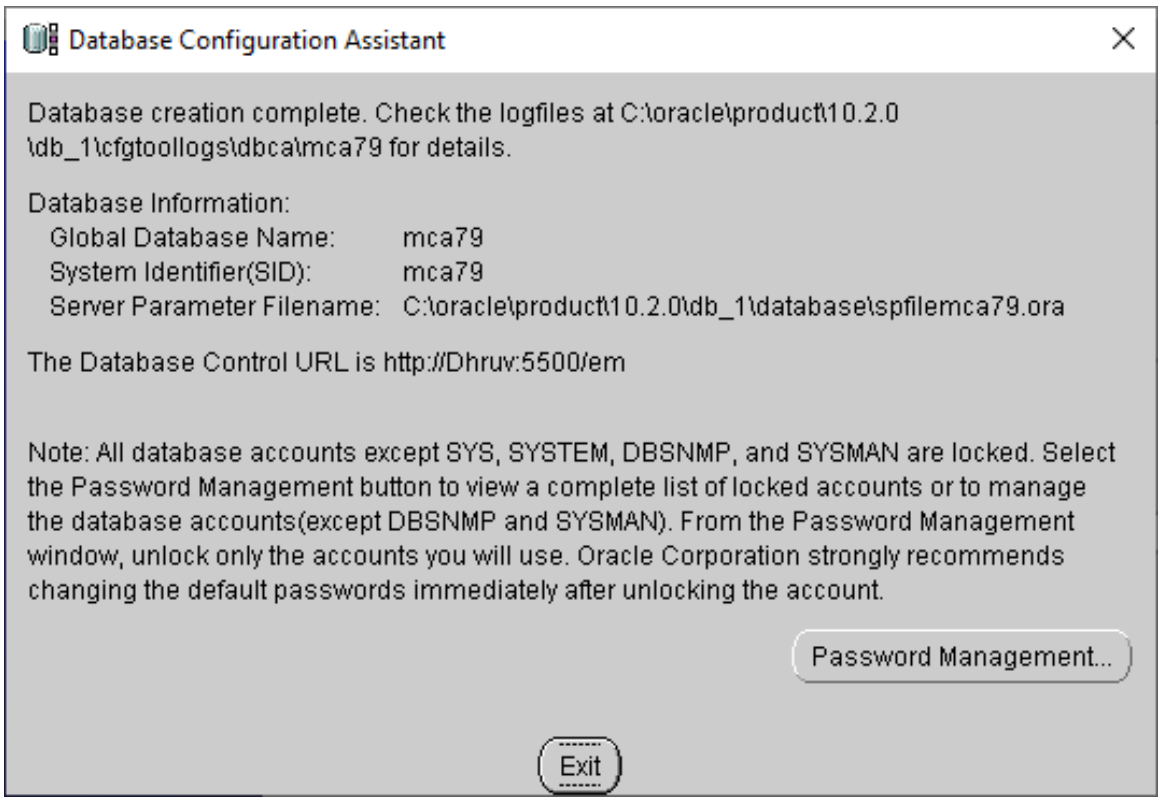

Database Configuration Assistant, Step 9 of 12 : Database Content
Sample Schemas
Custom Scripts
Sample Schemas illustrate the use of a layered approach to complexity, and are used by some demonstration programs. Installing this will give you the following schemas in your database: Human Resources, Order Entry, Online Catalog , Product Media, Information Exchange, Sales History . It will also create a tablespace called EXAMPLE. The tablespace will be about 130 MB.
Specify whether or not to add the Sample Schemas to your database.
Sample Schemas
Cancel
Help
Back
Next
Finish

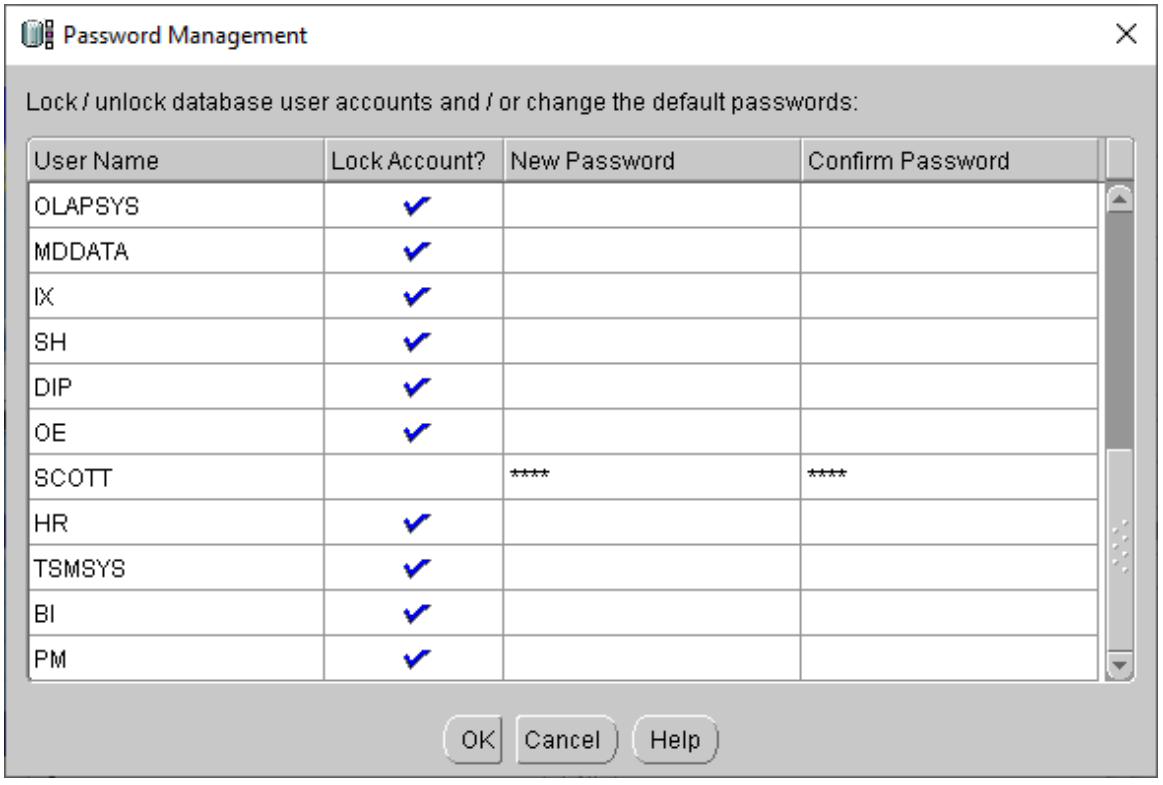

Database Configuration Assistant, Step 10 of 12 : Initialization Parameters
Memory
Sizing
Character Sets
Connection Mode
Typical - Allocate memory as a percentage of the total physical memory (2047 MB)
Percentage:
40
Show Memory Distribution...
Custom
Shared Memory Management:
Automatic
Manual
SGA Size
584
M Bytes
PGA Size:
194
M Bytes
Total Memory for Oracle:
Total memory includes 40MB of Oracle Process Size and the defaults for the empty parameters, if any.
All Initialization Parameters...
Cancel
Help
Back
Next
Finish


Database Configuration Assistant, Step 11 of 12 : Database Storage
Storage
Controlfile
Datafiles
Redo Log Groups
Database Storage
From the Database Storage page, you can specify storage parameters for the database creation. This page displays a tree listing and summary view (multi-column lists) to allow you to change and view the following objects:
Control files
Tablespaces
Datafiles
Rollback Segments
Redo Log Groups
From any object type folder, click Create to create a new object. To delete an object, select the specific object from within the object type folder and click Delete.
Important: If you select a database template including data files, you will not be able to add or remove data files, tablespaces, or rollback segments. Selecting this type of template allows you to change the following:
Destination of the datafiles
Control files or log groups.
Create
Delete
File Location Variables...
Cancel
Help
Back
Next
Finish

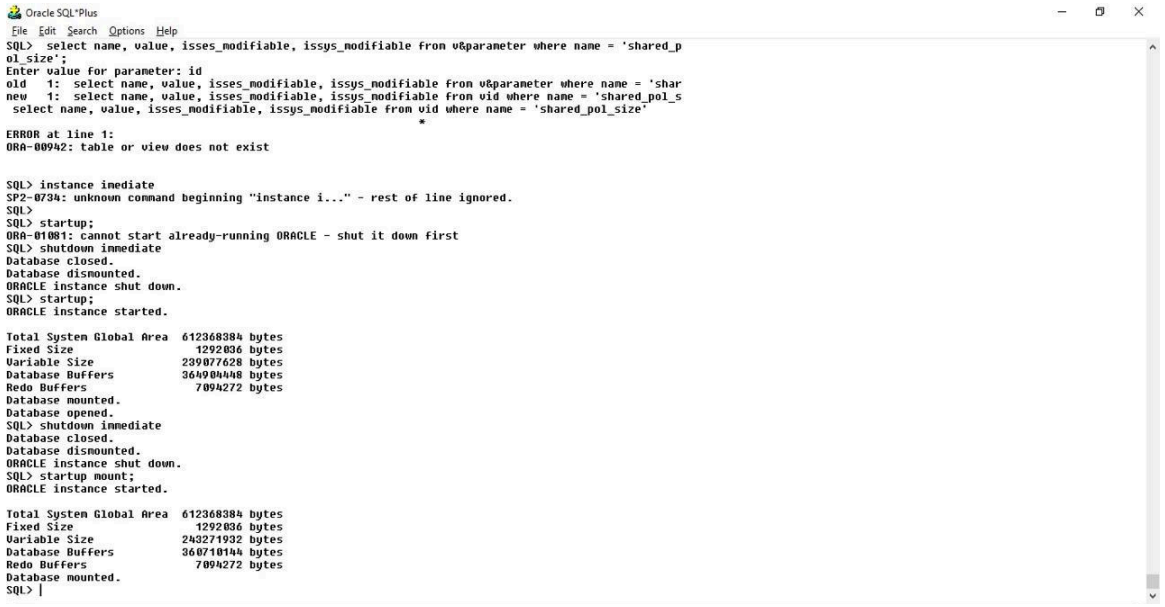

Database Configuration Assistant, Step 12 of 12 : Creation Options
Select the database creation options:
Create Database
Save as a Database Template
Name:
mca79
Description:
Generate Database Creation Scripts
Destination Directory:
C:\oracle\product\10.2.0\admin\mca79\scripts
Browse...
Cancel
Help
Back
Next
Finish


Database Configuration Assistant
Copying database files
Creating and starting Oracle instance
Completing Database Creation
Running Custom Scripts
Clone database creation in progress
40%
Log files for the current operation are located at:
C:\oracle\product\10.2.0\db_1\cfgtoollogs\dbca\mca79
Stop


Database Configuration Assistant
Database creation complete. Check the logfiles at C:\oracle\product\10.2.0\db_1\cfgtoollogs\dbca\mca79 for details.
Database Information:
Global Database Name: mca79
System Identifier(SID): mca79
Server Parameter Filename: C:\oracle\product\10.2.0\db_1\database\spfilemca79.ora
The Database Control URL is http://Dhruv:5500/em
Note: All database accounts except SYS, SYSTEM, DBSNMP, and SYSMAN are locked. Select the Password Management button to view a complete list of locked accounts or to manage the database accounts(except DBSNMP and SYSMAN). From the Password Management window, unlock only the accounts you will use. Oracle Corporation strongly recommends changing the default passwords immediately after unlocking the account.
Password Management...
Exit


Password Management
Lock / unlock database user accounts and / or change the default passwords:
User Name
Lock Account?
New Password
Confirm Password
OLAPSYS
MDDATA
IX
SH
DIP
OE
SCOTT
****
****
HR
TSMSYS
BI
PM
OK
Cancel
Help

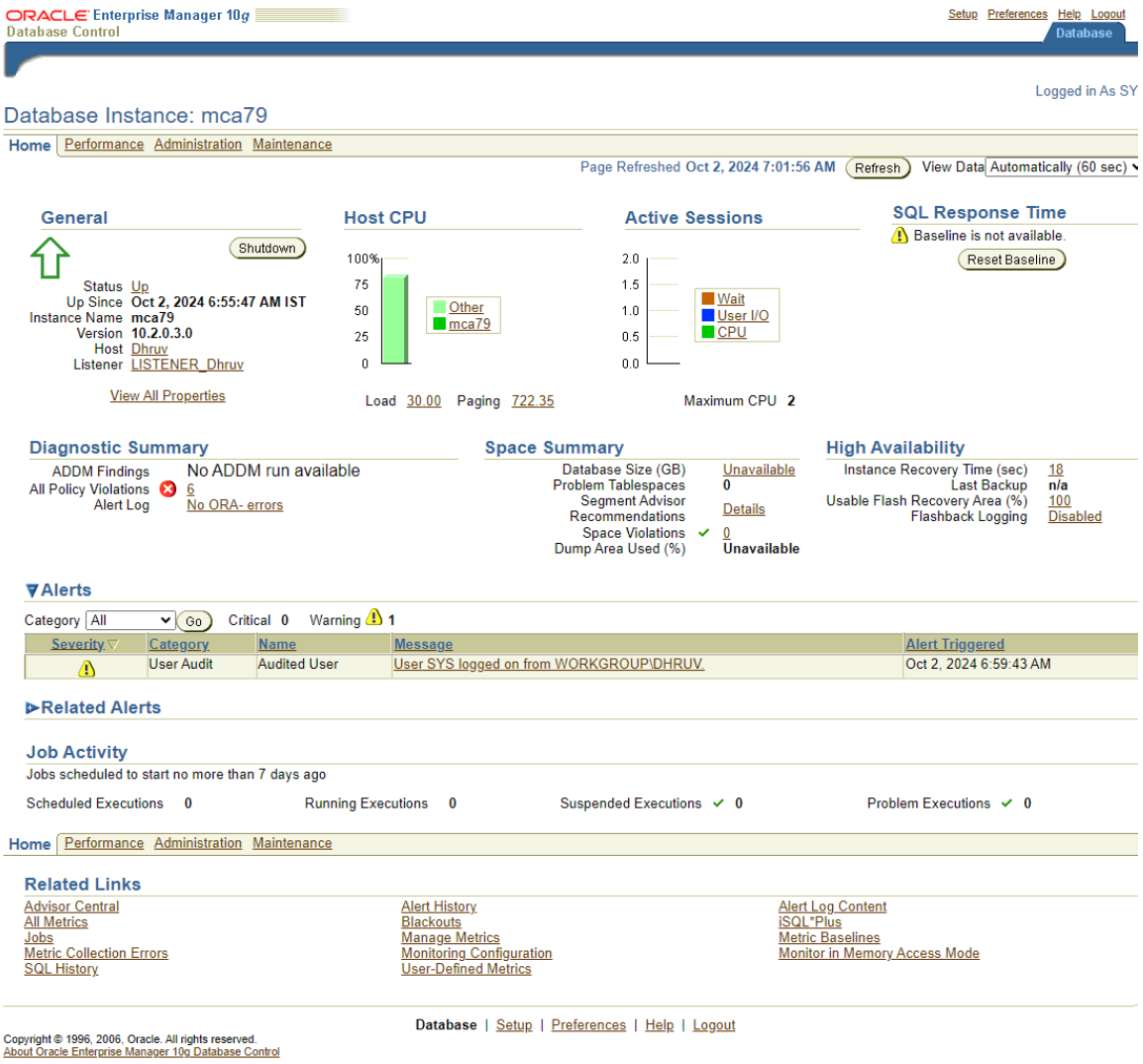
2. Write down the steps to Start Up an Oracle Instance in different modes and also write the status of database instances in each mode.

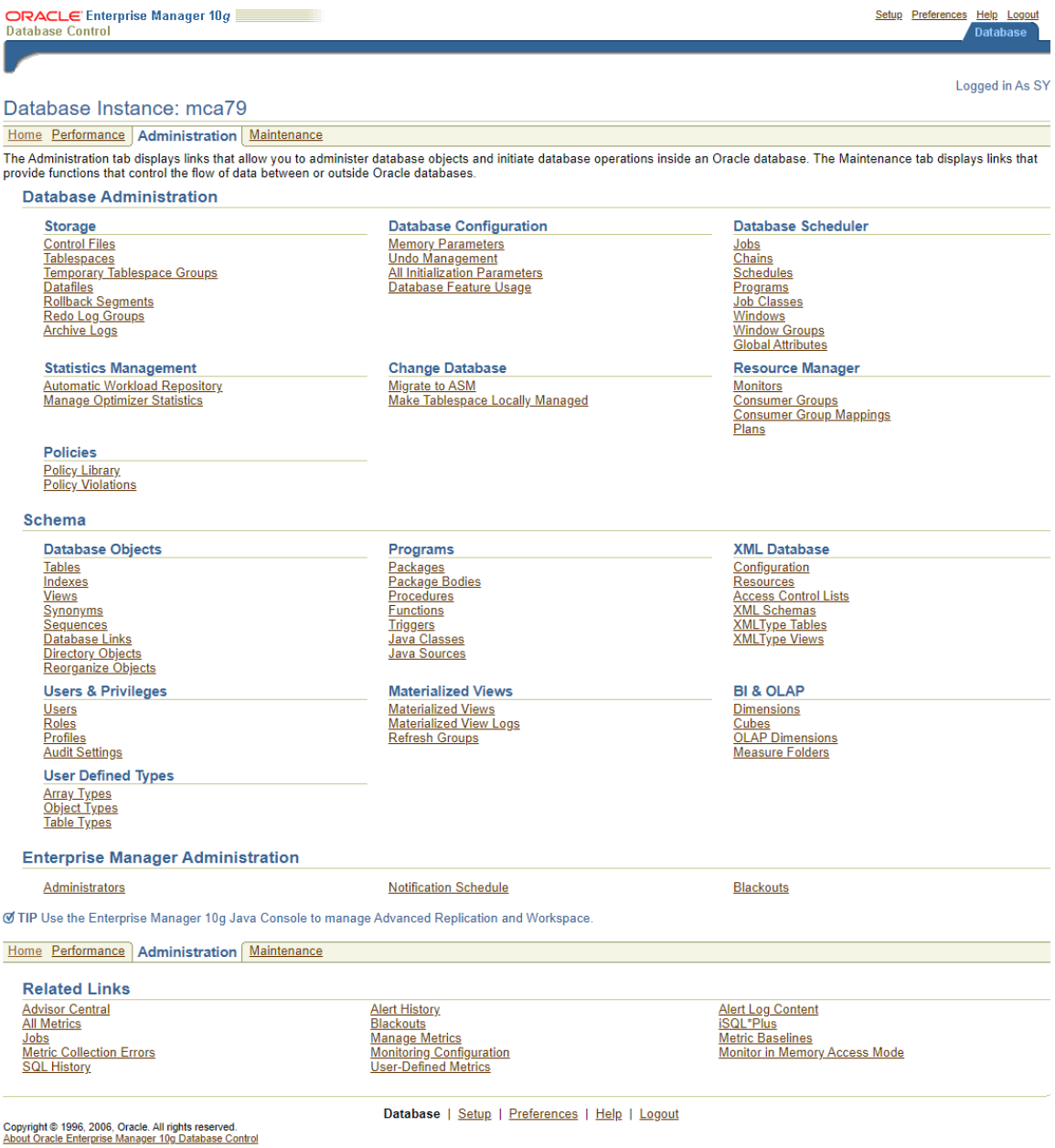


```
Oracle SQL*Plus
File  Edit  Search  Options  Help
SQL>  select name, value, isses_modifiable, issys_modifiable from v&parameter where name = 'shared_p
ol_size';
Enter value for parameter: id
old   1:  select name, value, isses_modifiable, issys_modifiable from v&parameter where name = 'shar
new   1:  select name, value, isses_modifiable, issys_modifiable from vid where name = 'shared_pol_s
 select name, value, isses_modifiable, issys_modifiable from vid where name = 'shared_pol_size'
                                                            *
ERROR at line 1:
ORA-00942: table or view does not exist


SQL> instance imediate
SP2-0734: unknown command beginning "instance i..." - rest of line ignored.
SQL>
SQL> startup;
ORA-01081: cannot start already-running ORACLE - shut it down first
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup;
ORACLE instance started.

Total System Global Area  612368384 bytes
Fixed Size                  1292036 bytes
Variable Size             239077628 bytes
Database Buffers          364904448 bytes
Redo Buffers                7094272 bytes
Database mounted.
Database opened.
SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup mount;
ORACLE instance started.

Total System Global Area  612368384 bytes
Fixed Size                  1292036 bytes
Variable Size             243271932 bytes
Database Buffers          360710144 bytes
Redo Buffers                7094272 bytes
Database mounted.
SQL>
```

```
Oracle SQL*Plus
File  Edit  Search  Options  Help
Database Buffers          352321536 bytes
Redo Buffers                7094272 bytes
Database mounted.
Database opened.
SQL>  shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup force;
ORACLE instance started.

Total System Global Area  612368384 bytes
Fixed Size                  1292036 bytes
Variable Size             255854844 bytes
Database Buffers          348127232 bytes
Redo Buffers                7094272 bytes
Database mounted.
Database opened.
SQL>  shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup;
ORACLE instance started.

Total System Global Area  612368384 bytes
Fixed Size                  1292036 bytes
Variable Size             260049148 bytes
Database Buffers          343932928 bytes
Redo Buffers                7094272 bytes
Database mounted.
Database opened.
SQL> alter database open read only;
alter database open read only
*
ERROR at line 1:
ORA-01531: a database already open by the instance


SQL> shutdown immediate
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL>
```

3. Write a practical for creating a new tablespace using Enterprise Manager as well as using SQL prompt.





ORACLE Enterprise Manager 10g
Database Control

Setup Preferences Help Logout
Database

Logged in As SY

Database Instance: mca79

Home Performance **Administration** Maintenance

The Administration tab displays links that allow you to administer database objects and initiate database operations inside an Oracle database. The Maintenance tab displays links that provide functions that control the flow of data between or outside Oracle databases.

Database Administration

Storage
Control Files
Tablespaces
Temporary Tablespace Groups
Datafiles
Rollback Segments
Redo Log Groups
Archive Logs

Database Configuration
Memory Parameters
Undo Management
All Initialization Parameters
Database Feature Usage

Database Scheduler
Jobs
Chains
Schedules
Programs
Job Classes
Windows
Window Groups
Global Attributes

Statistics Management
Automatic Workload Repository
Manage Optimizer Statistics

Change Database
Migrate to ASM
Make Tablespace Locally Managed

Resource Manager
Monitors
Consumer Groups
Consumer Group Mappings
Plans

Policies
Policy Library
Policy Violations

Schema

Database Objects
Tables
Indexes
Views
Synonyms
Sequences
Database Links
Directory Objects
Reorganize Objects

Programs
Packages
Package Bodies
Procedures
Functions
Triggers
Java Classes
Java Sources

XML Database
Configuration
Resources
Access Control Lists
XML Schemas
XMLType Tables
XMLType Views

Users & Privileges
Users
Roles
Profiles
Audit Settings

Materialized Views
Materialized Views
Materialized View Logs
Refresh Groups

BI & OLAP
Dimensions
Cubes
OLAP Dimensions
Measure Folders

User Defined Types
Array Types
Object Types
Table Types

Enterprise Manager Administration

Administrators
Notification Schedule
Blackouts

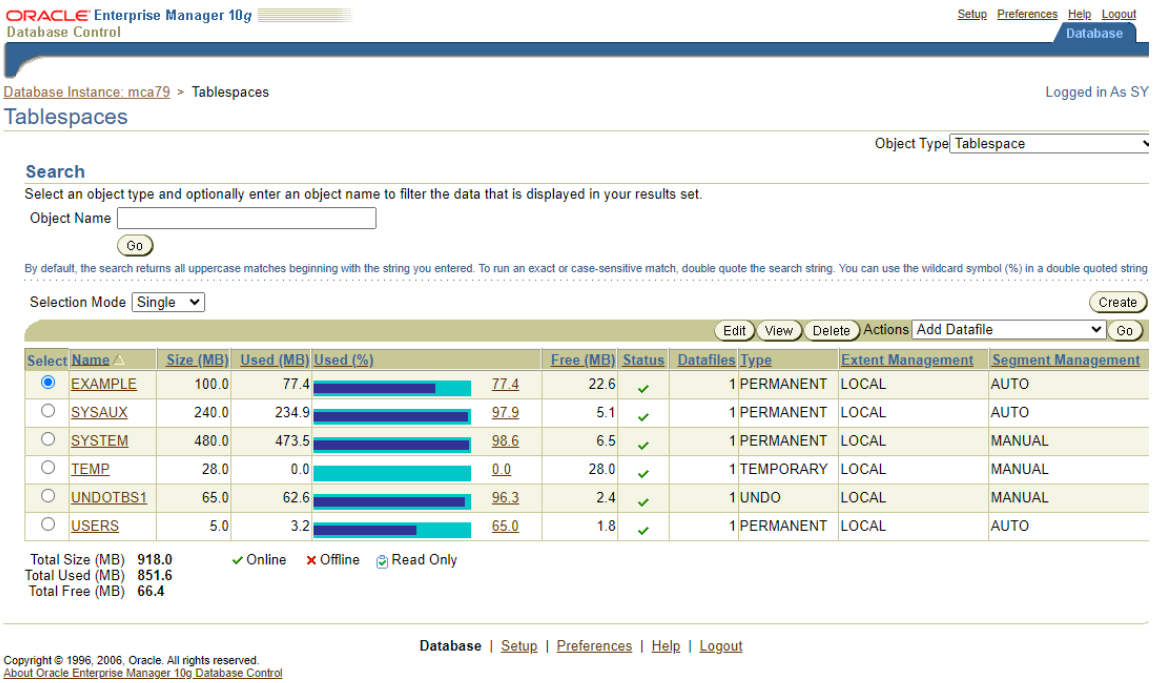
TIP Use the Enterprise Manager 10g Java Console to manage Advanced Replication and Workspace.

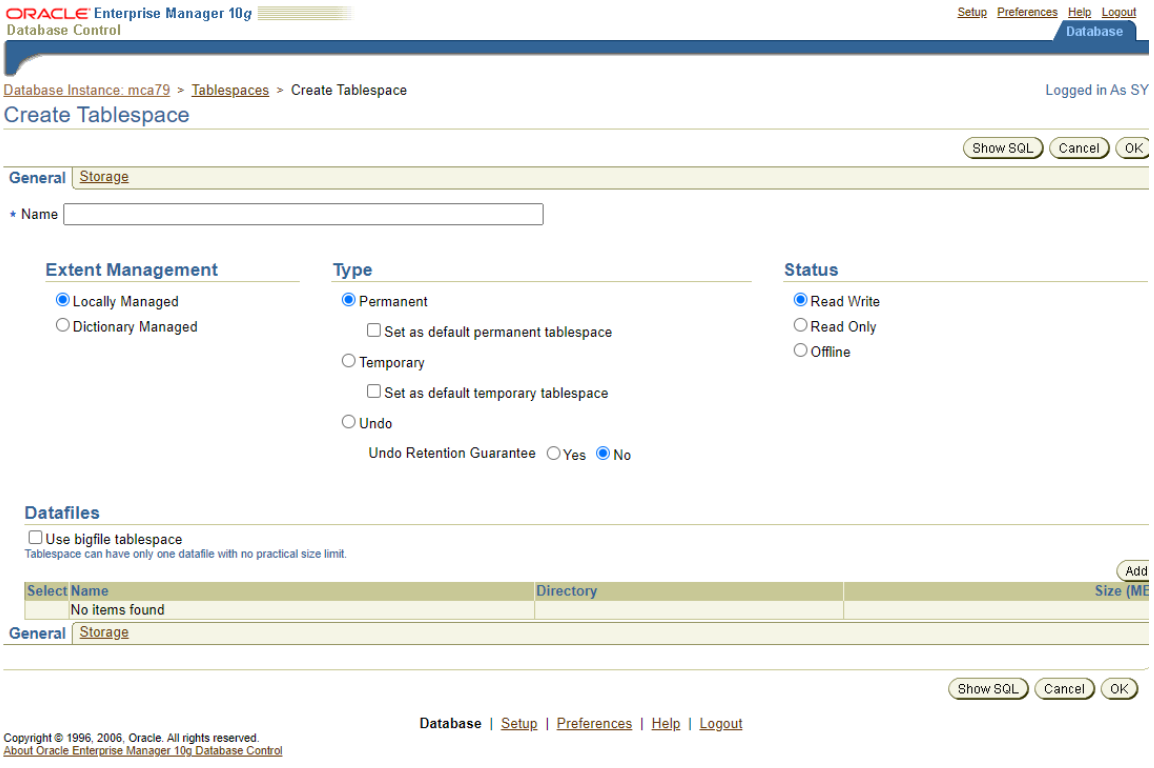
Home Performance **Administration** Maintenance

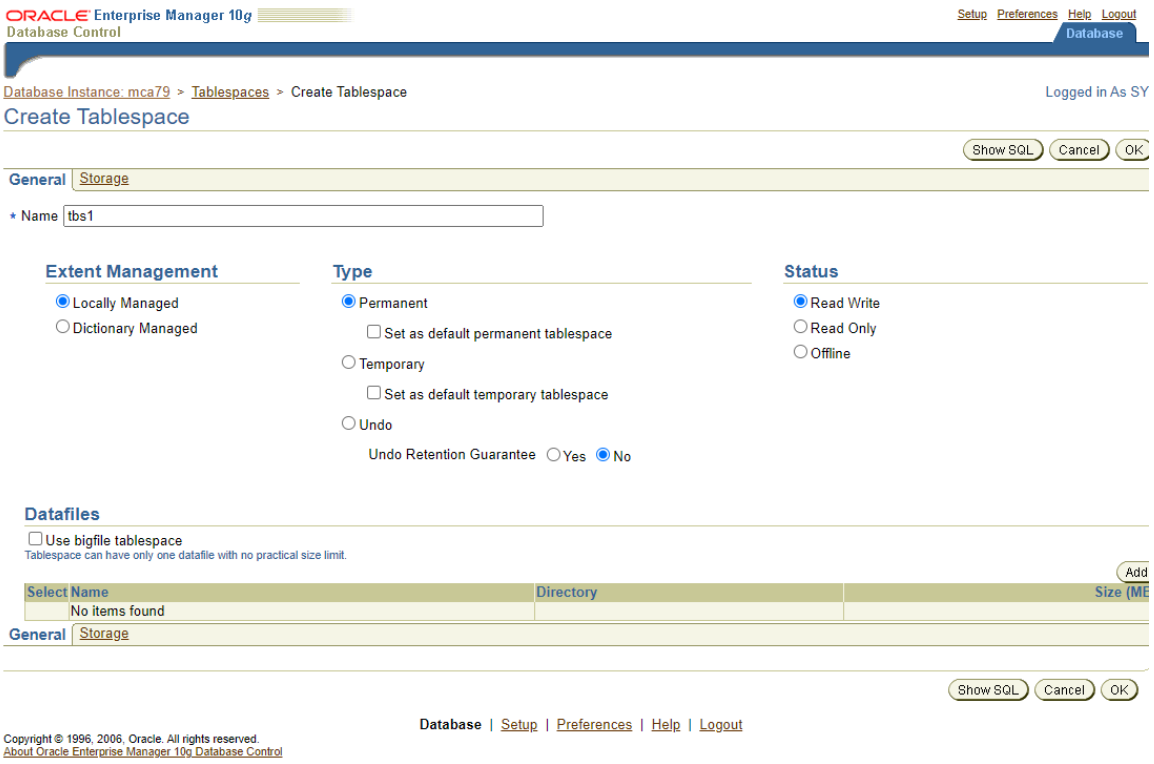
Related Links

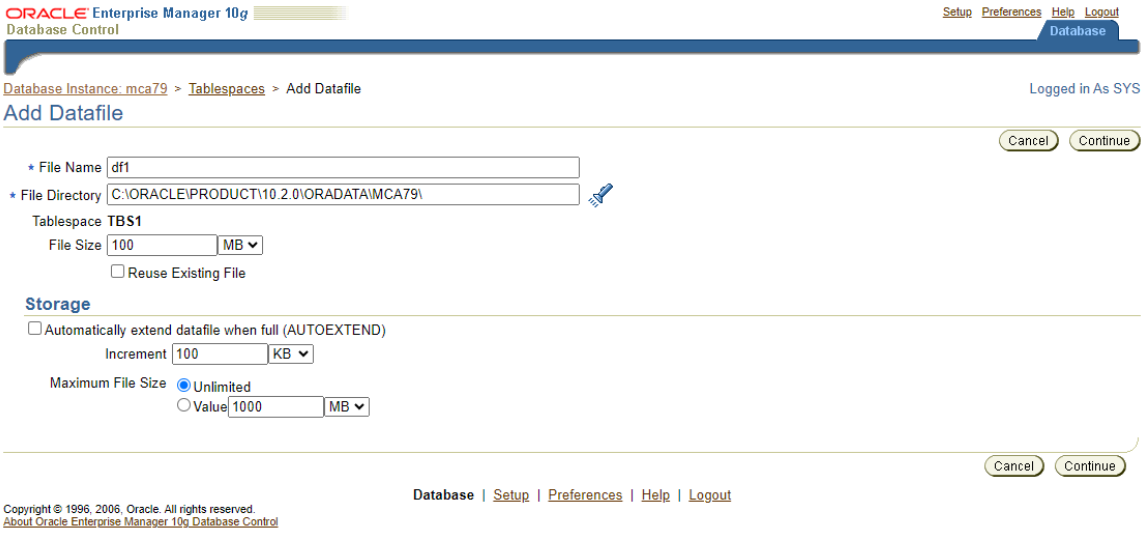
Advisor Central
All Metrics
Jobs
Metric Collection Errors
SQL History
Alert History
Blackouts
Manage Metrics
Monitoring Configuration
User-Defined Metrics
Alert Log Content
iSQL*Plus
Metric Baselines
Monitor in Memory Access Mode

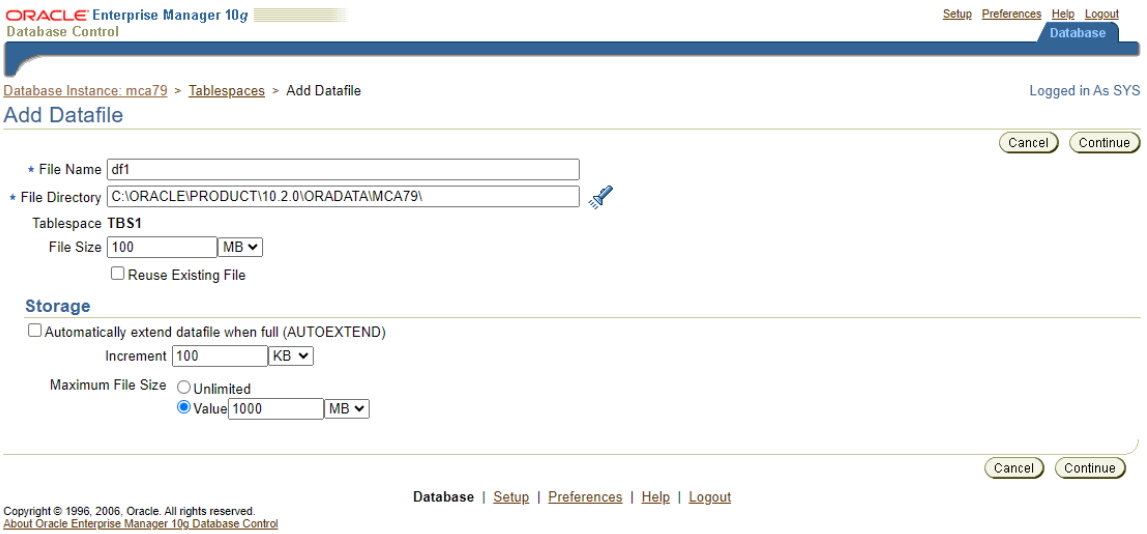
Database | Setup | Preferences | Help | Logout

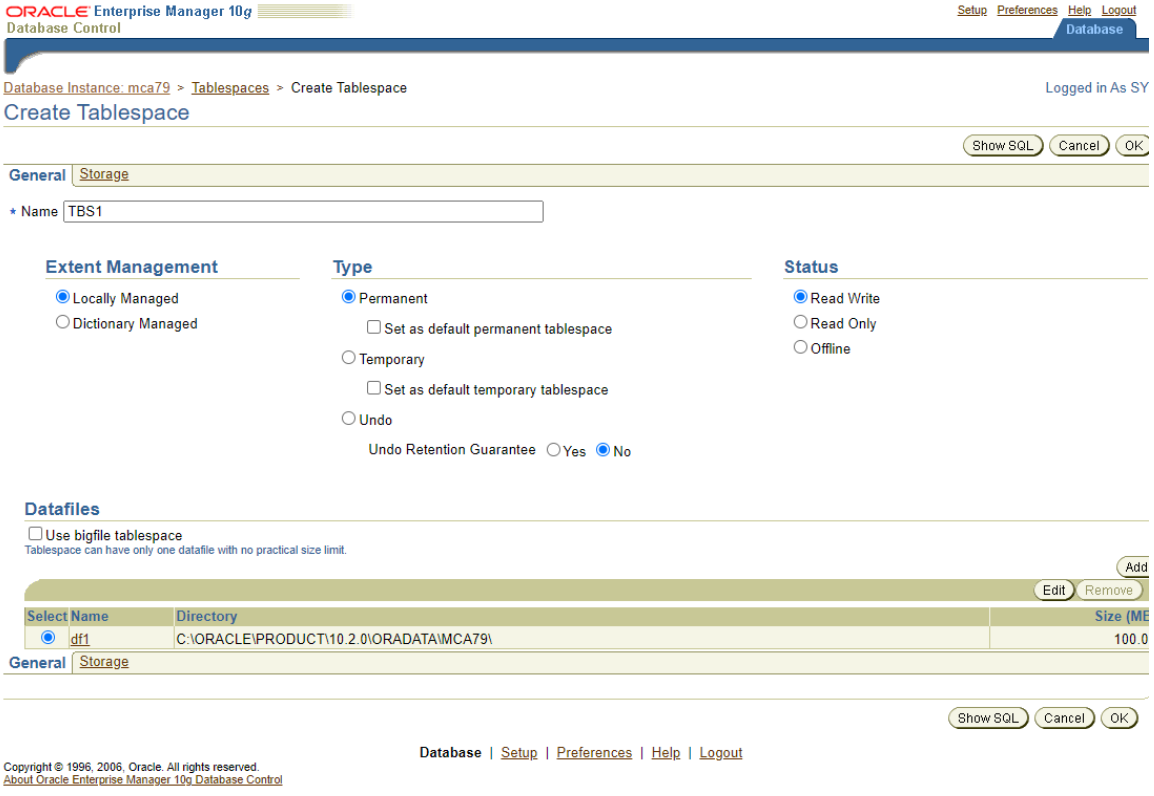

ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces
Logged in As SY
Tablespaces
Object Type Tablespace
Search
Select an object type and optionally enter an object name to filter the data that is displayed in your results set.
Object Name
Go
By default, the search returns all uppercase matches beginning with the string you entered. To run an exact or case-sensitive match, double quote the search string. You can use the wildcard symbol (%) in a double quoted string
Selection Mode Single
Create
Edit View Delete Actions Add Datafile Go
Select Name Size (MB) Used (MB) Used (%) Free (MB) Status Datafiles Type Extent Management Segment Management
EXAMPLE 100.0 77.4 77.4 22.6 1 PERMANENT LOCAL AUTO
SYSAUX 240.0 234.9 97.9 5.1 1 PERMANENT LOCAL AUTO
SYSTEM 480.0 473.5 98.6 6.5 1 PERMANENT LOCAL MANUAL
TEMP 28.0 0.0 0.0 28.0 1 TEMPORARY LOCAL MANUAL
UNDOTBS1 65.0 62.6 96.3 2.4 1 UNDO LOCAL MANUAL
USERS 5.0 3.2 65.0 1.8 1 PERMANENT LOCAL AUTO
Total Size (MB) 918.0
Total Used (MB) 851.6
Total Free (MB) 66.4
Online Offline Read Only
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control

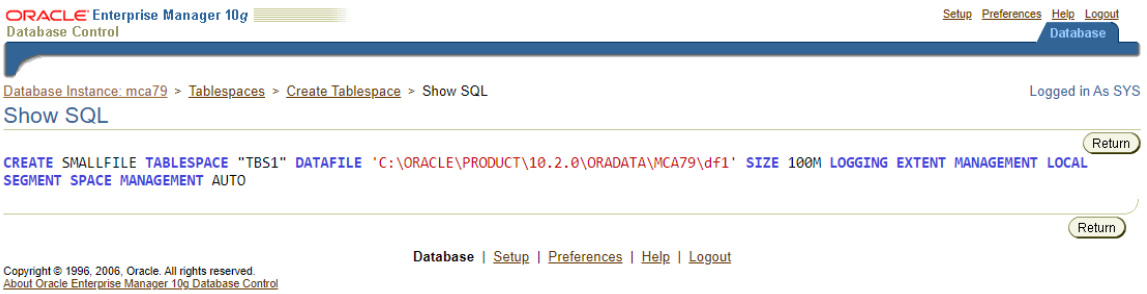

ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces > Create Tablespace
Logged in As SY
Create Tablespace
Show SQL Cancel OK
General Storage
* Name
Extent Management
Locally Managed
Dictionary Managed
Type
Permanent
Set as default permanent tablespace
Temporary
Set as default temporary tablespace
Undo
Undo Retention Guarantee Yes No
Status
Read Write
Read Only
Offline
Datafiles
Use bigfile tablespace
Tablespace can have only one datafile with no practical size limit.
Add
Select Name Directory Size (MB)
No items found
General Storage
Show SQL Cancel OK
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control

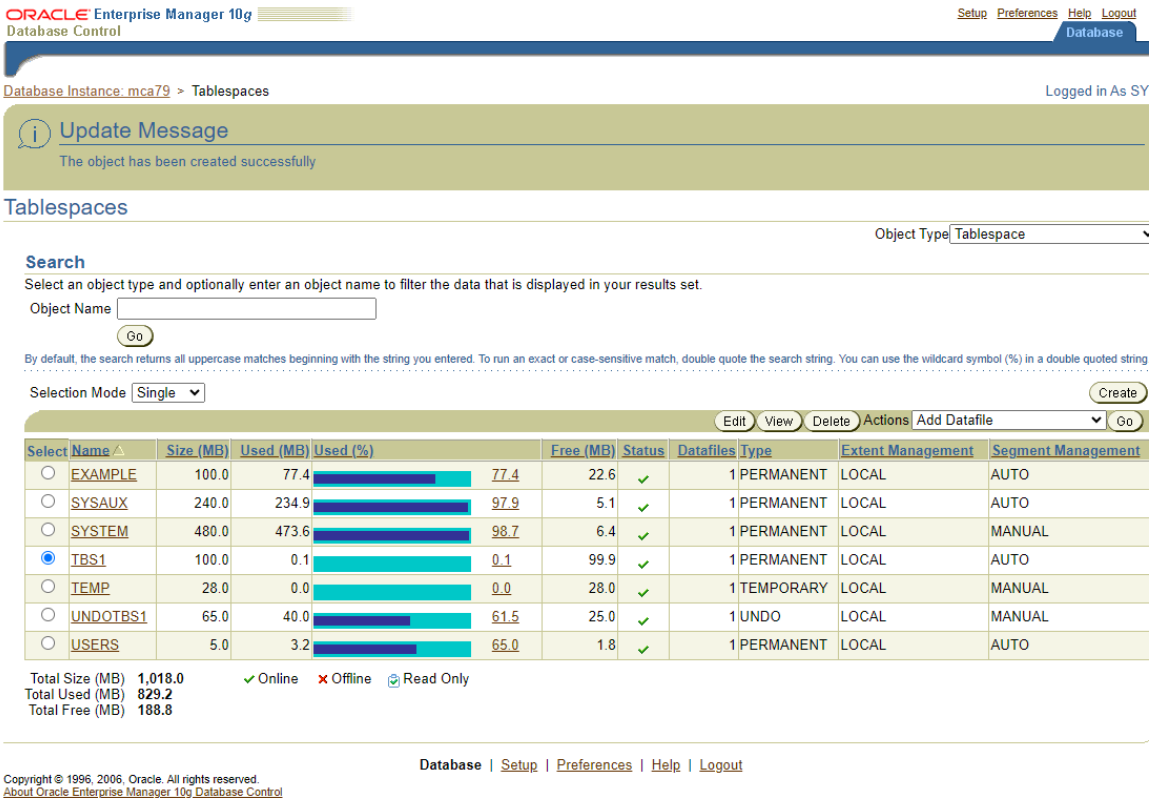

ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces > Create Tablespace
Logged in As SY
Create Tablespace
Show SQL Cancel OK
General Storage
* Name tbs1
Extent Management
Locally Managed
Dictionary Managed
Type
Permanent
Set as default permanent tablespace
Temporary
Set as default temporary tablespace
Undo
Undo Retention Guarantee Yes No
Status
Read Write
Read Only
Offline
Datafiles
Use bigfile tablespace
Tablespace can have only one datafile with no practical size limit.
Add
Select Name Directory Size (MB
No items found
General Storage
Show SQL Cancel OK
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control


ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces > Add Datafile
Logged in As SYS
Add Datafile
Cancel Continue
* File Name df1
* File Directory C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\
Tablespace TBS1
File Size 100 MB
Reuse Existing File
Storage
Automatically extend datafile when full (AUTOEXTEND)
Increment 100 KB
Maximum File Size Unlimited
Value 1000 MB
Cancel Continue
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control


ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces > Add Datafile
Logged in As SYS
Add Datafile
Cancel Continue
* File Name df1
* File Directory C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\
Tablespace TBS1
File Size 100 MB
Reuse Existing File
Storage
Automatically extend datafile when full (AUTOEXTEND)
Increment 100 KB
Maximum File Size Unlimited
Value 1000 MB
Cancel Continue
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control

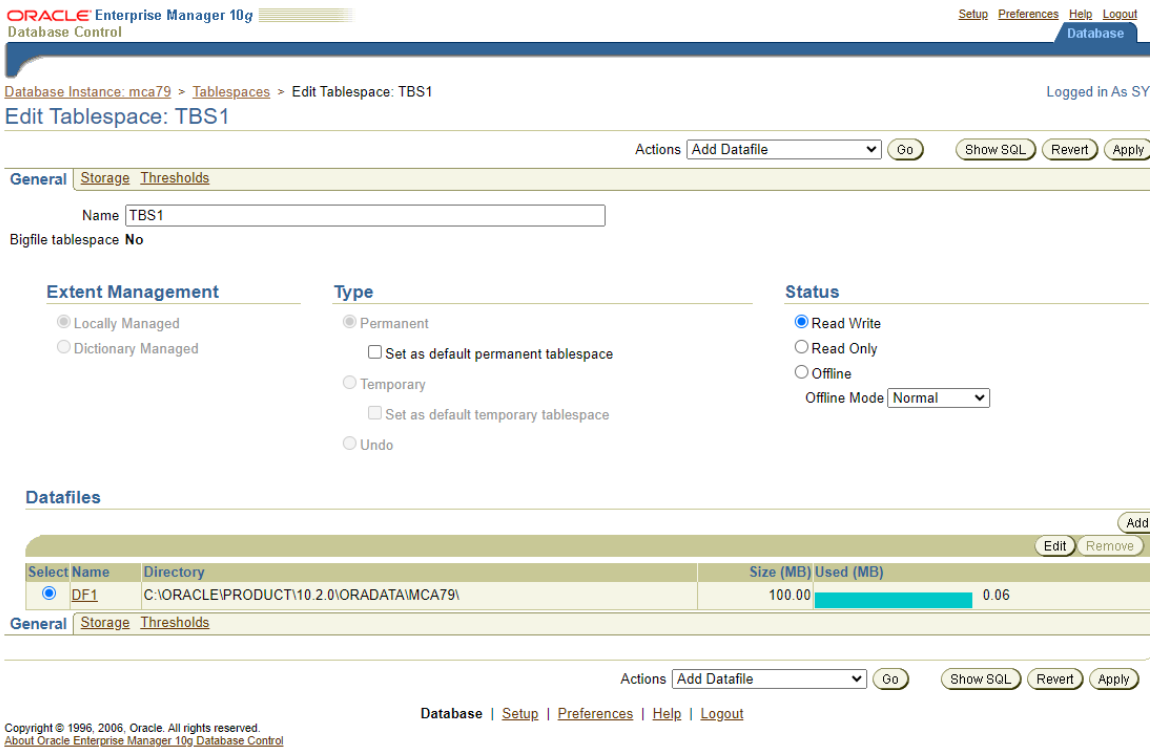

ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces > Create Tablespace
Logged in As SY
Create Tablespace
Show SQL Cancel OK
General Storage
* Name TBS1
Extent Management
Locally Managed
Dictionary Managed
Type
Permanent
Set as default permanent tablespace
Temporary
Set as default temporary tablespace
Undo
Undo Retention Guarantee Yes No
Status
Read Write
Read Only
Offline
Datafiles
Use bigfile tablespace
Tablespace can have only one datafile with no practical size limit.
Add
Edit Remove
Select Name Directory Size (MB
df1 C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\ 100.0
General Storage
Show SQL Cancel OK
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control

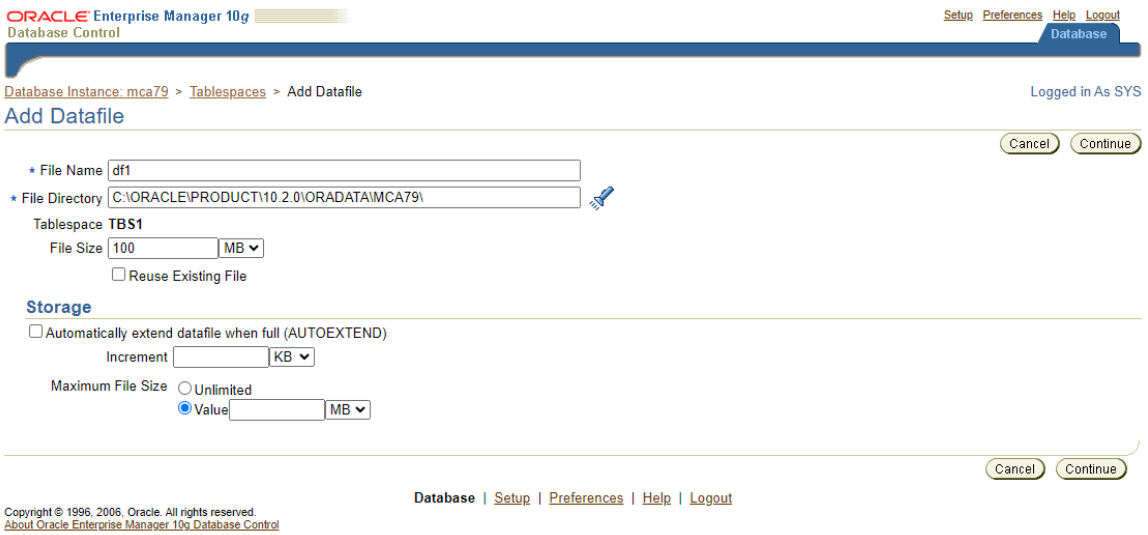

ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces > Create Tablespace > Show SQL
Logged in As SYS
Show SQL
Return
CREATE SMALLFILE TABLESPACE "TBS1" DATAFILE 'C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\df1' SIZE 100M LOGGING EXTENT MANAGEMENT LOCAL SEGMENT SPACE MANAGEMENT AUTO
Return
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control


ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Tablespaces
Logged in As SY
Update Message
The object has been created successfully
Tablespaces
Object Type Tablespace
Search
Select an object type and optionally enter an object name to filter the data that is displayed in your results set.
Object Name
Go
By default, the search returns all uppercase matches beginning with the string you entered. To run an exact or case-sensitive match, double quote the search string. You can use the wildcard symbol (%) in a double quoted string
Selection Mode Single
Create
Edit View Delete Actions Add Datafile Go
Select Name Size (MB) Used (MB) Used (%) Free (MB) Status Datafiles Type Extent Management Segment Management
EXAMPLE 100.0 77.4 77.4 22.6 1 PERMANENT LOCAL AUTO
SYSAUX 240.0 234.9 97.9 5.1 1 PERMANENT LOCAL AUTO
SYSTEM 480.0 473.6 98.7 6.4 1 PERMANENT LOCAL MANUAL
TBS1 100.0 0.1 0.1 99.9 1 PERMANENT LOCAL AUTO
TEMP 28.0 0.0 0.0 28.0 1 TEMPORARY LOCAL MANUAL
UNDOTBS1 65.0 40.0 61.5 25.0 1 UNDO LOCAL MANUAL
USERS 5.0 3.2 65.0 1.8 1 PERMANENT LOCAL AUTO
Total Size (MB) 1,018.0
Total Used (MB) 829.2
Total Free (MB) 188.8
Online Offline Read Only
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control

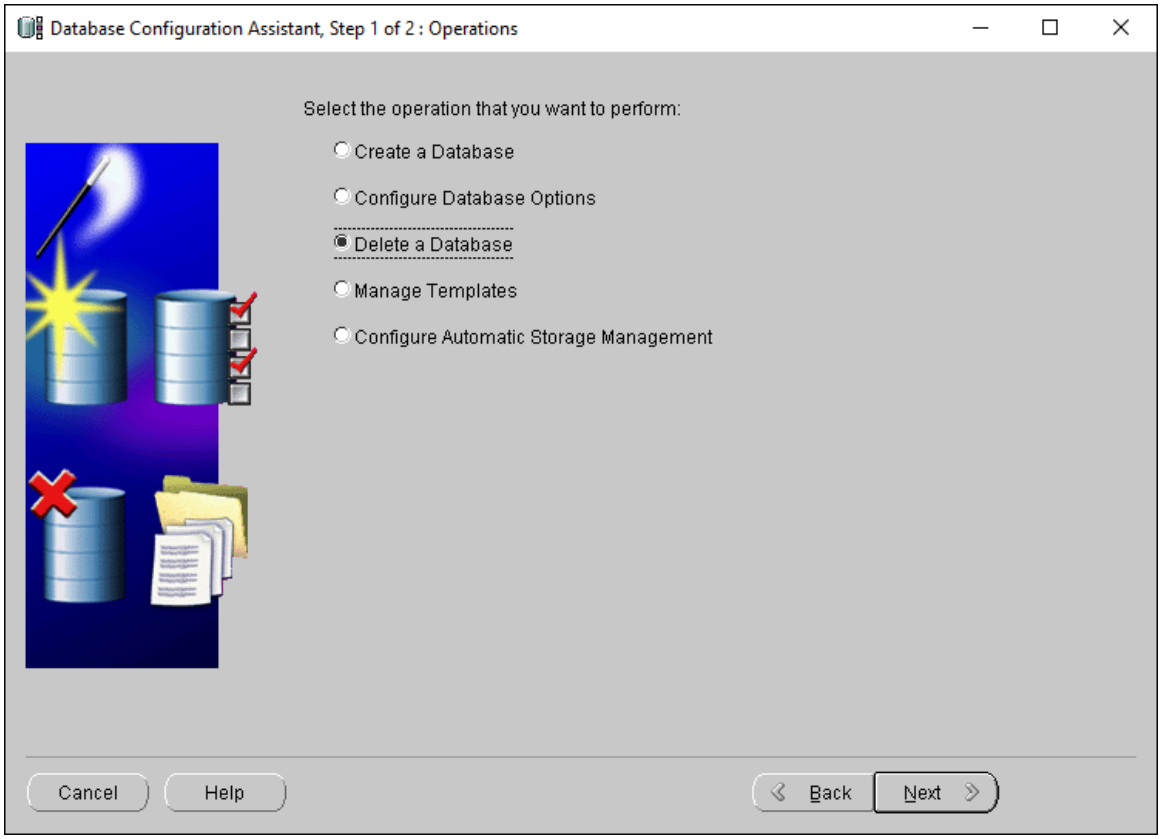
4. Write a practical on Altering the Tablespace with the use of an enterprise manager. Consider following points:

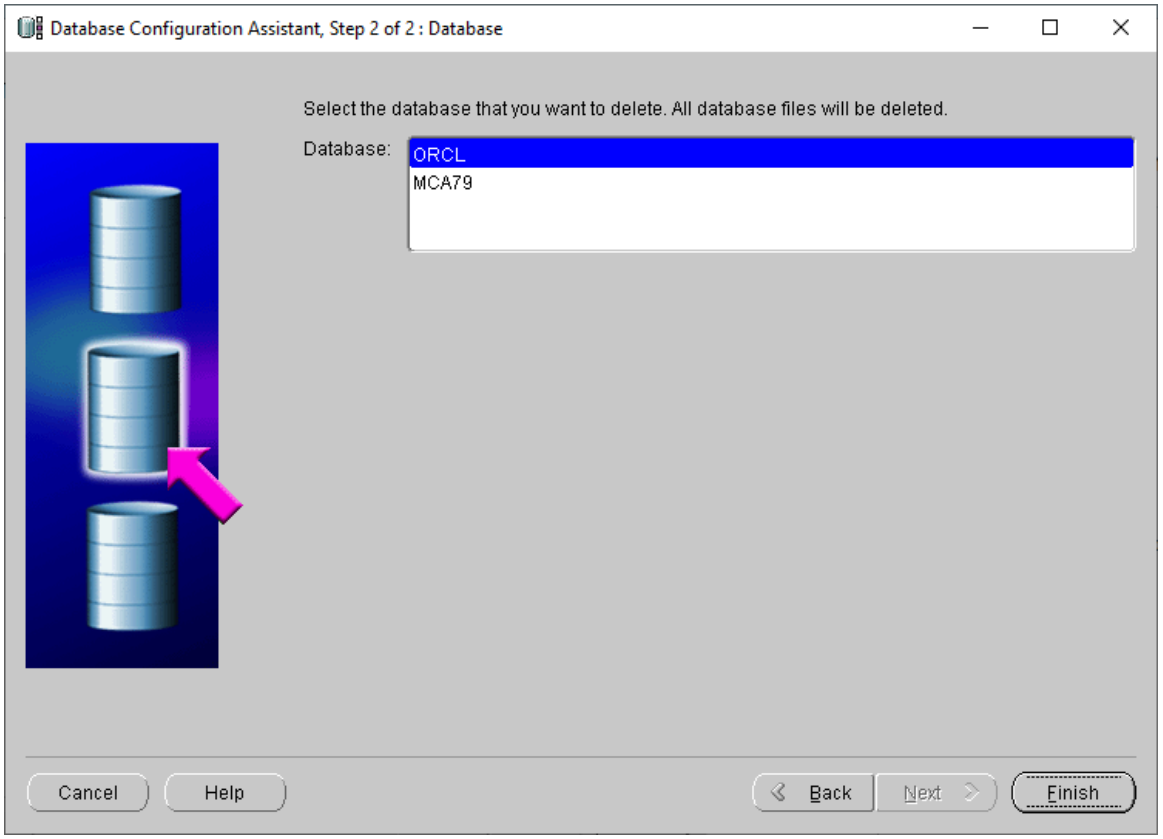
-Indicate which kind of information can be altered from existing tablespace.
-Also list out the actions which can be taken on existing tablespace.

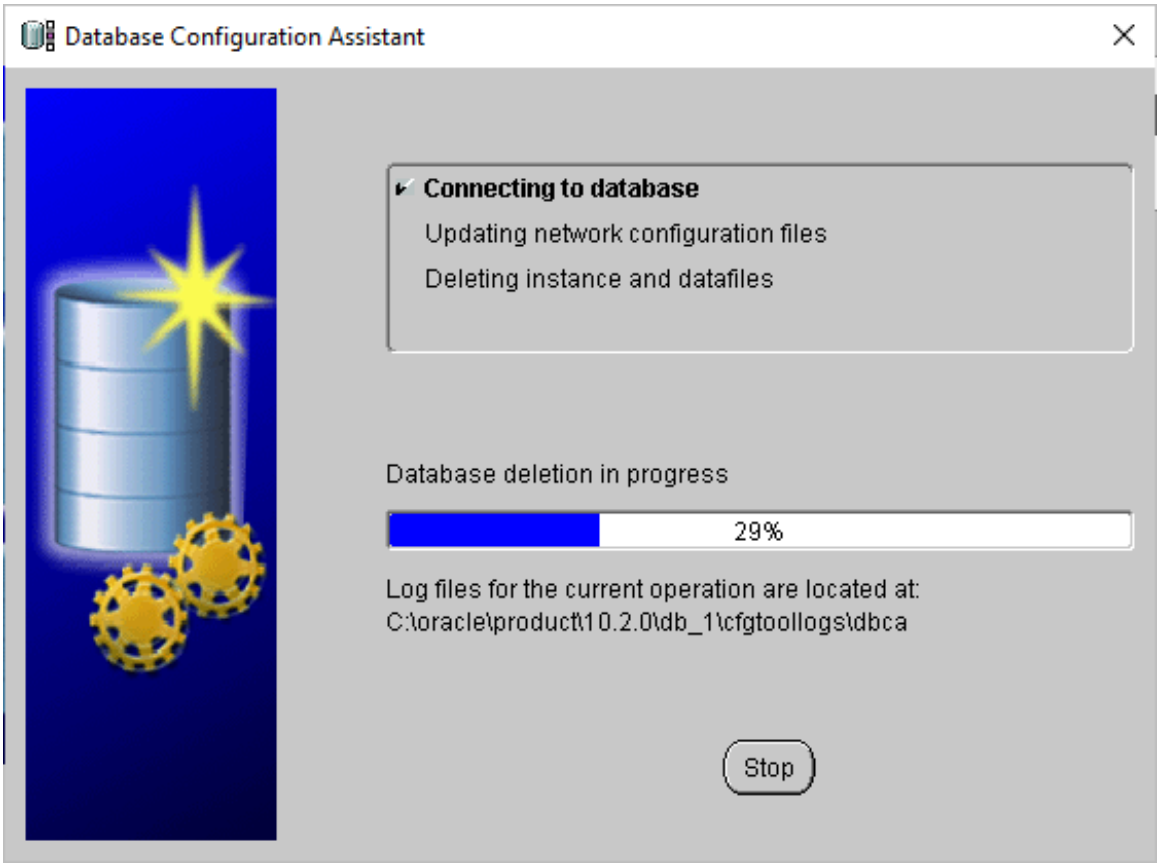


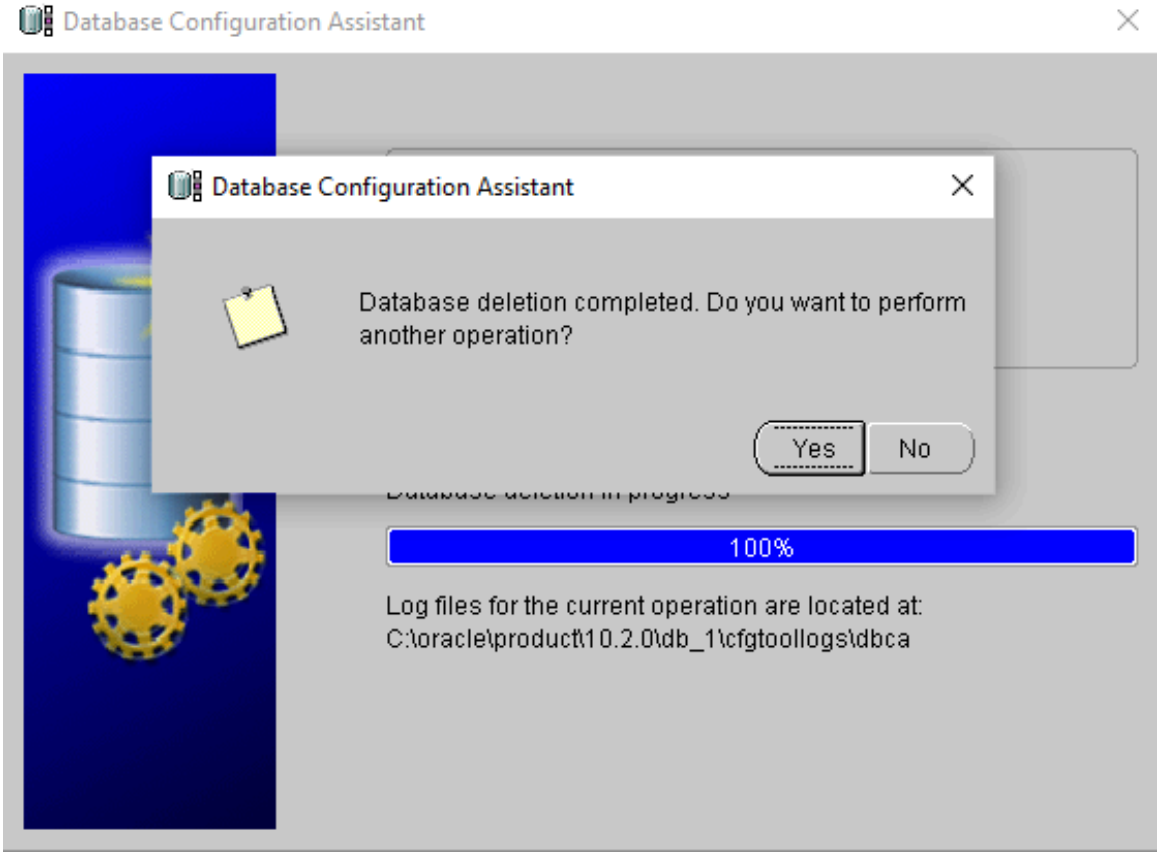


5. Delete previously created database using DBCA.

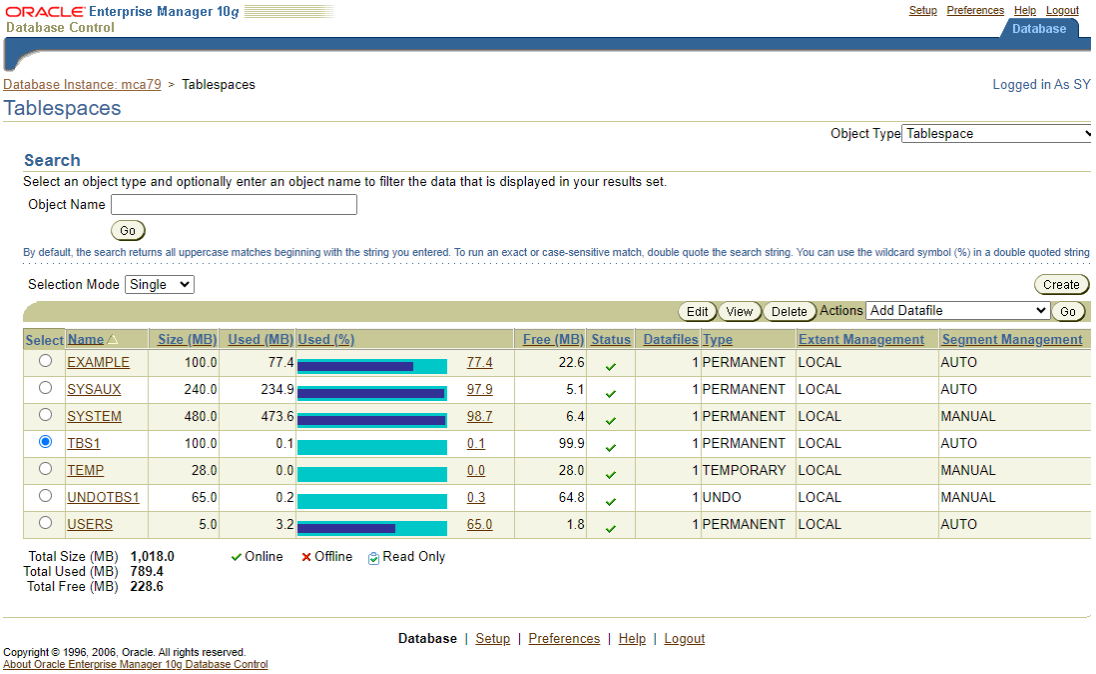





Database Configuration Assistant
Connecting to database
Updating network configuration files
Deleting instance and datafiles
Database deletion in progress
29%
Log files for the current operation are located at:
C:\oracle\product\10.2.0\db_1\cfgtoollogs\dbca
Stop


Database Configuration Assistant
Database Configuration Assistant
Database deletion completed. Do you want to perform another operation?
Yes
No
100%
Log files for the current operation are located at:
C:\oracle\product\10.2.0\db_1\cfgtoollogs\dbca

6. Write a Practical on Retrieving the Tablespace Information with the use of Enterprise Manager & also from SQL prompt. Also write down the syntax to drop the tablespace.




```
SQL> SELECT TABLESPACE_NAME, STATUS, CONTENTS, BIGFILE, EXTENT_MANAGEMENT FROM DBA_TABLESPACES;

TABLESPACE_NAME                STATUS    CONTENTS  BIG EXTENT_MAN
------------------------------ --------- --------- --- ----------
SYSTEM                         ONLINE    PERMANENT NO  LOCAL
UNDOTBS1                       ONLINE    UNDO      NO  LOCAL
SYSAUX                         ONLINE    PERMANENT NO  LOCAL
TEMP                           ONLINE    TEMPORARY NO  LOCAL
USERS                          ONLINE    PERMANENT NO  LOCAL
EXAMPLE                        ONLINE    PERMANENT NO  LOCAL

6 rows selected.

SQL> SELECT FILE_NAME, TABLESPACE_NAME, BYTES / 1024 / 1024 AS "Size_MB", AUTOEXTENSIBLE, STATUS
  2  FROM DBA_DATA_FILES;

FILE_NAME
--------------------------------------------------------------------------------------------------------------
TABLESPACE_NAME                Size_MB AUT STATUS
------------------------------ ---------- --- ---------
C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\USERS01.DBF
USERS                                   5 YES AVAILABLE

C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\SYSAUX01.DBF
SYSAUX                                240 YES AVAILABLE

C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\UNDOTBS01.DBF
UNDOTBS1                               65 YES AVAILABLE


FILE_NAME
--------------------------------------------------------------------------------------------------------------
TABLESPACE_NAME                Size_MB AUT STATUS
------------------------------ ---------- --- ---------
C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\SYSTEM01.DBF
SYSTEM                                480 YES AVAILABLE

C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\EXAMPLE01.DBF
EXAMPLE                               100 YES AVAILABLE
```

```
SQL> DROP TABLESPACE tbs1 INCLUDING CONTENTS AND DATAFILES;

Tablespace dropped.
```

7. Write a SQL statement to view the initialization parameter shared_pool_size and set its value to 200 MB. This change should be persistent.

```
SQL>  SELECT NAME, VALUE, ISSES_MODIFIABLE, ISSYS_MODIFIABLE
  2  FROM v$PARAMETER
  3  WHERE NAME = 'shared_pool_size';

NAME
----------------------------------------------------------------
VALUE
----------------------------------------------------------------
ISSES ISSYS_MOD
----- ---------
shared_pool_size
0
FALSE IMMEDIATE


SQL> ALTER SYSTEM SET shared_pool_size = 280M SCOPE = BOTH;

System altered.

SQL> SELECT NAME, VALUE, ISSES_MODIFIABLE, ISSYS_MODIFIABLE
  2  FROM v$PARAMETER WHERE NAME = 'shared_pool_size';

NAME
----------------------------------------------------------------
VALUE
----------------------------------------------------------------
ISSES ISSYS_MOD
----- ---------
shared_pool_size
293601280
FALSE IMMEDIATE
```

8. Write a SQL statement to display the text of SQL statements and their associated number of executions where the CPU time consumed is greater than 20, 000,000 micro seconds.

```
SQL> SELECT SQL_TEXT, EXECUTIONS, CPU_TIME
  2  FROM v$SQL WHERE CPU_TIME > 20600000
  3  ORDER BY CPU_TIME DESC;

no rows selected
```

9. Write a SQL statement to display the sessions logged on within the last day.

```
SQL> select * from v$session where machine = 'mca79' and logon_time> SYSDATE-1;

no rows selected
```

10. Write a SQL statement to display all available dynamic performance views, background processes, data files and control files.

1) Dynamic Performance Views:

```
SQL> SELECT * FROM v$fixed_table WHERE name LIKE 'V$%';

NAME                             OBJECT_ID TYPE   TABLE_NUM
-------------------------------- ---------- ----- ----------
V$WAITSTAT                       4294950915 VIEW       65537
V$BH                             4294951406 VIEW       65537
V$GC_ELEMENT                     4294951794 VIEW       65537
V$CR_BLOCK_SERVER                4294951796 VIEW       65537
V$CURRENT_BLOCK_SERVER           4294952095 VIEW       65537
V$GC_ELEMENTS_WITH_COLLISIONS    4294951798 VIEW       65537
V$FILE_CACHE_TRANSFER            4294951800 VIEW       65537
V$TEMP_CACHE_TRANSFER            4294951802 VIEW       65537
V$CLASS_CACHE_TRANSFER           4294951804 VIEW       65537
V$INSTANCE_CACHE_TRANSFER        4294952151 VIEW       65537
V$LOCK_ELEMENT                   4294951408 VIEW       65537

NAME                             OBJECT_ID TYPE   TABLE_NUM
-------------------------------- ---------- ----- ----------
V$SYSTEM_FIX_CONTROL             4294952716 VIEW       65537
V$SESSION_FIX_CONTROL            4294952718 VIEW       65537

398 rows selected.
```

2) Background Processes:

```
SQL> SELECT * FROM v$process WHERE background = 'YES';

no rows selected
```

3) Data Files:

```
SQL> SELECT file_name, tablespace_name, bytes, status FROM dba_data_files;

FILE_NAME
--------------------------------------------------------------------------------
TABLESPACE_NAME                     BYTES STATUS
------------------------------ ---------- ---------
C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\USERS01.DBF
USERS                             5242880 AVAILABLE

C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\SYSAUX01.DBF
SYSAUX                          251658240 AVAILABLE

C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\UNDOTBS01.DBF
UNDOTBS1                         68157440 AVAILABLE


FILE_NAME
--------------------------------------------------------------------------------
TABLESPACE_NAME                     BYTES STATUS
------------------------------ ---------- ---------
C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\SYSTEM01.DBF
SYSTEM                          503316480 AVAILABLE

C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\EXAMPLE01.DBF
EXAMPLE                         104857600 AVAILABLE
```

4) Control Files:

```
SQL> SELECT * FROM v$controlfile;

STATUS
-------
NAME
-----------------------------------------------------
IS_ BLOCK_SIZE FILE_SIZE_BLKS
--- ---------- --------------

C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\CONTROL01.CTL
NO       16384            430


C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\CONTROL02.CTL
NO       16384            430

STATUS
-------
NAME
-----------------------------------------------------
IS_ BLOCK_SIZE FILE_SIZE_BLKS
--- ---------- --------------


C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\CONTROL03.CTL
NO       16384            430
```

11. Write a SQL statement to change the size from 5 MB to 20 MB of the data file Inventory01.dbf in the tablespace Inventory.

```
SQL> ALTER DATABASE DATAFILE 'C:\oracle\product\10.2.0\oradata\mca79\users01.dbf' RESIZE 20M;

Database altered.
```

12. Write a SQL statement to add new datafile inventory02.dbf of size 20 MB in the tablespace Inventory.

```
SQL> ALTER TABLESPACE maitri1079 ADD DATAFILE
  2  'C:\oracle\product\10.2.0\oradata\mca79\inventory02.dbf'
  3  SIZE 20M;

Tablespace altered.
```

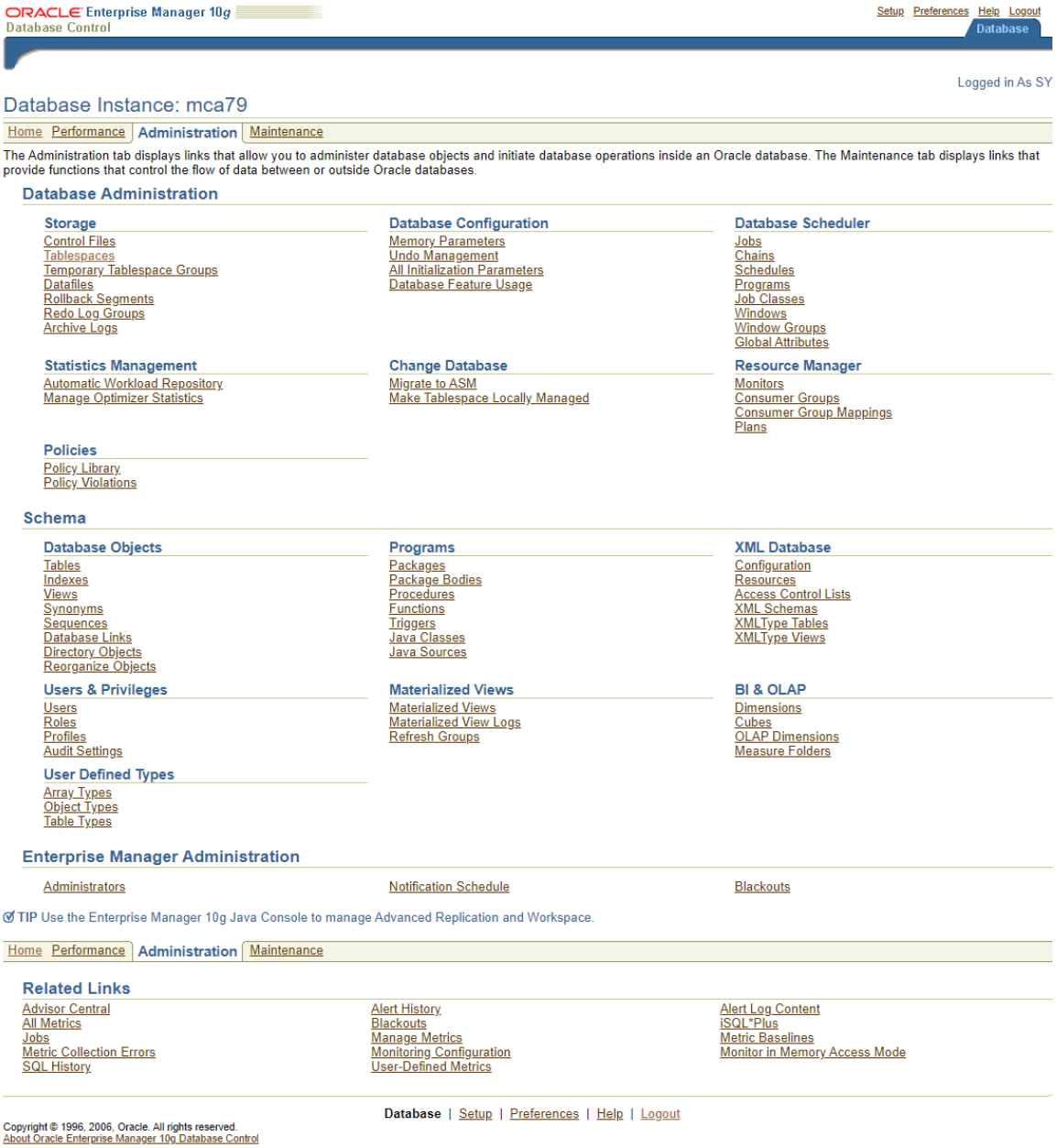
13. Write a SQL statement to remove the tablespace Inventory along with all its data. You are required to bring tablespace offline first.

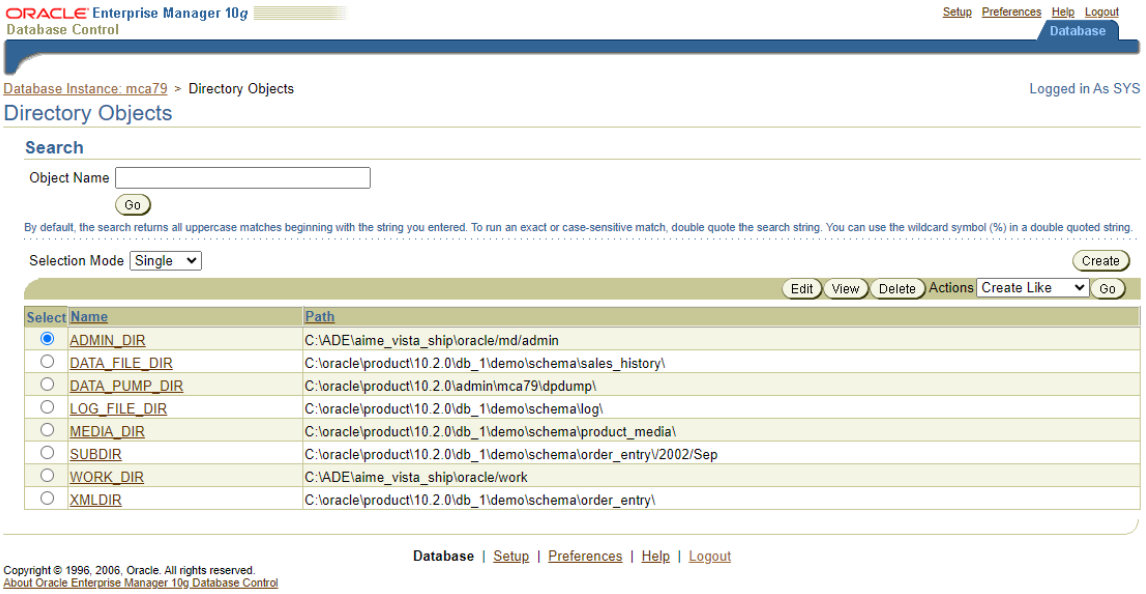
```
SQL> ALTER TABLESPACE tbs1 OFFLINE;

Tablespace altered.

SQL> DROP TABLESPACE tbs1 INCLUDING CONTENTS AND DATAFILES;

Tablespace dropped.
```

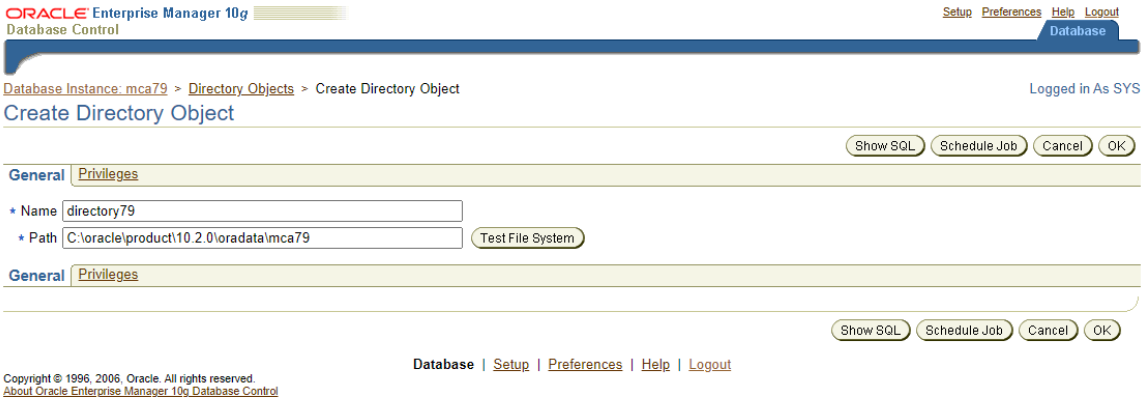
14. Write a SQL statement to make a tablespace Inventory read only.

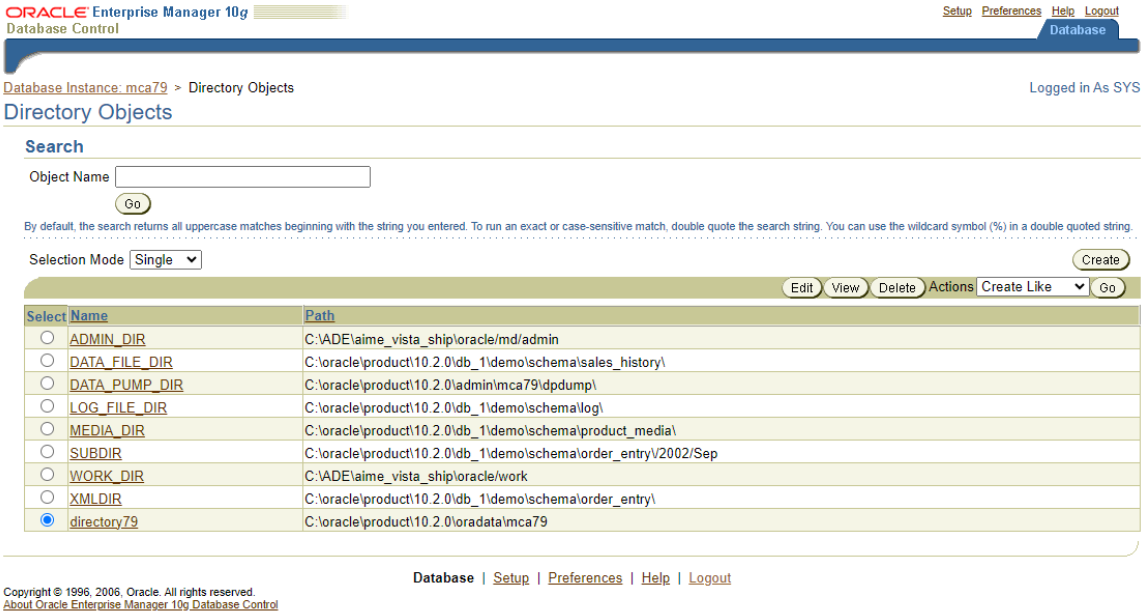
```
SQL> CREATE TABLESPACE inventory DATAFILE
  2  'C:\oracle\product\10.2.0\oradata\inventory01.dbf'
  3  SIZE 50M AUTOEXTEND ON NEXT 10M MAXSIZE 500M
  4  EXTENT MANAGEMENT LOCAL;

Tablespace created.

SQL> ALTER TABLESPACE Inventory READ ONLY;

Tablespace altered.
```

15. Write down the steps to create a Directory Object using Enterprise Manager.




ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Directory Objects
Logged in As SYS
Directory Objects
Search
Object Name
Go
By default, the search returns all uppercase matches beginning with the string you entered. To run an exact or case-sensitive match, double quote the search string. You can use the wildcard symbol (%) in a double quoted string.
Selection Mode Single
Create
Edit View Delete Actions Create Like Go
Select Name Path
ADMIN_DIR C:\ADE\aime_vista_ship\oracle/md/admin
DATA_FILE_DIR C:\oracle\product\10.2.0\db_1\demo\schema\sales_history\
DATA_PUMP_DIR C:\oracle\product\10.2.0\admin\mca79\dpdump\
LOG_FILE_DIR C:\oracle\product\10.2.0\db_1\demo\schema\log\
MEDIA_DIR C:\oracle\product\10.2.0\db_1\demo\schema\product_media\
SUBDIR C:\oracle\product\10.2.0\db_1\demo\schema\order_entry\2002/Sep
WORK_DIR C:\ADE\aime_vista_ship\oracle/work
XMLDIR C:\oracle\product\10.2.0\db_1\demo\schema\order_entry\
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control


ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Directory Objects > Create Directory Object
Logged in As SYS
Create Directory Object
Show SQL Schedule Job Cancel OK
General Privileges
* Name directory79
* Path C:\oracle\product\10.2.0\oradata\mca79
Test File System
General Privileges
Show SQL Schedule Job Cancel OK
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control


ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Database Instance: mca79 > Directory Objects
Logged in As SYS
Directory Objects
Search
Object Name
Go
By default, the search returns all uppercase matches beginning with the string you entered. To run an exact or case-sensitive match, double quote the search string. You can use the wildcard symbol (%) in a double quoted string.
Selection Mode Single
Create
Edit View Delete Actions Create Like Go
Select Name Path
ADMIN_DIR C:\ADE\aime_vista_ship\oracle/md/admin
DATA_FILE_DIR C:\oracle\product\10.2.0\db_1\demo\schema\sales_history\
DATA_PUMP_DIR C:\oracle\product\10.2.0\admin\mca79\dpdump\
LOG_FILE_DIR C:\oracle\product\10.2.0\db_1\demo\schema\log\
MEDIA_DIR C:\oracle\product\10.2.0\db_1\demo\schema\product_media\
SUBDIR C:\oracle\product\10.2.0\db_1\demo\schema\order_entry\2002/Sep
WORK_DIR C:\ADE\aime_vista_ship\oracle/work
XMLDIR C:\oracle\product\10.2.0\db_1\demo\schema\order_entry\
directory79 C:\oracle\product\10.2.0\oradata\mca79
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control

16. Use Oracle's Flashback Technology to perform following tasks:

a) Prepare the table with following structure: flash_test (eno, ename, city)

```
SQL> create table emp(eno number, ename varchar2(50), city varchar(50)) tablespace tbs79;
Table created.
```

b) Insert proper values in the table

```
SQL> insert into emp values(1, 'maitri', 'dhrangadhra' );
1 row created.
SQL> insert into emp values(2, 'drashti', 'rajkot');
1 row created.
SQL> insert into emp values(3, 'pankti', 'mehsana' );
1 row created.
```

c) Perform FLASHBACK TABLE to show how we can bring the table's data to some previous system change number (scn)

```
SQL> SELECT CURRENT_SCN FROM v$database;

CURRENT_SCN
-----------
     599355
```

d) Perform FLASHBACK QUERY using AS OF TIMESTAMP clause to bring accidently deleted/updated records back to some previous point of time.

```
SQL> SELECT * FROM emp AS OF TIMESTAMP (SYSTIMESTAMP - INTERVAL '10' MINUTE);
no rows selected
```

e) Perform FLASHBACK DROP to bring dropped and transactional committed table back

```
SQL> DROP TABLE emp;
Table dropped.
```

```
SQL> FLASHBACK TABLE emp TO BEFORE DROP;

Flashback complete.
```

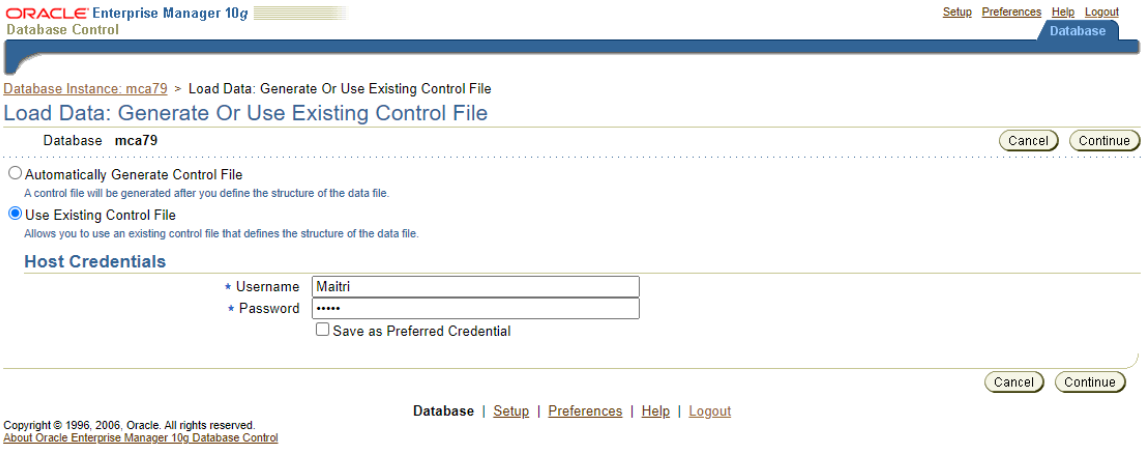
f) Write down the command to view the objects in recycle bin

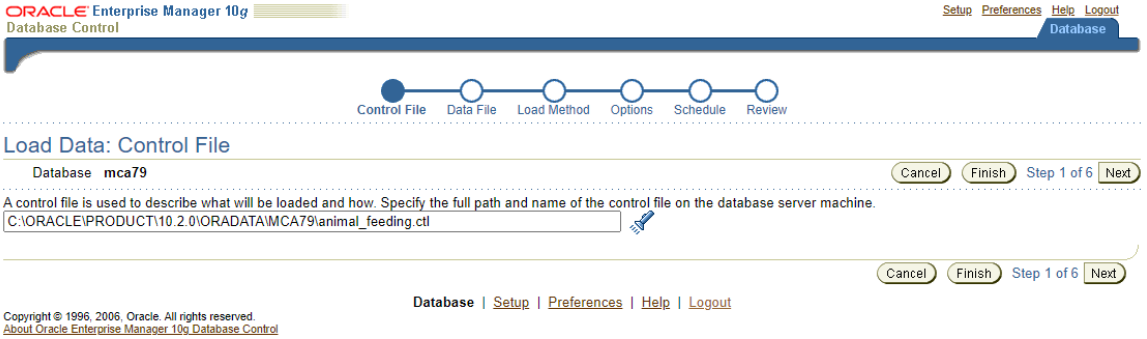
```
SQL> SELECT OBJECT_NAME, ORIGINAL_NAME, TYPE FROM RECYCLEBIN;

OBJECT_NAME                    ORIGINAL_NAME                  TYPE
------------------------------ ------------------------------ ----------
BIN$Rk7eIGV0TvWU86SAjtYE7A==$0 OLAPI_MEMORY_HEAP_HISTORY      TABLE
BIN$7hFsqE7eQfm0k2HJj790bA==$0 OLAPI_MEMORY_OP_HISTORY        TABLE
BIN$dNjVdlEAScCAES4Jddhe1Q==$0 OLAPI_MEMORY_OP_HIST_PK        INDEX
BIN$5S4Fra3DTwi21HaiLYgfxA==$0 OLAPI_IFACE_OP_HISTORY         TABLE
BIN$xaZ3+XAkQsqxk4msqz1W8g==$0 OLAPI_IFACE_OP_HIST_PK         INDEX
BIN$oiYemW6VTPO9KT84s8H8jw==$0 OLAPI_IFACE_OBJECT_HISTORY     TABLE
BIN$87sV+fsFTBaIyDW0bqAxbg==$0 OLAPI_IFACE_OBJECT_HIST_PK     INDEX
BIN$ChNeCTmfTy6o7W+w1BVGUw==$0 OLAPI_SESSION_HISTORY          TABLE
BIN$85p79cqRT4az6ulafmtIKg==$0 OLAPI_SESS_HIST_PK             INDEX
BIN$gb4e7Dl+SMmQXJ2cUkXMIQ==$0 OLAPI_HISTORY                  TABLE
BIN$xMd0APxyQauSF3HqPjRBEA==$0 OLAPI_HIST_PK                  INDEX

OBJECT_NAME                    ORIGINAL_NAME                  TYPE
------------------------------ ------------------------------ ----------
BIN$+g7KHEcRTkydli88qKDavA==$0 AW$AWREPORT                    TABLE
SYS_LOB0000046684C00004$$      SYS_LOB0000046684C00004$$      LOB
SYS_IL0000046684C00004$$       SYS_IL0000046684C00004$$       LOB INDEX
BIN$VMwn23weQJ6WF7OChewqkQ==$0 AWREPORT_I$                    INDEX

15 rows selected.
```

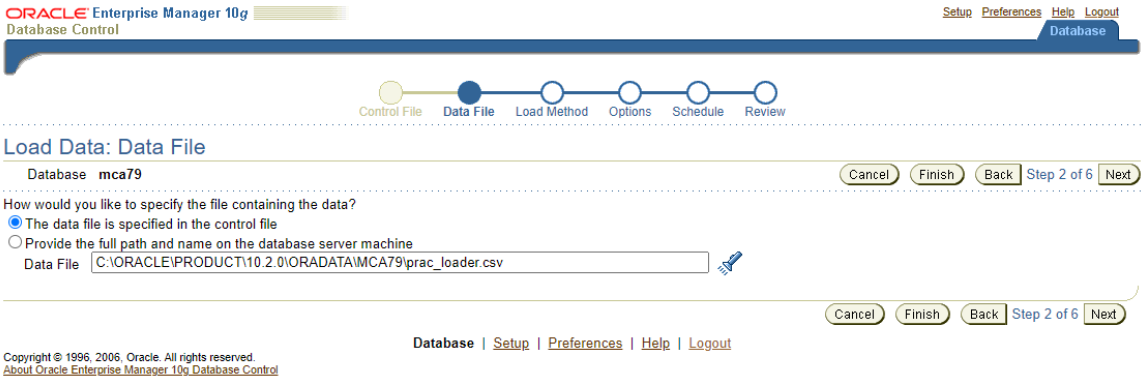
g) Write down the command to permanently remove the table/object from Oracle

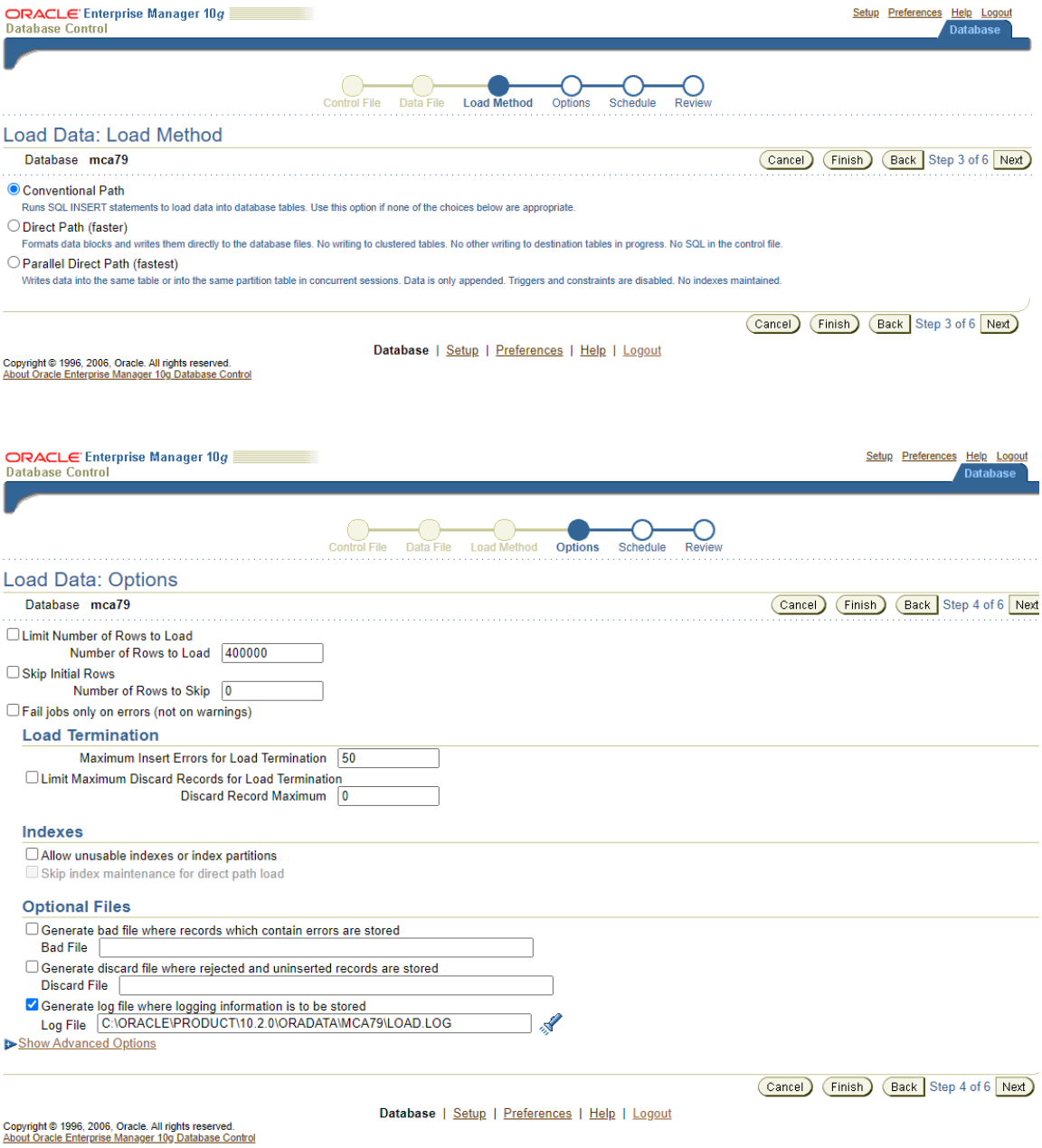
```
SQL> PURGE RECYCLEBIN;

Recyclebin purged.
```

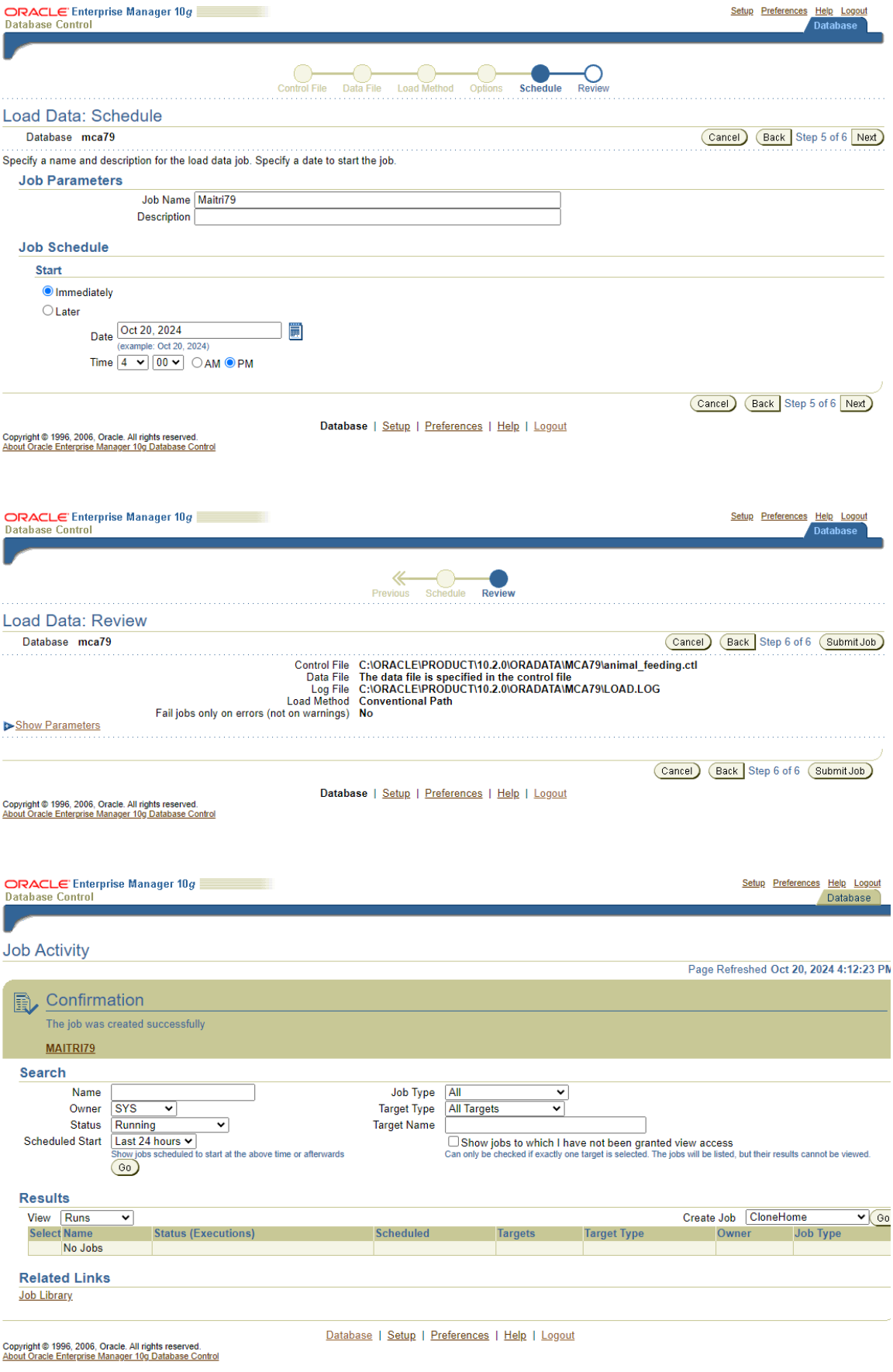
17. Write down the complete steps to perform Load operation of SQL*Loader using Enterprise Manager.








ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Control File Data File Load Method Options Schedule Review
Load Data: Load Method
Database mca79
Cancel Finish Back Step 3 of 6 Next
Conventional Path
Runs SQL INSERT statements to load data into database tables. Use this option if none of the choices below are appropriate.
Direct Path (faster)
Formats data blocks and writes them directly to the database files. No writing to clustered tables. No other writing to destination tables in progress. No SQL in the control file.
Parallel Direct Path (fastest)
Writes data into the same table or into the same partition table in concurrent sessions. Data is only appended. Triggers and constraints are disabled. No indexes maintained.
Cancel Finish Back Step 3 of 6 Next
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control
ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Control File Data File Load Method Options Schedule Review
Load Data: Options
Database mca79
Cancel Finish Back Step 4 of 6 Next
Limit Number of Rows to Load
Number of Rows to Load 400000
Skip Initial Rows
Number of Rows to Skip 0
Fail jobs only on errors (not on warnings)
Load Termination
Maximum Insert Errors for Load Termination 50
Limit Maximum Discard Records for Load Termination
Discard Record Maximum 0
Indexes
Allow unusable indexes or index partitions
Skip index maintenance for direct path load
Optional Files
Generate bad file where records which contain errors are stored
Bad File
Generate discard file where rejected and uninserted records are stored
Discard File
Generate log file where logging information is to be stored
Log File C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\LOAD.LOG
Show Advanced Options
Cancel Finish Back Step 4 of 6 Next
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control


ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Control File Data File Load Method Options Schedule Review
Load Data: Schedule
Database mca79
Cancel Back Step 5 of 6 Next
Specify a name and description for the load data job. Specify a date to start the job.
Job Parameters
Job Name Maitri79
Description
Job Schedule
Start
Immediately
Later
Date Oct 20, 2024
(example: Oct 20, 2024)
Time 4 00 AM PM
Cancel Back Step 5 of 6 Next
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control
ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Previous Schedule Review
Load Data: Review
Database mca79
Cancel Back Step 6 of 6 Submit Job
Control File C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\animal_feeding.ctl
Data File The data file is specified in the control file
Log File C:\ORACLE\PRODUCT\10.2.0\ORADATA\MCA79\LOAD.LOG
Load Method Conventional Path
Fail jobs only on errors (not on warnings) No
Show Parameters
Cancel Back Step 6 of 6 Submit Job
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control
ORACLE Enterprise Manager 10g
Database Control
Setup Preferences Help Logout
Database
Job Activity
Page Refreshed Oct 20, 2024 4:12:23 PM
Confirmation
The job was created successfully
MAITRI79
Search
Name
Owner SYS
Status Running
Scheduled Start Last 24 hours
Show jobs scheduled to start at the above time or afterwards
Go
Job Type All
Target Type All Targets
Target Name
Show jobs to which I have not been granted view access
Can only be checked if exactly one target is selected. The jobs will be listed, but their results cannot be viewed.
Results
View Runs
Create Job CloneHome Go
Select Name Status (Executions) Scheduled Targets Target Type Owner Job Type
No Jobs
Related Links
Job Library
Database | Setup | Preferences | Help | Logout
Copyright © 1996, 2006, Oracle. All rights reserved.
About Oracle Enterprise Manager 10g Database Control

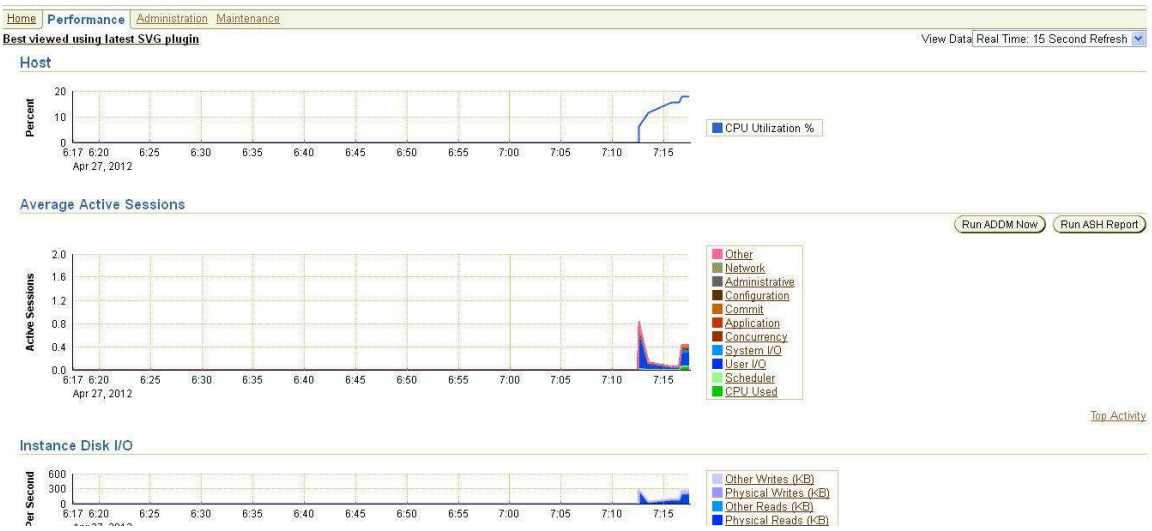
18. You have the data in a file named animal_feeding.csv.

```
SQL> select * from animal_feeding;

 ANIMAL_ID FEEDING_D POUNDS_EATEN NOTE
---------- --------- ------------ ----------------------------------------
       100 01-JAN-01         23.5 Flipper seemed unusually hungry today.
       112 01-JAN-01           10 NO COMMENT
       171 01-JAN-01         17.5 Shortly ate Squacky.
       175 01-JAN-01         35.5 Paintuin skipped his first meal.
```

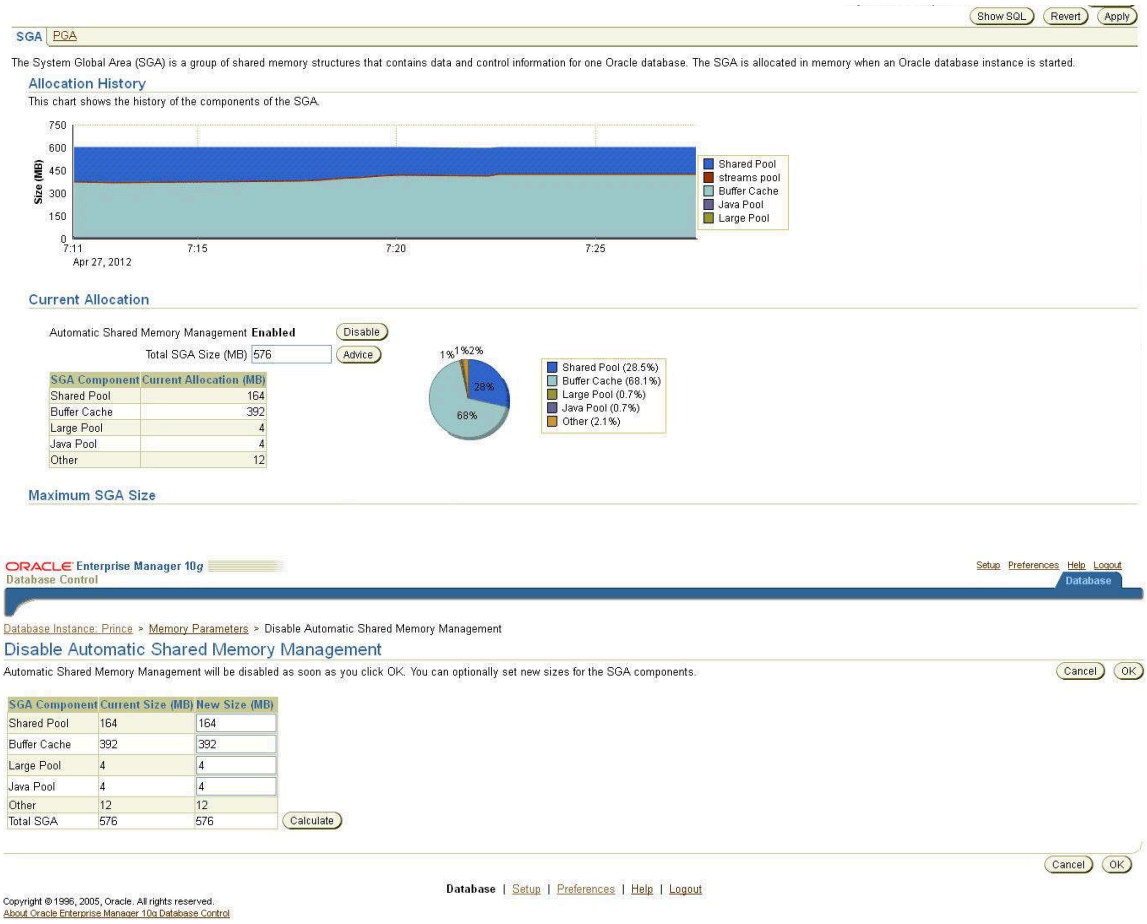
19. You have the data in a file named animal_feeding_fixed.dat.

```
SQL> select * from animal_feeding;

 ANIMAL_ID FEEDING_D POUNDS_EATEN NOTE
---------- --------- ------------ ----------------------------------------
       100 01-JAN-01         23.5 Flipper seemed unusually hungry today.
       112 01-JAN-01           10 NO COMMENT
       171 01-JAN-01         17.5 Shortly ate Squacky.
       175 01-JAN-01         35.5 Paintuin skipped his first meal.
```

20. Write down the steps (snap shots) by which you can monitor the performance of Oracle 10g Database using Enterprise Manager.



21. Write down the steps to enable Automatic Memory Management using Enterprise Manager.



22. Show the use of Memory Advisor for manually setting Shared Memory Management using Enterprise Manager.