PDA ASSIGNMENT 02

Oracle

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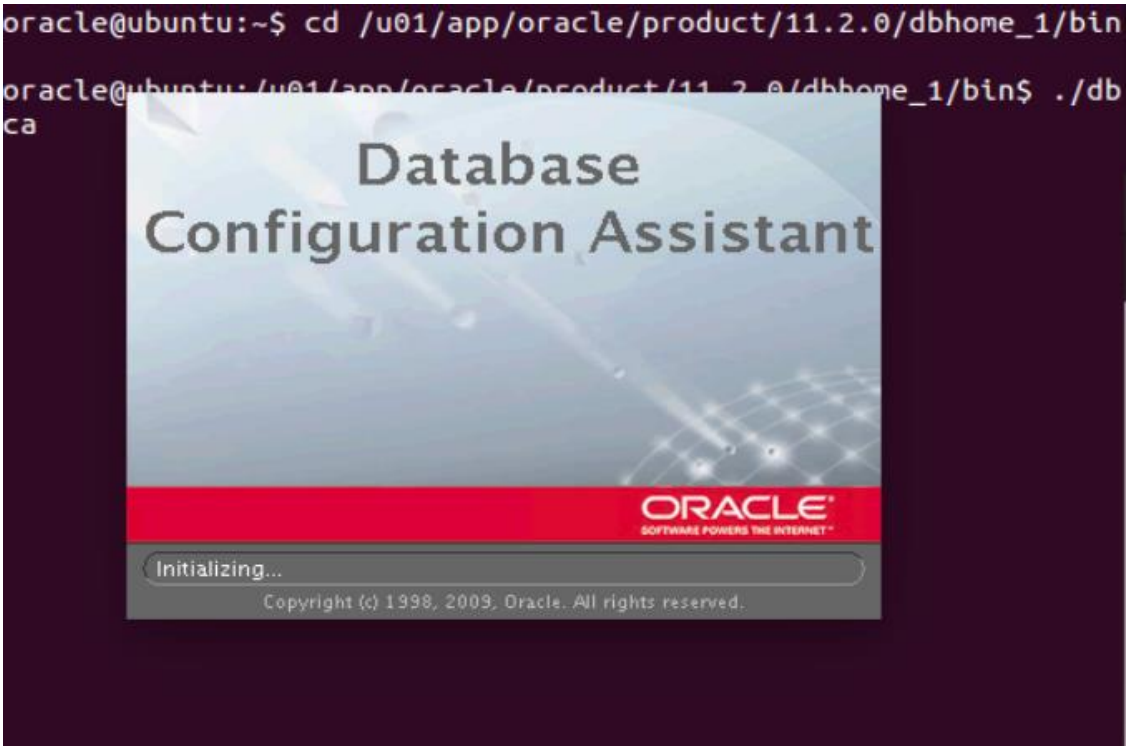
WE - IT

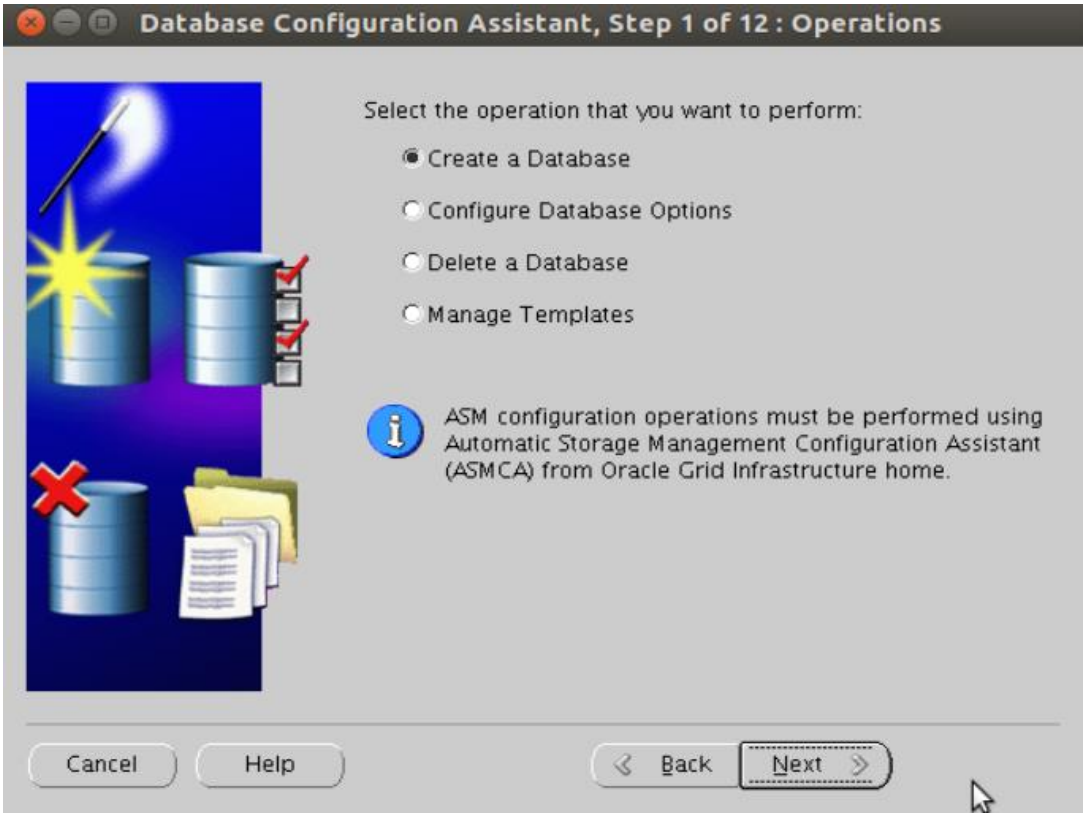
QUESTION 01)

- Creating a New Database

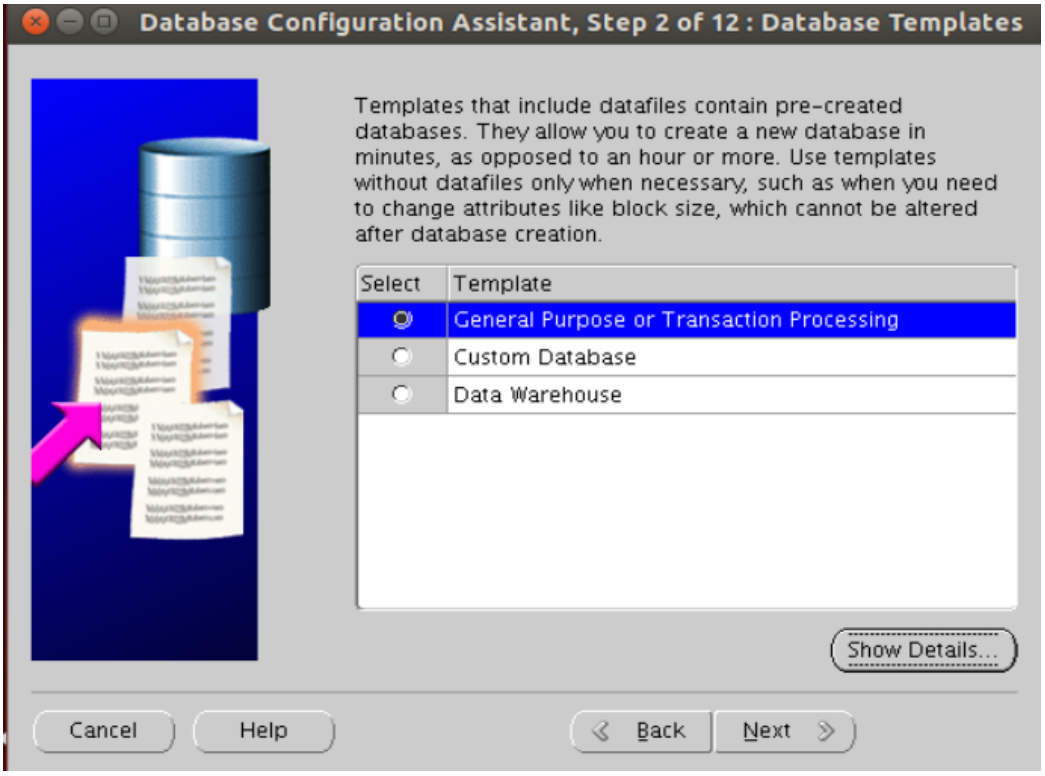
    ✓ Go inside the Oracle's bin Directory and open that directory in terminal. Then run Database Configuration assistant using "./**dcba"** for Create a new Database.

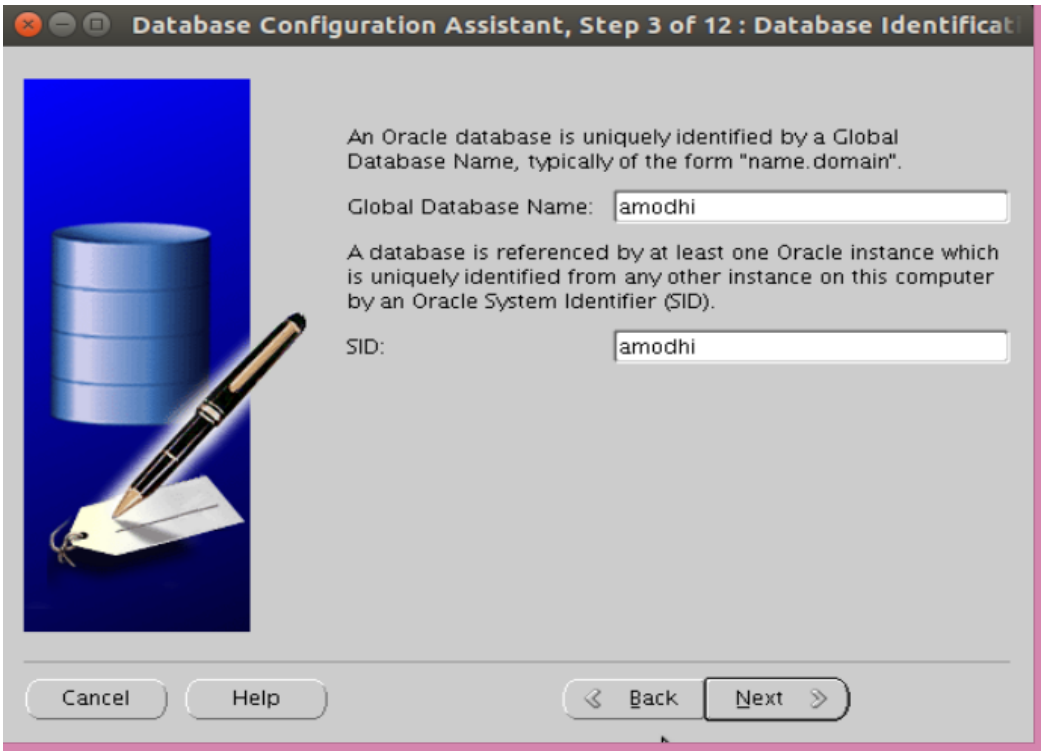


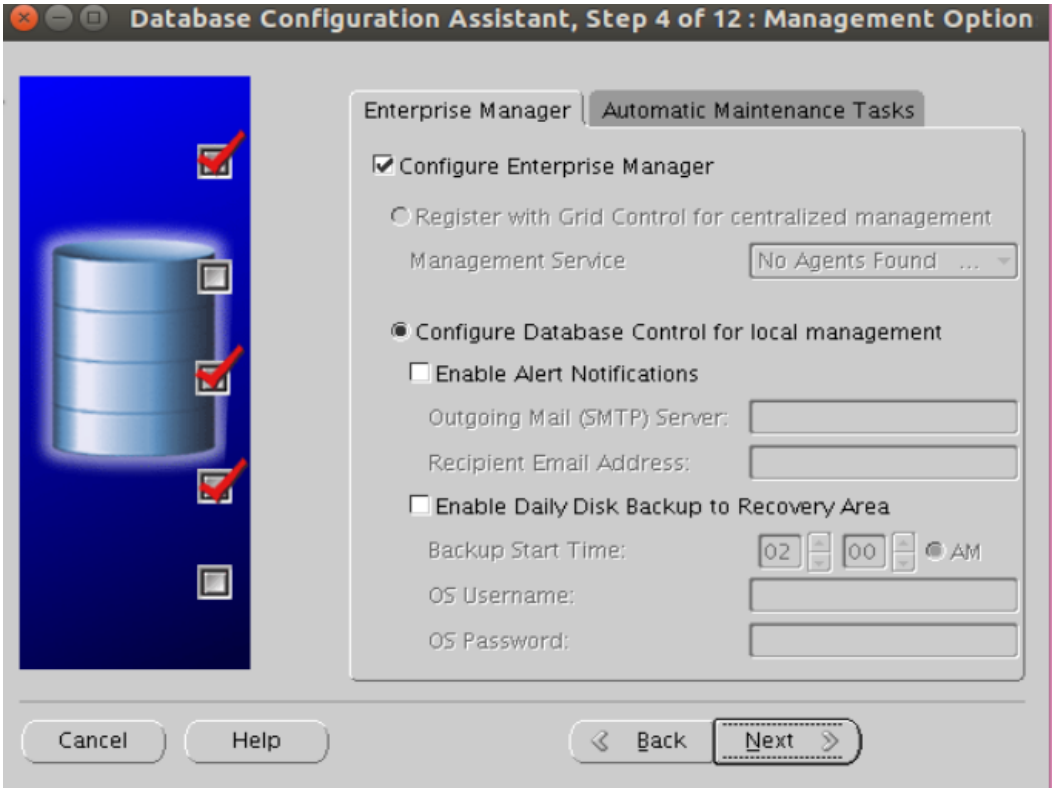

Database Configuration Assistant : Welcome
Welcome to Database Configuration Assistant for Oracle database.
The Database Configuration Assistant enables you to create a database, configure database options in an existing database, delete a database, and manage database templates.
Cancel
Help
Back
Next


Database Configuration Assistant, Step 1 of 12 : Operations
Select the operation that you want to perform:
Create a Database
Configure Database Options
Delete a Database
Manage Templates
ASM configuration operations must be performed using Automatic Storage Management Configuration Assistant (ASMCA) from Oracle Grid Infrastructure home.
Cancel
Help
Back
Next

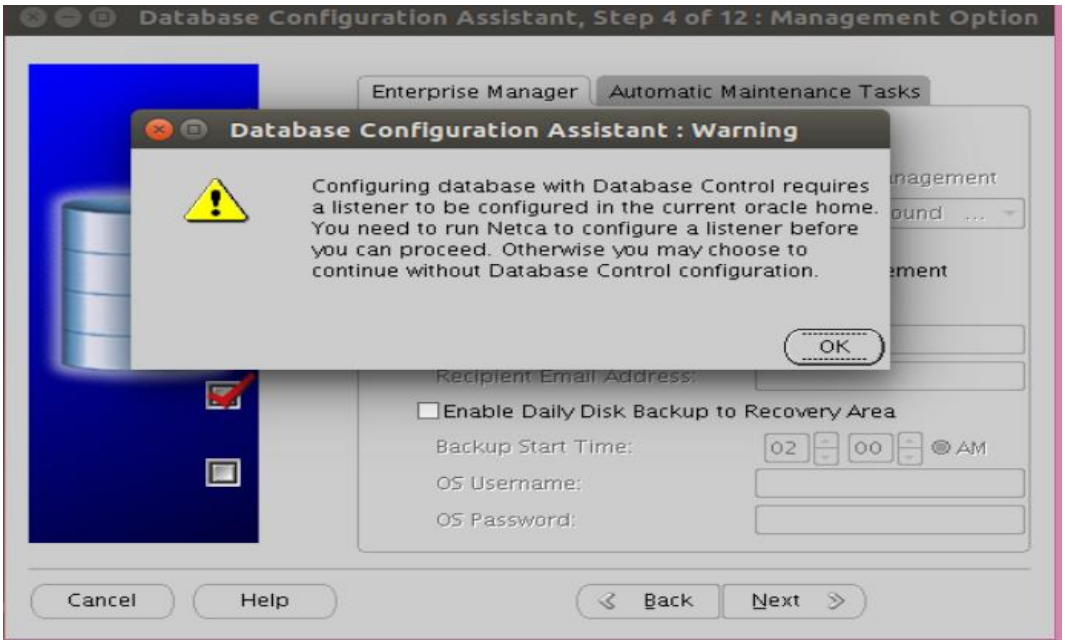
General Purpose or Transaction processing: This template creates a database designed for general purpose usage. It combines features of both the DSS and OLTP database templates.

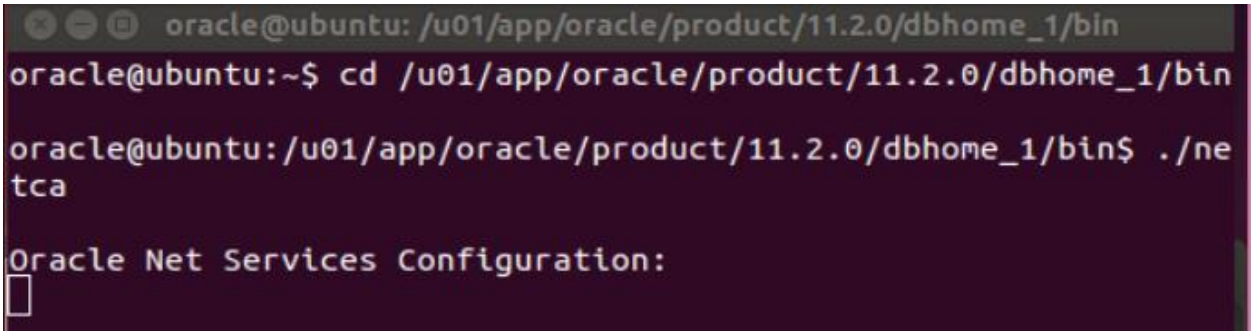






- ✓ configured a listener in current oracle home

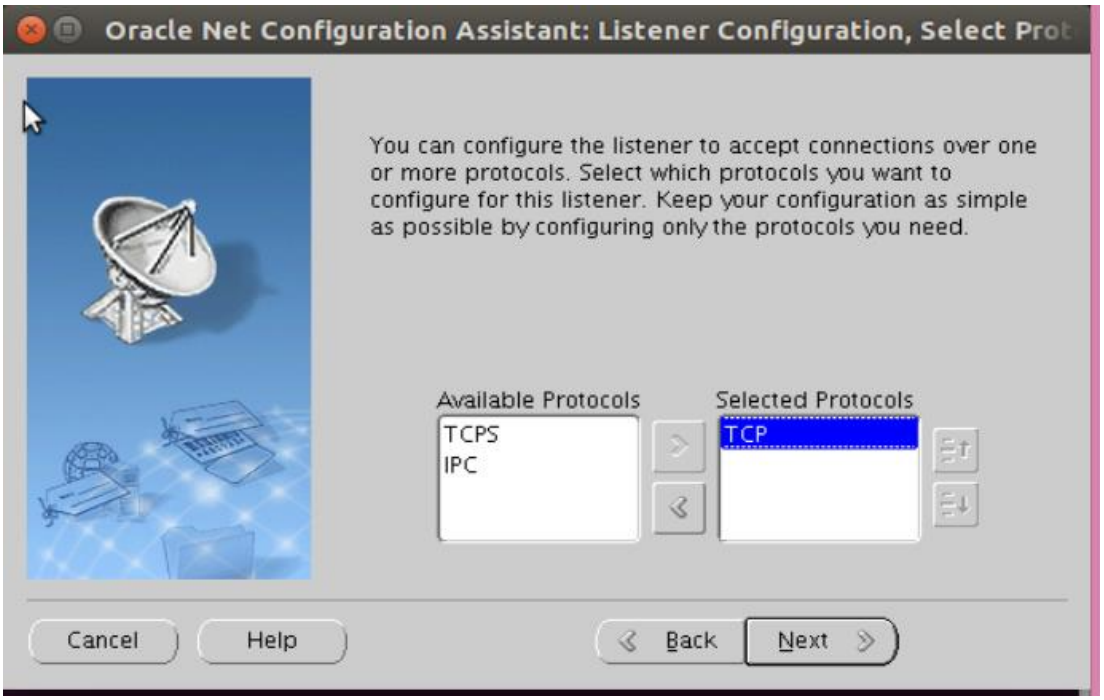


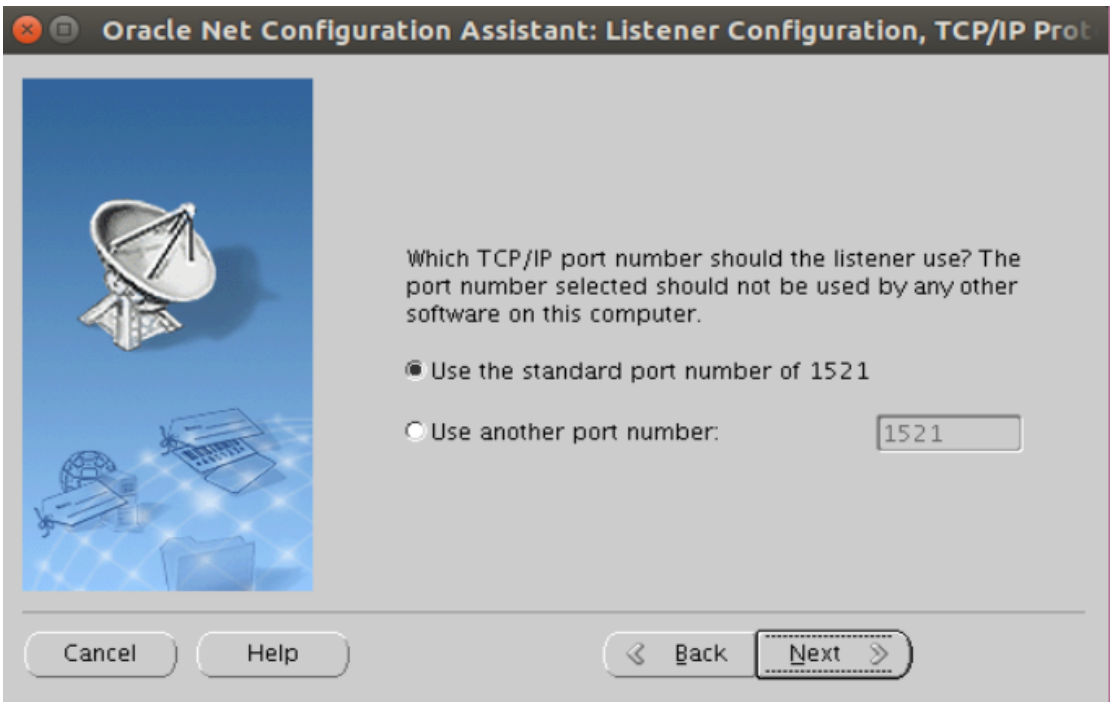

oracle@ubuntu: /u01/app/oracle/product/11.2.0/dbhome_1/bin
oracle@ubuntu:~$ cd /u01/app/oracle/product/11.2.0/dbhome_1/bin
oracle@ubuntu:/u01/app/oracle/product/11.2.0/dbhome_1/bin$ ./ne
tca
Oracle Net Services Configuration:


Oracle Net Configuration Assistant: Welcome
Welcome to the Oracle Net Configuration Assistant.
This tool will take you through the common configuration steps, listed below.
Choose the configuration you would like to do:
Listener configuration
Naming Methods configuration
Local Net Service Name configuration
Directory Usage Configuration
Cancel
Help
Back
Next

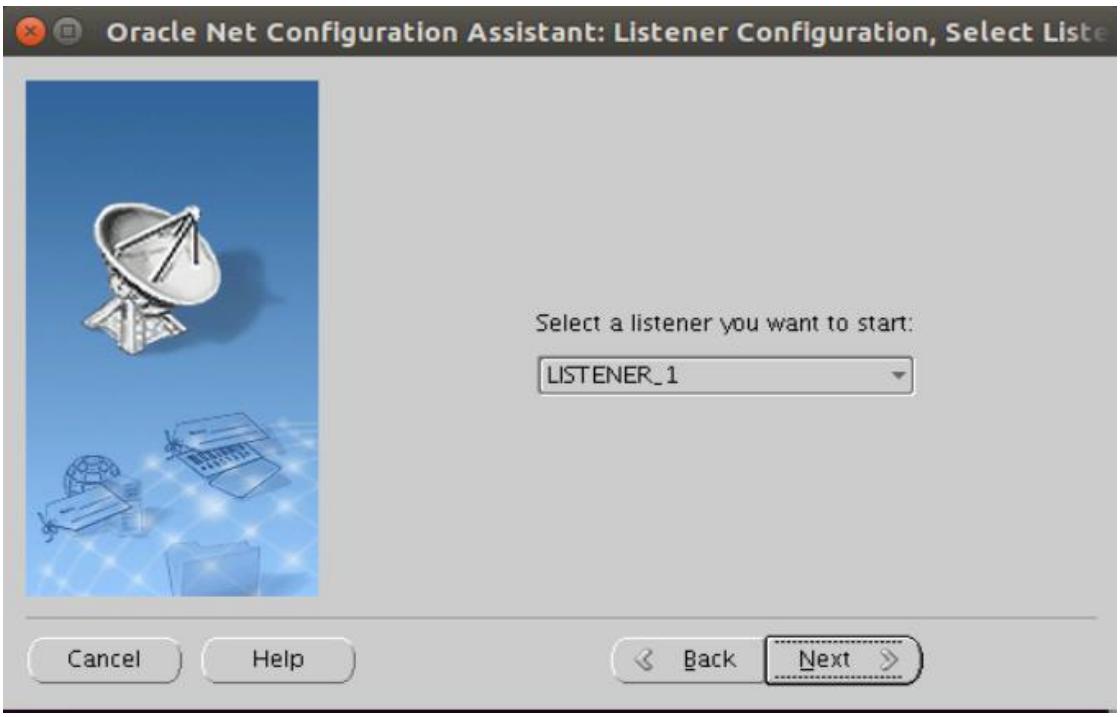

Oracle Net Configuration Assistant: Listener Configuration, Listener
For remote connections to be made to your Oracle database, you must configure a Oracle Net listener. The Oracle Net Configuration Assistant allows you to add, reconfigure, rename or delete a listener.
Select what you want to do:
Add
Reconfigure
Delete
Rename
Cancel
Help
Back
Next

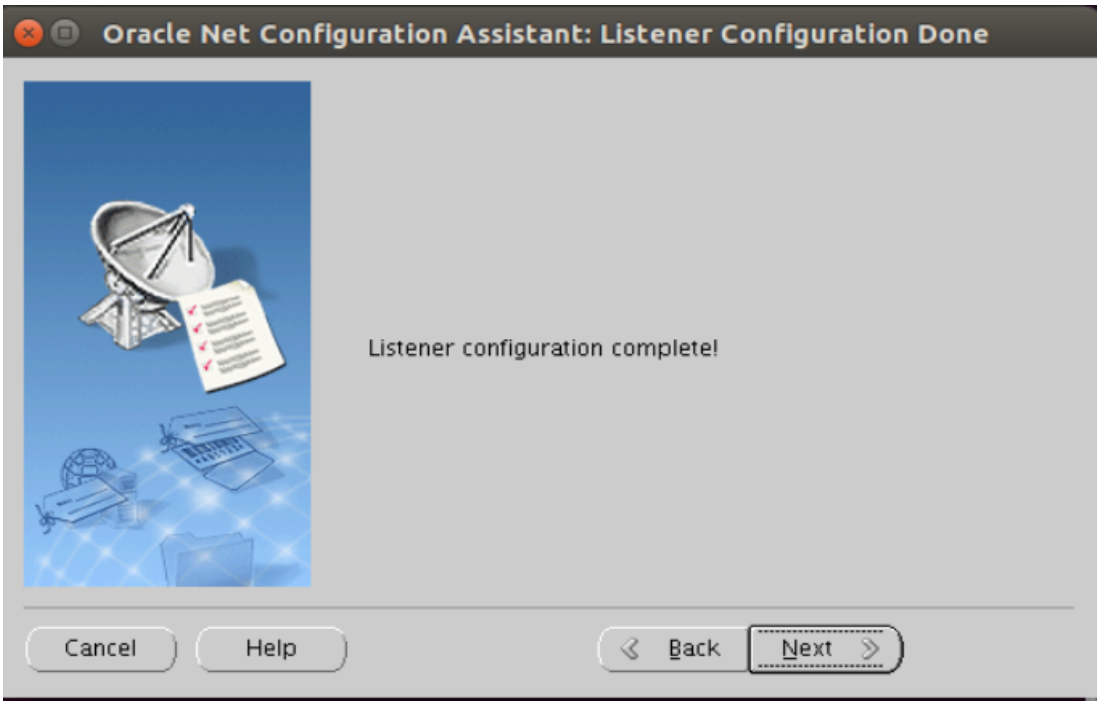

Oracle Net Configuration Assistant: Listener Configuration, Listener Na
For remote connections to be made to your Oracle database you must have at least one Oracle Net listener. Enter the name of the listener you want to create:
Listener name:
LISTENER_1
Cancel
Help
Back
Next


Oracle Net Configuration Assistant: Listener Configuration, Select Prot
You can configure the listener to accept connections over one or more protocols. Select which protocols you want to configure for this listener. Keep your configuration as simple as possible by configuring only the protocols you need.
Available Protocols
TCPS
IPC
Selected Protocols
TCP
Cancel
Help
Back
Next

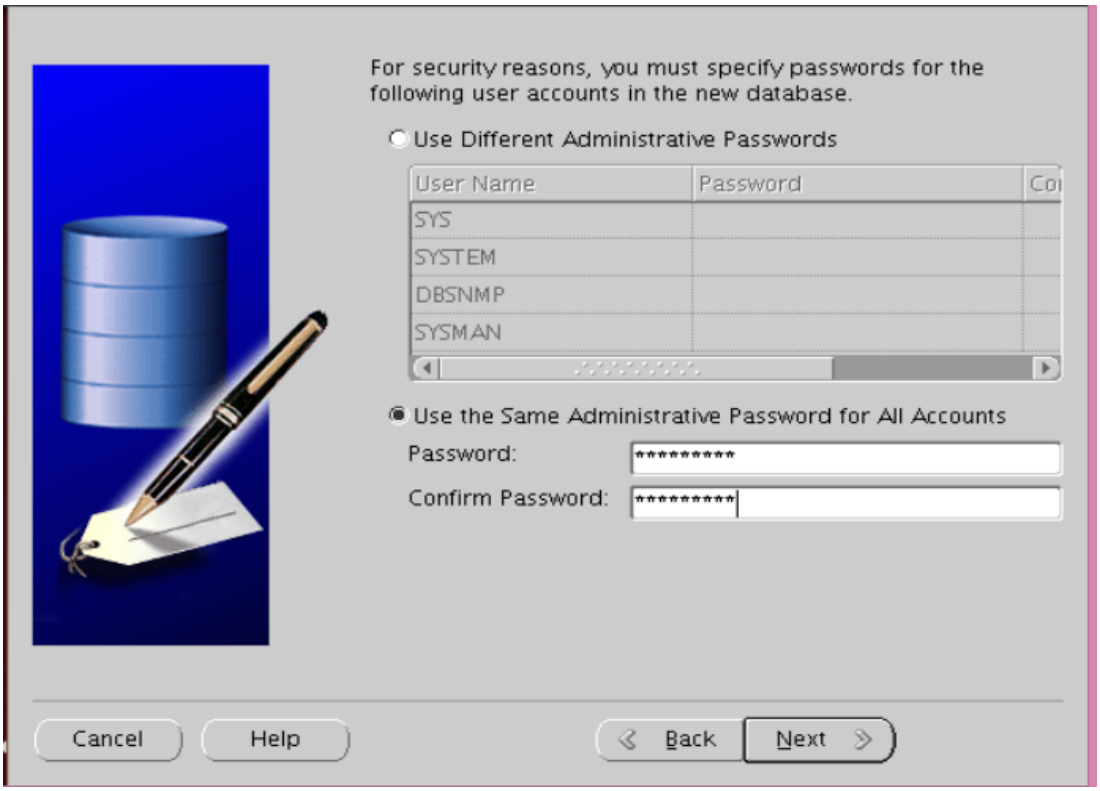

Oracle Net Configuration Assistant: Listener Configuration, TCP/IP Prot
Which TCP/IP port number should the listener use? The port number selected should not be used by any other software on this computer.
Use the standard port number of 1521
Use another port number:
1521
Cancel
Help
Back
Next

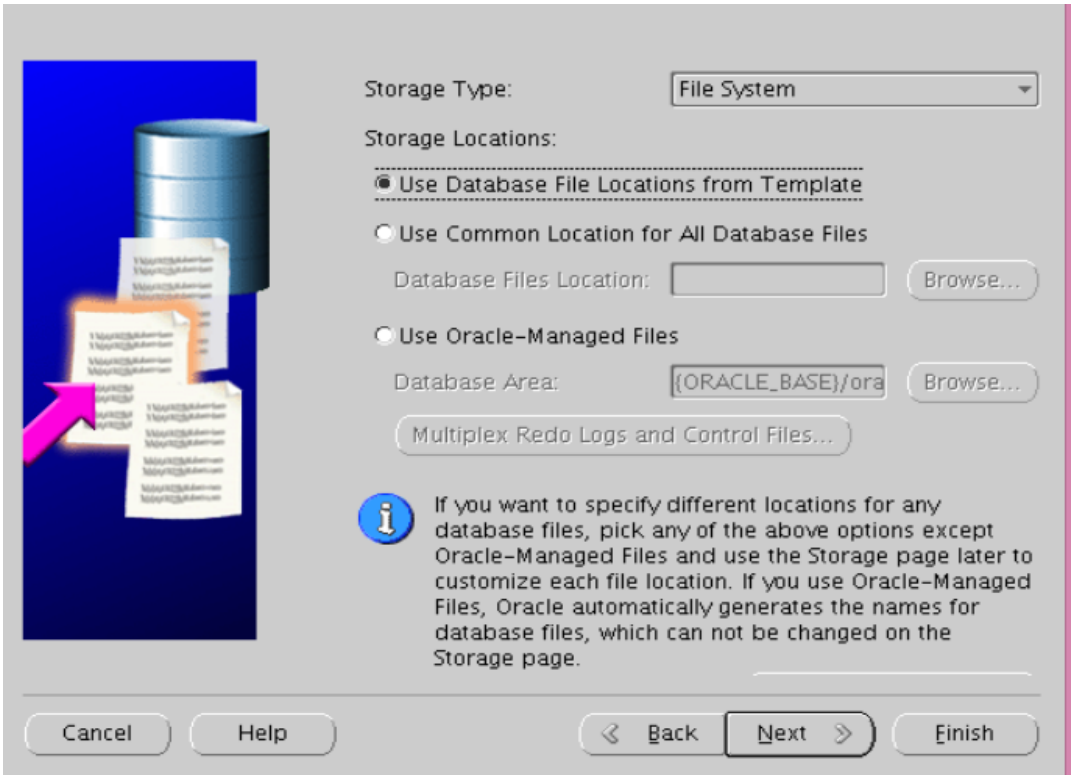

Oracle Net Configuration Assistant: Listener Configuration, More Listen
Would you like to configure another listener?
No
Yes
Cancel
Help
Back
Next


Oracle Net Configuration Assistant: Listener Configuration, Select Liste
Select a listener you want to start:
LISTENER_1
Cancel
Help
Back
Next

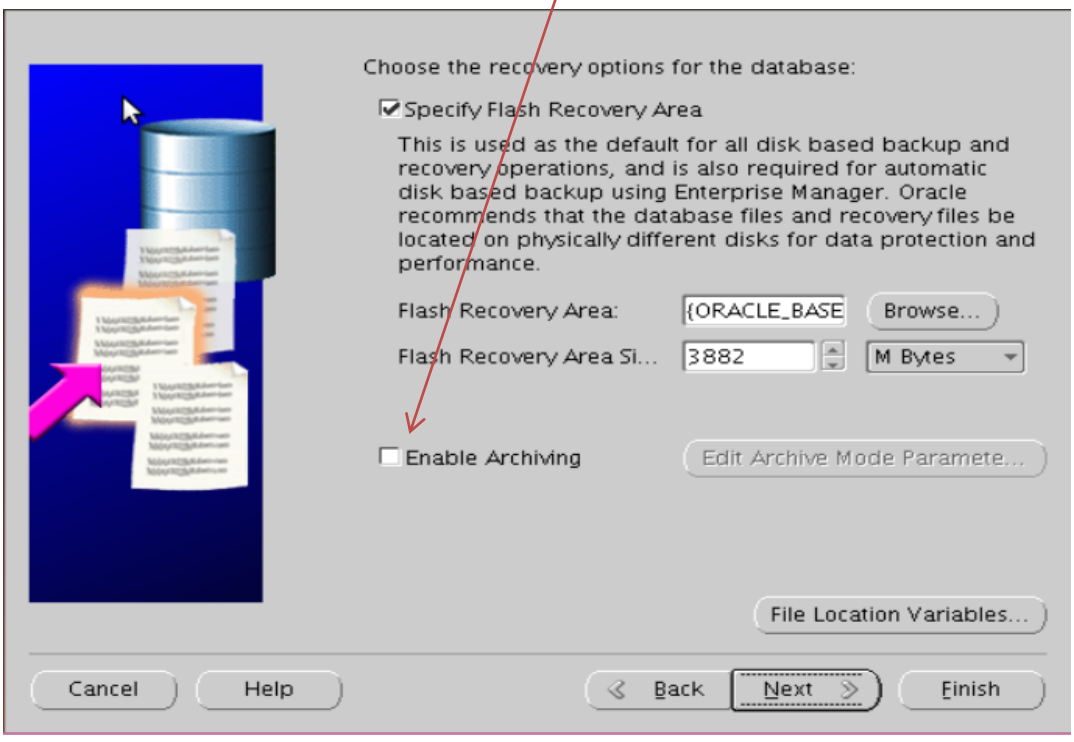


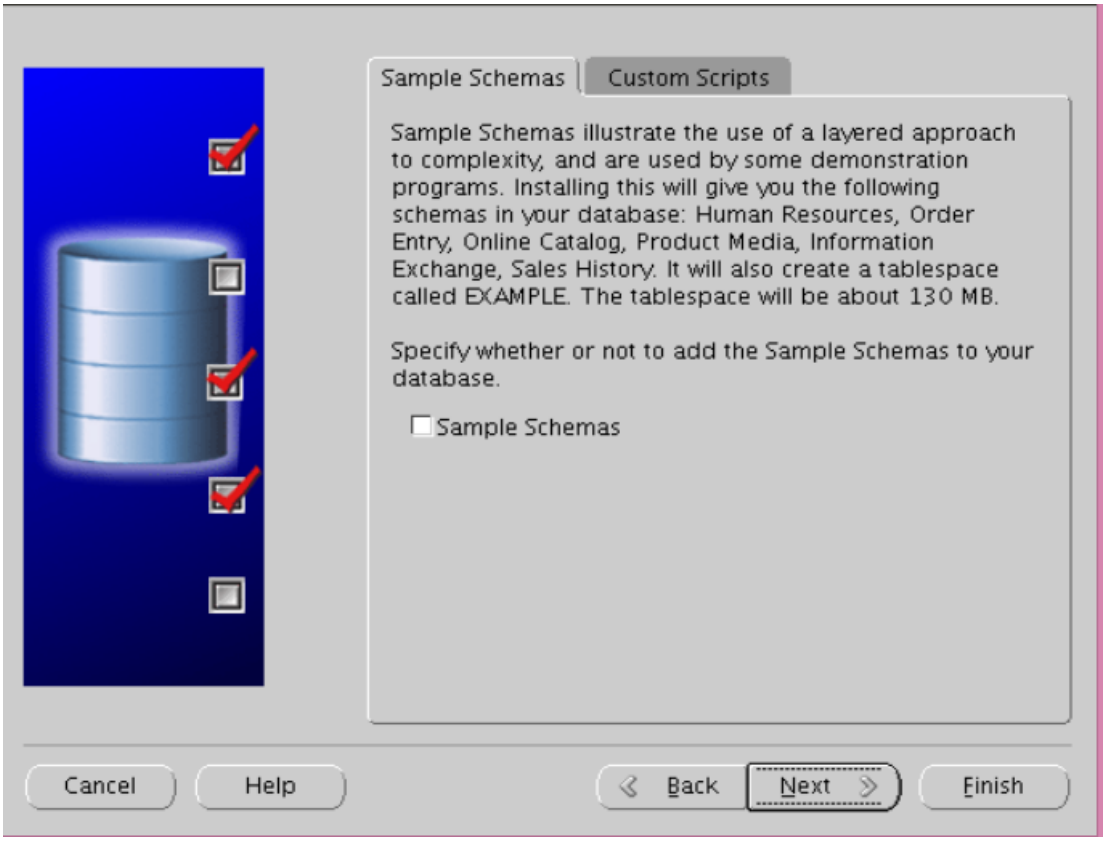
Set passwords for all accounts Set passwords for all accounts

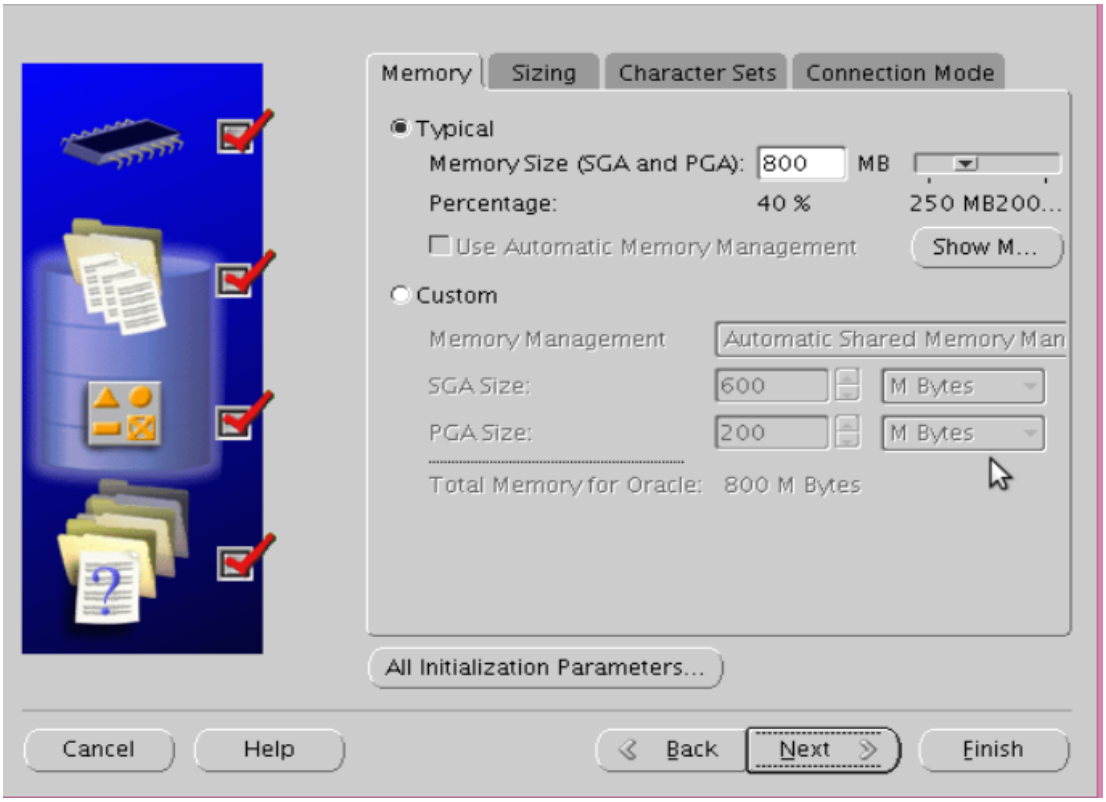




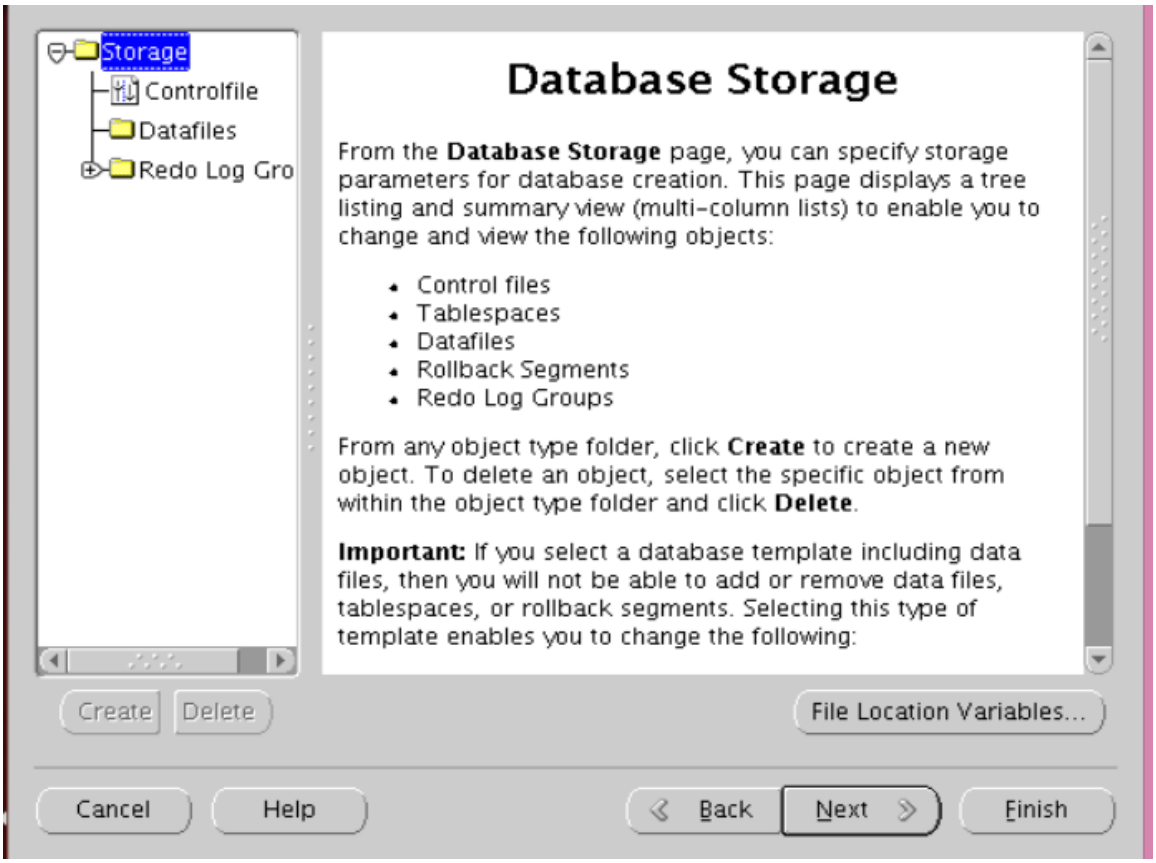
- Database With Non-Archive Log Mode

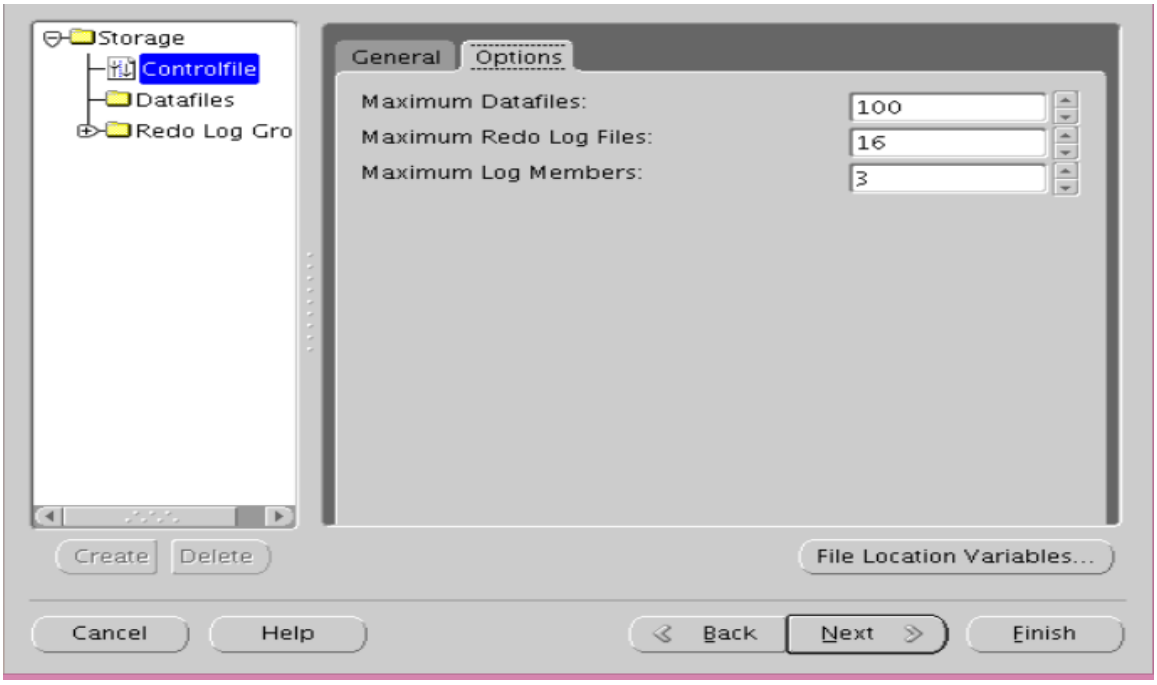


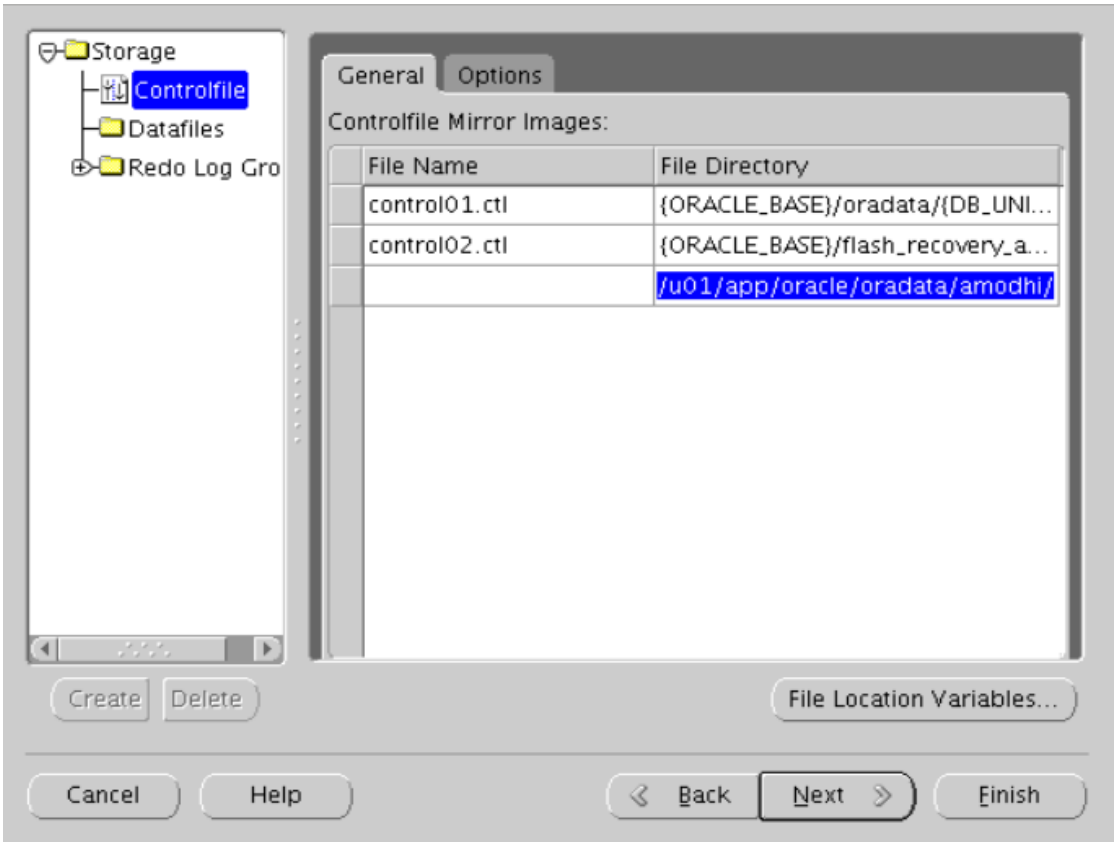

Sample Schemas
Custom Scripts
Sample Schemas illustrate the use of a layered approach to complexity, and are used by some demonstration programs. Installing this will give you the following schemas in your database: Human Resources, Order Entry, Online Catalog, Product Media, Information Exchange, Sales 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


Memory
Sizing
Character Sets
Connection Mode
Typical
Memory Size (SGA and PGA):
800
MB
Percentage:
40 %
250 MB200...
Use Automatic Memory Management
Show M...
Custom
Memory Management
Automatic Shared Memory Man
SGA Size:
600
M Bytes
PGA Size:
200
M Bytes
Total Memory for Oracle:
800 M Bytes
All Initialization Parameters...
Cancel
Help
Back
Next
Finish

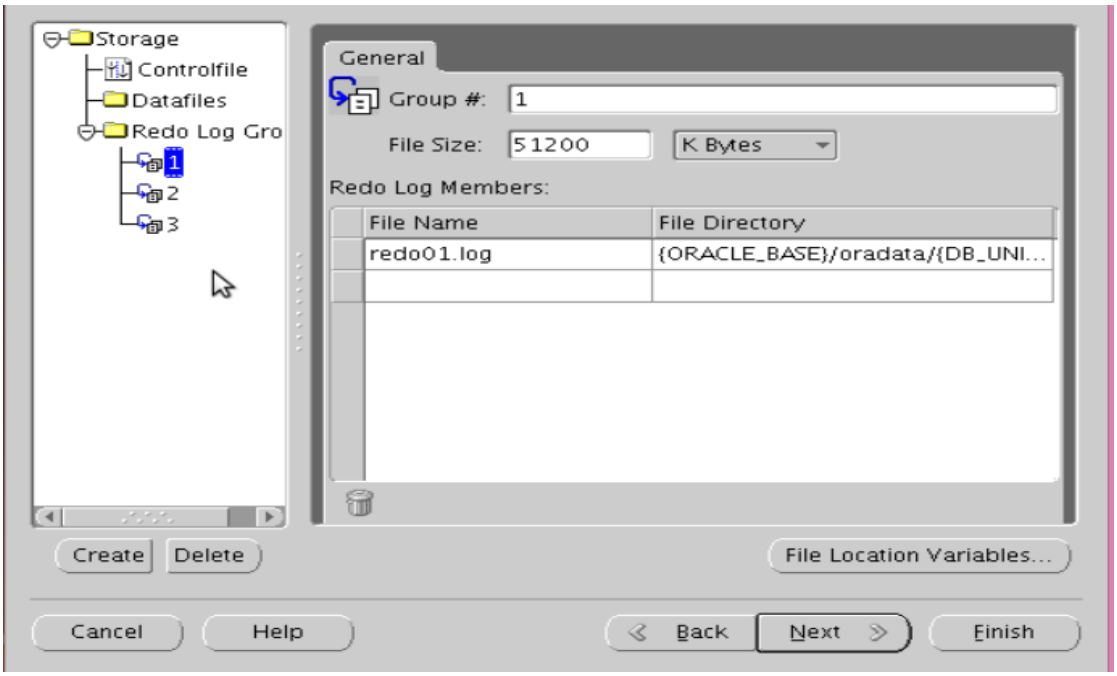
- Create Three Copies of Control Files in Different Directories

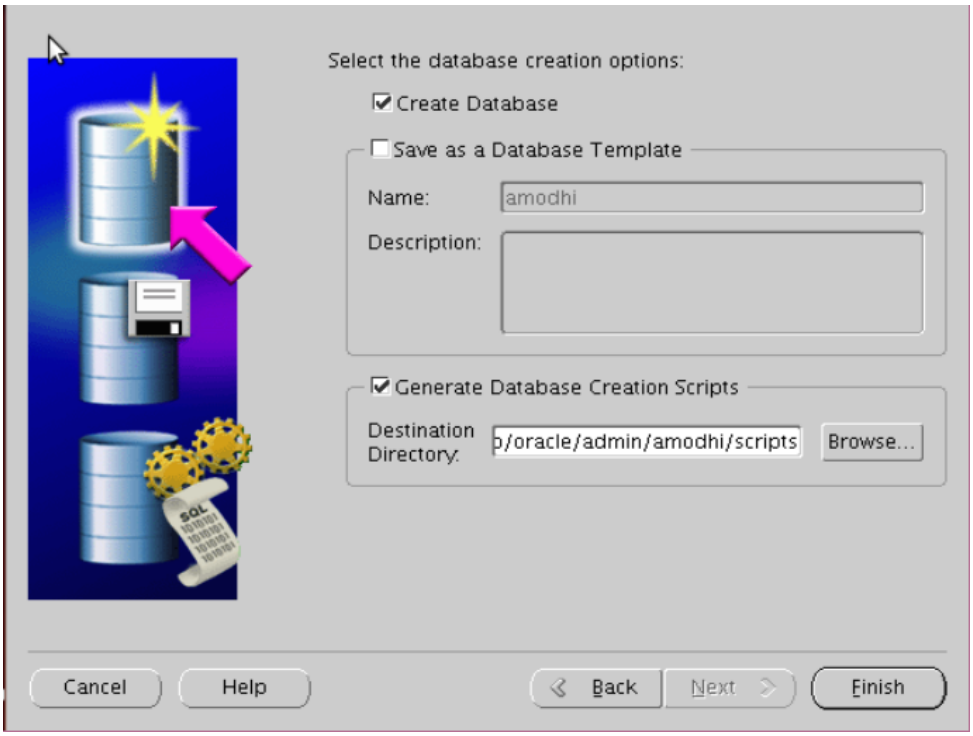


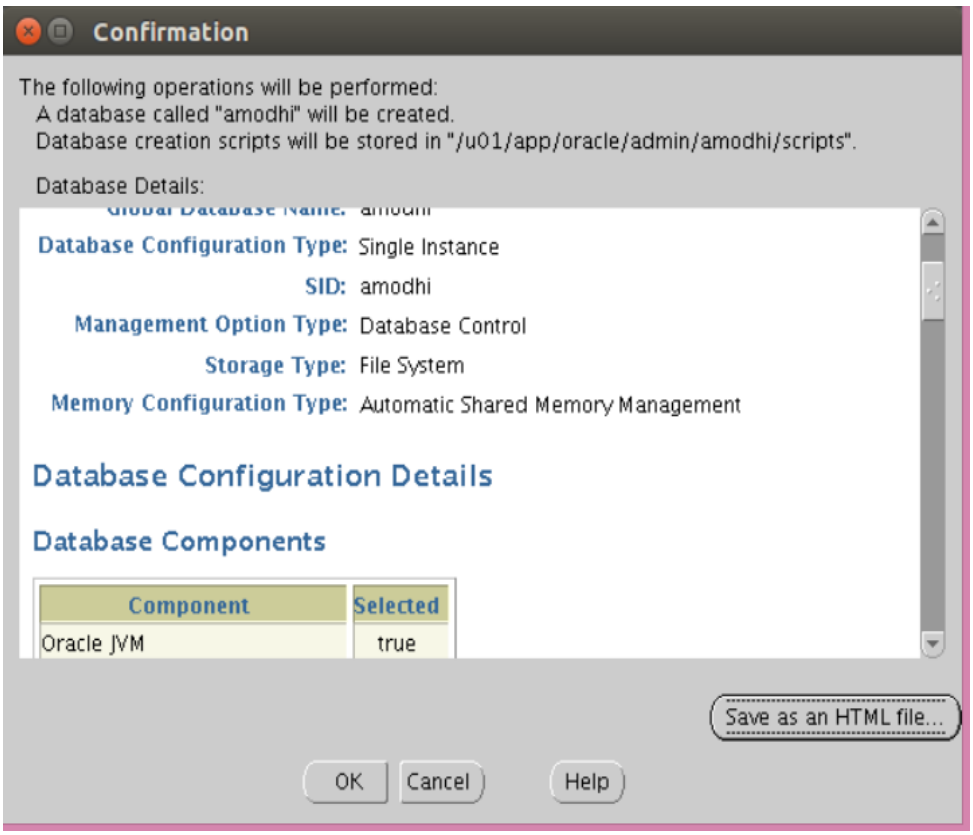


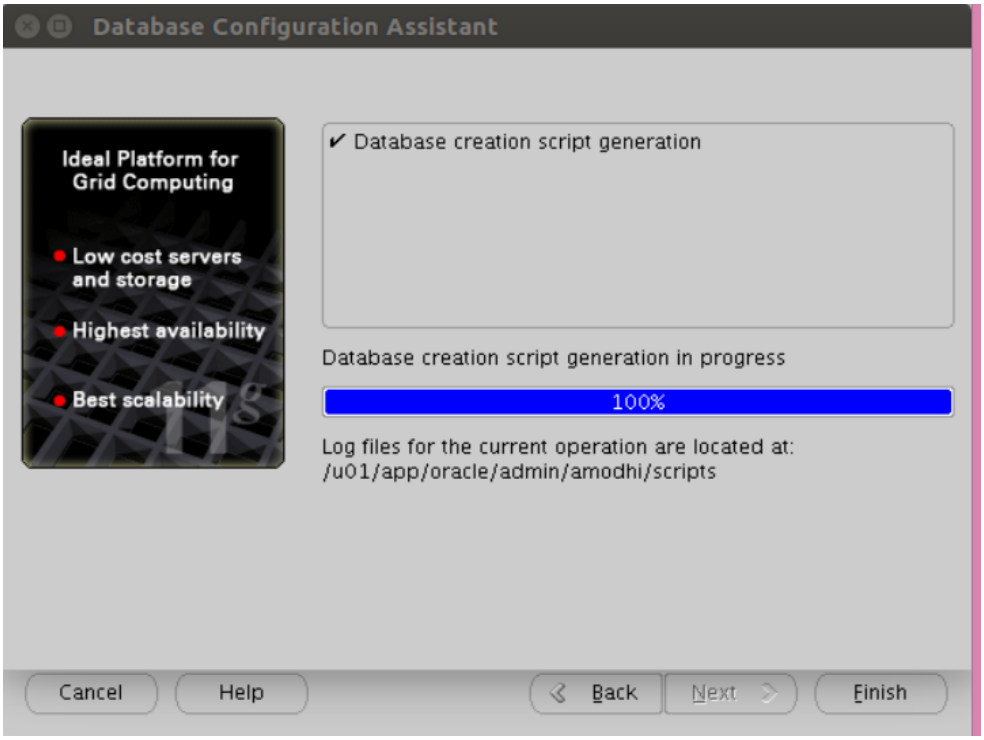


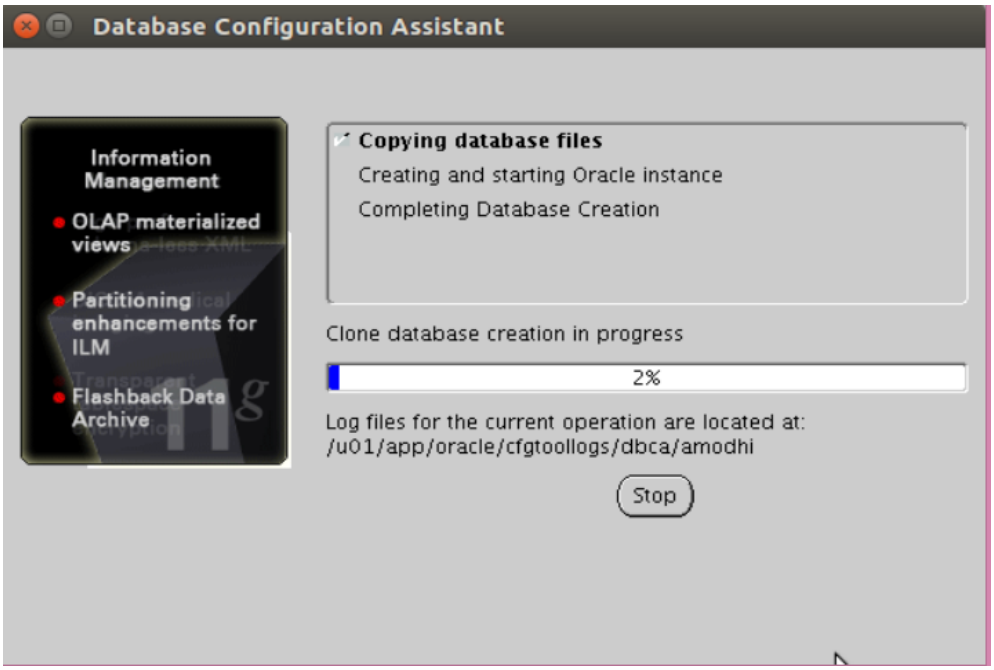
- Creating Redo Log Groups, Each Groups with Redo Log Files.

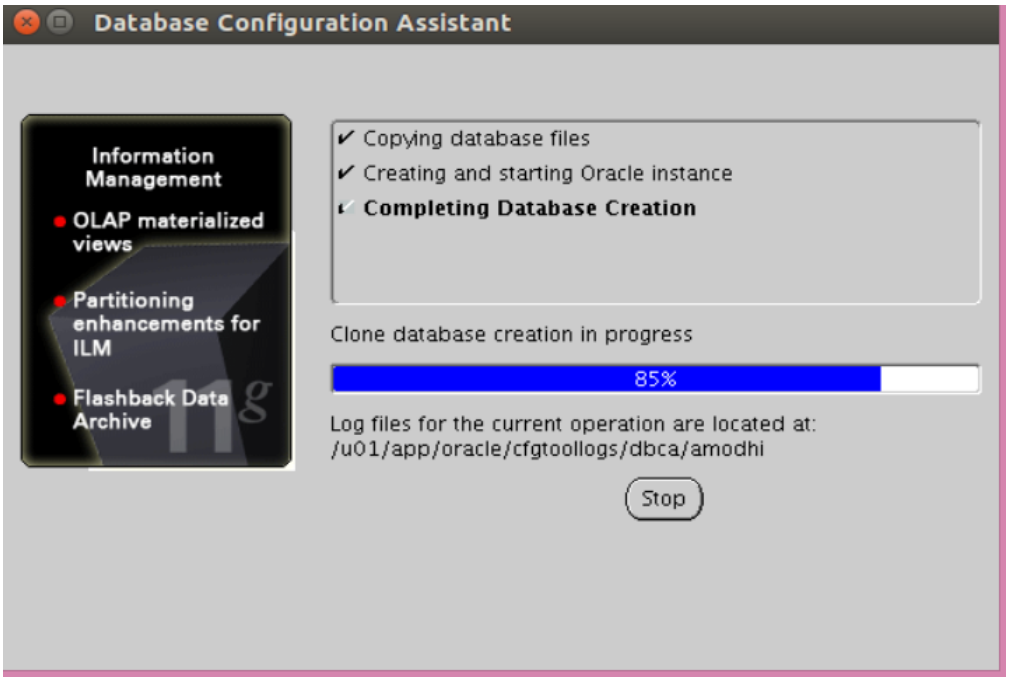


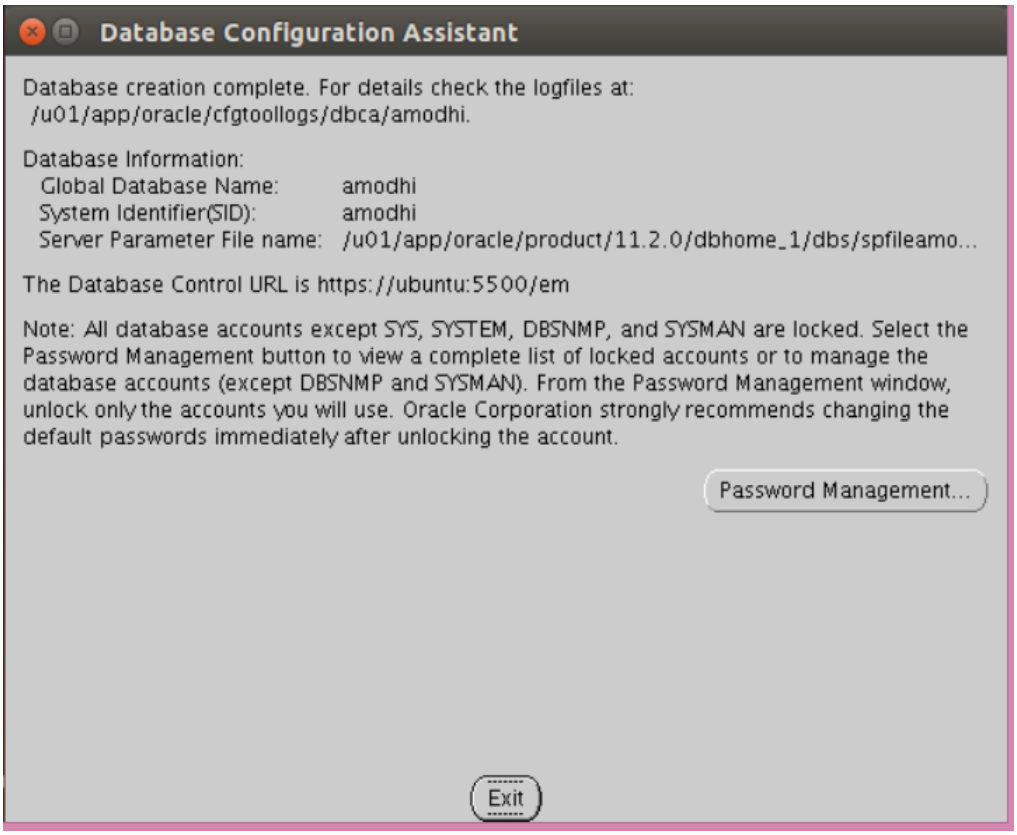

Select the database creation options:
Create Database
Save as a Database Template
Name:
amodhi
Description:
Generate Database Creation Scripts
Destination Directory:
o/oracle/admin/amodhi/scripts
Browse...
Cancel
Help
Back
Next
Finish


Confirmation
The following operations will be performed:
A database called "amodhi" will be created.
Database creation scripts will be stored in "/u01/app/oracle/admin/amodhi/scripts".
Database Details:
Database Configuration Type: Single Instance
SID: amodhi
Management Option Type: Database Control
Storage Type: File System
Memory Configuration Type: Automatic Shared Memory Management
Database Configuration Details
Database Components
Component
Selected
Oracle JVM
true
Save as an HTML file...
OK
Cancel
Help


Database Configuration Assistant
Ideal Platform for Grid Computing
Low cost servers and storage
Highest availability
Best scalability
✔ Database creation script generation
Database creation script generation in progress
100%
Log files for the current operation are located at:
/u01/app/oracle/admin/amodhi/scripts
Cancel
Help
Back
Next
Finish


Database Configuration Assistant
Information Management
OLAP materialized views
Partitioning enhancements for ILM
Flashback Data Archive
✔ Copying database files
Creating and starting Oracle instance
Completing Database Creation
Clone database creation in progress
2%
Log files for the current operation are located at:
/u01/app/oracle/cfgtoollogs/dbca/amodhi
Stop


Database Configuration Assistant
Information Management
OLAP materialized views
Partitioning enhancements for ILM
Flashback Data Archive
11g
✔ Copying database files
✔ Creating and starting Oracle instance
✔ Completing Database Creation
Clone database creation in progress
85%
Log files for the current operation are located at:
/u01/app/oracle/cfgtoollogs/dbca/amodhi
Stop


Database Configuration Assistant
Database creation complete. For details check the logfiles at:
/u01/app/oracle/cfgtoollogs/dbca/amodhi.
Database Information:
Global Database Name: amodhi
System Identifier(SID): amodhi
Server Parameter File name: /u01/app/oracle/product/11.2.0/dbhome_1/dbs/spfileamo...
The Database Control URL is https://ubuntu: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

QUESTION 02)

- Changing the Database into Archive Mode
    - ✓ First connect to the database

```
oracle@ubuntu:/u01/app/oracle/product/11.2.0/dbhome_1/bin$ sqlp
lus / as sysdba

SQL*Plus: Release 11.2.0.1.0 Production on Wed Feb 25 22:09:12
2015

Copyright (c) 1982, 2009, Oracle.  All rights reserved.

Connected to an idle instance.

SQL>
```

```
Enter user-name: oracle as sysdba
Enter password:
Connected to an idle instance.

SQL>
```

    - ✓ current log mode of the database

```
Process ID: 0
Session ID: 0 Serial number: 0

Enter user-name: amodhi as sysdba
Enter password:
Connected to an idle instance.

SQL> startup
ORACLE instance started.

Total System Global Area  626327552 bytes
Fixed Size                  2215944 bytes
Variable Size             192942072 bytes
Database Buffers          427819008 bytes
Redo Buffers                3350528 bytes
Database mounted.
Database opened.
SQL> select log_mode from v$database;

LOG_MODE
------------
NOARCHIVELOG

SQL>
```

- ✓ To convert the database in to archive mode
    - **SHUTDOWN IMMEDIATE**

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

    - **STARTUP MOUNT**
    - **ALTER DATABASE ARCHIVELOG;**

```
SQL> startup mount
ORACLE instance started.

Total System Global Area  626327552 bytes
Fixed Size                  2215944 bytes
Variable Size             192942072 bytes
Database Buffers          427819008 bytes
Redo Buffers                3350528 bytes
Database mounted.
SQL> alter database archivelog;

Database altered.

SQL>
```

    - **ALTER DATABASE OPEN;**

```
SQL> alter database open;

Database altered.

SQL>
```

✓ The database is now running with the new ARCHIVELOG mode setting

```
SQL> select log_mode from v$database;

LOG_MODE
------------
ARCHIVELOG

SQL>
```

QUESTION 03)

- Simulating a Deadlock scenario

A deadlock is the situation where you have two, or more, Oracle "sessions" competing for mutually locked resources. Oracle deals with deadlocks pretty much immediately by raising an exception (ORA-00060) in one of the sessions.

✓ In session 1, create a table and insert two rows in to it

```
SQL> create table test_tbl
  2  (
  3  id int,
  4  text varchar2(100)
  5  )  2    3    4
SQL> create table test_tbl1
  2  (
  3  id int,
  4  text varchar2(100)
  5  );

Table created.
```

- ✓ Insert Some Values

.

```
SQL> insert into test_tbl1(id,text) values(1,'A');

1 row created.

SQL> insert into test_tbl1(id,text) values(2,'B');

1 row created.

SQL> commit;

Commit complete.
```

Use **COMMIT** statement to end the current transaction and make permanent all changes performed in the transaction

- ✓ Open two sessions and delete a row by using each terminal.
- ✓ Try to delete a row which is deleted in other session.

```
SQL> delete from test_tbl1 where id=2;

delete from test_tbl1 where id=2
            *
ERROR at line 1:
ORA-00060: deadlock detected while waiting for resource
```

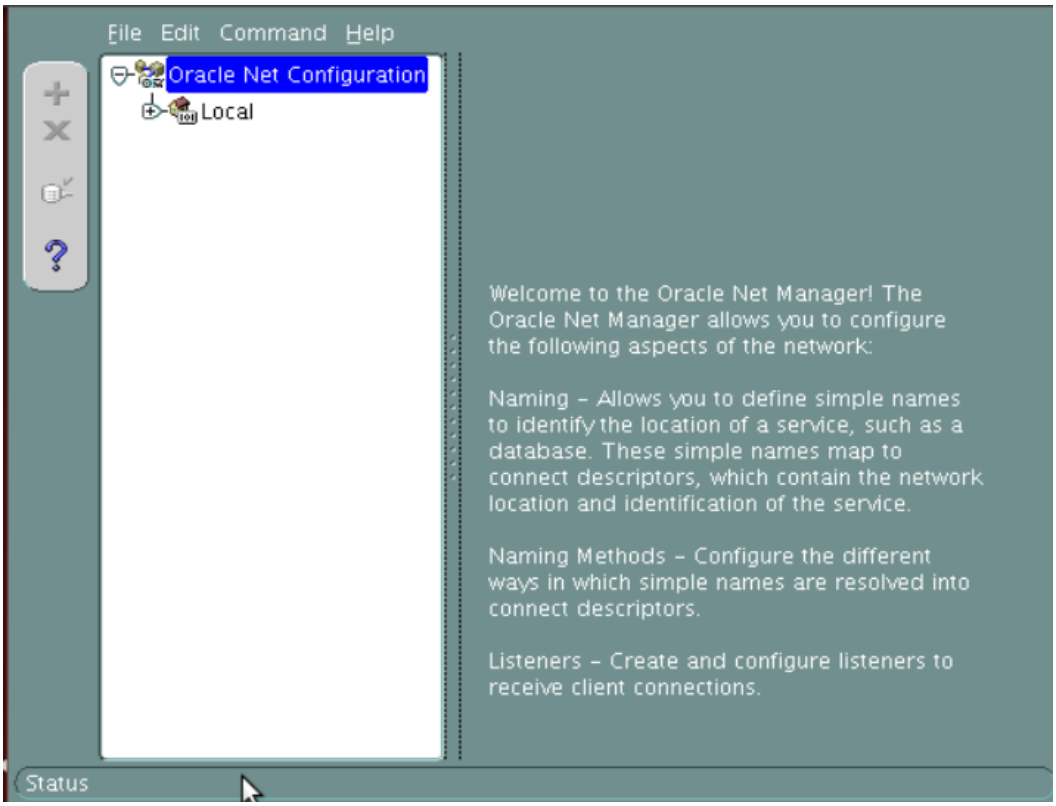
```
oracle@ubuntu:~$ sqlplus / as sysdba

SQL*Plus: Release 11.2.0.1.0 Production on Thu Feb 26 00:31:21
2015

Copyright (c) 1982, 2009, Oracle.  All rights reserved.


Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64b
it Production
With the Partitioning, OLAP, Data Mining and Real Application T
esting options

SQL> delete from test_tbl1 where id=2;

1 row deleted.

SQL> delete from test_tbl1 where id=1;
```

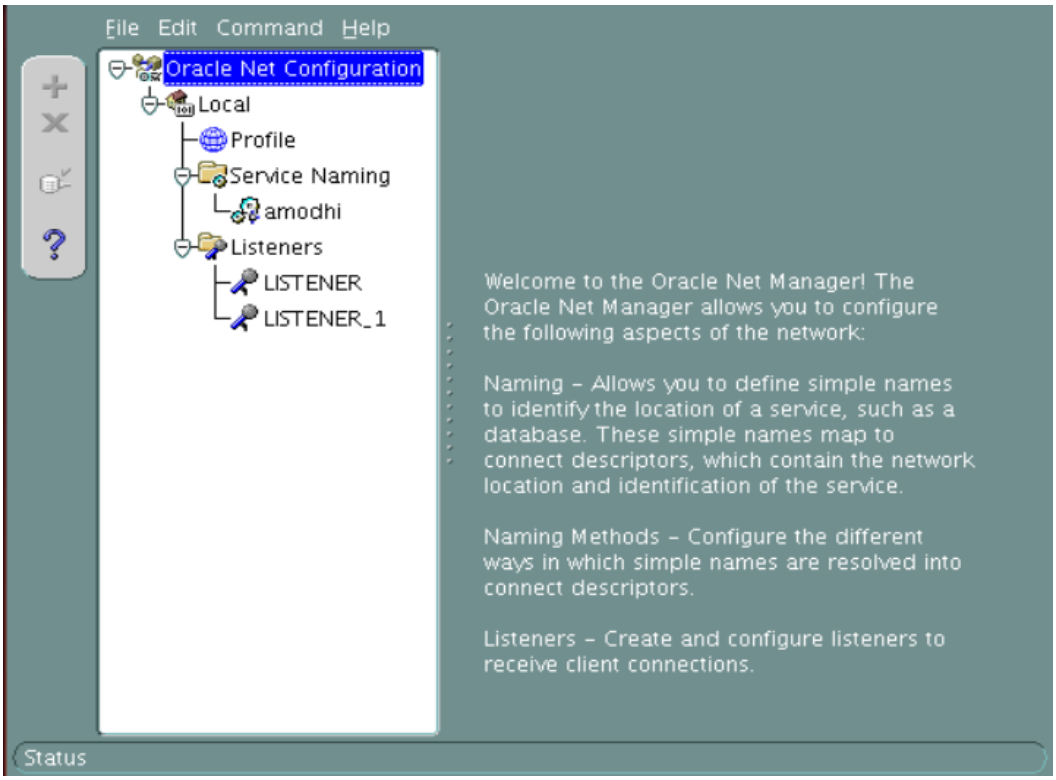
QUSTION 04

- Configuring a Naming Method

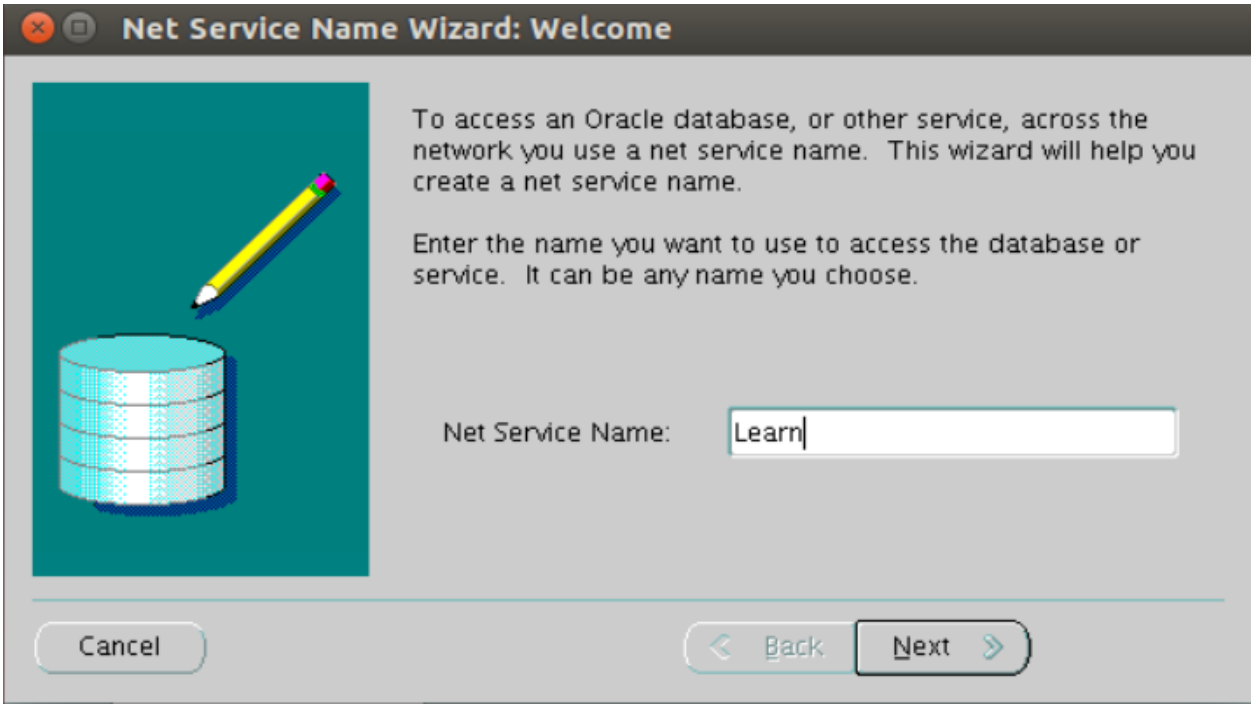
    - ✓ “netmgr” to open oracle net manager

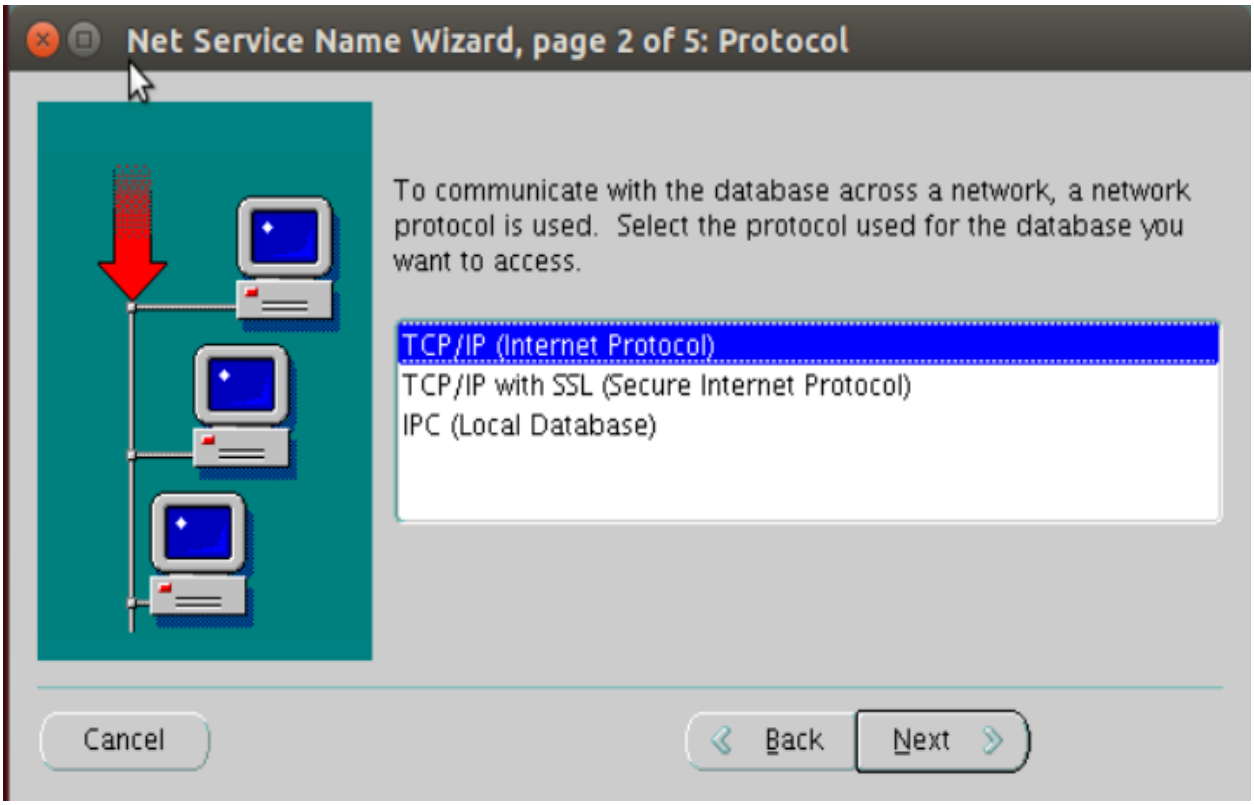
```
oracle@ubuntu:~$ netmgr
```

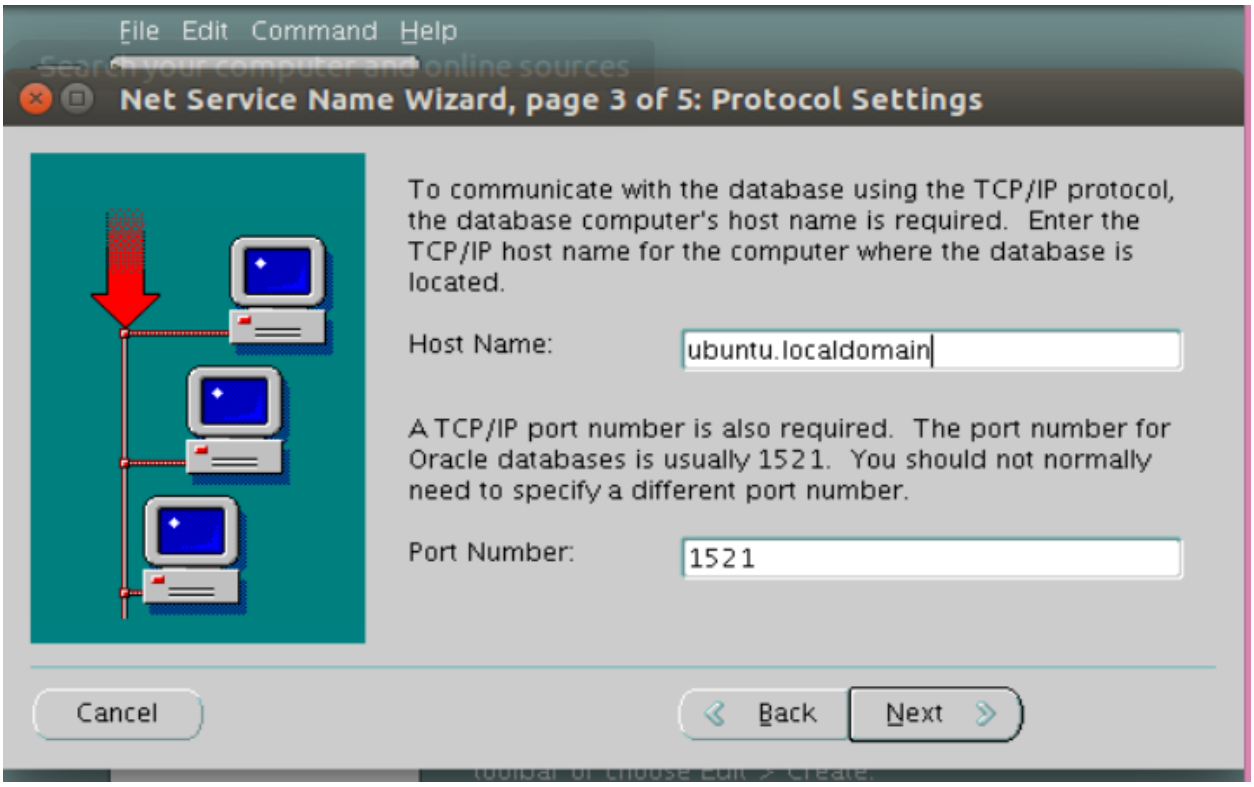

File Edit Command Help
Oracle Net Configuration
Local
Welcome to the Oracle Net Manager! The Oracle Net Manager allows you to configure the following aspects of the network:
Naming – Allows you to define simple names to identify the location of a service, such as a database. These simple names map to connect descriptors, which contain the network location and identification of the service.
Naming Methods – Configure the different ways in which simple names are resolved into connect descriptors.
Listeners – Create and configure listeners to receive client connections.
Status


File Edit Command Help
Oracle Net Configuration
Local
Profile
Service Naming
amodhi
Listeners
LISTENER
LISTENER_1
Welcome to the Oracle Net Manager! The Oracle Net Manager allows you to configure the following aspects of the network:
Naming – Allows you to define simple names to identify the location of a service, such as a database. These simple names map to connect descriptors, which contain the network location and identification of the service.
Naming Methods – Configure the different ways in which simple names are resolved into connect descriptors.
Listeners – Create and configure listeners to receive client connections.
Status

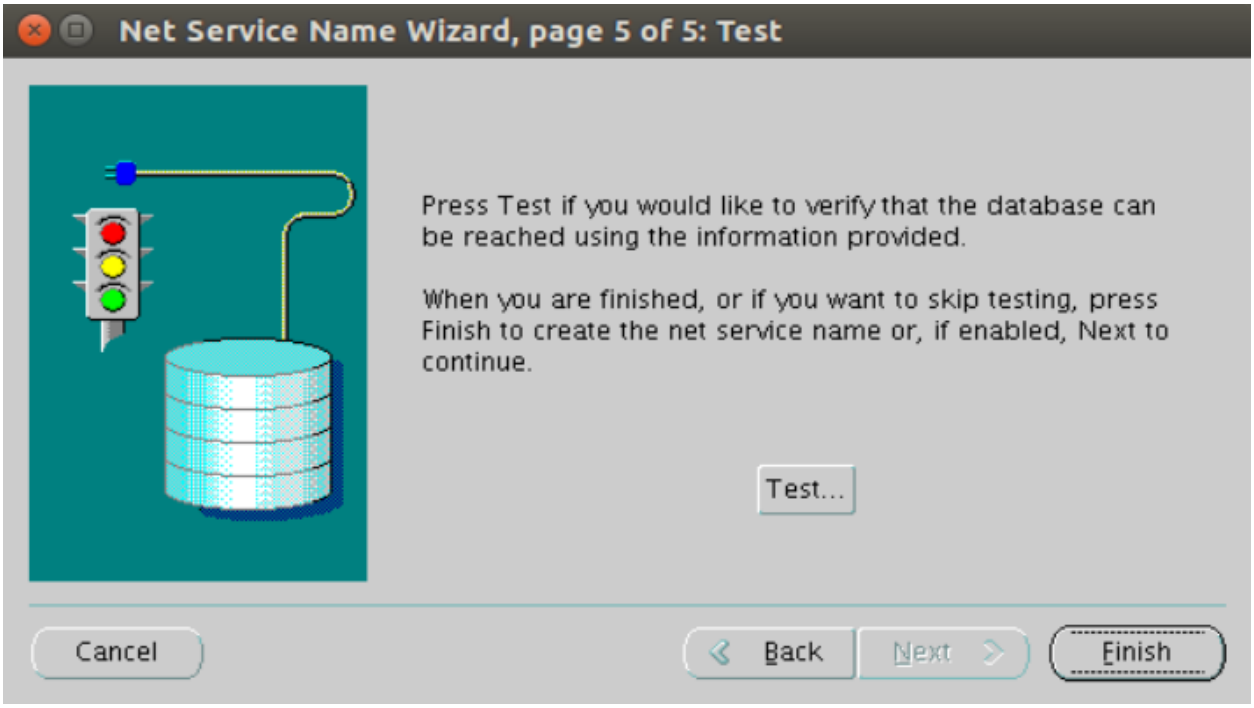
✓ Add new Listener

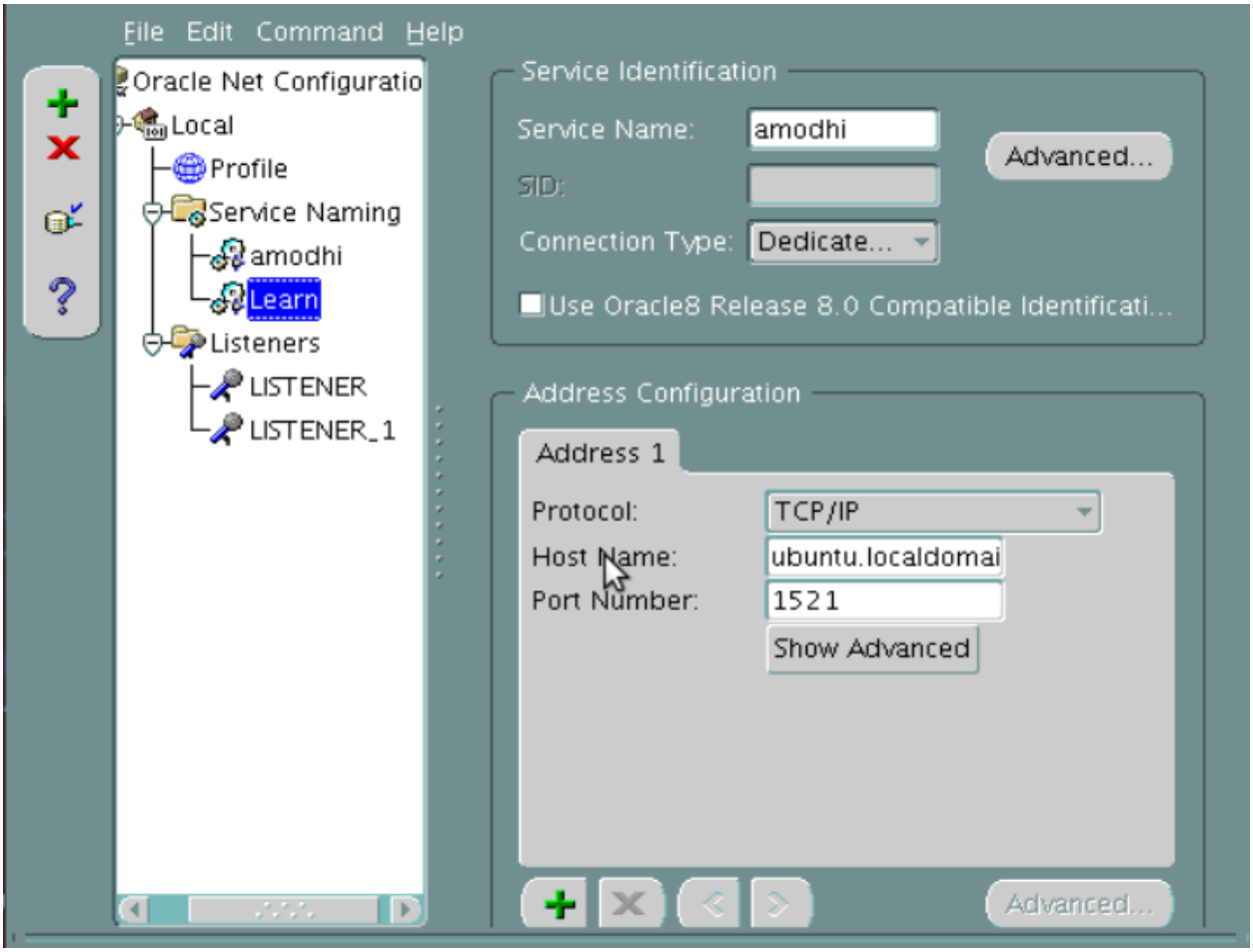





File Edit Command Help
Net Service Name Wizard, page 3 of 5: Protocol Settings
To communicate with the database using the TCP/IP protocol, the database computer's host name is required. Enter the TCP/IP host name for the computer where the database is located.
Host Name:
ubuntu.localdomain
A TCP/IP port number is also required. The port number for Oracle databases is usually 1521. You should not normally need to specify a different port number.
Port Number:
1521
Cancel
Back
Next


Net Service Name Wizard, page 4 of 5: Service
Each Oracle database or service has a service name. An Oracle database's service name is normally its global database name. Enter the service name of the database or other service you want to access.
Service Name:
amodhi
Optionally, you can choose if you want a shared, dedicated or pooled server database connection. The default is to let the database decide.
Connection Type:
Dedicated Server
Cancel
Back
Next


Net Service Name Wizard, page 5 of 5: Test
Press Test if you would like to verify that the database can be reached using the information provided.
When you are finished, or if you want to skip testing, press Finish to create the net service name or, if enabled, Next to continue.
Test...
Cancel
Back
Next
Finish


File Edit Command Help
Oracle Net Configuratio
Local
Profile
Service Naming
amodhi
Learn
Listeners
LISTENER
LISTENER_1
Service Identification
Service Name: amodhi
SID:
Connection Type: Dedicate...
Use Oracle8 Release 8.0 Compatible Identificati...
Advanced...
Address Configuration
Address 1
Protocol: TCP/IP
Host Name: ubuntu.localdomai
Port Number: 1521
Show Advanced
Advanced...