



Creating an Oracle Database

Objectives

After completing this lesson, you should be able to do the following:

- **Create a database with the Database Configuration Assistant (DBCA)**
- **Create a database design template with the DBCA**
- **Generate database creation scripts with the DBCA**

Planning the Database

As a DBA, you must plan:

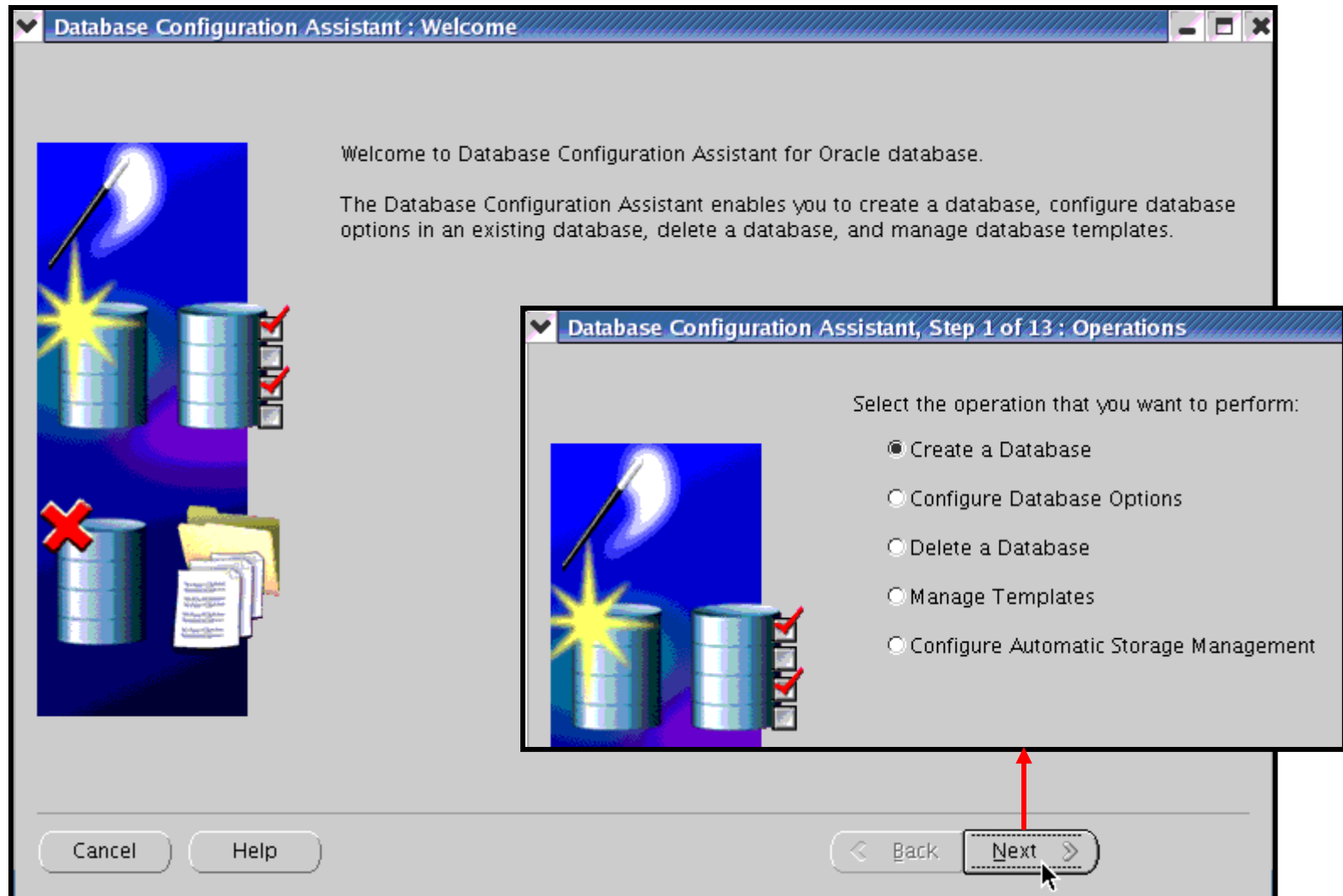
- **The logical storage structure of the database and its physical implementation:**
 - How many disk drives do you have for this?
 - How many data files will you need? (Plan for growth.)
 - How many tablespaces will you use?
 - Which type of information will be stored?
 - Are there any special storage requirements due to type or size?
- **The overall database design**
- **A backup strategy for the database**



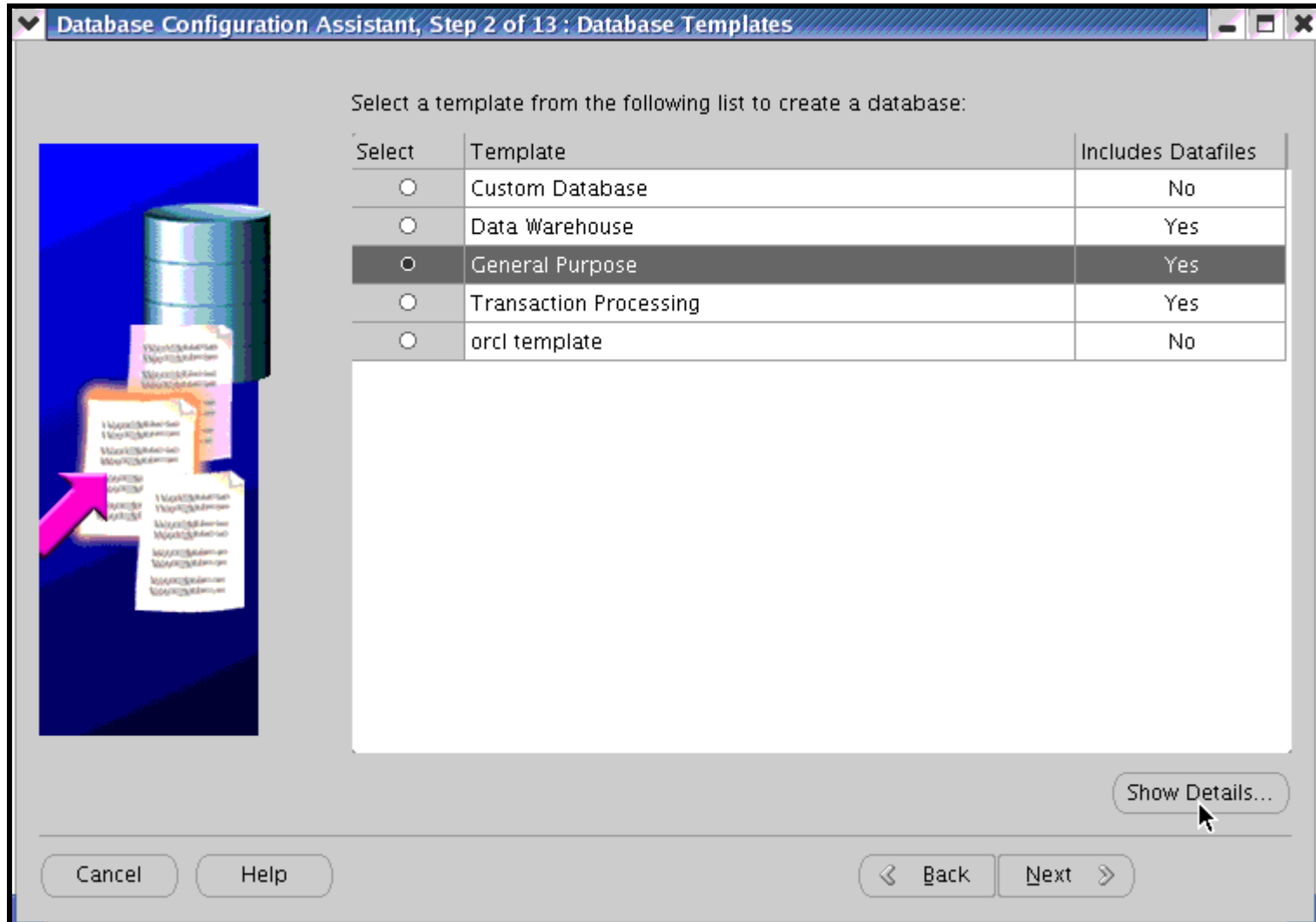
Databases: Examples

- **Data Warehouse:**
 - Research and marketing data
 - State or federal tax payments
 - Professional licensing (doctors, nurses, and so on)
- **Transaction Processing:**
 - Store checkout register system
 - Automatic teller machine (ATM) transactions
- **General Purpose:**
 - Retail billing system, for example, of a software house or a nursery

Database Configuration Assistant (DBCA)



Using the DBCA to Create a Database



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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:

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:

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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:

☒ Use Database Control for Database Management

☐ Enable Email Notifications

Outgoing Mail (SMTP) Server:

Email Address:

☐ Enable Daily Backup

Backup Start Time: ☒ AM ☐ PM

OS Username:

Password:

Cancel Help

Using the DBCA to Create a Database

For security reasons, you must specify passwords for the following user accounts in the new database.

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☒ Use the Same Password for All Accounts

Password:

Confirm Password:

☐ Use Different Passwords

Select the storage mechanism you would like to use for the database.

- ☒ File System
Use the File System for Database storage.
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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:

- ☒ Use Oracle-Managed Files

Database Area:



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.

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u must either
ng ASM disk group.

r Real Application
ment and a Cluster
e for each datafile,

Use...

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Choose the recovery options for the database: 8

☒ 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:

Flash Recovery Area Size:

☐ Enable Archiving

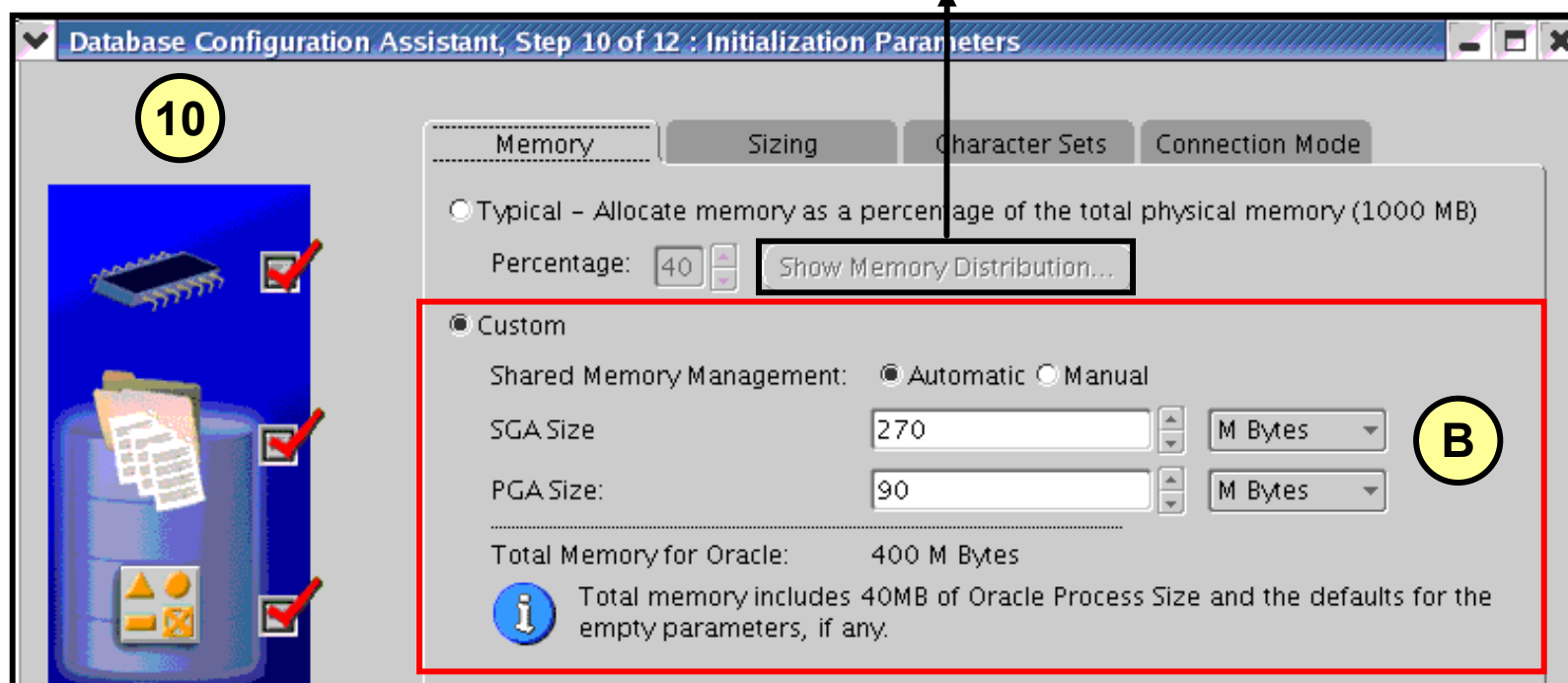
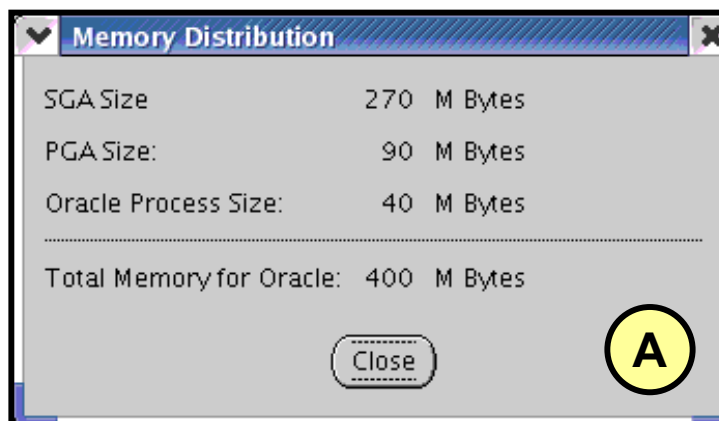
Sample Schemas 9

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.

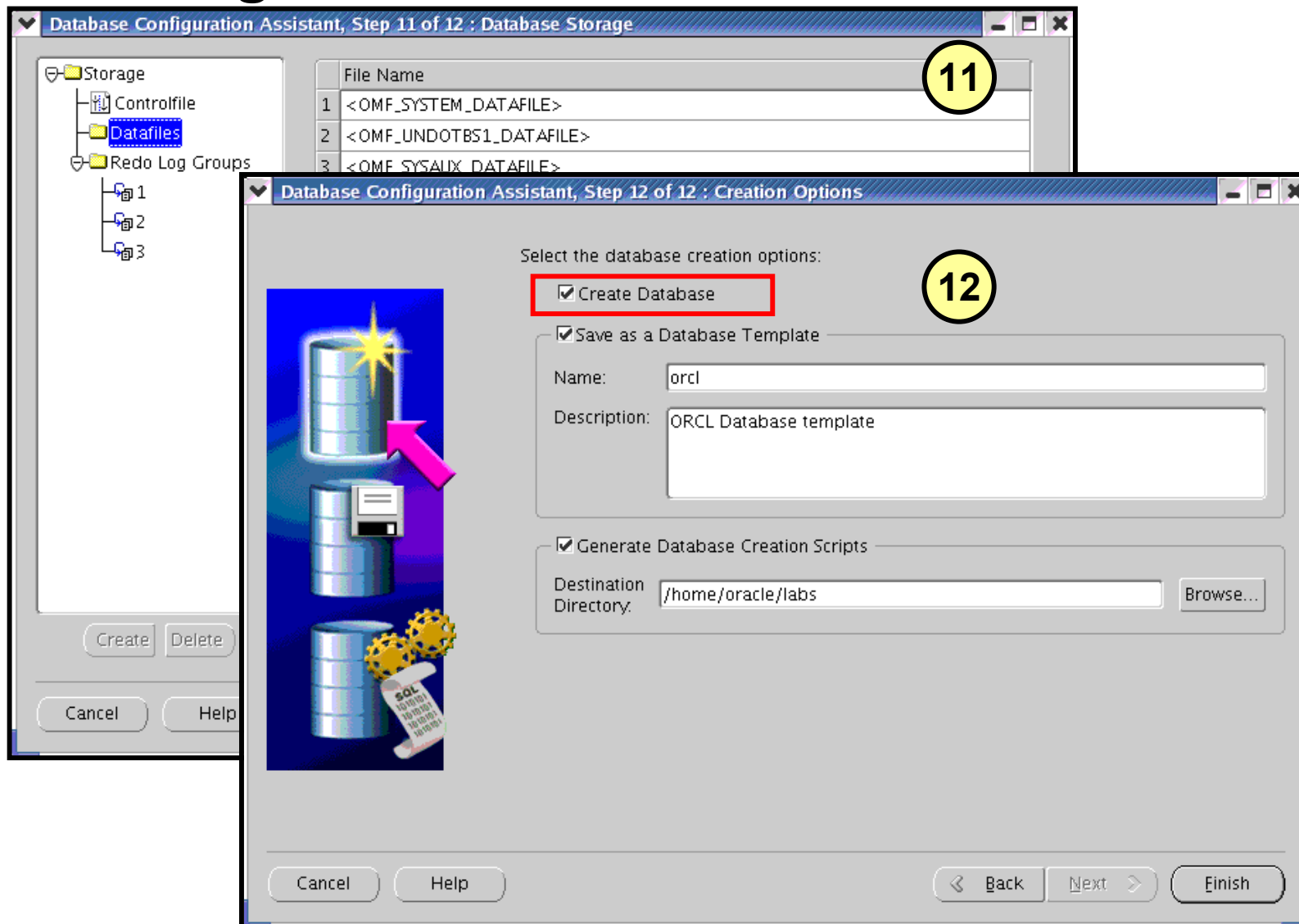
Specify whether or not to add the Sample Schemas to your database.

☒ Sample Schemas

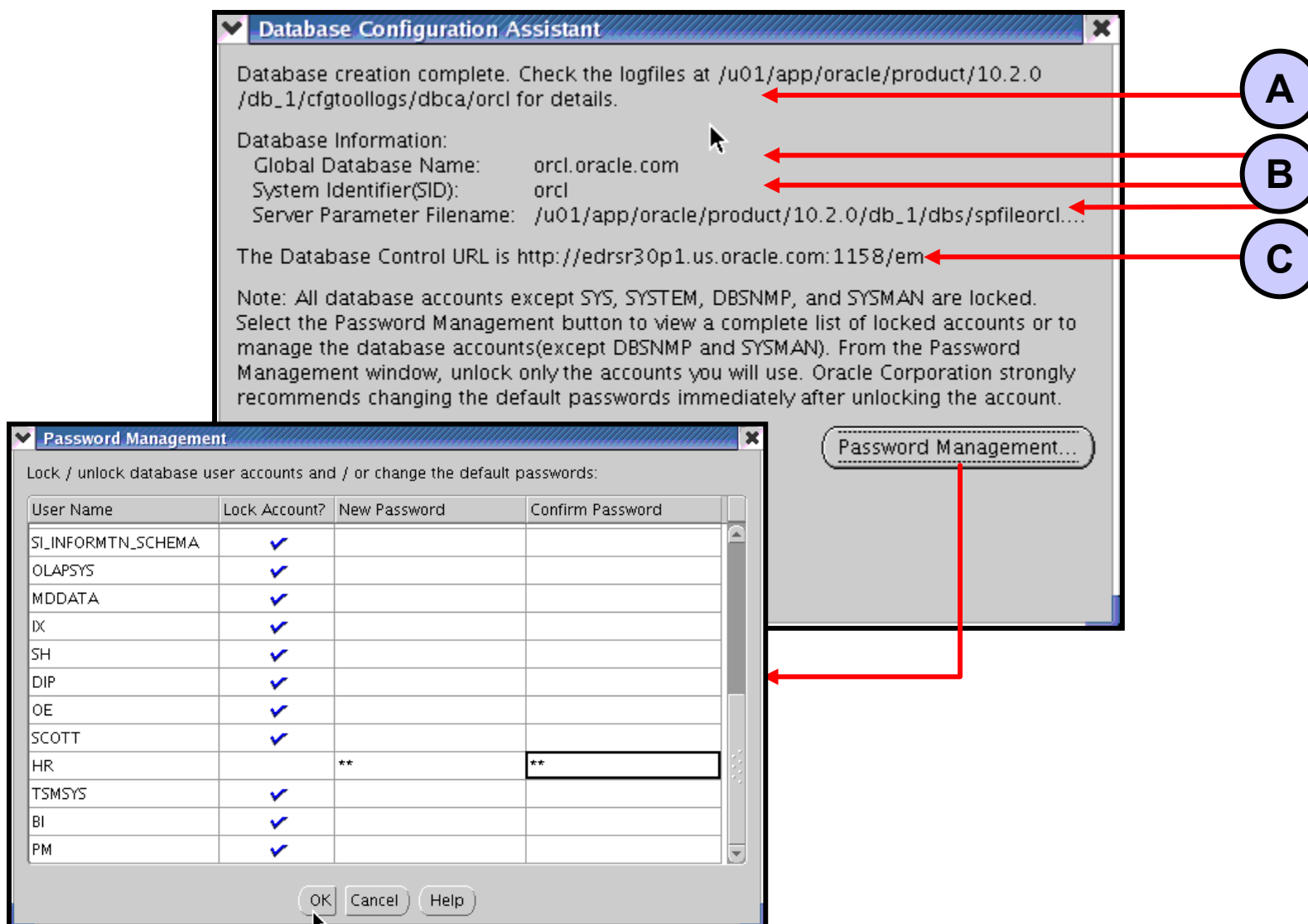
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Password Management



Creating a Database Design Template

Database Configuration Assistant, Step 2 of 5 : Template Management

Select the template management operation you want to perform:

- ☒ Create a database template
 - ☐ From an existing template
 - ☒ From an existing database (structure only)

The template will contain structural information about the source database including database options, tablespaces, datafiles, and initialization parameters specified in the source database. User defined schemas and their data will not be part of the created template.
 - ☐ From an existing database (structure as well as data)

The template will contain the structural information as well as physical datafiles specified in the source database. Databases created using such a template will be identical to the source database. User defined schemas and their data will be part of the template.
- ☐ Delete a database template

Choose a database from which you want to create the template. The database may be local or reside on a remote machine.

Specify a user with DBA role

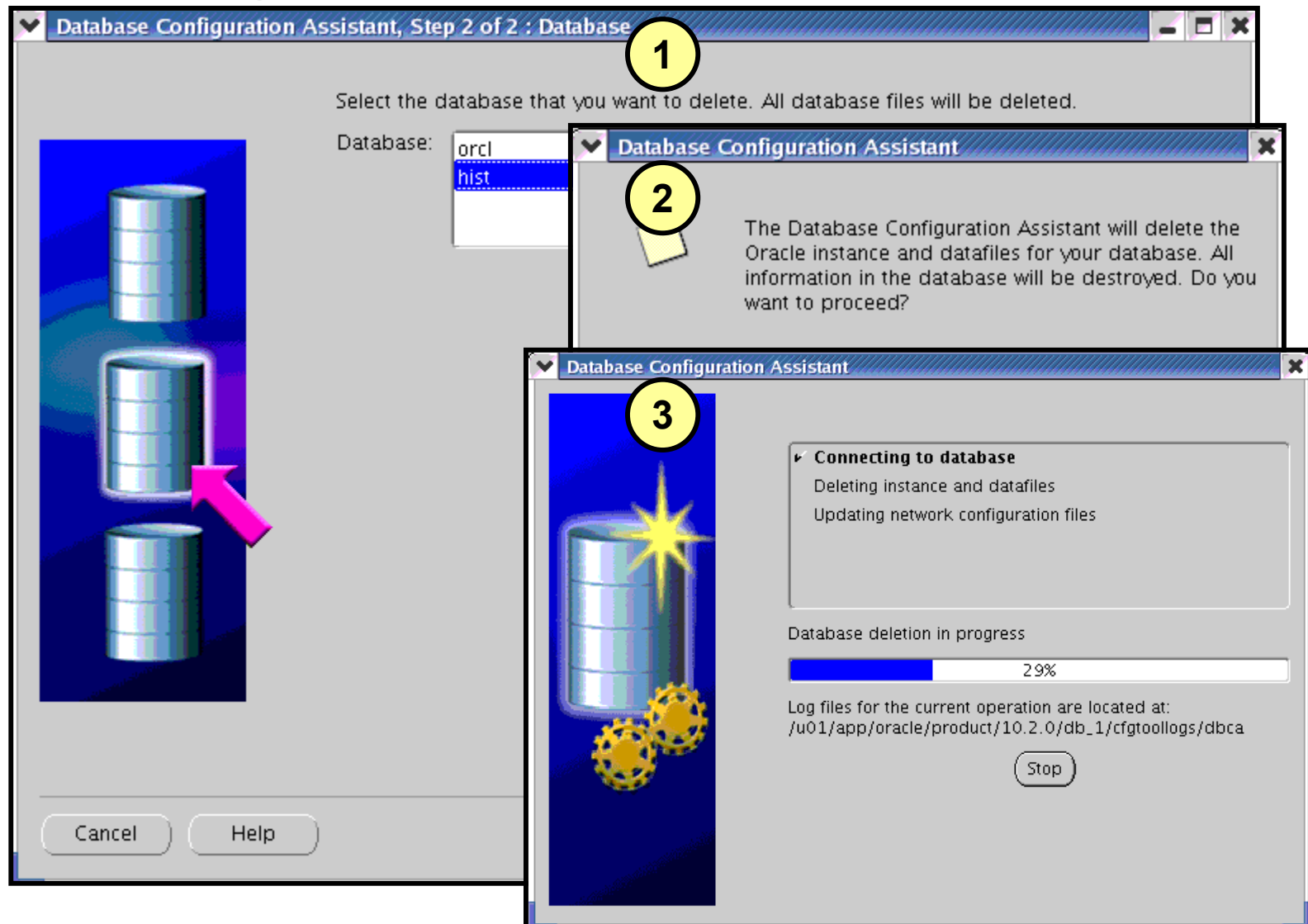
Username:

Password:

Service:

Tip: If your Oracle Net service is not configured for this Oracle home, the service may be specified using the form <host>:<port>:<sid>. For example: orange:1521:orcl

Using the DBCA to Delete a Database



Summary

In this lesson, you should have learned how to use the DBCA to:

- **Create a database**
- **Create a database design template**
- **Generate database creation scripts**

Practice Overview: Using the DBCA

This practice covers the following topics:

- **Creating the ORCL database by using the DBCA**
- **Unlocking the HR schema**

Note: Completing the database creation and unlocking the HR schema is critical for all following practice sessions.

Optionally:

- **Creating the ORCL database design template by using the DBCA**
- **Creating database creation scripts with the DBCA**