What Cloning is

SnapManager Oracle

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You can clone a database to create an exact replica of the original database. You can create the clone from a full backup or from the current state of the database.

Some of the advantages of creating a clone by using SnapManager are as follows:

Advantages	Details
Speed	The SnapManager clone operation uses the FlexClone feature available with Data ONTAP. This enables you to quickly clone large data volumes.
Space efficiency	When you create a clone by using SnapManager, space is needed only for the changes between the backup and the clone. A SnapManager clone is a writable Snapshot copy of the original database and can grow as needed. In contrast, a physical clone of the database requires that you have enough space available to copy the entire database.
Virtual copy	You can use the cloned database as if it were the original database. For example, you can use a clone for testing, platform and update checks, multiple simulations against a large data set, and remote office testing and staging. Changes to the clone do not affect the original database. After the database is cloned, the cloned database is fully operational.
Simplicity	You can clone a database to any host by using SnapManager commands.

You must ensure that the following prerequisites are met before a database can be cloned:

- Delete the spfile<SID>.ora file from $ORACLE_HOME\database.
- Delete the init<SID>.ora file from $ORACLE_HOME\database.
- Delete Oracle dump destinations that are specified in the clone specification file.
- Delete the Oracle control files that are specified in the clone specification file.
- Delete the Oracle redo log files that are specified in the clone specification file.

You must give the clone a new system identifier. You cannot simultaneously run two databases with the same system identifier on the same host. You can have a clone on a different host using the same system identifier. You can either give the clone a label or let SnapManager create a label by using the system identifier, date, and time the clone was created.

When you enter a label, you should not include spaces or special characters.

As part of the cloning process, SnapManager creates the necessary Oracle files and parameters for the cloned database. An example of a necessary Oracle file is init<SID>.ora.

When you clone a database, SnapManager creates a new init<SID>.ora file for the database in the $ORACLE_HOME\database directory.

When SnapManager clones the storage for a database, it also creates a new file system mountpoint, but does not change the directory structure under the mountpoint from the SnapManager CLI. However, from the SnapManager GUI, you can change the directory structure and the metadata of the file system.

You can clone a database backup to the host in which the database resides or to an alternate host.

If the database you cloned was using a spfile, SnapManager creates an spfile for the clone. It places this file in the $ORACLE_HOME\database directory and creates the directory structure for the diagnostic files. The file name is spfile <SID>.ora.