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Cadangan Basis Data

Tujuan

Setelah menyelesaikan pelajaran ini Anda harus dapat melakukan hal berikut:

- **Buat cadangan basis data yang konsisten**
- **Cadangkan basis data Anda tanpa memamatikannya**
- **Buat cadangan tambahan**
- **Otomatiskan pencadangan basis data**
- **Pantau area pemulihan flash**

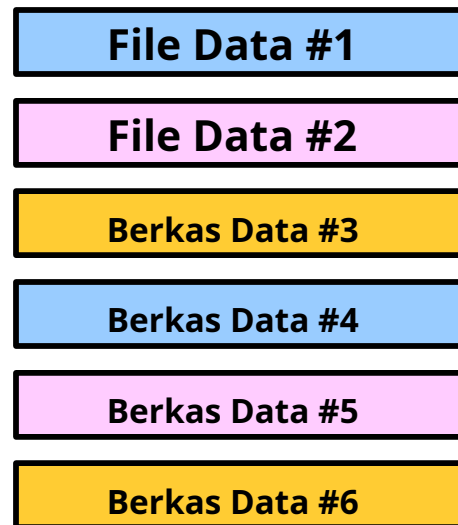
Terminologi

- Strategi pencadangan dapat mencakup:
 - Seluruh database (keseluruhan)
 - Sebagian dari database (sebagian)
- Jenis cadangan mungkin:
 - Semua informasi dari semua file data (penuh)
 - Hanya informasi yang telah berubah sejak beberapa pencadangan sebelumnya (tambahan)
- Mode pencadangan mungkin:
 - Offline (konsisten, dingin)
 - Online (tidak konsisten, panas)

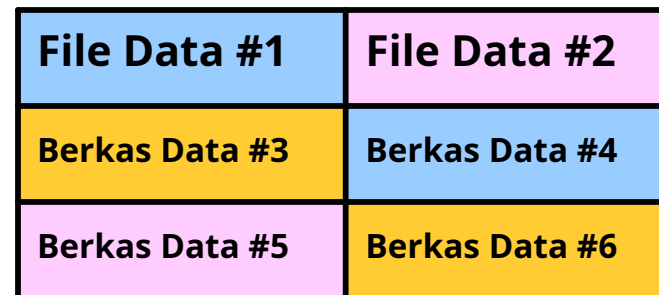


Terminologi

- Cadangan dapat disimpan sebagai:
 - Salinan gambar
 - Set cadangan



Salinan gambar



Kumpulan cadangan

Manajer Pemulihan (RMAN)

Enterprise Manager menggunakan Recovery Manager (RMAN) untuk melakukan operasi pencadangan dan pemulihan.

- **Klien baris perintah untuk fungsi lanjutan**
- **Kontrol yang kuat dan bahasa scripting**
- API yang diterbitkan yang memungkinkan antarmuka dengan perangkat lunak pencadangan paling populer
- **Mencadangkan data, kontrol, log yang diarsipkan, dan file parameter server**
- **Mencadangkan file ke disk atau tape**

Mengonfigurasi Pengaturan Cadangan

Configure Backup Settings

Device [Backup Set](#) [Policy](#)

Disk Settings

Parallelism

Concurrent streams to disk drives

Test Disk Backup

Disk Backup Location

An existing directory or diskgroup name where database files will be backed up. If you do not specify a location, database files will be backed up to the flash recovery area location.

Disk Backup Type ☒ Backup Set

An Oracle proprietary format which has to be restored before use.

☐ Compressed Backup Set

An Oracle proprietary format in compressed format which has to be restored before use.

☐ Image Copy

A bit-by-bit copy of database files that can be used as-is to perform recovery.

Host Credentials

To save the backup settings, supply operating system login credentials.

* Username

* Password

☒ Save as Preferred Credential

Mengonfigurasi Pengaturan Cadangan

Backup Policy

☐ Automatically backup the control file and server parameter file (SPFILE) with every backup and database structural change

Autobackup Disk Location
An existing directory or diskgroup name where the control file and server parameter file will be backed up. If you do not specify a location, the files will be backed up to the flash recovery area location.

☐ Optimize the whole database backup by skipping unchanged files such as read-only and offline datafiles that have been backed up

☐ Enable block change tracking for faster incremental backups

Block Change Tracking File
Specify a location and file, otherwise an Oracle managed file will be created in the database area.

Tablespaces Excluded From Whole Database Backup

Populate this table with the tablespaces you want to exclude from a whole database backup. Use the Add button to add tablespaces to this table.

Add

Select	Tablespace Name	Tablespace Number	Status	Contents
<input type="checkbox"/>	No Items Selected			

☒ **TIP** These tablespaces can be backed up separately using tablespace backup.

Retention Policy

☐ Retain All Backups
You must manually delete any backups

☐ Retain backups that are necessary for a recovery to any time within the specified number of days (point-in-time recovery)

Days
Recovery Window

☒ Retain at least the specified number of full backups for each datafile

Backups
Redundancy

Penjadwalan Pencadangan: Strategi

Pilih cadangan basis data keseluruhan atau sebagian.

Schedule Backup: Strategy

Based on your disk and/or tape configuration, Oracle provides an automated backup strategy, or you can develop your own backup strategy with customized options.

Backup Strategy Customized

Object Type

- ☒ Whole Database
- ☐ Tablespaces
- ☐ Datafiles
- ☐ Archivelogs
- ☐ All Recovery Files on Disk

These files include all archivelogs and disk backups that are not already backed up to tape

Host Credentials

To perform a backup, supply operating system login credentials.

* Username

* Password

☒ Save as Preferred Credential

Cancel Continue

Backup Strategies

Oracle-suggested:

- Provides an out-of-the-box backup strategy based on the backup destination. Options may vary based on the database version.
- Sets up recovery window for backup management
- Automates backup management
- Schedules recurring backups

Customized:

- Specify the objects to be backed up
- Choose a disk or tape backup destination
- Override the default backup settings
- Schedule the backup

ORACLE

Penjadwalan Pencadangan: Opsi

Backup Strategy	Customized
Object Type	Whole Database

Backup Type

☒ Full Backup

☐ Use as the base of an incremental backup strategy

☐ Incremental Backup (Level 1)
Level 1 incremental backup includes all the changed blocks since the most recent level 0 backup (cumulative).

☐ Refresh the latest datafile copy on disk to the current time using the incremental backup

Backup Mode

☒ Online Backup
The backup can be performed when the database is OPEN.

☐ Offline Backup
If the database is OPEN at the time of backup, the database will be shut down and mounted before the backup. The database will be opened after the backup.

Advanced

☒ Back up all archived logs on disk

☐ Delete all archived logs from disk after they are successfully backed up

☐ Use proxy copy supported by media management software to perform a backup
If proxy copy of the selected files is not supported, Recovery Manager will perform a conventional backup.

☐ Delete obsolete backups
Delete backups that are no longer needed to satisfy the retention policy.

Maximum Files per Backup Set
The maximum number of input files in each backup set.

Penjadwalan Pencadangan: Pengaturan

Options Settings Schedule Review

Schedule Backup: Settings

Cancel Back Step 2 of 4 Next

Database **orcl**
Backup Strategy **Customized**
Object Type **Whole Database**

Here are the settings for your current backup job. You can select your backup destination directly from this page. You can also view the default settings or override the settings by clicking the buttons below.

☒ Disk
Flash Recovery Area **/oracle/flash_recovery_area/**

☐ Tape
Media Management Vendor(MMV) Library Parameters **not specified**

View Default Settings Override Current Settings

Changed settings will only apply to the current backup.

Pengaturan konfigurasi pencadangan persisten dapat diganti untuk pencadangan ini dengan mengeklik Ganti Pengaturan Saat Ini.

Penjadwalan Pencadangan: Jadwal

Schedule Backup: Schedule

CancelBackStep 3 of 4Next

Database orcl.oracle.com
Backup Strategy Customized
Object Type Whole Database

Job

* Job Name BACKUP_ORCL.Oracle.COM_000
Job Description Whole Database Backup

Schedule

Time Zone GMT -7:00

Start

☒ Immediately
☐ Later
Date Feb 16, 2004
(example: Feb 16, 2004)
Time 2 00 ☒ AM ☐ PM

Repeat

☒ One Time Only
☐ Interval
Frequency 1 Minutes
☐ Monthly
☐ Yearly

Repeat Until

☒ Indefinite
☐ Custom
Date Feb 16, 2004
(example: Feb 16, 2004)
Time 8 15 ☐ AM ☒ PM
(Ignored except when repeating by minutes or hours.)

Penjadwalan Pencadangan: Tinjau

Schedule Backup: Review

[Cancel](#) [Edit RMAN Script](#) [Back](#) [Step 4 of 4](#) [Submit Job](#)

Database	orcl
Backup Strategy	Customized
Object Type	Whole Database
Backup Type	Full Backup
Backup Mode	Online Backup

[Settings](#)

Flash Recovery Area /oracle/flash_recovery_area/

Review: Edit RMAN Script

[Cancel](#) [Submit Job](#)

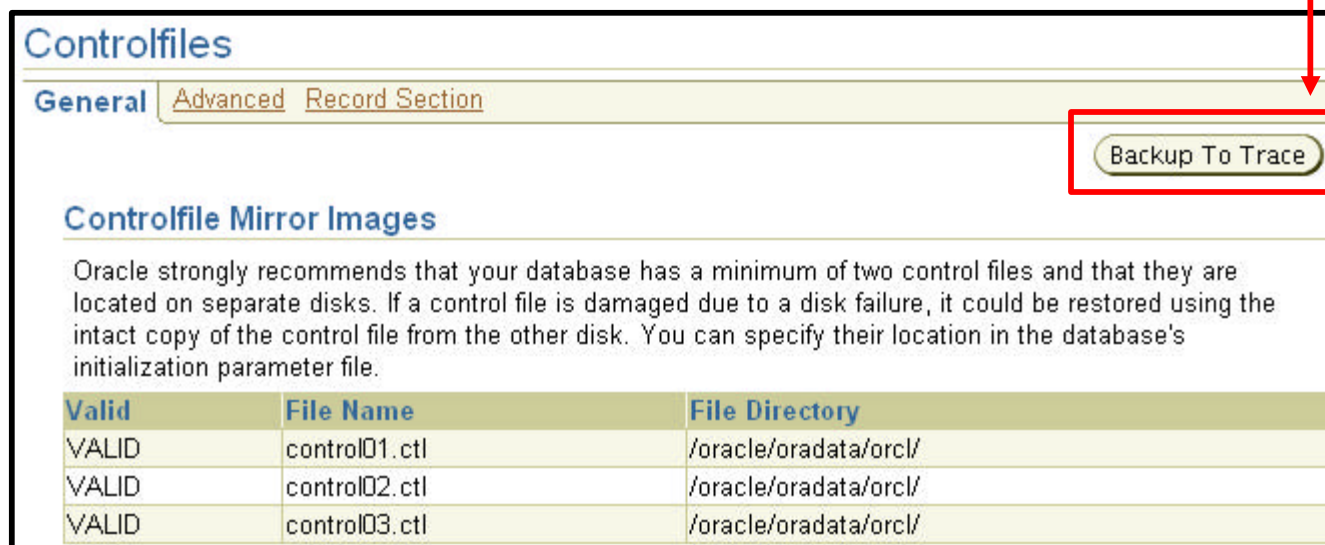
You can modify the RMAN script before submitting it. However, you will not be able to go back to previous wizard pages if you modify the script.

```
backup device type disk tag '%TAG' database include current controlfile;  
backup device type disk tag '%TAG' archivelog all;
```

Klik Edit RMAN Script untuk meninjau perintah RMAN.

Cadangkan File Kontrol untuk Dilacak

File kontrol memiliki opsi cadangan tambahan.



Controlfiles

[General](#) [Advanced](#) [Record Section](#)

Backup To Trace

Controlfile Mirror Images

Oracle strongly recommends that your database has a minimum of two control files and that they are located on separate disks. If a control file is damaged due to a disk failure, it could be restored using the intact copy of the control file from the other disk. You can specify their location in the database's initialization parameter file.

Valid	File Name	File Directory
VALID	control01.ctl	/oracle/oradata/orcl/
VALID	control02.ctl	/oracle/oradata/orcl/
VALID	control03.ctl	/oracle/oradata/orcl/

Cadangan jejak file kontrol dapat digunakan untuk memulihkan dari hilangnya semua file kontrol.

Kelola Cadangan

Manage Current Backups

Catalog Additional FilesCrosscheck AllDelete All ObsoleteDelete All Expired

This backup data was retrieved from the database control file.

Backup SetsImage Copies

Search

StatusAvailable

Contents☒ Datafile☒ Archived Redo Log☒ SPFILE☒ Control File

Completion TimeWithin a monthGO

Results

CrosscheckChange to UnavailableDelete

Select All | Select None

Select	Key	Tag	Completion Time	Contents	Device Type	Status	Obsolete	Keep	Pieces
<input type="checkbox"/>	3	BACKUP_ORCL_000006_120303103223	Dec 3, 2003 10:48:48 AM	ARCHIVED LOG	DISK	AVAILABLE	NO	NO	1
<input type="checkbox"/>	2	BACKUP_ORCL_000006_120303103223	Dec 3, 2003 10:41:41 AM	DATAFILE, SPFILE, CONTROLFILE	DISK	AVAILABLE	NO	NO	1

Klik Edit RMAN Script untuk meninjau perintah RMAN.

Area Pemulihan Flash

Pantau Area Pemulihan Flash

- Konfigurasi pencatatan kilas balik
- Ukuran area pemulihan
- Pantau konsumsi ruang saat ini

Flash Recovery Area

It is highly recommended that you use flash recovery area to automate your disk backup management.

Flash Recovery Area Location

Flash Recovery Area Size

Flash Recovery Area Size must be set when the location is set

Used Flash Recovery Area Size (GB) 1.75

☐ Enable flashback logging for fast database point-in-time recovery*

The flash recovery area must be set to enable flashback logging. When using flashback logs, you may recover your entire database to a prior point-in-time without restoring files. Flashback is the preferred point-in-time recovery method in the recovery wizard when appropriate.

Specify how far back you wish to flash the database in the future

Flashback Retention Time

Ringkasan

Dalam pelajaran ini Anda seharusnya telah belajar bagaimana:

- **Buat cadangan basis data yang konsisten**
- **Cadangkan basis data Anda tanpa memamatkannya**
- **Buat cadangan tambahan**
- **Otomatiskan pencadangan basis data**
- **Pantau area pemulihan flash**

Latihan 19:

Cadangan Basis Data

Amalan ini mencakup hal-hal berikut:

- **Mengonfigurasi basis data Anda untuk pencadangan**
- **Mencadangkan database Anda saat database terbuka untuk aktivitas pengguna**
- **Menjadwalkan pencadangan tambahan setiap malam secara otomatis untuk database Anda**