

SQL Server Backup Types Report

1. Full Backup

When used	is the primary backup usually carried out every day or every week.
What it includes	Every piece of data and item in the database.
Pros	<ul style="list-style-type: none">• easy recovery• Independent
Cons	<ul style="list-style-type: none">• Big in dimensions• Slower to execute
Scenario	To guarantee comprehensive data recovery options, A banking system performs full backups every sunday.

2. Differential Backup

When used	To record changes in between complete backups.
What it includes	Since the last complete backup, only the data has changed.
Pros	Faster and smaller than a complete backup.
Cons	To restore the most recent complete backup is needed.
Scenario	To record the days activates without consuming a lot of data, an e-learning platform dose a differential.

3. Transaction Log Backup

When used	To record every transaction since the last log backup in the full recovery model.
What it includes	All modification made the database (transaction log).
Pros	<ul style="list-style-type: none">• point in time recovery is made possible.• Quick and compact.
Cons	To restore a complete backup and all log backups are needed.
Scenario	Ticketing system, to prevent data loss from frequent user transactions.

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4. Copy-Only Backup

When used	Ad hoc backups that don't interfere with the backup sequence.
What it includes	It does not reset the differential base; instead, it functions similarly to a complete backup.
Pros	<ul style="list-style-type: none">• Safe for manual backup.• Has no effect on the backup chain.
Cons	Unsuitable as a differential backup base.
Scenario	Before making a dangerous upgrade, a developer working on an active e-commerce database makes a copy-only backup.

5. File/Filegroup Backup

When used	When a partial backup is required for extremely big databases.
What it includes	a specific file or filegroup.
Pros	<ul style="list-style-type: none">• effective with big databases.• cuts down on backup time.
Cons	intricate process of rehabilitation.
Scenario	A video streaming service backs up distinct regions and saves them in distinct filegroups.