Microsoft SQL Server Key Terms

https://campus.barracuda.com/doc/44436887/

The following tables describe Microsoft SQL server key terms.

Table 1. Microsoft SQL Server Terminology.

Term	Description
Recovery Point Objective	The maximum acceptable amount of data (time period) that can be lost in the event of an incident, that is, is it acceptable to recover back to the backup from the previous night or do you need to recover back no later than 15 minutes prior to the failure?
Transaction Logs	Per database log that records all transactions and database modifications made by each transaction. These are used to roll back changes as well as recover to a precise point in the case of a restore.
Simple Recovery Model	Setting made per database within SQL. When a database is in Simple Recovery Model, transaction logs are automatically truncated/reclaimed to keep logs small but prevents Transaction Log backups. This means the database can only be recovered back to the time of the last Full or Differential backup.
Full Recovery Model	Setting made per database within SQL. When a database is in Full Recovery Model, transaction logs are maintained by the database and only truncated/reclaimed when a Transaction Log backup is performed. This means the database can be recovered back to any point in time covered by the backed up transaction logs.
Full Database Backup	Backup of the entire database. Full database backups represent the database at the time the backup finished.
Transaction Log / Incremental Database Backup	Backup of the transaction logs since the last transaction log backup and truncates those logs preventing them from continuing to grow and consume disk space.
Differential Database Backup	Backup of the data that has changed since the last full backup. A differential backup is completely independent of the transaction logs.
Log Truncation	When a database is set to Full Recovery Model, SQL stores all transactions performed on the database in a log. Log Truncation is the process of marking a set of transactions as backed up and no longer needed so the space can be reclaimed and reused for other transactions. This is a crucial process to ensure the transaction log does not continue to grow and consume too much disk space.

Maintenance Plan	Maintenance plans can be created directly in Microsoft SQL for running regularly scheduled flat file backups and other maintenance on databases. It is important to know if there are already maintenance plans in place before configuring another type of database backup, such as the Barracuda Agent backup as they can interfere with one another likely causing failed or corrupt backups.

Table 2. Microsoft SQL File Extensions.

File Extension	Description
.mdf	Primary active database file which contains the schema and data.
.ldf	Current active logs.
.bak	Typical extension used for a Full Database flat file backup.
.trn	Typical extension used for a Transaction Log flat file backup.