**Back Up Procedure:**

In the Grandfather-Father-Son backup procedure, several backups are stored over time to achieve an up-to-date version is always available. The son represents the daily backup, the father the weekly backup and the grandfather the monthly backup. Over time, the son becomes the father and eventually the father becomes the grandfather. This ensures fast recovery and longer-term archival at the same time. The risk of critical data losses is mitigated, resulting in regulatory compliance. By this tiered, rotational system, reducing the frequency of full backups while ensuring redundancy and data recovery options, the Grandfather-Father-Son backup procedure makes back-ups of large databases less resource heavy. [Nheu, 2024]

However, there are also other options for data backups that have their own advantages. Following Acronis (2023), differential backups profit from faster recovery times due to reduced complexity during recovery. IBM (2023) shows that the incremental forever backup strategy has more efficient storage and backup speed. Thus, many alternatives with unique advantages must be considered for any given use case.

**References:**

Acronis (2023) What is the difference between incremental, differential and full backup? Available from: <https://www.acronis.com/en-us/blog/posts/incremental-differential-backups/> [Accessed 15. October 2024]

IBM (2023) Incremental forever backup strategy. Available from: <https://www.ibm.com/docs/en/tsm/7.1.0?topic=vms-incremental-forever-backup-strategy> [Accessed 15. October 2024]

Nheu (2024) *The Grandfather-Father-Son Backup Scheme Explained.* BackupAssist. Available from: <https://www.backupassist.com/blog/the-grandfather-father-son-backup-scheme-explained> [Accessed 15. October 2024]