



GLOSSARY OF SAP HANA ADMIN

A Quick Reference Guide to SAP Terminologies

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Concept/Term	Definition
SAP HANA	An in-memory, column-oriented relational database from SAP. Supports real-time analytics and high-speed transactions.
HANA Studio	Eclipse-based administration and development tool for SAP HANA. Used for modeling, user management, and monitoring.
SAP HANA Cockpit	A web-based interface for administering and monitoring SAP HANA systems. Offers dashboards and tools for real-time insights.
Tenant Database	An isolated database within a multi-tenant SAP HANA system. Allows multiple databases on a single HANA instance.
System Database	The central control database in a multi-tenant HANA system. Manages and monitors tenant databases.

Concept/Term	Definition
Multi-Tenant Database Container (MDC)	Architecture allowing multiple tenant databases in one SAP HANA system. Provides isolation and efficient resource use.
HANA DB Lifecycle Manager (HDBLCM)	A tool for installing, updating, and managing SAP HANA components. Supports command line and GUI options.
SQL Console	A feature within HANA Studio or Cockpit for executing SQL queries directly against HANA databases.
Backup Catalog	A record of all backups taken in HANA. Used for tracking and restoring data as needed.
Full Backup	A complete backup of the SAP HANA database. Forms the baseline for recovery scenarios.

Concept/Term	Definition
Delta Backup	Captures only the changes since the last full or delta backup. Faster and space-efficient.
Log Backup	Saves redo logs for point-in-time recovery. Continuous log backups are essential for data integrity.
Point-in-Time Recovery	Allows restoring a database to a specific moment by using backups and logs. Useful in disaster recovery.
Persistence Layer	The component responsible for saving data from memory to disk. Ensures durability and consistency.
Savepoint	A mechanism where all changed data is written from memory to disk periodically. Supports recovery.

Concept/Term	Definition
Redo Log	Logs all committed changes in HANA. Used for recovery along with savepoints.
HANA Services	Logical units in the HANA system (e.g., indexserver, nameserver). Each handles specific tasks.
Indexserver	The core SAP HANA service managing SQL processing, transactions, and data persistence.
Nameserver	Manages system landscape information and routing. Crucial in multi-tenant and distributed systems.
Preprocessor Server	Supports text analysis and search features in HANA. Works alongside the indexserver.

Concept/Term	Definition
XS Engine	A lightweight application server built into HANA. Hosts and executes SAP Fiori and XS-based applications.
HANA Studio Administrator Perspective	The view in HANA Studio used by administrators to manage backups, users, roles, and monitoring.
System Replication	High availability feature in HANA that replicates data from primary to secondary systems.
Failover	The automatic or manual switch to a secondary HANA system during primary system failure.
Host Auto-Failover	Transfers workload from a failed node to a standby host. Helps ensure continuous system availability.

Concept/Term	Definition
Storage Snapshot	A snapshot of data volumes at a given point. Used for backup and restore without stopping the system.
Disk-Based Monitoring	Observes disk usage, I/O performance, and data volume trends. Crucial for capacity planning.
Memory Management	Manages the in-memory footprint of HANA. Controls data loading, unloading, and garbage collection.
Table Partitioning	Splits large tables across multiple partitions for parallel processing and improved performance.
Column Store	Stores data in columns instead of rows. Optimized for compression and analytical queries.

Concept/Term	Definition
Row Store	Stores data in rows. Ideal for transactional workloads with frequent single-row access.
Compression	Reduces memory footprint by storing data efficiently. Enhances HANA's in-memory performance.
Resource Allocation	Distributes CPU, memory, and disk among services or tenants. Ensures optimized performance.
Workload Management	Configures priorities and limits for different users or applications. Ensures fair resource usage.
Load Monitoring	Tracks active sessions, memory usage, and CPU load. Identifies bottlenecks and system strain.

Concept/Term	Definition
Alerts in HANA	Predefined thresholds that trigger notifications for performance, memory, or disk issues.
Performance Trace	Logs detailed runtime activity. Used for diagnosing performance problems in queries or procedures.
Expensive Statement Trace	Captures long-running or resource-heavy SQL statements. Helps optimize slow queries.
SQL Plan Cache	Stores query execution plans for reuse. Improves performance by avoiding repeated compilation.
Plan Visualizer	Graphically shows the execution plan of a SQL query. Helps understand performance and join logic.

Concept/Term	Definition
Audit Logging	Captures security-relevant events like logins, role changes, and system access. Supports compliance.
User and Role Management	Handles creation, modification, and authorization of users. Follows role-based access control (RBAC).
Role-Based Security	Users are granted permissions based on roles. Enhances security and simplifies access control.
Authentication Methods	Includes user/password, SAML, Kerberos, and X.509 certificates. Used to verify user identities.
Authorizations	Control what actions users can perform. Defined via roles, privileges, and grants.

Concept/Term	Definition
Backup Configuration File	Defines settings for automated backups. Includes location, type, and retention policy.
SQLScript	SAP HANA's procedural extension to SQL. Used to build complex logic inside the database.
Table Load/Unload	Determines whether tables are kept in memory. Important for optimizing memory usage.
Data Volume	Physical storage location of data in HANA. Includes column-store and row-store data.
Log Volume	Storage area for HANA logs. Critical for database recovery and write operations.