https://www.sqldbachamps.com

Praveen Madupu +91 98661 30093
Sr SQL Server DBA, Dubai
praveensqldba12@gmail.com

SQL Server Database Administration 1-Day Webinar (PAID)

Date: 22nd March, 2025 (Saturday)

In this 1-day webinar we will cover SQL Server Database Administration topics designed to provide comprehensive insights into foundational topics required for DBAs. It will offer both theoretical knowledge and hands-on examples.

Below is the proposed agenda for the **SQL Server Database Administration Paid Webinar.**

Webinar Overview:

- **Duration**: 8 hours (including breaks)

- **Target Audience**: Freshers, Junior Database Administrators (DBAs) and anyone interested in gaining fundamental knowledge of SQL Server Administration, High Availability, and Disaster Recovery solutions.
- **Format**: Presentation + Demonstrations + Q&A sessions

Time Slot	Topic	Description
9:00 AM – 9:30 AM	Introduction & Overview of SQL Server Administration	Overview of SQL Server, Roles & Responsibities of a DBA, Importance of SQL Server Administration and SQL Server Architecture
9:30 AM – 10:30 AM	SQL Server Installation & Configuration	- Standalone Installation: SQL Server setup, basic configuration steps. - SQL Clustered Installation: Setting up SQL Server in a failover cluster. - SQL AlwaysOn: Introduction to AlwaysOn Availability Groups, configuration steps, and considerations.
10:30 AM – 10:45 AM	**Break**	**Break**
10:45 AM – 11:45 AM	DB Recovery Models, Backups & Restores	- Understanding Recovery Models (Simple, Full, and Bulk-Logged). - Backup Strategies: Full, Differential, and Transaction Log backups. - Restores: Restoring databases, Point-in-Time recovery, restoring with backups.
11:45 AM – 12:45 PM	SQL Server Security	- SQL Server Authentication: Windows Authentication vs SQL Authentication. - Managing Logins, Users, and Roles. - SQL Server Permissions: Security best practices for securing databases. - Data Encryption and Auditing for compliance

Praveen Madupu +91 98661 30093
Sr SQL Server DBA, Dubai
praveensqldba12@gmail.com

12:45 PM – 1:30 PM	**Lunch Break**	**Lunch Break**
1:30 PM – 2:30 PM	DB Maintenance Plans (Native & 3rd Party)	- Introduction to SQL Server Maintenance Plans (automating backup, index rebuild, etc.). - Third-party tools for database maintenance (e.g., Redgate, ApexSQL). - How to set up and schedule tasks for database integrity checks, backup jobs, index optimization.
2:30 PM – 3:30 PM	High Availability & Disaster Recovery (HADR): Setup & Configuration	- Log Shipping: Setup, configuration, and considerations for SQL Server Log Shipping. - Database Mirroring: Full vs High-Safety Mode, setup steps, and failover process. - SQL Failover Clustering: Active/Passive vs Active/Active configurations and the steps for setting up SQL Server Failover Clustering. - SQL AlwaysOn Availability Groups: Setup and configuration for Standalone & FCI (Failover Cluster Instances), failover strategies, and use cases.
3:30 PM – 3:45 PM	**Break**	**Break**
3:45 PM – 4:45 PM	SQL Server Migrations & In-place Upgradations	- In-Place Upgrades: Upgrading SQL Server versions and compatibility considerations. - Database Migrations: Moving databases across servers (e.g., side-by-side migration, data migration strategies, and tools). - Best practices for pre-migration checks and post-migration testing.
4:45 PM – 5:30 PM	SQL Server & Database Troubleshooting	- Troubleshooting common SQL Server errors (deadlocks, timeouts, corruption, etc.). - Performance Monitoring: Using DMVs, SQL Profiler, Extended Events. - Query Optimization: Identifying slow queries, examining execution plans, and indexing strategies.
5:30 PM – 6:00 PM	Q&A & Wrap-Up	Open floor for questions and discussion on the topics covered throughout the day. Provide attendees with resources and further learning material.

Praveen Madupu +91 98661 30093
Sr SQL Server DBA, Dubai
praveensqldba12@gmail.com

Topic Breakdown:

1. SQL Server Installation & Configuration:

- **Standalone Installation**: The process for setting up SQL Server on a single server instance. Includes setting configurations, service accounts, and ensuring the server meets hardware/software requirements.
- **SQL Clustered Installation**: Discusses how to install and configure a SQL Server instance within a failover cluster, ensuring high availability for mission-critical applications.
- **SQL AlwaysOn**: Learn about AlwaysOn Availability Groups, both standalone and in an FCI (Failover Cluster Instance) setup, as well as their benefits in terms of high availability and disaster recovery.

2. DB Recovery Models, Backups & Restores:

- Understand the differences in **SQL Server Recovery Models** and how to configure them for various needs.
- Best practices for **backups**: Types of backups, backup strategies, and how to restore databases for disaster recovery or point-in-time restoration.
- **Transaction Log backups** and their significance for point-in-time recovery.

3. SQL Server Security:

- Configuring security at the server level with **logins, users, and roles**.
- Implementing **Data Encryption** (TDE) to protect sensitive data at rest and in transit.
- **SQL Server Auditing** to ensure compliance with internal and external regulations.

4. DB Maintenance Plans (Native & 3rd Party):

- **Native Maintenance Plans** in SQL Server to automate routine maintenance tasks such as index optimization, integrity checks, backups, and more.
- Explore **third-party Scripts (Ola Hallengren) and Tools** (Redgate, LiteSpeed etc.) for enhanced database maintenance capabilities and extended functionality.

5. High Availability & Disaster Recovery:

- **Log Shipping**: Simple and cost-effective DR solution, understanding primary and secondary server roles, and configuring the process.

Praveen Madupu +91 98661 30093
Sr SQL Server DBA, Dubai
praveensqldba12@gmail.com

- **Database Mirroring**: Key concepts behind database mirroring, including synchronous vs. asynchronous mirroring and failover strategies.
- **Failover Clustering**: The importance of setting up an active/passive or active/active SQL Server cluster to ensure high availability.
- **SQL AlwaysOn**: Detailed configuration steps for SQL Server AlwaysOn Availability Groups on Stand Alone and AlwaysOn Failover Cluster Instances (FCI), and how they help with both high availability and disaster recovery.

6. SQL Server Migrations & In-Place Upgrades:

- Guidance on **upgrading SQL Server** to a newer version, including preparing for in-place upgrades.
- **Migration tools**: How to migrate databases to a new server or environment (e.g., using Backup/Restore, Copy Database Wizard, Detach & Attach, DMA (DB Migration Assistant Tool).
- Best practices to avoid issues during **migration**, including compatibility levels, feature deprecation, and testing.

7. SQL Server Troubleshooting:

- Common **SQL Server errors** and how to troubleshoot them, including Connectivity Issues, Memory issues, disk space issues, and SQL Server Agent problems.
- Using tools like **SQL Profiler** and **Extended Events** to diagnose query performance, locking issues, and deadlocks.
- **Query optimization**: How to analyze and optimize slow-running queries using execution plans, indexes, and proper T-SQL coding practices.

Post-Webinar Resources:

- **Recording**: Access to the full webinar recording.
- **Handouts/Materials**: Slides, documentation, and scripts shared with attendees.

https://docs.google.com/spreadsheets/d/1qpwGQlq8u-MkiYi9B0BrdTb6NePZBK8KLyR0R8S7AGA/edit?gid=0#gid=0