

# M/S SQL SERVER DBA

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**Duration: 60 Hours**

**Prerequisites**

- Knowledge of Basic DBMS

**Course Content**

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**1. Introduction To Database Management Systems And Databases**

- What are a database and a database management system (DBMS?)
- Introduction to Microsoft SQL Server and its overall SQL Server Data Platform
- History and Current trends of DBMS and Database Administration
- Tasks of a Database Administrator

**2. SQL Server 2012 Installation.**

- Editions of SQL Server 2012
- Editions of SQL Server 2012
- Hardware and Software pre-requisite for a successful SQL Server installation
- Understanding SQL Server components
- Perform a successful SQL Server 2012 installation

**3. SQL Server 2012 Administration and Development Tools**

- Using SQL Server Management Studio (SSMS)
- Using SQL Server Command Line interface
- Using SQL Server Configuration Manager

**4. SQL Server 2012 Architecture.**

- Understanding SQL Server system databases.
- Understanding the SQL Server database structure.
- SQL Server files and filegroups.
- SQL Server Transactional logs.
- What is the difference between SQL Server instance and database
- Client-Server Communication
- Attaching and detaching SQL Server databases.

**5. SQL Server Database objects**

- Understanding Schemas
- Understanding SQL Server data types
- Understanding column properties
- Creating tables, altering tables and adding constraints, relationships
- Understanding the filetable
- Creating database diagrams

**6. SQL Server Backup and Recovery**

- Introduction to Backup and Recovery strategy for databases
- Full Database backups using SIMPLE Recovery Model
- Full Database and Transactional log backups with FULL Recovery Model
- Backup history and maintenance
- Designing Maintenance plans for Backup Tasks
- SQL Server Agent for scheduling backups
- Database Mail for email notifications to DBAs

**7. SQL Server Data Export and Import (Data Movement)**

- Partial Data export and import using the command line tools
- Partial Data export and import using GUI tools – Export and Import Wizard

**8. SQL Server security**

- SQL Server authentication vs. Windows authentication
- Auditing database logins using SQL Server Error Logging
- SQL Server server-wide logins and database specific users
- Creating user-defined server roles

**9. Performance Tuning**

- Understanding database indexes
- Understanding SQL Server Profiler
- Creating Traces
- Database Mirroring (Advance)(Overview)