



Course Brochure

SQL Server DBA

Overview

• Course is designed in such a manner that you can get good scenario based and hands on training towards administration. Audience gets complete knowledge on physical architecture of database, memory architecture, SQL Server architecture, database engine architecture. Complete discussion of Backup and Restoration, Replication, Security, Log Shipping, Database Mirroring. Complete knowledge on database mail, configuring linked servers, locks, deadlocks, resolving blocking etc. **Introduction to SSIS, SSRS.**

Pre-requisites

• Basic knowledge of Microsoft Windows operating system i.e. creating users, groups etc. Good knowledge of Transact-SQL and relational databases. Installing active directory and users is added advantage.

Applications

COURSE CONTENTS

Introduction to DBA

- ❖ Database Environment
- ❖ DBA Types
- ❖ DBA Responsibilities

SQL Server Installation

- ❖ Versions and features of SQL Server
- ❖ Installation Strategy
- ❖ Type of Installation
- ❖ System Requirements
- ❖ Pre-Installation Steps
- ❖ Instance Types
- ❖ Sql Server Services
- ❖ Installation Check List Documents
- ❖ Post Installation steps

SQL Server Environment

- ❖ System Databases
- ❖ User Databases
- ❖ Database Setup
- ❖ Database Architecture
- ❖ Database Configuration
- ❖ SQL Server Architecture
- ❖ SQL Server optimized Configuration
- ❖ **SQL Power Shell Scripts**

Security in SQL Server

- ❖ Securing sql server Instances & Databases
- ❖ Types of Authentications
- ❖ Working with Permission and Roles
- ❖ Fixed Roles & Custom Roles
- ❖ Application Roles
- ❖ Schemas
- ❖ Encryption & Decryptions

Disater Recovery Planning

- ❖ Database Recovery models
- ❖ Backup Strategies
- ❖ Recovery Planning
- ❖ Migrations of Databases & Servers
- ❖ Contained Database
- ❖ Maintaining Backup & Restore History

Automation

- ❖ Configuring database Mail
- ❖ Jobs
- ❖ Operators
- ❖ Alerts
- ❖ Monitoring of Automation tasks

High Availability

- ❖ Need to High Availability
- ❖ Log Shipping
- ❖ Database Mirroring
- ❖ Clustering
- ❖ Always On

Replication

- ❖ Introduction to Repilcation
- ❖ Configuring Replication (publisher, subscriber, Distributor)
- ❖ Types of Replication (snapshot, transactional, Merge, Peers-to-Peer)
- ❖ Replication Topologies
- ❖ Monitoring Replication

Monitoring The Database System

- ❖ Windows and SQL Server Event Logs
- ❖ User Activity Tracking
- ❖ Performance base Line
- ❖ CPU, RAM and I/O Utilization
- ❖ Performance Monitor

COURSE CONTENTS

- ❖ SQL Server Profiler
- ❖ Database Level Tuning
- ❖ Query /SP Tuning

- ❖ Resource Governor
- ❖ CDC (Change Data capture)
- ❖ Data Collection

DBA practical Usage Of:

- ❖ DMV and DMF
- ❖ System Stored Procedures
- ❖ System Tables and Catalog Views

Objects Level Maintenance

- ❖ Data Partitions
- ❖ Indexes fragmentation
- ❖ Statistics updation
- ❖ Consistency & Data integrity Check[DBCC]
- ❖ Copying Objects from One Server to Another Server
- ❖ Script based Backup of Objects

Upgrading To SQL Server 2012

- ❖ Upgradation Strategies
- ❖ Upgrade Advisor

Business Intelligence Administration

- ❖ Installing BI Components
- ❖ Configuration of BI
- ❖ Security in Integration, Reporting & Analysis Services

Third Party Tools

- ❖ Sql DoctorSql virtual database
- ❖ Sql admin toolset
- ❖ Sql Traffic Accelator
- ❖ Sql Diagnostic Manager