

## **SQL DBA with Azure**

Hi!

Thank you for contacting our **SQL School**. I am **Mr. Sai Phanindra**, trainer for this **SQL DBA with Azure** Course. With 19+ Years of technical expertise exclusively on SQL & Database Technologies, I assure you 100% Practical, Step by Step Classes for this DBA course. My Profile @ https://www.linkedin.com/in/saiphanindra/

#### What is SQL DBA Job Role?

Database Administrator (DBA) is responsible for Managing and Monitoring Databases in On-Premise (Non-Cloud) as well as in Azure (Cloud). This involves Tuning, Security, Migrations, Disaster Recovery, Repairs, Cloud Migrations and many more..!

#### What are the benefits of this SQL DBA Course?

This SQL DBA Training with Azure is very detailed, step by step and useful course for aspiring Database Administrators. Concept wise Examples, Interview FAQs & Answers. We make you Job Ready with on-time practice and timely assignment submissions.

This course also includes complete guidance for Microsoft Certification Exam: **DP 300** 

#### Who can join this course?

Anyone. There are NO Pre-requisites for this course. We start the classes from scratch, right from Basics.

#### What about the Lab? What are the System Requirements?

Window OS; 6 GB RAM; Any Processor. We shall guide you for Software Installation, Practice.

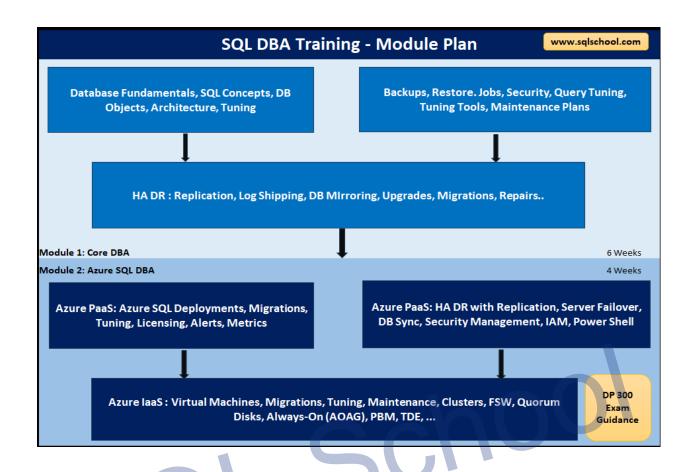
#### What about Placement Assistance?

We train you with step by step activities, concept wise FAQs and Answers. Resume Guidance and Placement Assistance part of this SQL DBA Course.

#### How to join the course?

Reach us for free demo.

Attend one LIVE (technical) class in ongoing batch just to get some idea on how our classes will be and to test the interactiveness as well as attentiveness of our classes. Then you can choose your preferred schedule to start the actual course.



### **Training Modes:**

Option 1: LIVE Online Training (100% Interactive, step by step, assignments)

Option 2: Self Paced Videos (100% practical, step by step with concept wise assignments)

You may choose any one of these options, same curriculum!!

I (Trainer) shall be available for doubts and clarifications, assignment check and review.

#### **Training Options (Plans):**

	Modules	Chapters Included	Duration	Applicable For
SQL DBA Plan A	1.Core SQL DBA	Chapters 1 to 30	6 Weeks	Applicable for Staters
SQL DBA Plan B	1. Core SQL DBA 2. Azure SQL DBA	Chapters 1 to 45	9 Weeks	Applicable for Staters, Experienced

- Every session is Practical, Step by Step with Concept wise FAQs !!
- ➤ 100% results with on-time practice. Daily Tasks for every session.
- > Concept wise tasks be submitted before next class for Job Waiters / Starters.
- Concept wise tasks due for submission by Weekends for Working Professionals.

# **SQL DBA Training : Detailed Course Curriculum**

# **Module 1: Core SQL DBA**

Ch 1: Introduction	Ch 2: Installations	Ch 3: SQL Basics - 1
✓ Database Intro & DB Types	√ SQL Server 2019, 2017	✓ Need for Databases, Tables
✓ SQL Server Advantages	✓ SSMS Tools Installation	✓ Need for SQL Commands
✓ Version, Editions of MSSQL	✓ Database Engine (OLTP)	✓ DDL, DML & DQL Statements
✓ SQL DBA Job Roles	✓ SCC, Configuration Tools	✓ Database Creation @ GUI
✓ Routine DBA Tasks	✓ Instance Types, Uses	✓ Data Operations @ GUI
✓ Emergency DBA Tasks	✓ Authentication Modes	✓ Session ID, SQL Context
✓ Maintenance DBA Tasks	✓ Collation, File Stream	✓ DB, Tables, Data @ SQL
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Ch 4: SQL Basics - 2	Ch 5: Data Imports, Schemas	Ch 6: Constraints, Index Basics
✓ DDL Variants in MSSQL	✓ Data Imports with Excel	✓ Need for Constraints, Keys
✓ DML Variants in MSSQL	✓ ORDER BY & UNION	NULL, NOT NULL, UNIQUE
✓ INSERT & INSERT INTO	✓ UNION ALL For Sorting Data	✓ Primary Key & Foreign Key
✓ SELECT & SELECT INTO	✓ Creating, Using Schemas	✓ RDBMS and ER Models
✓ Basic Operators in SQL	✓ Real-world Banking Database	Identity Property, Default
✓ Special Operators in MSSQL	✓ Table Migrations @ Schemas	Clustered Index, Primary Key
✓ ALTER, ADD, TRUNCATE, DROP	✓ 2 Part, 3 Part & 4 Part Naming	Non Clustered Index, Unique
Ch 7: Joins & Views Basics	Ch 8: Functions(UDF), Data Types	Ch 9: Stored Procedures, Models
✓ JOINS: Purpose. Inner Joins	✓ Using Functions in MSSQL	✓ Stored Procedures & Usage
✓ Left / Right / Full Outer Joins	✓ Scalar Value Functions	✓ Creating, Testing Procedures
✓ Cross Joins, Query Tuning	✓ Inline & Multiline Functions	✓ Encryption, Deferred Names
✓ Creating & Using Views	✓ Date & Time Functions	✓ SPs for Validations, Analysis
✓ DML, SELECT with Views	✓ String, Aggregate Functions	✓ System SPs, Recompilation
✓ RLS: WITH CHECK OPTION	✓ Data Types : Integer, Char, Bit	✓ Normal Forms & Types
✓ System Views & Metadata	✓ SQL Variant, Timestamp, Date	✓ Data Models, Self-References
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Ch 10: Triggers, Temp Tables	Ch 11: DB Architecture, Locks	Ch 12: Cursors & CTEs, Links
✓ Need for Triggers	✓ Planning VLDBs : Files, Sizing	✓ Data Types in SQL Server
✓ DDL & DML Triggers	✓ Filegroups, Extents & Types	✓ Cursors : Realtime Use
✓ Using Memory Tables	✓ Log Files: VLF, Mini LSN	✓ Fetch & Access Cursor Rows
✓ Data Replication, Automation	✓ Table Location, Performance	✓ CTEs for SELECT, DML
✓ Disable / Enable Triggers	✓ Database Scripting Process	✓ CTEs: Scenarios & Tuning
✓ Local & Global Temp Tables	✓ Schemas, Transfer, Synonyms	✓ Linked Servers, Remote Joins
✓ Testing & Using Temp Tables	√ Transactions Types, Lock Hint	✓ Linked Servers: MSDTC, RPC
✓ SELECT INTO & Bulk Loads	✓ Query Blocking Scenarios	✓ Tuning Remote Queries
Ch 12: Backups	Ch 14: Postoros	Ch 15: John Maintenance
Ch 13: Backups	Ch 14: Restores	Ch 15: Jobs, Maintenance
✓ Database Backups & Files	✓ DB, Filegroups, File Restores	√ Jobs & SQL Server Agent

✓ Backup Types & Options	✓ GUI Restores: Limitations	✓ Job Steps & Schedules
✓ DB, Filegroup, File Backups	✓ Partial / Piece-meal Restores	✓ Maintenance Plans
✓ Copy Only Backups, Usage	✓ Restoring & Online States	✓ Backup Maintenance Options
✓ Partial Backups, Split Backups	✓ Standby Mode Restores	✓ Job Notifications, Operators
✓ Mirror Backups, Verifications	✓ Point-In-Time (PITR) Restores	✓ DB Mail Configurations
✓ Checksum, ContinueOnError	✓ FILELISTONLY, MOVE Options	✓ Common Errors, Solutions
Checksum, ContinueOnLifor	FILLESTONLY, WOVE OPTIONS	Common Errors, Solutions
Ch 16: Security Management	Ch 17: DB Migrations	Ch 18: DB Health Checks, Repairs
✓ Security Objects Usage	✓ Creating Credentials	✓ DBCC Commands in Realtime
✓ Creating Logins & Users	✓ Creating Proxies, Realtime Use	✓ DBCC for Audits, Repairs
✓ Creating Roles, Add Principals	✓ Creating CDW Packages	✓ MSDB Suspect Pages
✓ Schema Level Security	✓ Database Detach – Attach	✓ User Database Repairs
✓ Object, Column Level Security	✓ SMO Migration Method	✓ Log Space Issues, Solutions
✓ Security Management Scripts	✓ DB Migration Schedules	√ TempDB Issues, Solutions
✓ Security Audit, Logon Failures	✓ Detect, Fix Orphan Users	✓ Memory Issues, Solutions
Ch 19: Query Audits, Perfmon	Ch 20: Indexes & Tuning	Ch 21: Partitions, Statistics
✓ Query Performance Issues	✓ Indexes : Sort Locations	✓ Partition Implementations
✓ Reasons for Slow Queries	✓ Clustered & Online Indexes	✓ Partition Functions & Schemes
✓ Performance Tuning Options	✓ Non Clustered, Columnstore	✓ Primary & Secondary Types
✓ Performance Tuning Tools	✓ Included Indexes in Realtime	✓ Data Archival with Partitions
✓ Query Store & History	✓ Filtered Indexes & Usage	✓ Compression with Partitions
✓ Activity Monitor, Perfmon	✓ Covering Index & Selectivity	Statistics : Realtime Use
✓ DMVs & DMFs for Audits	✓ Indexed Views (Materialized)	✓ Index, Column Stats, Updates
Ch 22: Tuning Tools, Exec Plans	Ch 23: MOT & Temporal Tables	Ch 24: Locks & Isolation Levels
✓ Tuning Tools and Workloads	✓ Memory Optimized Tables	✓ Transactions & Locks
✓ Profiler Tool : Trace Files	✓ Non Clustered Primary Keys	✓ Lock Types & Performance
✓ Trace Filters and Rollover	✓ Stats Updates, Performance	✓ Lock Types & Performance ✓ Lock Management Options
✓ DTA Tool Recommendations	✓ Temporal Tables in Realtime	✓ Isolation Levels & TempDB
	-	✓ Snapshots and Performance
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=xccation rams, mask cooks	✓ Timestamp Columns Usage ✓ Tuning Stored Procedures	<ul><li>✓ Deadlocks Simulations, Graphs</li><li>✓ Profiler Tool &amp; LIVE Locks</li></ul>
✓ Query Cost Issues, Solutions	✓ Tuning Stored Procedures	Profiler fool & Live Locks
Ch 25: HA DR @ Replication - 1	Ch 26: HA DR @ Replication - 2	Ch 27: HA DR @ Log Shipping
✓ Replication : Realtime Usage	✓ Merge Replication & Usage	✓ Log Shipping Configurations
✓ Replication Considerations	✓ Peer – Peer Replication	✓ Primary, Secondary Servers
✓ Distributor Configurations	✓ Peer to Peer Topology	✓ Monitor Instance Selection
✓ Publisher and Subscriber	✓ Push & Pull Subscriptions	✓ Working with Network Shares
✓ Replication Types: Snapshot	✓ Conflict Detection, Avoidance	✓ LS Jobs: Backup, Copy, Restore
✓ Transactional Replication	✓ Scripting Replication Agents	✓ NORECOVERY, STANDBY
✓ Log Reader Agent & Usage	✓ Limitations with Replication	✓ Manual Failover Process
✓ Replication Monitor, Alerts	✓ Common Errors, Solutions	✓ Common Errors, Solutions
Ch 28: HA DR @ DB Mirroring	Ch 29: Updates, Upgrades	Ch 30: SQL DBA Project Phase

- ✓ Database Mirroring Concepts
- ✓ Configuring Principal, Mirror
- ✓ Configure Witness, EndPoint
- ✓ Synchronous, Asynchronous
- ✓ Automated Failover Process
- ✓ Manual Failover, Monitoring
- ✓ Common Errors, Solutions
- ✓ Updates, Upgrades Planning
- ✓ Pre-Maintenance Checklist
- ✓ Updates Process, Verifications
- ✓ Upgrade Process, Verifications
- ✓ History Tracking & Testing
- ✓ System Database Rebuilds
- ✓ DAC: Dedicated Admin Console
- ✓ Routine DBA Activities
- ✓ Emergency DBA Activities
- ✓ Maintenance DBA Activities
- ✓ SLA OLA Process
- ✓ Ticketing Tools
- √ 3<sup>rd</sup> Party Tools
- ✓ Common Errors & Solutions

# **Module 2: Azure SQL DBA**

#### Ch 31: Cloud Basics, Azure Funda

- ✓ Cloud Fundamentals
- ✓ Cloud Concepts, Benefits
- ✓ IaaS, PaaS, SaaS Cloud Types
- ✓ Azure Cloud Concepts
- ✓ Azure Resources & Usage
- ✓ Azure Services & Purpose
- ✓ Azure Account & Subscription

#### **Ch 32: Azure SQL Database**

- ✓ Azure SQL Services
- ✓ Azure SQL Server Creation
- ✓ Azure SQL Databases
- ✓ Azure Firewall : Rules
- ✓ Test Connections from SSMS
- ✓ SSMS Tool : Test Connections
- ✓ ADS Tool : Installation, use

### **Ch 33: Azure SQL DB Migrations**

- ✓ SQL DB Migration Options
- ✓ Data Migration Assistant: DMA
- ✓ DMA Tool, Migration Options
- ✓ On-Premises DB Export
- ✓ Azure SQL Database Import
- ✓ Azure Storage Account
- ✓ Linking SSMS with Azure

#### **Ch 34: Azure SQL DB Licensing**

- ✓ Azure SQL DB Licensing
- ✓ Per Database Licensing
- ✓ DTUs: Basic, Standard Types
- ✓ VPU and Plan Types
- ✓ DTU Versus VPU Licensing
- ✓ Elastic DTUs (eDTU) Usage
- ✓ Elastic Query Processing

#### **Ch 35: Azure SQL DB Metrics**

- ✓ Azure SQL DB Metrics
- ✓ CPU, Memory, Log Metrics
- ✓ Data File Metrics, Alerts
- ✓ Action Groups & Emails
- ✓ Query Performance Insight
- ✓ Automated Tuning Options
- ✓ Query Recommendations

#### Ch 36: Azure SQL DB Tuning, Al

- ✓ Automated Tuning Options
- ✓ Manual Tuning Options
- ✓ Server Level Tuning
- ✓ Database Level Tuning
- ✓ Al Search Service, Tuning
- ✓ Al Indexes and Practical Use
- ✓ Watermark Columns, Updates

### Ch 37: Azure SQL DB Tuning, Al

- ✓ Azure Backups & Restores
- ✓ Automated Backups
- ✓ Backup Retention Options
- ✓ LTR, PITR & Differential
- ✓ Backup Audits from Portal
- ✓ Restores from SQL Server
- ✓ Restores from Azure Portal
- ✓ PITR Restores

#### Ch 38: Azure HA DR

- ✓ Azure HA DR Mechanisms
- √ Geo Replication
- ✓ Server Failover
- ✓ Primary & Secondary
- ✓ Manual Failover
- ✓ Automated Failover
- ✓ Multi Database Replication
- ✓ Data Sync with Hub, Agent

#### **Ch 39: Azure Security**

- ✓ Azure SQL DB Security
- ✓ Logins & Users in master
- ✓ Logins & Users in SQL DB
- ✓ Role Based Security
- ✓ RLS & Users without Logins
- ✓ Dynamic Data Masking
- ✓ Creating AD Users & IAM
- ✓ Implementing RBAC

#### Ch 42: Azure VM Ch 40: Azure PaaS & Azure laaS Ch 41: Azure laaS Concepts ✓ Azure laaS Implementation ✓ Azure PaaS : Operations ✓ Azure Virtual Machines ✓ Configure Disk, Network ✓ Azure Paas : Limitations ✓ SQL Server with Azure VM ✓ Access Azure VM from SSMS ✓ Configure SQL Security ✓ Azure laaS : Advantages ✓ CPU, Processor & IO ✓ Migrations from PaaS ✓ Azure laaS Components ✓ IP & RDP Connections ✓ Azure Virtual Machines ✓ Migrations from On-Premise ✓ Testing SSMS Connections ✓ Capacity & Networking ✓ Azure Data Studio, VMs ✓ Migrating SQL DB to VM ✓ Disk & Memory Config. ✓ Comparing SSMS & ADS Tool Ch 45: DP 300 Exam Guidance **Ch 43: Azure Clusters** Ch 44: SQL Clusters, Always-On ✓ PBM: Policy Management ✓ Azure Active Directory ✓ Creating SQL Clusters ✓ Scripting Operations ✓ Azure AD DS Services ✓ Testing SQL Clusters ✓ Database Configurations ✓ Configure Always-On ✓ Azure Networking Options ✓ Server Configurations ✓ Availability Groups, Usage ✓ Testing, Using Always-On ✓ Examination Pattern ✓ Listeners and Realtime Use ✓ AOAG Implementation ✓ Sample Questions, Answers ✓ FSW : File Share Witness ✓ AOAG Monitoring Options ✓ Azure Paas : Limitations ✓ Latest Samples ✓ Comparing Paas & laaS

### This SQL DBA Course is 100% Practical, Step by Step. Reach us now!

contact@sqlschool.com

New batch Schedules: <a href="https://www.sqlschool.com/Register">www.sqlschool.com/Register</a> Call / Whatsapp: +91 9951440801, +91 9666440801 Trainer: Mr. Sai Phanindra Tholeti

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All sessions are practical, step by step. Kindly ensure on-time practice for best results.

Thank You!