

# MS SQL SERVER DBA TRAINING COURSE

## Microsoft SQL Server Administrators

*2005, 2008, 2008R2, 2012 and 2014*

Rajesh Kumar Jaiswal

Updated in 2015

### Why to choose us?

- ❖ Complete Practical and Real - Time Sessions.
- ❖ Study Material and Practice Labs with 100 plus Scripts.
- ❖ Screen-Shot Based Practice Materials
- ❖ Session wise notes and Doubts Clarifications
- ❖ Certification Material and Resume Preparation
- ❖ Interview Question and Guidance
- ❖ Technical Support and Placement Assistance
- ❖ Videos for Missing Session and Support
- ❖ 24\*7 Live Server Access with four Real time Database
- ❖ Online Lab



## Table of Contents

Overview .....	4
Course Duration and Timings .....	
About Trainer .....	

## Overview

Database Administrators (DBAs) are responsible for the design, implementation, support and maintenance of computerized databases in today's organizations. The role also includes architecting, building and scaling databases for future data growth and capacity. They are also responsible for security, performance and availability of data to users and customers.

All the above tasks are performed with the help of a Database Management System (DBMS) and the leading and most widely used DBMS across the world today are the Oracle, Microsoft SQL Server, MySQL database etc.

DBAs play an important and responsible role in every company's Information Technology (IT) department. DBAs are also very well paid and the average annual salary is more than \$100,000 in the USA. Furthermore, it is projected that the demand for DBAs will grow at the rate of 20% per year until 2022. [www.cnn.com](http://www.cnn.com) also published an article recently that Database Administrators are in the TOP TEN in demand jobs for the next decade.

## Course Duration and Timings

- Monday, Tuesday, Wednesday and Thursday/ Friday – 4 classes in week – Every day 2hrs – Duration will be 2 months
- On Weekend Saturday and Sunday – 4 Hrs per day Duration will be more than 2 months

## About Trainer



The Microsoft SQL Server DBA Training is provided by me Rajesh Kumar Jaiswal (Rahul). I have more than 5+ years of Training experience in MS SQL Server DBA including in the latest SQL Server 2012, 2014 version. I am trying to my best for training with real time experience to all students. I am giving very good communication skills with lots of T-SQL scripts which will help to grow the student skills. For Online training we have proper setup of LAB which can be accessible from any place using Internet connection. We are also helping students with 500 + Interview Question with real time experiences. We are helping the students to become Microsoft Certified with giving lots of Microsoft dump.

### SQL Server DBA Training delivery details

- STG koramangala Bangalore - 3 Batches
- white horse technologies BTM Bangalore – 2 Batches
- Reboot mind technologies , HSR Lay out Bangalore - 2 Batches
- carrier point 360 , Rajarajeshawari Nagar Bangalore - 5 Batches
- Mind Q System BTM, Bangalore – 3 Batch
- Online Training - 20+ student

Some student's name

1. Vijay (+91 7022637382) – Working with IBM Bangalore
2. Akshay Singh (+91 9703818794) – Working with NTT Data in Hyderabad (Working for Microsoft Clint)
3. Zubar – (+1 818 913 1393) - Tech Mahindra In Bangalore
4. Himabindu (+91 8904168720) - Tesco India Bangalore
5. Sandhya (+91 9902883714) - Working With IBM in USA
6. Vijay (+91 9886904534) – Brillio Technology (Collabra Solution)
7. Yogesh Belwal (+91 8105292255) – Attra Info Tech
8. Vinay (+91 7022381259)
9. Vamsi (+91 9480100771)
10. Madhuri (+91 9491330603)
11. Kishna (+91 9963988678)
12. Alok Mishra (+91 9125736779) – Working In MNC
13. Chandru (+91 9741904367 ) - Q Solas Software
14. Chiraj (+ 91 8080041504) - Q Solas Software
15. Sumit (+91 9590626767) - Tesco

And Many More students who has taken training and got job in MNC

## 1. Introduction to database management systems and databases

- SQL Server Overview 2005/2008/200R2/2012/2014
- Working of sqlserver.
- Different types of Database and compare between them like Oracle and MSSQL.
- Compare between SQL Server database and Big database like Hadoop, Apache, Mango Database.
- History and Current trends of DBMS and Database Administration
- Architecture of sql server
- DATA Base engine
- Versions and Additions of SQL-SERVER
- Managing Database and Files
- Recovery in SQL Server
- Understanding SQL Server system databases.
- SQL Server Transactional logs, Recovery Models.
- Basic SQL
- Transactions Overview
- ACID Property of DATA Base
- Attached and detached
- Isolation level of SQL server
- Tasks of a Database Administrator

## 2. Installing and Configuring SQL Server

- Editions of SQL Server
- Understanding SQL Server components.

- Preparing to Install SQL Server
- Pri Installation check
- Installing SQL Server
- Configuring a SQL Server Installation
- Post installation Security check
- Post installation Database check

### **3. Managing Databases and Files**

- Planning Databases
- Creating Databases
- Architecture of sql server
- Page Architecture
- Data files and log files
- Managing File group
- System Databases
- Using Policy-Based Management

### **4. Index**

- Architecture of index
  - Index Management
  - Features of Index
  - Different Types of indexes
  - Creating of index
  - Partitioned Table and Index
  - Alter Index
  - Rebuilding of Index
  - Reorganizing an Index
  - Dropping an Index
  - Some Basic Script and how to work with Script
  - Maintains of Index using SSIS or maintenance plan
  - Some real time scenarios with example for Production environment
- Etc

### **5. Disaster Recovery**

- Planning a Database Backup Strategy
- Database Recovery Model
- Recovery in database
- Types of Backups in SQL Server.
- How backup work in SQL server full Process of backup

- What thing to be taken care for backup in Production
- Backing Up a User Database
- System Databases and Disaster Recovery
- How to Refresh database from Production to DR\QA
- Creating Backup using SSIS or maintenance plan
- Restore phases
- Restoring User Databases
- Restoring the Master Database
- Implementing a Backup Strategy
- Recovering Data from Database Snapshots
- Restoring and Recovering a Database
- database snapshot - How to Restore database from snapshot
- How to do point in time recovery
- Restoring the system Database

#### How to move Database

- Using Backup and restore
- Using move option
- Import and export
- Using attached and detached
- Using update database command
- Creating an SSIS Solution

- How to move System Database

- Master
- Model
- MSDB

**Everything in Piratical using SSMS and T-SQL code both**

**Restore database using PowerShell**

## 6. Managing Security

- Overview of SQL Server Security
- SQL Server authentication vs. Windows authentication
- New Security Features sql server
- Permission Types for server and Database
- Creating Logins (Windows and SQL)
- Login creation based on model ID using T-SQL
- Users

- Auditing database logins using SQL Server Error Logging
- Creating Group for users
- Schemas
- Server and Database Roles
- Permission
- Authentication modes
- Table copy, SQL to SQL, using import export wizard
- What is ODBC?
- How to create ODBC for a SQL Server?
- Use this ODBC to create linked server.
- Configuration and assigning role to users
- Database level of encryption
- Managing Keys and Certificates
- Auditing Security
- How to Script out all Permissions for users using T-SQL
- Transferring login from one instances to other using T-SQL
- Transferring login from one instances to other using SSIS
- Linked Server
- Orphaned users

## 7. Automating of SQLSERVER

- Using SQL Server Agent
- Automating Administrative Tasks in SQL Server
- SQL Server Service Broker
- Database Mail configurations.
  - How to Send mail using HTML
  - How to send Report in mail using excel
  - How to send mail using Notepad
- Database Maintenance Plan
- Implementing Alerts
- Managing Multiple Servers
- Managing SQL Server Agent Security
- Configuring SQL Server Agent
- Creating Operators and Jobs
- Creating Alerts
- SQL Server Agent and Jobs
- Maintains of Index using SSIS or maintenance plan
- Maintains of Database using SSIS
- Transferring logging without disturbing Password using SSIS
- Transferring data from SQL table to excel sheet\Text using SSIS
- Transferring from excel sheet\Text to SQL server using SSIS.

- Rebuilding and Reorganizing the INDEX using SSIS

## 8. Monitoring of SQL Server

- SQL Server Profiler
- Query Analyzer
- Database Engine Tuning Advisor
- Windows and SQLSERVER Error logs
- Brief overview of Resource Types
- Overview of Locking Mode
- Blocking
- Dead Lock (2008 R2)
- How to Trace Deadlock Using Extended Events (2012 and above 2014)
- Exe Lock
- How to find windows level of Information from SQL Server
- Database Mail for email notifications to DBAs.

**Multiple types of job use for Automation work**

## High availability in sql server

## 9. Replication - Theory and Lab

- Replication Typologies
- Replication Basic
- Replication Component
- Replication Type
  - Snapshot Replication
  - Transaction Replication
  - Merge replication
  - Peer-to-peer replication
- Replication Agent
- Replication monitoring
- Troubleshooting of Replication

How to run .bat file for sql server

How to create ZIP backup



- 10. Mirroring
- 11. Log shipping
- 12. Clustering

### Some Advance Topic

#### How to` work with PowerShell in SQL SERVER

Configuring Power Shell jobs in SQL Server.  
 Creating Backup using Power Shell with or without Ment  
 Restoring database using Power Shell  
 Copy table from one - Instances to other instances using  
 Cleanup job creations  
 Refresh Database from Prod server to DR using PowerShell script and Automated by sql job

#### My Lab Setup

Node Name	Instance Name	For Requirement	Details	IP Address for Accessing	Port NO
		Cluster Domain Controller			
		Cluster Node01			
		Cluster Node02			
		Prod Server			
		Replication From Prod			
		Refreshing from Prod			
		DR server From Prod			
		Monitoring Server			
		Dev Server			
		Mirror Server			
		Primary Server for Mirrored			

