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How to be DBA?
(SQLDBPOOL.COM)

3 How to be DBA?

2 DBA Roles and Responsibiliteis

1 What is DBA?

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What is DBA?

A database administrator (DBA) is a person responsible for the design, implementation, maintenance and repair of the database. The main goal of the DBA is to keep the database server up at all times and make it available for the authenticated users. The DBA makes sure that the database is protected and in case of any failure data loss is minimal by implementing the high availability or by designing the robust backup/restore techniques.

Who can be DBA?

I have been posted with the number of queries as to how to become DBA or what exactly needs to be done that to be DBA.

Anyone who has basic knowledge of database and T-SQL can be SQL DBA

-System Administrator
-Software Engineer
-Programmer
-College Fresher as well

Types of DBA

-System DBA
-Development DBA
-Database Architect
-Database Analyst
-Data warehouse DBA
-OLAP DBA
-Application DBA

Types of DBA

System DBA- System DBAs are the DBA whose Primary skill is System Administration. System DBA is responsible for DBMS installation, Operating System Configuration, OS Tuning, Storage management, Patching and more..

1

Development DBA - works on building queries, stored procedures, etc. that meet business needs. This is the equivalent of the programmer. You primarily role is write T-SQL.

2

Database Architect – Design schemas. Build tables, FKs, PKs, etc. Work to build a structure that meets the business needs in general. The design is then used by developers and development DBAs to implement the actual application

3

Data Warehouse DBA - is responsible for merging data from multiple sources into a data warehouse. DW DBA design warehouse, but cleans, standardizes, and scrubs data before loading into warehouse. In SQL Server, this DBA would use DTS/SSIS heavily.
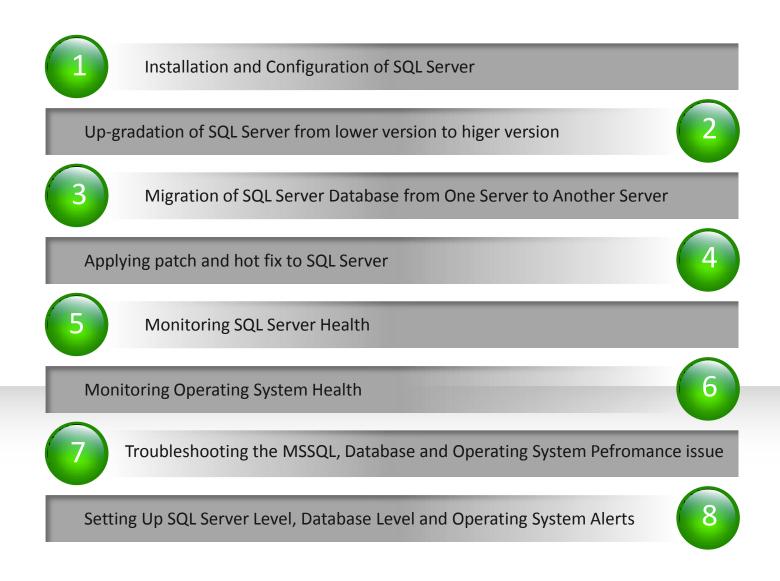
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OLAP DBA – Builds multi-dimensional cubes for decision support or OLAP systems. The primary language in SQL Server is MDX, not SQL here
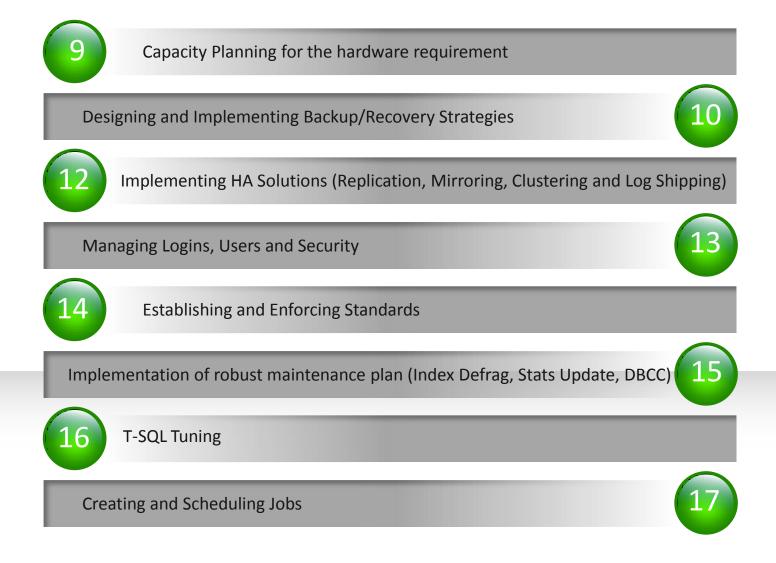
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Application DBA – DBAs straddle the fence between the DBMS and the application. He is responsible for ensuring that the application is fully optimized for the database and vice versa.

6

DBA Roles and Responsibilities

1. Installation and Configuration of SQL Server

2. Up-gradation of SQL Server from lower version to higer version

3. Migration of SQL Server Database from One Server to Another Server

4. Applying patch and hot fix to SQL Server

5. Monitoring SQL Server Health

6. Monitoring Operating System Health

7. Troubleshooting the MSSQL, Database and Operating System Pefromance issue

8. Setting Up SQL Server Level, Database Level and Operating System Alerts

DBA Roles and Responsibilities

9 Capacity Planning for the hardware requirement

Designing and Implementing Backup/Recovery Strategies **10**

12 Implementing HA Solutions (Replication, Mirroring, Clustering and Log Shipping)

Managing Logins, Users and Security **13**

14 Establishing and Enforcing Standards

Implementation of robust maintenance plan (Index Defrag, Stats Update, DBCC) **15**

16 T-SQL Tuning

Creating and Scheduling Jobs **17**

DBA Roles and Responsibilities

18 Expert in troubleshooting the SQL Server and Database Issues

Documentation of any implementation and change **19**

20 Expert level knowledge of SQL Server Architecture

Co-ordination with third party vendor for any product related issue **21**

22 Knowledge of ITIL standards

Knowledge of Operating System **23**

24 Knowledge of all the SQL versions and newer features.

Closely work with Developer **25**

How to be DBA?

SQL Server Architecture	Database Administration	SQL Server Installation & Configuration	Support
• SQL Server Services • System Databases • Recovery Models • DMVs • System Objects • Pages/Extents • Internal Storage • ACID Properties • Isolation Levels • Locking Architecture • T-Log Architecture • Memory • Protocols	• Performance & Tuning • Backup/Restore • Maintenance Plan • HA Setup • DBCC • Blocking/Deadlock • Capacity Planning • SQL Profiler • DTA • SQL Configuration • Best Practice • Security Setup • Databaes Design	• Cluster & Standalone SQL Server Installation • RAID Levels • SPN • Active Directory • SP, Patches and Hot fixes • SQL Server Editions • SQL Server Versions • Server level config. • Third Party Tools installation & config.	• Troubleshooting • Alerts Setup • DB Mail Setup • 7 X 24 Support • Ticketing System • ITIL Knowledge

How to be DBA?

1   If your aim is to become a database administrator, you need to understand the underlying concepts of database and the responsibilites mentioned in the previous slides.

2   A programming background is helpful. Any programming knowledge is highly recommended but knowledge of T-SQL is a must for a DBA.

3   Get books, read magazines, use Internet resources, participate in DBA related forums and news groups and start from there.

4   Attend SQL DBA Courses

5   Visit relevant websites and talk with real DBAs. Go for Linked In site and increase your network

6   Look for opportunities to practice your DBA Skills

7   Go for the Microsoft SQL Server Certification

8   Becoming a DBA involves more than getting a certification. It requires intensive study, constant learning, practice and most importantly the creation of opportunities for work experience.

All the Best

I wish you all the best in your DBA Career

Thank You,

Jugal Shah

Questions
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