



## Solid Quality Mentors

# SQL Server Health Check Service

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SQL Server Health Check is a very challenging subject that requires expertise in Database Administration and Database Development. Solid Quality Mentors provides specialized health check service where we dive deep into your SQL Server configurations and potential issues and propose solutions to resolve your issues. We also provide maintenance scripts and train your team on few of the key areas described below, in order to empower them to understand and tune the systems in the future. We also provide Hands-On sessions for tuning your queries and propose solutions for your deadlock situations.

### Server/Instance Level Configuration Check

We review all the SQL Server/Instance Level settings of the server and tune it based on system workload. We also provide a quick tutorial to your DBA on these setting changes and reasons.

### I/O distribution Analysis

We analyze the I/O of your system and decide the best distribution for the I/O load. We also perform object level analysis and do performance tuning at table level. Our goal is to reduce I/O performance bottlenecks and suggest optimal setting for read and write database. This is especially critical for databases that need to sustain heavy updates during peak usage hours.

### SQL Server Resource Wait Stats Analysis

Wait Stat Analysis is very crucial for optimizing databases, but is often overlooked due to lack of understanding. We perform advanced resource wait statistics analysis and provide you with suggestion to optimize your database server. We train your DBA to enable them to perform this analysis in the future.

### Index Analysis

Indexes are considered valuable for performance improvements. We analyze all your indexes to identify non-performing indexes and missing indexes that can improve performance. We provide you with the necessary action items and scripts that can be used for analyzing future workloads and index performance.

### TempDB Space Review

We review the size and usage of your TempDB database and provide suggestions for tuning it.

### Database Files (MDF, NDF) and Log File Inspection

We review all the files and filegroups of each of your databases and analysis them to identify any object or files that are causing bottlenecks. Once we identify the issue, we recommend the best practice to resolve the bottlenexk and avoid it in the future. We also provide your DBA required knowledge for setting up future databases using optimal settings

## Fragmentations and Defragmentations

We identify the optimal settings of your database files and tables to reduce fragmentation and provide you scripts to help you reduce them.

## Backup and Recovery health Check

We review all backup & recovery settings and procedures for your databases and understand the functions of the respective databases. We then suggest the best recovery model for each database.

## Log Reviews (Windows Event Logs, SQL Server Error Logs and Agent Logs)

Logs reveal many hidden facts and we go over the logs and provide suggestions based on our findings.

## Hardware Review

We recommend hardware based on our analysis and tests. We recommend the hardware upgrade only if we believe that it will positively impact the performance or scalability of the database based on current and forecasted workloads.

## DBCC Best Practices Implementations

This is a quick tutorial for DBAs covering some of the common and useful DBCC commands. The session covers the usage of DBCC FREEPROCCACHE, DBCC SHRINKDATABASE, DBCC SHRINKFILE, DBCC DROPCLEANBUFFER, DBCC REINDEX, as well as the usage of few system stored procedures like SP\_UPDATESTATS. If you are currently using any of the above mentioned and a few other DBCC maintenance task commands, this session will educate you on the proper usage of the same.

## Query Tuning Hands-On

We take any 3 of your preferred queries (or stored procedures) and try to improve the performance while teaching you the skills required to tune other similar queries.

## Deadlock Detection and Resolutions Hands-On

In this unique offering from Solid Quality Mentors, we take any 3 of your current deadlock issues and work with you to resolve it. Detecting deadlock is not very difficult, but to learn the tips and trick to resolve them requires an understanding of the issue and some experience. The changes we propose during this session will help resolve the deadlocks.

You will receive a simple written explanation and suggestions of all our findings from the health check as well as our recommendations. We will also provide you with all the necessary scripts to enable you to detect potential issues early and resolve them in-house.