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How to perform a SQL Server Health Check



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Experience

Over 10 years of experience as DBA

Multi platform DBA

Linux, Windows, Virtual & Cloud environments

Oracle, SQL Server, MySQL, Azure SQL DB

MCSE Data management and analytics

Community

Speaker, Guatemala SSUG group leader, blogger, author, mentor, volunteer, like to help people in Twitter using #SQLHelp hashtag.

DBA Mastery

SQL Server tips, scripts, best practices and more.

MAXDOP Calculator - [GitHub](#)

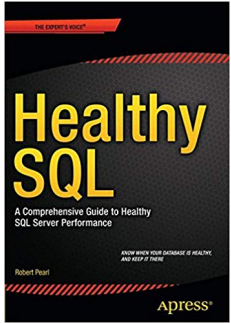
Agenda

- Introduction
- What is a SQL Server Health Check?
- Reasons why I should perform it?
- When should I perform it?
- How can I perform it?
- Quick demo





Introduction



Every engine needs tuning, your database is not different

Robert Pearl



- Is your entire SQL Server environment healthy?
- How do you know?
- Are you able to provide detailed information about your SQL Server instances?



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What is a SQL Server Health Check?

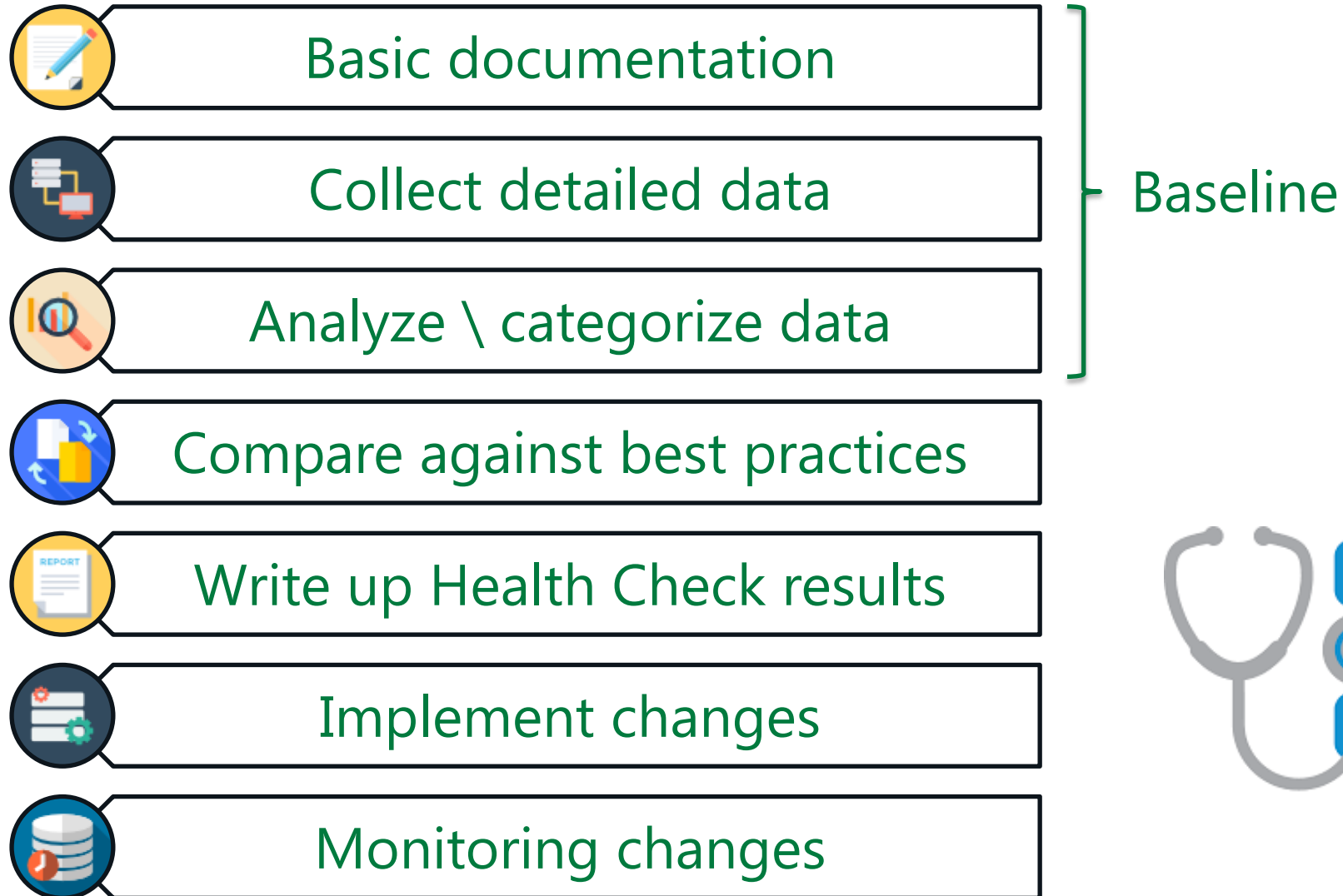
SQL Server Health Analogy:



- Front desk collects basic information
- Doctor collects information by asking questions and performing tests
- Doctor analyzes the information
- Doctor provides a diagnostic
- Doctor provides some medicine



SQL Server Health Check process



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Reasons why I should perform
it?

- Is the DBA work to maintain the environment healthy
- Provides documentation and a baseline for:
 - Performance Tuning
 - Troubleshooting
 - Disaster Recovery (Rebuild)
- Encourages proactive work
- Environmental stability
- Standardization





When should I perform it?

- Once starting in a new job, to quickly learn about the SQL Servers you have inherited and now "own".
- Once an initial health check is performed, it should be repeated regularly to ensure the continued health of your SQL Servers.
- Follow-up health checks will be much faster because you already have collected the basics.



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How can I perform it?

Built-in tools

- PerfMon
- Event Viewer
- SCOM
- OMS
- MAP
- SSMS
- DMVs
- PSSDiag \ SQLDiag
- Query Store
- System Health Session Monitoring
- Xevents
- PowerShell



Open Source tools

- PAL - Clint Huffman
- dbatools - Chrissy LeMaire
- dbachecks - Rob Sewell
- BPCheck - MSSQL Tiger Team
- Diagnostic Information Queries - Glenn Berry
 - SQLDiagCmd - Mich Wheat
- First Responder Kit - Brent Ozar Unlimited
- SQL Nexus - Jack Li



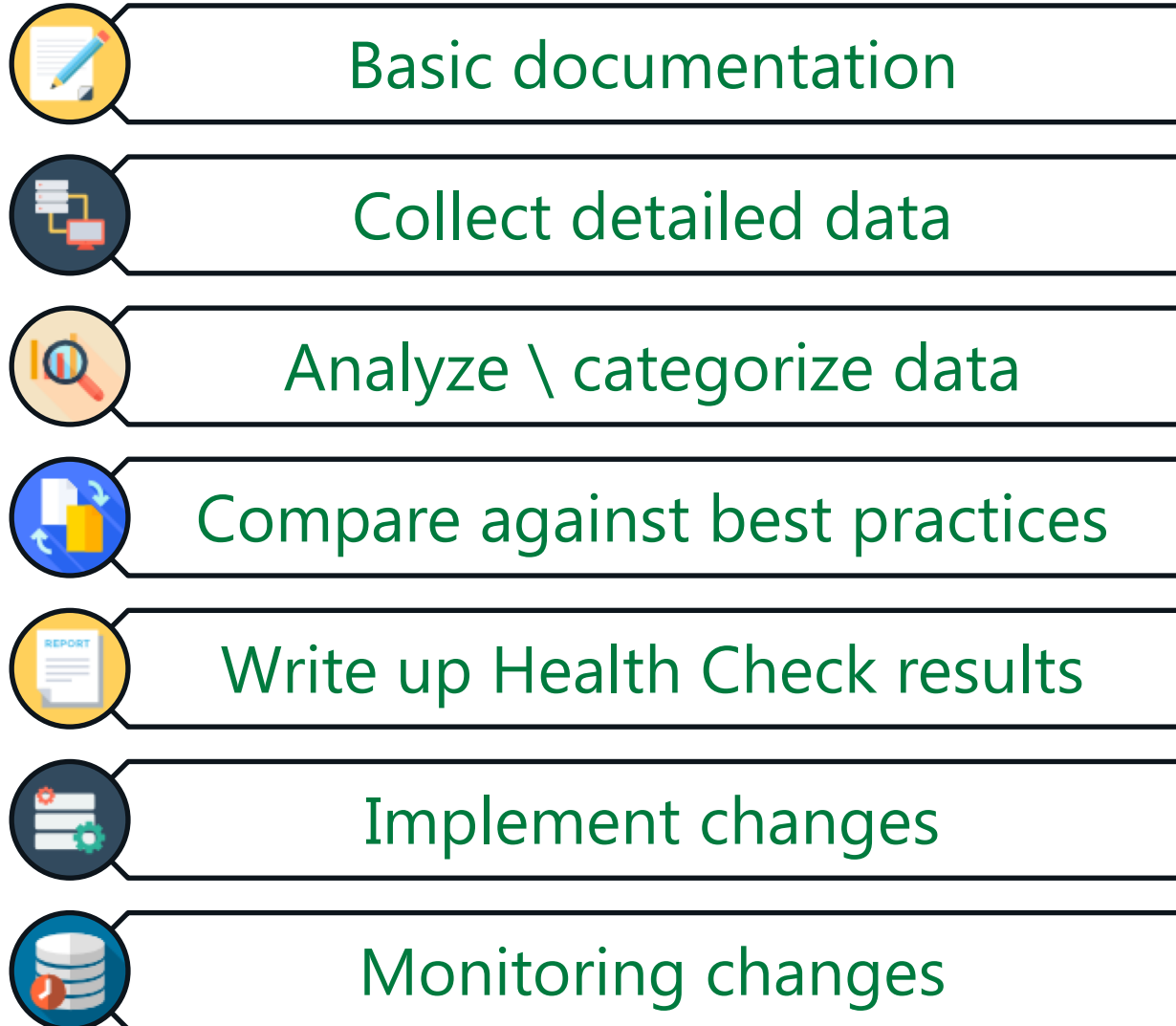


Demo



Recap

SQL Server Health Check process



Baseline

Do it again ...



SQL Server Health report sections

- Hardware
- Operating system
- Backups
- SQL Server settings
- SQL Server patching
- Database settings
- Performance tuning
- Maintenance routines
- Monitoring
- Security
- High Availability



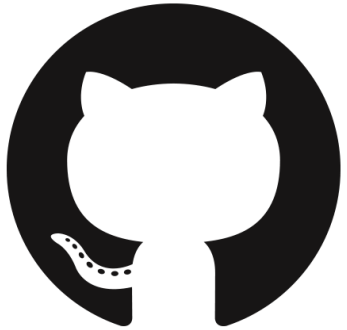
A large, teal-colored abstract graphic on the left side of the slide. It consists of several thick, curved lines that overlap and curve around each other, creating a sense of movement and depth. The lines are a consistent teal color and have a smooth, rounded appearance.

Questions

Resources



www.dbamastery.com



<https://git.io>





Thank you!!!



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m