SQL Server: Automatic Tuning in SQL Server 2017 and Azure SQL Database

INTRODUCTION

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Module Overview

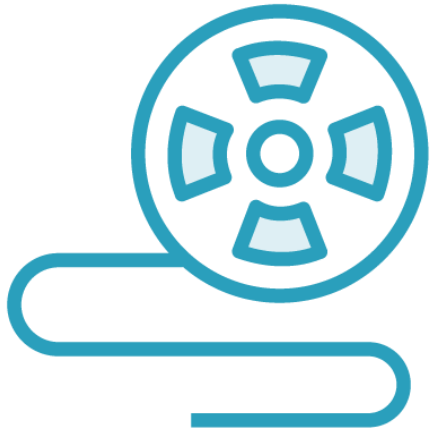
New functionality in Query Store

Automatic Tuning in SQL Server

Course objectives

Course structure

Query Store in SQL Server



New feature in SQL Server 2016

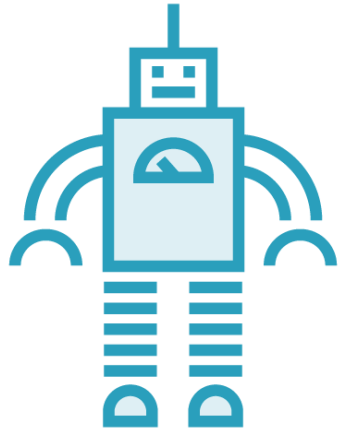
Described as a “flight data recorder”

Provides information on query execution

Enabled at the database level

New Functionality in SQL Server 2017

Wait statistics in Query Store



Automatic Plan Correction

Automatic Index Management exists in Azure SQL Database

Automatic tuning reduces manual intervention required from data professionals

Automatic Tuning is an iterative process

SQL Server:

- Monitors workload performance
- Makes changes
- Continues to monitor and make additional changes if needed (e.g. revert a previous change)

COURSE OBJECTIVE

Understand the new wait statistics data captured in Query Store

How waits are categorized

Linking wait statistics data to query plans

COURSE OBJECTIVE

Provide an understanding of automatic plan correction

Plan forcing in Query Store

Enabling automatic plan correction and understanding how it works

Cases where a forced plan will be un-forced

COURSE OBJECTIVE

Provide an understanding of Automatic Index Management

Data used by SQL Server to automatically create indexes

When indexes are created

Why an index may be removed

Course Focus and Structure

Finding and Using Wait Statistics in Query Store

Using Automatic Plan Correction

Using Automatic Index Management

What We Covered

New functionality in Query Store

Automatic Tuning in SQL Server

Course objectives

Course structure