



# Masterclass: Advanced SQL Server Performance Tuning SQL Server 2012 / 2014

*Authored training by Maciej Pilecki  
(3 days)*

## Overview

This class is designed for experienced DBAs and Database Application Developers who want to update and organize their skills in the designing, developing and maintaining high-performance applications utilizing Microsoft SQL Server. While

this class will be presented using SQL Server 2012, most of the tools and techniques presented are not specific to particular version of SQL Server and can be applied on any version of the product.



### Trainer: Maciej Pilecki

SQL Server Most Valuable Professional (MVP)  
Microsoft Certified Trainer (MCT)  
Microsoft Certified Master (MCM): Microsoft SQL Server

### Target audience

Experienced Database Administrator  
Experienced Database Developer

## Module 1 - Introduction to Performance Tuning

Introduction to Performance Tuning  
SQLOS Execution Model  
Waits and Queues  
From Query to Results

## Module 2 - Hardware and OS Performance Tuning

Understanding your Hardware  
Choosing the right Hardware for SQL Server  
Tuning the Operating System

## Module 3 - Instance-level Performance Tuning

Server Settings  
Tempdb configuration  
Blocked process report  
Resource Governor

## Module 4 - Understanding Waits and Queues

What are waits  
Types of waits  
Spinlocks



## Module 5 - Compilation and Recompilation

- Query optimization and execution
- Plan caching and reuse
- What is the Procedure Cache and how it works
- Managing the Procedure Cache
- Controlling plan reuse
- Recompilation
- Optimizing compilation and plan reuse

## Module 6 - Query Tuning

- Set-based thinking
- Cursors
- User Defined Functions
- SARGS
- Revising Queries
- Query Tuning in 12 steps

## Module 7 - Index Tuning

- Indexes in SQL Server 2012/2014
- Index optimization scale
- Covering Indexes
- Filtered Indexes
- Indexed Views
- Columnstore indexes

## Module 8 - Parallelism and Performance

- Parallelism in SQL Server
- Parallel operators
- Options to control parallelism

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### When, Where

Warsaw, 9-11.03.2015

Golden Floor, Millennium Plaza, Al.  
Jerozolimskie 123A

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### Price

Standard price: 5250 PLN net/person

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