

# Monitoring and Performance Tuning T-SQL Queries

Course code: GOC631

The primary audience for this course is individuals who develop and optimize SQL Server database solution and queries.

Affiliate	Duration	Course price	ITB
Praha	5	26 000 Kč	50
Brno	5	26 000 Kč	50
Bratislava	5	1 125 €	50

The prices are without VAT.

## Course terms

Date	Duration	Course price	Type	Course language	Location
09.12.2024	5	1 125 €	Online	CZ/SK	GOPAS Bratislava online
03.02.2025	5	26 000 Kč	Presence	CZ/SK	GOPAS Praha
24.02.2025	5	1 125 €	Online	CZ/SK	GOPAS Bratislava online
24.02.2025	5	26 000 Kč	Online	CZ/SK	GOPAS Praha online
17.03.2025	5	26 000 Kč	Presence	CZ/SK	GOPAS Brno
19.05.2025	5	26 000 Kč	Presence	CZ/SK	GOPAS Praha
09.06.2025	5	1 125 €	Online	CZ/SK	GOPAS Bratislava online
09.06.2025	5	26 000 Kč	Online	CZ/SK	GOPAS Praha online

The prices are without VAT.

## Who the course is for

- The primary audience for this course is individuals who develop and optimize SQL Server database solution and queries

## After completing this course, students will be able to:

- Describe query lifecycle
- Monitor queries and analyze performance problems
- Design and optimize index strategy
- Understand query plans
- Describe transactions and concurrency

## Required skills

- Basic knowledge of the Microsoft Windows operating system and its core functionality
- Working knowledge of Transact-SQL
- Experience with database design

## Course Outline

### Query lifecycle

- SQL Server architecture
- Query lifecycle
- Query optimization process
- SQLIOS, Memory, CPU, Threads
- Performance killers

**GOPAS Praha**  
Kodaňská 1441/46  
101 00 Praha 10  
Tel.: +420 234 064 900-3  
[info@gopas.cz](mailto:info@gopas.cz)

**GOPAS Brno**  
Nové sady 996/25  
602 00 Brno  
Tel.: +420 542 422 111  
[info@gopas.cz](mailto:info@gopas.cz)

**GOPAS Bratislava**  
Dr. Vladimíra Clementisa 10  
Bratislava, 821 02  
Tel.: +421 248 282 701-2  
[info@gopas.sk](mailto:info@gopas.sk)



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# Monitoring and Performance Tuning T-SQL Queries

## Monitor queries and analyze performance problems

- Performance Monitor
- SQL Profiler
- Dynamic Management Views
- Activity monitor
- Data Collector
- Extended Events
- Performance problem analysis

## Index strategy

- Deep index description
- Index design
- Statistics
- Index maintenance
- Index monitoring

## Execution plans

- What is execution plan ?
- Plan reading and analysis
- Plan caching
- Adhoc and procedure plans

## Concurrency control

- Transactions and concurrency control
- Locks
- Transaction Isolation Level

### **GOPAS Praha**

Kodaňská 1441/46  
101 00 Praha 10  
Tel.: +420 234 064 900-3  
[info@gopas.cz](mailto:info@gopas.cz)

### **GOPAS Brno**

Nové sady 996/25  
602 00 Brno  
Tel.: +420 542 422 111  
[info@gopas.cz](mailto:info@gopas.cz)

### **GOPAS Bratislava**

Dr. Vladimíra Clementisa 10  
Bratislava, 821 02  
Tel.: +421 248 282 701-2  
[info@gopas.sk](mailto:info@gopas.sk)



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