BLUEMARK ACADEMY

Performance Tuning and Optimizing SQL Databases

Duration: 4 Days · **Training format:** Virtual Classroom / Online

Description

This Performance Tuning and Optimizing SQL Databases training class is intended for those who administer and maintain SQL Server databases and wish to learn how best to performance tune and optimize them. This SQL Server course is also appropriate for individuals who develop applications that deliver content from SQL Server databases.

Delegates will learn how to

- describe the high level architectural overview of SQL Server and its various components.
- describe the SQL Server execution model, waits and queues.
- describe core I/O concepts, Storage Area Networks and performance testing.
- describe architectural concepts and best practices related to data files for user databases and TempDB.
- describe architectural concepts and best practices related to Concurrency, Transactions, Isolation Levels and Locking.
- describe architectural concepts of the Optimizer and how to identify and fix query plan issues.
- describe architectural concepts, troubleshooting scenarios and best practices related to Plan Cache.
- describe architectural concepts, troubleshooting strategy and usage scenarios for Extended Events.
- explain data collection strategy and techniques to analyze collected data.
- understand techniques to identify and diagnose bottlenecks to improve overall performance.

Outline

SQL Server Architecture, Scheduling, and Waits

SQL Server I/O

Database Structures

SQL Server Memory

Concurrency and Transactions

Statistics and Index Internals

Query Execution and Query Plan Analysis

Plan Caching and Recompilation

Extended Events

Monitoring, Tracing, and Baselining

Prerequisites

Working knowledge of Transact-SQL.