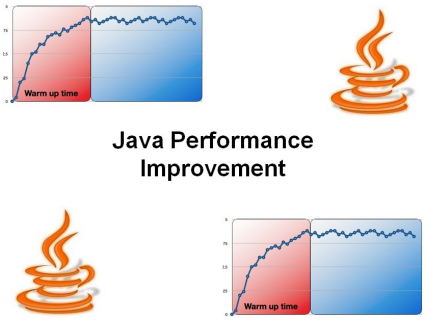
Java Performance Improvement

Duration: 2 days **Price: € 1499**

Open Schedule



Audience Course Java Performance Improvement

Experienced Java developers who want to improve the performance of Java software.

Course Java Performance Improvement Prerequisites

Knowledge of and experience with Java programming is required to join this course.

Realization Training Java Performance Improvement

The course has a hands-on nature. The theory is treated on the basis of presentation slides and is interspersed with practical exercises. Demos are used to clarify the theory. The course material is in English. The course times are from 9.30 up and to 16.30.

Certification Java Performance Improvement

Participants receive an official certificate Java Performance Improvement after successful completion of the course.

Content Course Java Performance Improvement

The course Java Performance Improvement will teach you how to analyze and improve the performance of Java applications.

Performance Aspects

In the first place various aspects of performance in general are treated, such as perceived performance and memory footprint and then aspects of Java performance in particular such as the hotspot JVM and garbage collection.

Benchmarks

Next attention is paid to the different benchmarks for Java and the various phases of the performance process such as performance monitoring, profiling and tuning. Also a number of specific performance techniques that can be applied to Java code are discussed.

API Performance

The performance impact of various constructs in the Java language and various classes of the Java API are discussed as well.

Profiling

Furthermore, you learn how to deal with performance tools such as a profiler in order to identify performance bottlenecks. In this respect attention is paid to profiling points, time measurements and the detection of memory leaks. Stress testing Web Applications is discussed as well.

JDBC Performance

Finally, special attention goes to performance issues with JDBC and performance in a Java EE environment. Herewith the configuration of pools, caches and the use of load balancing and clustering techniques are treated.

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Locations
Houten, Amsterdam, Rotterdam, Eindhoven, Zwolle, Online

Modules Course Java Performance Improvement

Module 1 : Java Performance Intro	Module 2 : Java API Performance	Module 3 : Profiling
Influences on Performance Important Performance Aspects History of Java Performance JIT Compilation and JIT Compiler Client and Server Hotspot VM Garbage Collection Algorithms Java Performance Myths Perceived Performance Monitoring and Profiling Performance Tuning Heap Tuning Heap Activity Monitoring Common Performance Problems	Java API Performance Pitfalls String Handling Buffered I/O New I/O Synchronization Primitives versus Wrappers Collections Array Copying Exception Handling Serialization Native methods Lazy Loading Object Reuse	Profiling tools CPU Profiling CPU Profiling Approach Profiling a subset Profiling Points Type of Profiling Points Monitoring Threads Lock contention Identifying problematic patterns Stress Testing BenchMarking Java Performance Tips Performance Process
Module 4 : Tuning Garbage Collection	**Module 5 : Java EE Performance**	
GC and Performance Java Object Behavior Heap Space Organisation Heap Area Characteristics Young Generation Layout GC Performance Metrics Used GC Algorithms Performance Considerations Parallel collector Parallel compact collector Concurrent Mark-Sweep (CMS) Ergonomics	JDBC Optimization Optimization Techniques JDBC connection pooling Single Batch Transactions Smart Queries Tuning Servlets and JSP's HTTP Session Tuning Web Server Tuning Clustering Clustering Types Load Balancing Sticky Sessions	

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