

Java Performance Tuning Ed 1

Duration: 3 days – 18 hours

Description:

This Java Performance Tuning training teaches performance tuning concepts applicable to the Java programming language. Learn the conceptual background for Java garbage collection, how it applies to Java garbage collectors on the Hotspot JVM, and more.

Audience:

- Administrator
- Developer
- Implementer
- Systems Administrator

Learn to:

- ✓ Monitor, profile and tune your Java applications.
- ✓ Use command line and visual tools to perform these tasks.
- ✓ Get hands on practice with Visual VM, Java Mission Control, Flight Recorder and the NetBeans IDE.
- ✓ Use these tools and techniques to analyze Java 7 and earlier JVMs.
- ✓ Effectively apply tools like Java Mission Control and Flight Recorder to your daily work.

Benefits to you:

Learn how Java garbage collection works and how it affects your applications. Learn how to select the appropriate garbage collector and performance goal for your applications. Finally, use the Mission Control and Java Flight Recorder tools to monitor and analyze your applications.

Suggested Prerequisites:

- Java SE 7 Programming
- Java SE 8 Programming
- Developing Applications for the Java EE 7 Platform

Course Objectives:

- Monitor operating system performance on Solaris, Linux, and Windows
- Describe basic principles of performance
- Describe the operation of generational garbage collection
- List the garbage collectors available in Java including the G1 collector
- Monitor performance at the JVM and application level
- Monitor and analyze Java application performance using Java Mission Control and Flight Recorder
- Profile the performance of a Java application
- Tune garbage collection in a Java application
- Apply basic performance tuning principles to a Java application
- Deploy and execute Java applications using a modularized approach

Course Content:

1. Introduction
2. Java Virtual Machine and Performance Overview
3. The JVM and Java Garbage Collection
4. Java Garbage Collectors
5. Command-Line JVM Monitoring
6. Mission Control and Visual JVM Monitoring
7. Java Flight Recorder
8. Monitoring Operating System Performance
9. Basics of Profiling
10. Profiling Performance Issues

- 11. Garbage-Collection Tuning
- 12. Application-Level Concerns and Garbage Collection
- 13. Oracle Cloud
- 14. Oracle Application Container Cloud Service Overview