Phone: +91–8123617991
Email: info@ordertrainings.com

Java – Advanced Concepts

What you'll learn

- What can cause performance issues in our applications, and how to resolve them.
- The choices available to us as developers at design-time - how to make good coding
- Choices for optimal performance.
- How to configure the virtual machine to provide better performance at run-time.

Who this course is for:

- Java programmers who are looking to deepen their knowledge of how the Java Virtual Machine works
- Application developers who have a problem with a poorly performing application
- All java developers who want to be better programmers

Duration: 3 days (24 hours)

Prerequisite: basic java knowledge is must.

Approach: The complete session will be with live coding and practical demos.

A. Java Coding

1. OO principles and Patterns
   - SOLID Principles
   - Common OO-patterns with real-time examples
2. Functional Programming in java
   - Lambda Expressions
   - FP – principles & patterns
   - Higher-Order-Programming
3. Data structures in java – Collections
   - Collection hierarchy – big overview
   - Choosing best collection based on requirement
   - Collection Pipeline Pattern –Stream API
4. Java Concurrency
   - Big introduction
   - How to implement in java
   - Challenges & solutions

B. Java Performance

1. Introduction
   - The Complete Performance story
2. An Approach to Performance Testing
3. A Java Performance Toolbox
4. An Introduction to Garbage Collection
5. Garbage Collection Algorithms
6. Heap Memory Best Practices
7. Java SE API Tips
   - Strings
   - Buffered IO
   - Class Loading
   - Collection API
   - Lambdas & Anonymous classes
   - Stream Api
   - Object Serialization