

## Java Programming Best Practices

### Course Summary

#### Description

Developing in Java is an evolutionarily process. The first phase is basic survival skills, leaning just enough to get started. The second phase is becoming proficient in the language and the tool set, learning the best practices and techniques needed to be productive. The final phase is expertise, becoming a resource for the development teams, and an authoritative voice for standards and quality. This hands-on course focuses on becoming proficient in Java, learning the techniques, and concepts that distinguish a professional Java developer. This course explores the art of Unit and Integration testing, writing documentation, using logging, participating in code reviews, and much more. Each topic in this course is designed to provide real value to the Java developer, the team they work on and the equality of the product produced.

#### Topics

- Overview
- Moving beyond coding, into quality
- Logging
- Log4j, Apache Commons Logging, SLF4J, Java Logging API
- Logging configuration
- Logging Best Practices
- JavaDocs
- Documenting the "Big Picture"
- What and how to documents business rules
- How to document Exceptions
- Documentation Best Practices
- Testing Big Picture
- Unit Testing fundamentals
- JUnit Best Practices
- Unit Testing Database code
- Unit Testing the Web tier
- Integration Testing
- Using a Continuous Integration Server (Jenkins/Hudson)
- Automating the build
- Maven vs Ant
- Code Review overview
- Using PMD, JDepend, FindBugs, CheckStyle, Code Coverage, etc.
- Summary

#### Audience

This custom course is designed for experienced Java Developers

#### Prerequisites

A background in basic Java development is assumed.

#### Duration

Three days