# **DB2 Performance for Java Developers**

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#### Abstract:

Can your Java, J2EE DB2 application sustain a large number of concurrent client requests? Or do they deadlock, become sluggish, or have painfully slow response times? There are many reasons for java performance bottlenecks and many ways to prevent them. However, sometimes it's just a matter of following some simple java DB2 developer best practices that can make all the difference.

**DB2 Performance for Java Developers** discusses the java best practices, coding techniques for optimum DB2 access characteristics of a good java project and many simple changes your teams can make, in the design, development and in the coding techniques that will help build easier to maintain, faster and more robust database applications.

This class takes the attendee through the Java application frameworks and discusses the database application architecture choices. The class details the java related database design considerations and how to avoid java concurrency programming problems related to Java sessions, messages and application persistence issues.

The class also highlights the best practices for java developers using database connections, SQL access and error handling within a high performance environment. By attending this class the student will learn the java development best practices for concurrency, scalability and database application performance that will improve your business applications and improve their overall development productivity.

### **Outline**

## Chapter 1: SOA and Java Scalability

- > Patterns for performance
- ➤ Reuse and Object oriented Programming
- ➤ Web Services Considerations
- > Trends, Fades and Reality

# **Chapter 2: Java Application Database Considerations**

- ➤ Model View Controller Pattern
- Program Efficiency
  - o Servlet Programming Considerations
  - o JSP Programming Considerations
  - o JDBC Programming Considerations
- > Sessions and Persistence
- ➤ Application Concurrency Designs

# **Chapter 3: Dynamic Java SQL – Tuning the performance problems**

- > Server Considerations
- ➤ Hibernate Considerations
- Logging Considerations
- > Cache Management
- ➤ Blocking and Commit Considerations
- Scalability Considerations

## **Chapter 4: Java Code Performance Factors**

- > Java Architectural Review
- Random, Cached & Fixed Types
- ➤ Polymorphism & Inheritance Factors
- > Portability, Reflection & Serialization Issues
- ➤ Java Code Evaluation Techniques o Profiling, Pattern Evaluation etc..

## **Chapter 5: Application and Performance Keys**

- Connection Types and Processes
- ➤ Application Characteristics
- > Error Checking
- ➤ Application Top 10 Analysis

### **Chapter 6: SQL Performance**

- > SQL Java Class Design
- > SQL Coding for performance
- Concurrency Designs Review
- Scalability Access Choices
- Access Path Considerations
- > Explain Extended

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Additional or custom material substituted per request