

# WebSphere Application Server V8.5.5

## Performance Tuning

### WA815G

#### **Course Description:**

This course teaches you how to monitor and tune WebSphere Application Servers for improved performance. You learn about performance tuning methods and monitoring tools that apply to both the application server environment and Java EE applications. These methods and tools for load testing, monitoring, and tuning are applied to various WebSphere components, such as the application server's Java virtual machine (JVM), JDBC connection pools, JMS resources, and the general runtime environment.

#### **Course Objectives:**

- Apply performance tuning methods to WebSphere Application Servers
- Perform load testing by using Apache JMeter
- Monitor application server performance by using WebSphere and the IBM Support Assistant
- Monitor and tune the JVM for optimum throughput and response time
- Monitor and tune connection pools for optimum performance
- Implement best practices for general WebSphere runtime performance
- Use the IBM Health Center tool to profile and tune Java EE applications
- Load test and monitor an application server cluster

#### **Prerequisites:**

You should have WebSphere administration skills, which you can learn through practical experience with administering a WebSphere Application Server environment **or** by successfully completing one of the following:

- WebSphere Application Server V8.5 Administration (WA585G, no longer available)
- WebSphere Application Server V8.5 Administration (ZA585G, no longer available)
- WebSphere Application Server V8.5.5 Administration (WA855G)

- WebSphere Application Server V8.5.5 Administration (ZA855G)

You should also have basic operating skills for the Linux operating system.

**Audience:**

This intermediate course is designed for anyone who works on WebSphere related applications and projects, including administrators, IBM Business Partners, independent software vendors, and consultants.

The course is applicable to users running WebSphere Application Server on various platforms including IBM i systems.

**Course Topics:**

- Course introduction
- WebSphere Application Server systems and components
- Overview of performance concepts and tuning tasks
- Exercise: POD configuration
- Apache JMeter and load testing
- Exercise: Apache JMeter basics
- Exercise: DayTrader Benchmark installation
- Exercise: Using Apache JMeter to load test DayTrader
- WebSphere performance data and tools
- Exercise: Performance monitoring tools
- WebSphere performance tuning methods
- Introduction to the JVM
- Exercise: Exploring GC policies and monitoring JVM performance
- Tuning the JVM
- Exercise: Tuning the JVM
- Exercise: Troubleshooting JVM problems
- Tuning the connection pool
- Exercise: Tuning JDBC connection pools and enabling servlet caching
- WebSphere runtime performance tuning
- Application profiling and tuning
- Exercise: Application profiling with Java Health Center
- WebSphere clusters and scalability
- Exercise: Load testing an application server cluster
- Course summary