

# Course Outline of Java Performance Tuning Ed 1

## Course Overview

- Introduce course

## Java Virtual Machine and Performance Overview

- JVM Overview
- What is Performance?
- Performance Methodology

## The JVM and Java Garbage Collection

- HotSpot GC Basics
- The GC Aging Process
- G1 GC

## Java Garbage Collectors

- Garbage Collecting Algorithms
- Types of GC Collectors
- JVM Ergonomics

## Command Line JVM Monitoring

- GC Monitoring Options
- JIT Monitoring Options

## Mission Control and JVM Monitoring Tools

- Monitoring with VisualVM
- Monitoring with Mission Control
- Java Flight Recorder
- Creating Flight Recordings
- Analyze a Flight Recording

## Monitoring Operating System Performance

- Monitoring CPU Usage
- Monitoring Memory Usage
- Monitoring Network I/O
- Monitoring Disk I/O
- Monitoring Processes

## **Performance Profiling Tools**

- Overview of Profiling Tools
- CPU Profiling
- Heap Profiling