AMBIENT-IT

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Sign up

Hazelcast training: In-Memory Data Grid

2 days (14 hours)

Presentation

Hazelcast or Hazelcast IDMG (In-Memory Data Grid) is an open-source in-memory data grid integrated into Java. Data from in-memory data grids is read faster than data from a hard disk. These grids are easily scalable, and are structured in key/value format rather than relational format, giving developers greater flexibility.

In-memory computing platforms are one of the most important innovations in Big Data. They are far more powerful than other database management systems. This is because the data is stored directly in RAM, providing much greater access speed.

Our Hazelcast training course will teach you the concepts of in-memory data grids, the use of Map, concurrency management and listener functions, as well as how to enhance your system to create a powerful, scalable infrastructure.

Our Hazelcast training course will introduce you to the latest version of the tool, Hazelcast 4.2.

Objectives

- Understanding the benefits of in-memory computing platforms
- Get to know and use Hazelcast's various functions
- Best practices for strengthening your system

Target audience

- Architect
- Project managers
- Developers
- Database manager

- Data miners
- Data engineers
- Directors

Prerequisites

- Knowledge of databases
- Knowledge of Java

Hazelcast training program

Introduction

- Database architecture
- What is a data grid in memory?
- Introducing Hazelcast
- Why use Hazelcast?
- Create your first cluster

Using Map

- CRUD operations
- Resilience and persistent storage
- Set, lists and tails
- Search and index
- Using predicates

Competition control

- Competition issues
- Securing your system
- Distributed locking
- Entry processors
- Aggregators

Trigger events

- The different listener functions
- Entry vs local entry listener
- Partition list listener
- Quorum functions

Building a scalable, high-performance infrastructure

- Adapt your configuration to your application
- Serialization
- Utility classes
- Backup replication (synchronous or asynchronous)
- The trade-off between reading performance and consistency
- Partitioning groups of nodes
- How do you manage network partitioning?
- Ensure that a sufficient quorum of nodes is available

System enhancement

- Addiction injections
- Use external databases
- Using distributed sessions to store web applications
- Monitoring
- Troubleshooting

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.