Course : Redis NoSQL, implementation

Practical course - 2d - 14h00 - Ref. QSZ
Price : 1680 CHF E.T.

This training course will give you an overview of all Redis features (API, cluster operation, Redis process monitoring), as well as techniques for optimizing the data model.

Teaching objectives

At the end of the training, the participant will be able to:

- Know how to implement Redis through its main use cases
- Using Redis as a toolbox
- Redis optimization techniques

Intended audience

Developers, architects and data engineers.

Prerequisites

Basic knowledge of a programming language.

Practical details

Teaching methods

Training alternates theory and practice. A great deal of practical work is carried out throughout the course.

Course schedule

1 Introduction to Redis

- Redis, memory cache.
- Positioning in relation to other NoSQL engines.
- When to use Redis, when not to.
- The great Redis references.

2 Main data structures and handling

- String, List, Set, Hash and Sorted Set.
- Main associated commands.

PARTICIPANTS

Developers, architects and data engineers.

PREREQUISITES

Basic knowledge of a programming language.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

3 Redis architecture

- Communication protocol and data format.
- Atomicity of operations.
- Start-up process.
- Event Loop and individual events.
- Data durability.
- Master-Slave replication.

4 Developing with Redis

- Client access languages.
- Java APIs in detail.
- Transaction management.
- Server-side scripting with Lua.
- Redis customers.
- Focus on Jedis and Spring Data Redis.

5 High availability and clustering

- Replicas and data lifecycle.
- Redis clustering.
- High availability with Redis Sentinel.

6 Data optimization, advanced data structures and organization

- Data expiration.
- Pipelining & Multiple Argument commands.
- Logical Types vs Physical Types.
- Patterns applied to data design.
- Publish/Subscribe.
- HyperLogLog. BitMap.
- Complex query problems.

7 Traffic monitoring

- The "monitor" command.
- Event analysis and History.
- The different tools on the market.

8 Further information

- Security and encryption.
- Key design and configuration recommendations.
- Extend Redis with Redis Modules.
- What's not in Redis. The Redis Labs enterprise solution.
- Alternatives and potential successors.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.