Course : Elasticsearch: Administration and Operation

Practical course - 3d - 21h00 - Ref. ELA
Price : 2360 CHF E.T.

★★★★½ 4,4 / 5

BEST

🎯 Teaching objectives

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

- ✓ Understand how Elasticsearch, logstash, and Kibana work
- ✓ Evaluate the possibilities offered by Elasticsearch, logstash, and Kibana
- ✓ Install and configure Elasticsearch
- ✓ Administer and monitor an Elasticsearch cluster

Course schedule

1 Installing and using Elasticsearch, logstash, and Kibana

- Developing applications using Elasticsearch.
- Impact on the design of existing applications.
- Prerequisites and types of installations.
- Configuration and implementation.

Hands-on work
Installing Elasticsearch, logstash, and Kibana.

2 How Elasticsearch works

- Overview of Apache Lucene.
- Architecture as a Cloud and key concepts (cluster, node, etc.).
- JSON format. The REST API.
- Scoring and relevance of queries.
- Simple searches.
- Data storage.
- The role of logstash and Kibana.

Hands-on work
Data storage in Elasticsearch. Importing data. Administration and initial simple search queries.

PARTICIPANTS

PREREQUISITES

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 Possibilities offered by Elasticsearch, logstash, and Kibana

- Handling large volumes of queries and indexing.
- Indexing and searching documents and data.
- Analyzing documents and data.
- Calculating lists of responses.
- Filtering and sorting results.
- Suggesting queries.

Hands-on work
Working with indexing. Implementing queries, filtering, and sorting results. Configuration for processing large volumes.

4 Search and indexing configuration

- Large volumes of queries and indexing.
- Indexing data.
- Search queries.
- Advanced searches.
- Percolation.

Hands-on work
Configuring the extraction of data from unstructured files and advanced data search.

5 Configuring and administering the cluster

- Configuring the Elasticsearch cluster.
- Preparing the Elasticsearch cluster for processing large volumes.
- Configuring the nodes.
- Template management.
- Administering the Elasticsearch cluster.

Hands-on work
Detailed review of the file elasticsearch.yml. Implementing an Elasticsearch cluster.

6 Administering the cluster

- Monitoring the cluster.
- Load distribution.
- Node allocation.
- Index aliases. Elasticsearch plug-ins.
- Properties "Transient" and "Persistent".
- Backup-and-restore principles.

Example
Using Plug-ins and Elasticsearch scripts.

Dates and locations

REMOTE CLASS
2026 : 4 May, 4 May, 29 June, 29 June, 7 Sep., 18 Nov., 18 Nov.