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Sign up

OpenSearch training

3 days (21 hours)

Presentation

Our OpenSearch training course will enable you to integrate a powerful real-time application monitoring and analysis tool into your workflows. Designed by Amazon as an alternative to Elastic Stack and Elasticsearch, OpenSearch is a highly scalable open-source tool that lets you quickly access and visualize large volumes of data.

This training program will teach you how to navigate the OpenSearch dashboards, initiate configurations and fine-tune settings for optimum performance. You'll also learn how to manage plugins to enhance functionality.

Our training course will put your knowledge to the test with practical exercises. Create indexes, manipulate [mappings](#) and run simple search queries to reinforce your learning and validate your skills.

Like all our training courses, it will run on the latest version of the tool: [OpenSearch 2.13](#).

Objectives

- Install and configure OpenSearch in your applications
- Fine-tuning parameters and configuration
- Embedding plugins
- Create data visualizations

Target audience

- **Data Analysts**
- Developers

Prerequisites

- Basic knowledge of programming and data manipulation is recommended

OPENSEARCH TRAINING PROGRAM

INTRODUCTION TO OPENSEARCH

- OpenSearch presentation and use cases
- Versions and major changes
- General architecture and components

INSTALLING AND CONFIGURING OPENSEARCH

- Installing OpenSearch
- OpenSearch Dashboards
- Initial configuration and basic settings
- Plugin management

INDEX AND MAPPING MANAGEMENT

- Creating and managing indexes
- Index templates and aliases
- Understanding mappings, stored and indexed fields
- Using the API for CRUD operations

TEXT ANALYSIS AND BASIC QUERIES

- Analyzers, character filters and tokenizers
- Understanding the difference between text and keywords
- Writing the first search queries

SEARCH QUERIES AND DSL

- Mastery of basic and advanced search queries
- Query DSL for complex queries
- Advanced search functions

STATISTICAL AGGREGATION AND ANALYSIS

- Understanding metric, bucket and pipeline aggregation
- Construction of aggregations for advanced statistical analysis
- Using aggregations in real-life scenarios

PERFORMANCE AND SCALABILITY

- Basics of scaling
- Distribution of shards
- Identifying and managing performance bottlenecks

SECURITY IN OPENSEARCH

- Configuring security settings in OpenSearch
- Understanding user roles and permissions

MONITORING AND OBSERVABILITY

- Job Scheduler and Performance Analyzer
- Configuring observability and event analysis functionalities

MACHINE LEARNING AND ADVANCED ANALYSIS

- Integration of machine learning models
- Using APIs to manage ML models

OPENSEARCH DASHBOARDS

- Create dashboards and data visualizations
- Using the OpenSearch Assistant and development tools

AUTOMATION AND API

- Understanding workflows and using APIs for automation

INTEGRATIONS AND TOOLS

- Using OpenSearch with Kubernetes, Logstash, Terraform, Grafana
- Exploring integration options with other platforms

PRACTICAL LABS

- Configuring and using OpenSearch dashboards
- Task automation with APIs

- Integration of OpenSearch into existing workflows

Companies concerned

This training 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.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

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.