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Sign up

Meilisearch training

3 days (21 hours)

Presentation

Meilisearch is an open source search engine designed to deliver an instant, relevant search experience. Designed for web and mobile applications, it combines a simple REST API, fine-tuned relevance management and rapid integration with front-end and back-end environments.

Our Meilisearch training course will teach you how to index data, personalize results, secure a search engine and integrate it into your projects.

You'll learn how to deploy Meilisearch, optimize its performance and implement advanced features such as facets, synonyms and fault-tolerant search.

At the end of the course, you'll be able to deploy Meilisearch in production, automate indexing and offer high-performance, intuitive search in your business applications.

Like all our training courses, this one is based on the latest stable version of Meilisearch, and favors a resolutely practical and operational approach.

Objectives

- Install, configure and secure Meilisearch
- Index JSON data and set relevance parameters
- Set up filters, facets, synonyms and stop-words
- Integrate Meilisearch on the front-end and back-end
- Optimize performance and prepare for production

Target audience

- Full stack developers
- Data engineers
- DevOps
- Application architects

Prerequisites

- Basic knowledge of REST APIs and JSON
- Basic knowledge of programming languages

Meilisearch training program

[Day 1 - Morning]

Introduction to Meilisearch and its fundamentals

- Understanding Meilisearch and its positioning (Elasticsearch, Algolia, Typesense)
- Key concepts: full-text search, typo tolerance, ranking
- Discover the REST API and official SDKs
- Local installation and rapid deployment with Docker
- Practical workshop: Start an instance, index a few documents and run a first search.

[Day 1 - Afternoon]

Indexing and data management

- Notion of index, JSON documents, primary key
- Creating, updating and deleting indexes and documents
- Mass import: batches, snapshots, dumps
- Indexing parameters
- Practical workshop: Import a dataset and perform targeted searches.

Search relevance and customization

- Relevance mechanisms and ranking order
- Managing typos, synonyms, stop-words, facets and filters
- Customized ranking rules and weightings
- Improving UX: autocompletion, highlighting, pagination
- Practical workshop: Adjusting relevance to boost business results.

[Day 2 - Morning]

Security and advanced configuration

- API keys and authentication models
- Secure deployment
- Server parameters: limits, pagination, logs
- Observability: metrics, logging, supervision
- Multi-tenancy: partitioning data and scoping API keys
- Practical workshop: Configuring API keys and testing access.

[Day 2 - Afternoon] Front-end

integration

- Using the JavaScript SDK and InstantSearch integration
- Integration patterns with React, Vue or Angular
- Client-side search, debounce and caching
- Accessibility and perceived performance
- Multi-tenancy on the front-end: querying Meilisearch from the browser
- Hands-on workshop: building a responsive instant search bar.

Back-end and API integration

- Consuming the REST API from Node.js, Python or PHP
- Data synchronization and automated imports
- Webhooks and asynchronous processing
- Best practices in scalability and resilience
- Practical workshop: Creating a continuous indexing microservice.

[Day 3 - Morning]

Optimization and performance

- Understanding resources used (CPU, memory, disk)
- Accelerate searches via filters, facets, relevant fields
- Reduce costs and latency (document size, normalization)
- Load testing and caching strategy
- Practical workshop: Benchmark and interpretation of metrics.

[Day 3 - Afternoon]

AI search: vectors, hybrid and multimodal

- Activate vector search and hybrid search

- Setting up embedders and measuring quality
- Multimodal text-image search
- Governance: cost, latency, observability of AI queries
- Practical workshop: Simple hybrid query scenarios.

Production and best practices

- Preparing a robust production environment
- Backup, snapshot and restore strategies
- Upgrading and compatibility
- Incident runbooks and continuous observability
- Practical workshop: Full deployment and go-live checklist.

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced IT 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 with regard to 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 training: 60% hands-on, 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.

Certification

A certificate will be awarded to each trainee who has completed the entire course.