

Elastic Search Fundamentals

Audience Elastic Search Fundamentals Course

The course Elastic Search Fundamentals is intended for anyone who wants to learn how to use Elastic Search.

Prerequisites Elastic Search Fundamentals

No specific prior knowledge is required to participate in the course Elastic Search Fundamentals. Knowledge of Java Development and the Spring Framework is beneficial for the understanding.

Realization Training Elastic Search Fundamentals

The theory is discussed on the basis of presentation slides and is interspersed with exercises. Demo projects clarify the concepts discussed. The course times are from 9.30 to 16.30.

Certification Elastic Search Fundamentals

Participants receive an official Elastic Search Fundamentals certificate after successful completion of the course.



Content Course Elastic Search Fundamentals

In the course Elastic Search Fundamentals participants learn to use the Apache Lucene based search engine Elastic Search for Enterprise queries on different types of data. Elastic Search has a Rest API with which you can quickly retrieve search results in JSON format. Elastic Search however also supports other data formats such as XML.

Elastic Search Intro

Attention is paid to the different ways in which Elastic Search can be deployed such as standalone, in a cluster, embedded or as a container. Also discussed is the fundamental unit of an Elastic Search document that can represent any type of relevant application data.

Indices and Mappings

Next it is explained what indices and mappings are and which data types can be assigned to fields. Various Elastic Search APIs are covered such as the Cluster APIs, the Indices APIs, the term vectors API and the bulk document API.

Query DSL

Attention is also paid to the Query DSL with which various queries can be executed such as full text queries, term level queries and geo queries. And explained is how mutations can be performed with queries.

Java Client API

Next attention is paid to how Elastic Search can be controlled from a Java application with Spring and Hibernate. Both the Java client API and the Java Rest Client are discussed.

Elastic Stack

The course concludes with an overview of the Elastic Stack with supporting applications and tools such as Kibana for visualization, Beats, Logstash and Testing Kit.

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Modules Course Elastic Search Fundamentals

Module 1 : Intro Elastic Search	Module 2 : Mappings	Module 3 : Using API
What is ElasticSearch?	Documents	Check Clusterhealth
Search Types	Indices	Indexes API
Full Text Search	Index Settings	Store Catalog Settings
Apache Lucene	Mappings	Create Index API
Restfull API's	Meta Fields	Catalog Index
JSON Documents	Data Types	Immutability
Running ElasticSearch	Advanced Mappings	Get Mapping Types
Run as Data Node	Dynamic Mapping	Analysis Process
Run as Ingest Node	Analyzers	Index States
Standalone Instance	Tokenizers	Open and Close
Clustering	Character Filters	Single Document Operations
Embedded	Indexing	Bulk Document API
As Container	Internationalization	Fetch Documents
Module 4 : Query DSL	Module 5 : Java Client API	Module 6 : Elastic Stack
Search API	Transport Client	Hibernate Search
Request Body Search	Using Maven	JPA Entities
Query Parameters	Spring Configuration	Spring Boot Magic
Match All Query	Asynchronous Handling	ELK Abbreviation
Full Text Query	Aggregations DSL	Logstash Pipeline
Term Level Queries	Java Rest Client	Kibana Visualization
Joining Queries	JsonPath Library	TCP Socket Plugin
Inner Hits	Using Indexing API	Logback Encoder
Geo Queries	Data Transfer Objects	elasticsearch-head
Mutations by Query	Using Testing Kit	elasticsearch-HQ

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