

# ELASTICSEARCH ENGINEER I

This instructor-led course provides a strong foundation for getting started with Elasticsearch. It covers how to deploy and manage Elasticsearch clusters, as well as how to use your deployment to develop powerful search and analytics solutions. You will learn how to install, configure, and manage Elasticsearch clusters, as well as how to troubleshoot issues you may encounter along the way. You will also explore the inner workings of Elasticsearch and gain insight into queries, analyzers, mappings, and aggregations as you learn to work with search results. After completing this course, you will be well on your way to becoming an [Elastic Certified Engineer](#).

## LESSONS

*All lessons include a hands-on lab.*

### Elasticsearch fundamentals

Learn how Elasticsearch and the components of the Elastic Stack work together to solve a myriad of use cases and real-world problems. Learn how to install and run Elasticsearch. Understand how to get data in and out of Elasticsearch. Learn the basics of queries and aggregations.

### Elasticsearch aggregations

Explore aggregations in detail, including the different types of aggregations, how to perform metric and bucket aggregations, and details on how to use some of the more common aggregations.

### Elasticsearch queries

Learn how to write and submit queries, as well as how the scoring and relevance of matching documents is calculated. Learn the main full-text queries available in Elasticsearch and explore advanced options, such as configuring fuzziness for dealing with misspelled words. Learn how to combine different search clauses. Understand the different components that compose a search page and how to use them, like how to highlight matched search terms in a response, and how to perform sorting and pagination of search results.

*Continued on next page*

## COURSE INFORMATION



### Audience

Software Developers  
Software Engineers  
Data Architects  
System Administrators  
DevOps



### Duration

Classroom - 2 days | 8 hours per day  
Virtual - 4 days | 4 hours per day



### Language

English



### Prerequisites

No prior knowledge of Elasticsearch required



### Requirements

- Stable internet connection
- Mac, Linux, or Windows
- Latest version of Chrome or Firefox (other browsers not supported)
- Disable any ad blockers and restart your browser before class

# ELASTICSEARCH ENGINEER I

## LESSONS (CONTINUED)

*All lessons include a hands-on lab.*

### **Elasticsearch text analysis and mappings**

Understand how Elasticsearch mappings are used to define the way documents and fields are indexed and stored. Learn the difference between *text* and *keyword*, and how to customize mappings. Learn how Elasticsearch can be used as a pure key/value data store and how to deal with null values and coercing.

### **Elasticsearch nodes and shards**

Learn why the cluster state is so important, as well as what master-eligible nodes are and how they work. Understand the differences between the different types of nodes and discuss some sample architectures. Understand how Elasticsearch scales and distributes data across a cluster. Learn details about distributed writes and distributed search operations.

### **Elasticsearch monitoring and troubleshooting**

Learn how to understand the health of your cluster and diagnose health issues, as well as how to allocate shards and diagnose shard issues. Learn best practices for cluster monitoring. Learn how to set up alerts to automatically notify you of cluster issues. Find out how to dig deeper into performance issues to really understand and resolve them.