



# ELASTICSEARCH ENGINEER I

## Overview

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, manage, and secure 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.

## Objectives

### Audience

Software Developers and Engineers, Data Architects, System Administrators, DevOps.

### Duration

In-Classroom - 2 Days | 8 hours per day

Virtual Classroom - 4 Days | 4 hours per day

### Language

English

### Prerequisites

No prior knowledge of the Elasticsearch required

### Requirements

- Stable internet connection
- Mac, Linux, or Windows
- Latest version of Chrome or Firefox (Safari is not 100% supported)
- Due to virtual classroom JavaScript requirements, we recommend that you disable any ad-blockers and restart your browser before class.

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## Modules

### Elastic Stack Overview

- Learn how Elasticsearch and the components of the Elastic Stack work together to solve a myriad of use cases and real-world problems.
- **Hands-on Lab**

### Getting Started with Elasticsearch

- Learn how to install Elasticsearch and how to get data in and out.
- **Hands-on Lab**

### Querying Data

- Learn how to write and submit queries and how the scoring and relevance of matching documents is calculated.
- **Hands-on Lab**

### Text Analysis and Mappings

- We walk through the details of how full text is analyzed and indexed in Elasticsearch, including a discussion of the various analyzers and filters and how to configure them. You will also learn how Elasticsearch mappings are used to define how your documents and fields are stored and indexed, including how to define multi-fields and custom analyzers.
- **Hands-on Lab**

### The Distributed Model

- Understand how Elasticsearch scales and distributes data across a cluster, including details on shards, distributed search concepts, and sample architectures.
- **Hands-on Lab**

### Troubleshooting Elasticsearch

- Learn to understand the health of your cluster and diagnose health issues, as well as allocate shards and diagnose shard issues.
- **Hands-on Lab**

### Improving Search Results

- We take a deeper dive into searching data with a discussion on the multi\_match query, configuring fuzziness for dealing with misspelled words, how to highlight matched search terms in a response, and how to perform common tasks when working with search results like sorting and pagination.
- **Hands-on Lab**

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## Aggregating Data

- We discuss 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.

- **Hands-on Lab**

## Securing Elasticsearch

- Learn the various techniques used to secure your Elasticsearch clusters.

- **Hands-on Lab**

## Best Practices

- We look at some of the best practices when moving your cluster and applications into production, including aliases, templates, and how to backup and restore a cluster.

- **Hands-on Lab**