ELASTICSEARCH DEVELOPER II

*The Elasticsearch Developer II curriculum will soon be transitioned to **Elasticsearch Engineer II**. This transition will not impact anyone who is already enrolled in Operations I. To learn more about this update, as well as the new **Elastic Certified Engineer** exam, please see our certification launch page at https://elastic.co/training/certification or contact us at training@elastic.co.*

Overview

This advanced, instructor-led course is designed for software developers and engineers who understand Elasticsearch development and now need to expand their skills for building effective search and analytics applications. The course begins with an in-depth look at the Painless scripting language, ingest pipeline definition and deployment, and data modeling, with a focus on best practices and parent/child relationships. After that, you will plunge into advanced topics involving relevance scores, geolocation data, cross cluster search, entity-centric indices, polyglot architectures, and more on your way to mastering Elasticsearch development.

Audience

Experienced Elasticsearch Developers who need to expand their knowledge of Elasticsearch

Duration

In-Classroom - 2 Days | 8 hours per day
Virtual Classroom - 4 Days | 4 hours per day

Language

English

Prerequisites

Completion of the Elasticsearch Developer I course, or equivalent experience

Requirements (In-Classroom)

- Laptop with Wi-Fi connectivity
- Mac, Linux, or Windows
- Modern web browser
- 64-bit JDK installed
  - Oracle JDK 1.8.0_60 or later
  - OpenJDK 1.8.0_111 or later
- At least 20% free disk space

Requirements (Virtual Classroom)

- 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

Painless Scripting

- Learn how to use the new Painless scripting language in Elasticsearch and discuss use cases for scripting, including the Reindex and Update By Query APIs

- **Hands-on Lab** (30 minutes)

Ingest Pipelines

- Pre-process documents during indexing with the ingest node capability of Elasticsearch by defining custom pipelines using various processors

- **Hands-on Lab** (30 minutes)

Handling Relationships

- Learn how to implement and query documents that contain arrays of objects, and how to implement a parent/child relationship in Elasticsearch

- **Hands-on Lab** (20 minutes)

Field Modeling I

- Learn how to design and model the fields in your documents, including discussions on granular fields, range types, dealing with large field cardinality, and designing for proximity matching

- **Hands-on Lab** (30 minutes)

Field Modeling II

- We continue the discussion on field modeling, including dealing with diacritics (special characters) in various languages, and defining and working with synonyms

- **Hands-on Lab** (30 minutes)

Geolocation

- Learn how to map and index geo points and shapes and also how to use the various geo search capabilities of Elasticsearch

- **Hands-on Lab** (30 minutes)

Controlling Relevance

- Understand how documents are scored in Elasticsearch, then learn how to control the relevance scoring using function_score, decay functions, script_score and more

- **Hands-on Lab** (30 minutes)

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Advanced Search and Aggregations

- Learn some of the advanced search and aggregation techniques, including cross cluster search, pipeline aggregations and some advanced mapping techniques

- **Hands-on Lab** (30 minutes)

Improving Search Performance

- Including a discussion on some of the common causes of poor query performance, and how to fix them

- **Hands-on Lab** (20 minutes)

Entity Modeling and Polyglot Architectures

- Understand the difference between event modeling and entity-centric modeling, including a real-world example of how entity-centric modeling can be used to answer different questions in more efficient ways. We also discuss how Elasticsearch is best used in your polyglot architecture

- **Hands-on Lab** (30 minutes)