Elasticsearch Workshop 101

Instructor Information

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Intended Audience

Developers who wish to obtain the basic skills and knowledge on how to develop search solutions with Elasticsearch

Prerequisites

This workshop requires basic knowledge in HTTP and Windows/Linux shells.

Goal

In this workshop the student will get basic hands-on experience with Elasticsearch and how to use it in order to provide Google like search capabilities to its organizational data.

Duration

- 1 full day.

Objectives

- Configure Elasticsearch Index, shards, nodes, analyzers
- Create indexes configure their mappings add types insert data and search it
- Understand basic principles of text analysis
- Learn best practices on how to use Elasticsearch components and how to avoid pitfalls
- Learn how to use basic Elasticsearch monitoring, testing and deployment tools

Sessions

The workshop is composed of 5 sessions

- Introduction
- Basic CRUD
- Index Search Analyze
- Mappings
- ELK and more advanced topics

Introduction:

- Elasticsearch in general
- What are the key features of Elasticsearch
- Install, configure and run Elasticsearch
- How to use Elasticsearch plugins (Marvel (Sense), Head)
- Create and work on Elasticsearch local cluster
- Basic API's to get Elasticsearch cluster health and state

CRUD:

- Elasticsearch basic data model
- How to perform basic CRUD operations
- Write basic CRUD operations

Index Search Analyze:

- Bulk operations
- Basic search API's
- Basic filtering API's
- Elasticsearch scoring and search results format
- Elasticsearch highlight functionality
- Analyzers, Tokenizers and Token filters
- Basic text analysis terms, operations and models

Mappings:

- What are Elasticsearch types
- What is dynamic mapping
- Configure types' mappings
- Why mapping is important

ELK and more advanced topics:

If time permits, we will review some of the following topics:

- QueryStringQuery
- TF/IDF
- Logstash
- Kibana
- Basic analytics on top of Elasticsearch
- Elasticsearch Java API
- Etc.