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.