CBElasticSearch

Description

Our applications today are data heavy. At the same time, more and more of our users expect a Google-like experience when searching. A simple `WHERE LIKE` query isn't going to cut it. We need a more robust search solution. Enter ElasticSearch. In this workshop, you will learn the basics of ElasticSearch and how to run a version of ElasticSearch locally. We will explore how to serialize data to ElasticSearch and query results from it. Finally, we will show how to integrate your new ElasticSearch service into a ColdBox application.

Prerequisites

To run and work on the example app in this workshop, you will need to install:

- CommandBox CLI
- Docker

Schedule / Outline

1. Course Intro
    a. Introductions (teachers and attendees)
    b. Software prereqs
        i. CommandBox
        ii. Docker
    c. Expectations for the course
2. Intro to ElasticSearch
    a. What, why, how
    b. Demo ElasticSearch API
    c. Demo FindMyFlick app
3. Installing the Base App
    a. Starting cbelasticsearch container via `docker run`
    b. Starting the sample app via `box start`.
4. Configuration
    a. ElasticSearch configuration
        i. Port mapping in docker
        ii. memory settings
    b. cbElasticSearch configuration
        i. Port, protocol, server

        ii. Using `commandbox-dotenv` and `.env` for secrets
5. Managing Document Schema
    a. Creating a new index
    b. Updating an existing index
    c. Deleting an index
    d. Using the Mapping Builder
6. Serializing Documents
    a. Serializing single documents
    b. Bulk serializing documents
    c. Reserializing an entire index
7. Basic Searching
    a. Exact-match searching
    b. Fuzzy searching
    c. Boosting
8. Advanced Searching
    a. Sorting
    b. Aggregation
    c. Advanced query DSL
9. FAQs / Summary