Engineering - Backend Candidate Task

General

This task aims to evaluate your hands on skills, your ability to adjust to unfamiliar technologies and your strategy to deal with large data sets.

How will we score the task?

The submission will be evaluated based on the following criteria:

1. The task works as expected
2. Code is modular, readable and clean
3. Runtime performance

The task

Given a Docker compose creating a full environment contains: Elasticsearch server with data indexed, you will need to create the following:

1. Server application implementing 2 API endpoints over the data
2. Create a Dockerfile for the server application
3. Add the server application into the docker compose file

The Data:

1. Data is indexed on index name: “page-views”
2. Data structure:

```
{
        "ip": <String>,
        "timestamp": <String> (format: 2015-10-12T11:27:04+03:00),
        "domain": <String>,
        "blacklisted": boolean,
        "event_type": <String> "button_click"/”page_view”
}
```

The API:

1. API Server can be written in any coding language
2. Two API endpoints should be implemented:
    a. get by field -
        i. Mandatory fields: type, value
        ii. Supported types: event_type, domain, blacklisted, ip
        iii. Example: `GET /field?type=ip&value=1.2.3.4` should return all documents with IP:1.2.3.4
    b. search by string -
        i. Mandatory field: s

ii. Should support searching on all fields in the document

iii. Example: `GET /search?s=page` should return both documents:

```
[{
        "ip": “1.2.3.4”,
        "timestamp": “2015-10-12T11:27:04+03:00”,
        "domain": “www.example.com”,
        "blacklisted": boolean,
        "event_type": "page_view"
}, {
        "ip": “2.3.4.5”,
        "timestamp": “2015-10-12T11:27:04+03:00”,
        "domain": “www.page.com”,
        "blacklisted": boolean,
        "event_type": "button_click"
}]
```

Bonus:

1. Cache results

Submission:

1. The task should not take longer than 1.5 hours, if it is, submit what you have achieved.
2. The submission should include command line instructions, to run the application locally.

Good Luck!