

Elasticsearch

For Developer



logstash

Software Requirement

JDK 1.7 +

Elasticsearch 1.7.3

Installation

<https://www.elastic.co/downloads/elasticsearch>

installation

1



Download and unzip the latest Elasticsearch distribution

2



**Run *bin/elasticsearch* on Unix,
or *bin/elasticsearch.bat* on Windows**

3



Run *curl -X GET http://localhost:9200/*

Starting

\$ bin/elasticsearch

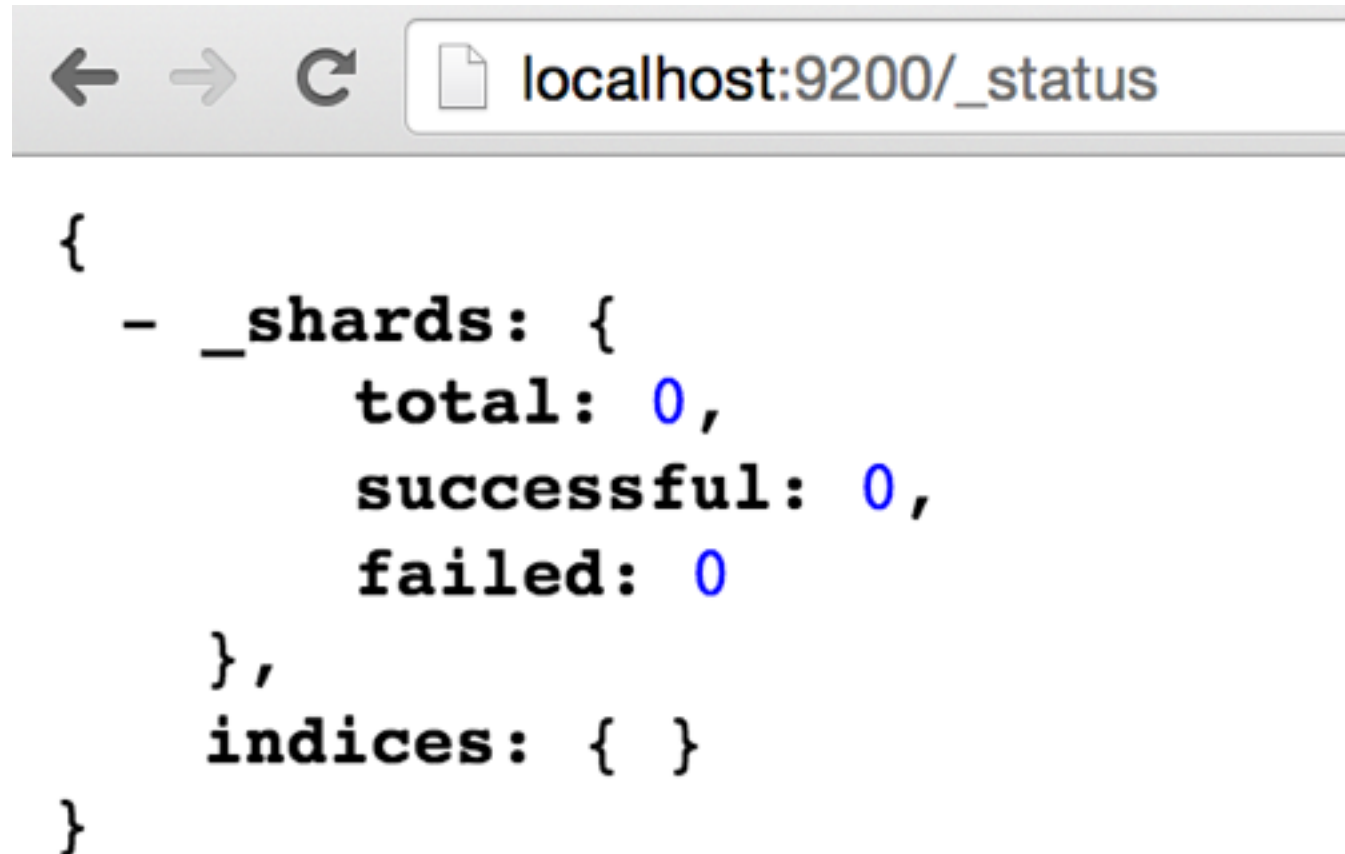
```
[2015-10-23 23:49:45,877][INFO ][node                               ] [Ev Teel Urizen] version[1.7.3], pid[8456], build[05d4530/2015-10-15T09:14:17Z]
[2015-10-23 23:49:45,879][INFO ][node                               ] [Ev Teel Urizen] initializing ...
[2015-10-23 23:49:46,014][INFO ][plugins                           ] [Ev Teel Urizen] loaded [], sites []
[2015-10-23 23:49:46,064][INFO ][env                               ] [Ev Teel Urizen] using [1] data paths, mounts [[/ (/dev/disk1)]]
, net usable_space [45.5gb], net total_space [232.6gb], types [hfs]
[2015-10-23 23:49:48,956][INFO ][node                               ] [Ev Teel Urizen] initialized
[2015-10-23 23:49:48,957][INFO ][node                               ] [Ev Teel Urizen] starting ...
[2015-10-23 23:49:49,073][INFO ][transport                         ] [Ev Teel Urizen] bound_address {inet[/0:0:0:0:0:0:0:0:9300]},
publish_address {inet[/192.168.1.34:9300]}
[2015-10-23 23:49:49,138][INFO ][discovery                         ] [Ev Teel Urizen] elasticsearch/DHigYPCKRi661MxqqmZRpw
[2015-10-23 23:49:52,928][INFO ][cluster.service                   ] [Ev Teel Urizen] new_master [Ev Teel Urizen][DHigYPCKRi661MxqqmZRpw]
[MacBook-Pro-2.local][inet[/192.168.1.34:9300]], reason: zen-disco-join (elected_as_master)
[2015-10-23 23:49:52,947][INFO ][http                             ] [Ev Teel Urizen] bound_address {inet[/0:0:0:0:0:0:0:0:9200]},
publish_address {inet[/192.168.1.34:9200]}
[2015-10-23 23:49:52,948][INFO ][node                               ] [Ev Teel Urizen] started
[2015-10-23 23:49:52,957][INFO ][gateway                           ] [Ev Teel Urizen] recovered [0] indices into cluster_state
```

Welcome to Elasticsearch

```
← → ↻ localhost:9200

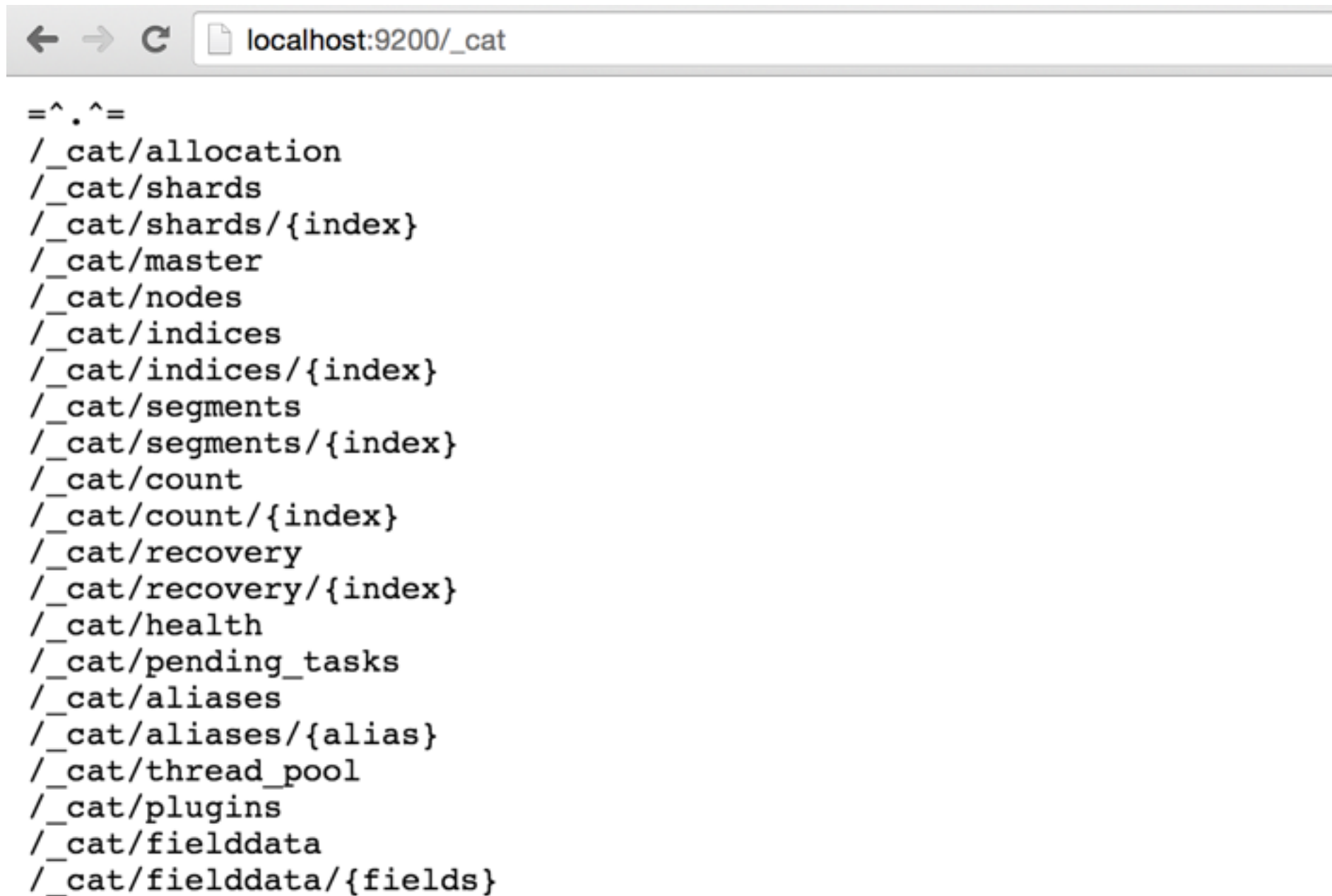
{
  status: 200,
  name: "Ev Teel Urizen",
  cluster_name: "elasticsearch",
- version: {
    number: "1.7.3",
    build_hash: "05d4530971ef0ea46d0f4fa6ee64dbc8df659682",
    build_timestamp: "2015-10-15T09:14:17Z",
    build_snapshot: false,
    lucene_version: "4.10.4"
  },
  tagline: "You Know, for Search"
}
```

ตรวจสอบสถานะ



```
{
  - _shards: {
    total: 0,
    successful: 0,
    failed: 0
  },
  indices: { }
}
```

CAT API



https://www.elastic.co/guide/en/elasticsearch/guide/current/_cat_api.html

มันทำงานอย่างไร

bin/

elasticsearch
plugin

config/

elasticsearch.yml
logging.yml

lib/

data/

Default port

9300

Internal communication

9200

HTTP REST

เปลี่ยนชื่อ Node

config/elasticsearch.yml

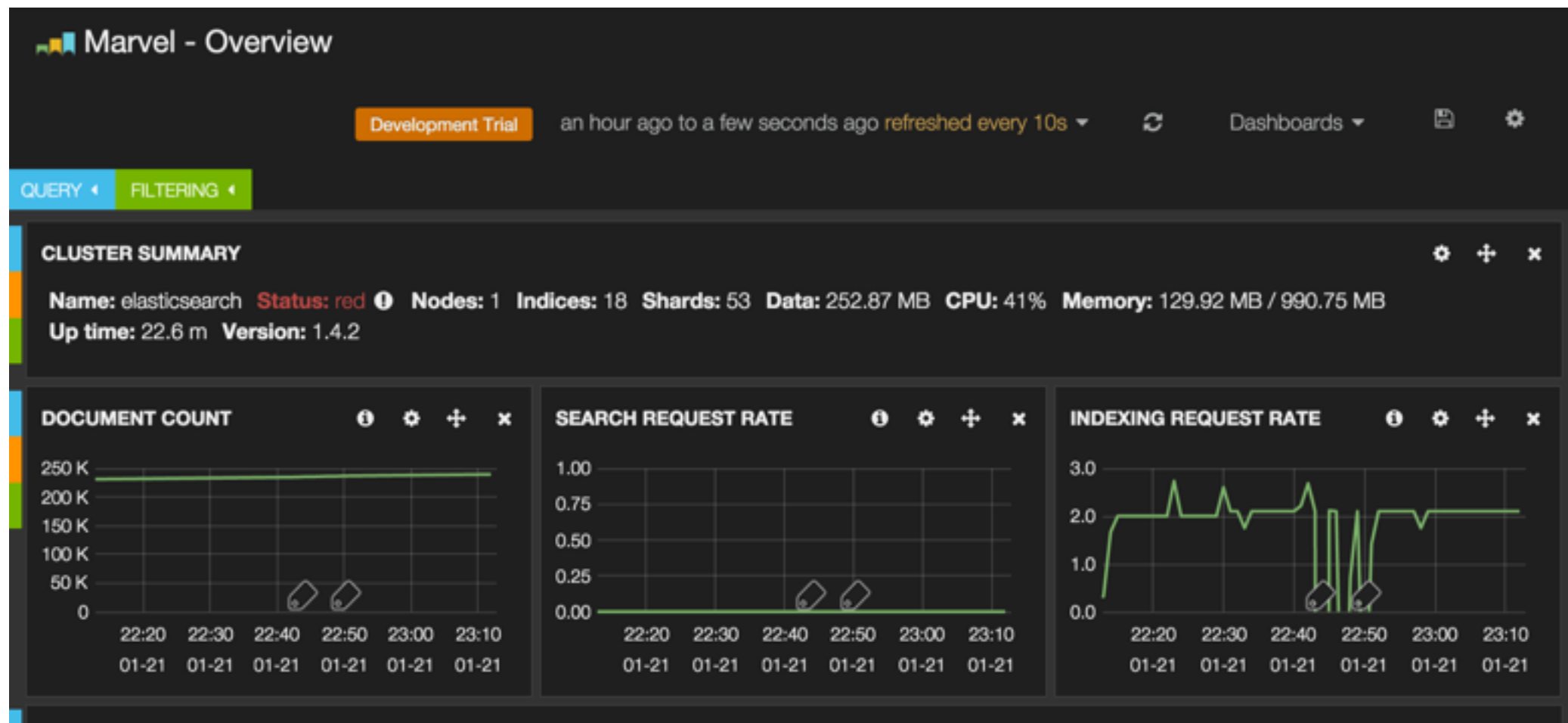
node.name=Somkiat

```
localhost:9200
{
  "status" : 200,
  "name" : "Somkiat",
  "version" : {
    "number" : "1.3.4",
    "build_hash" : "a70f3ccb52200f8f2c87e9c370c6597448eb3e45",
    "build_timestamp" : "2014-09-30T09:07:17Z",
    "build_snapshot" : false,
    "lucene_version" : "4.9"
  },
  "tagline" : "You Know, for Search"
}
```

<https://github.com/elastic/elasticsearch>

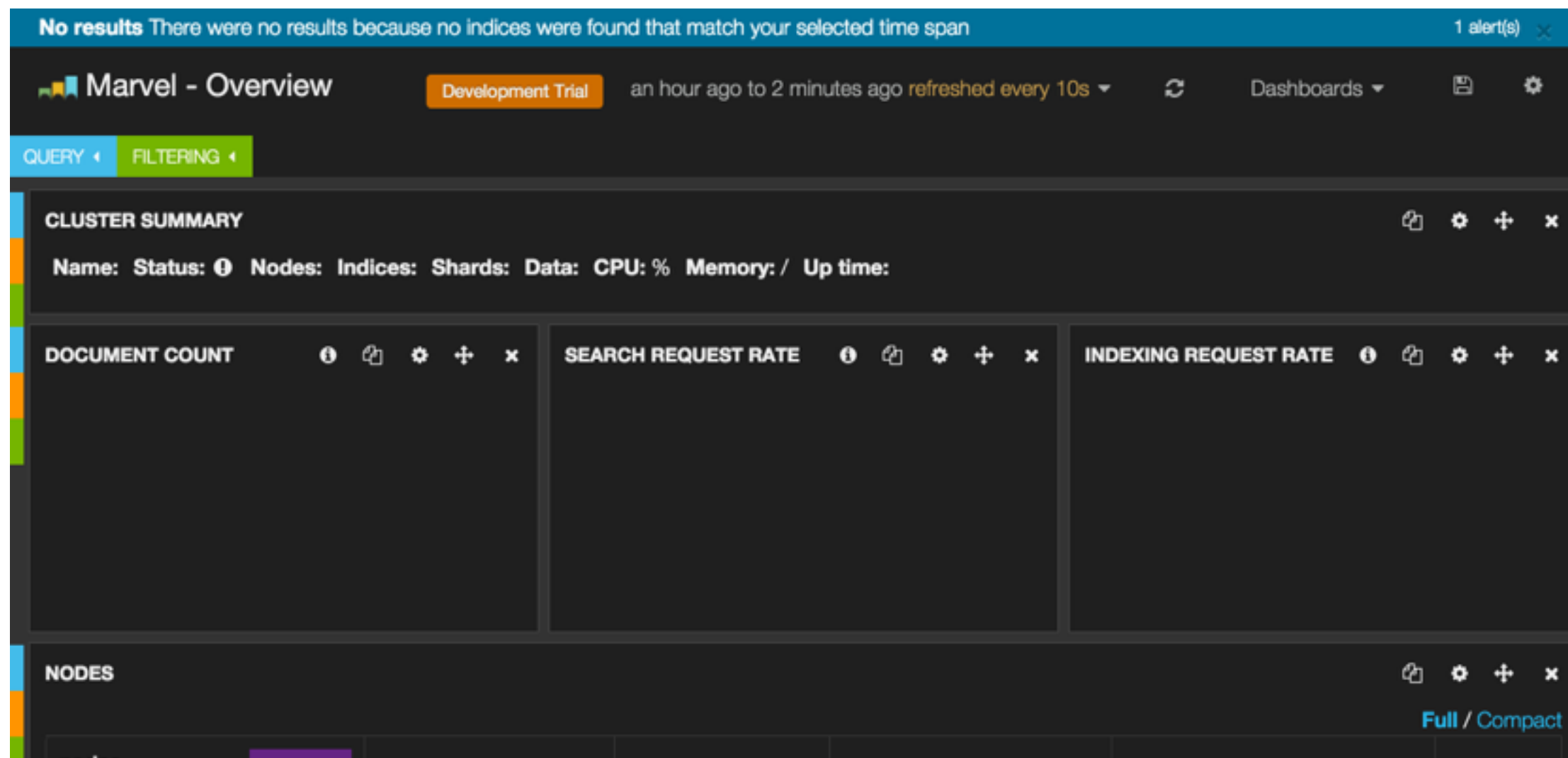
ติดตั้ง Plugin

```
$plugin -install elasticsearch/marvel/latest
```



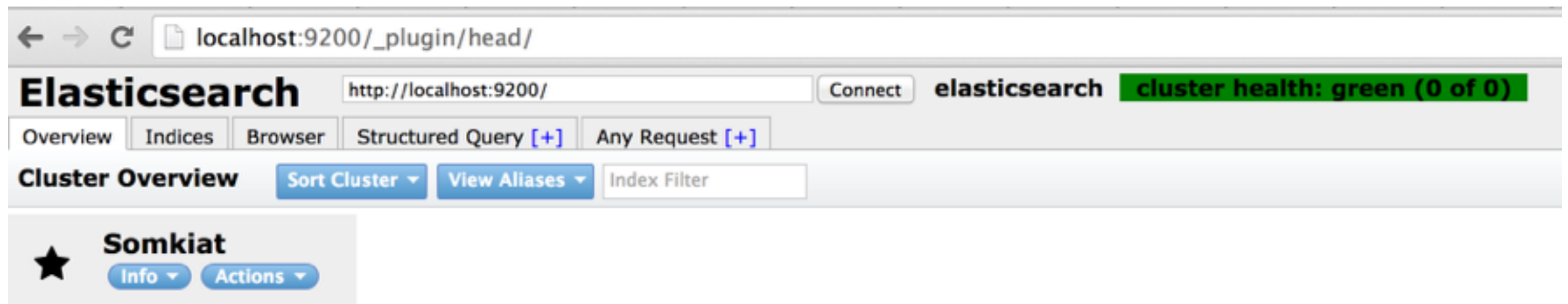
ใช้งาน marvel

http://localhost:9200/_plugin/marvel



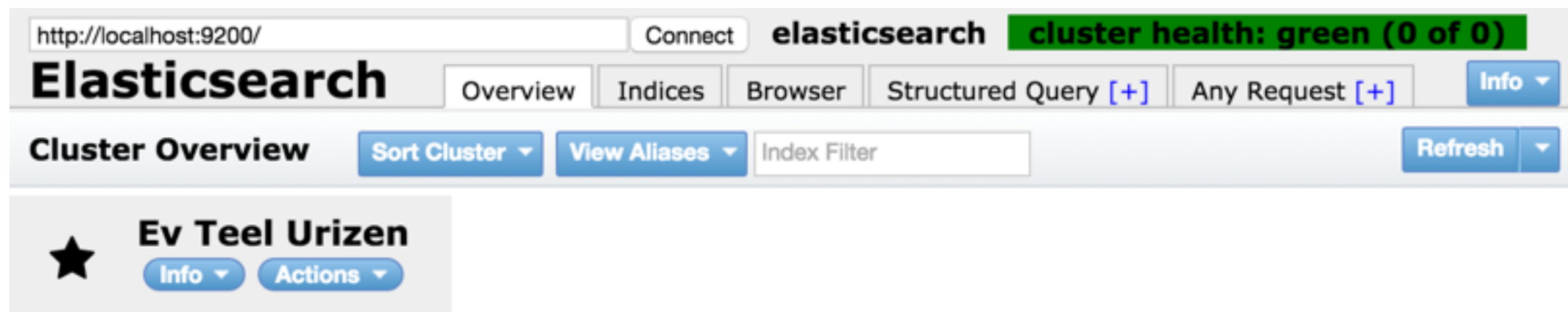
ติดตั้ง Plugin

```
$plugin -install mobz/elasticsearch-head
```



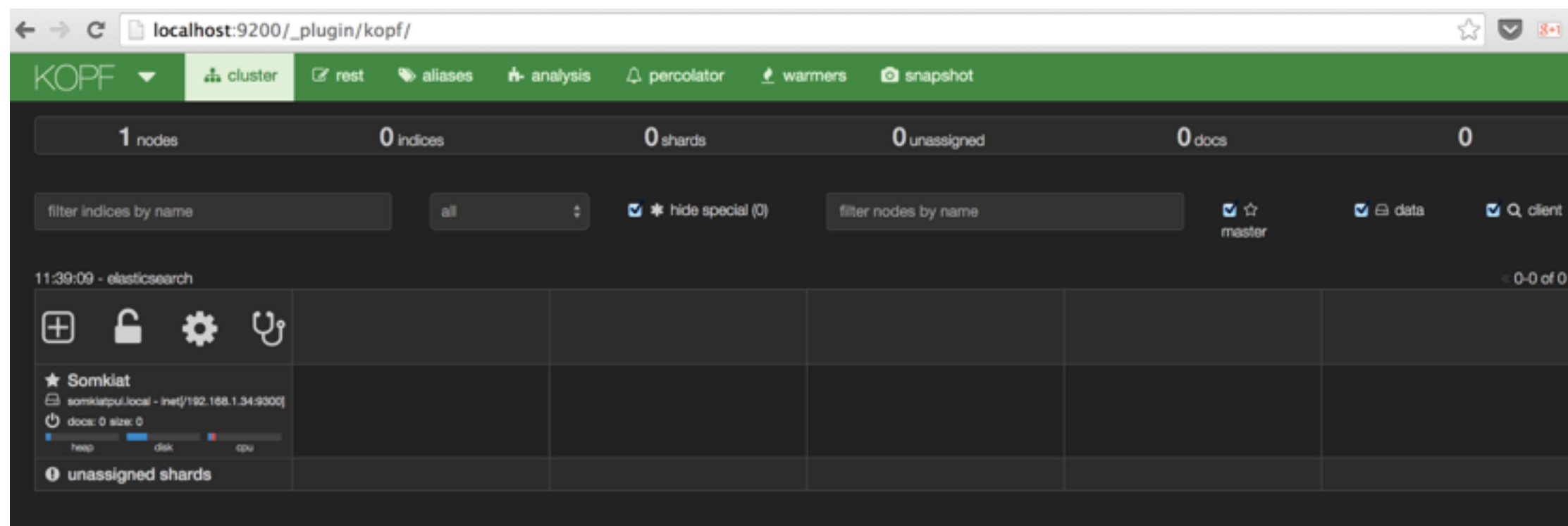
ใช้งาน head

http://localhost:9200/_plugin/head



ติดตั้ง Plugin

```
$plugin -install lmenezes/elasticsearch-kopf
```



ลบ Plugin

```
$plugin -remove mobz/elasticsearch-head
```

```
$plugin -remove head
```


Create index

```
curl -XPUT http://localhost:9200/blog/
```

REST APIs

```
curl -XPUT http://localhost:9200/blog/article/1 -d
  '{ "title": "New version of Elastic Search",
    "content": "...",
    "tags":["announce", "elasticsearch",
           "release"]}
'
```

REST APIs

ชี้ อ INDEX

```
curl -XPUT http://localhost:9200/blog/article/1 -d
'{ "title": "New version of Elastic Search",
  "content": "...",
  "tags":["announce", "elasticsearch",
         "release"]}
'
```

REST APIs

ชื่อ TYPE

```
curl -XPUT http://localhost:9200/blog/article/1 -d
'{ "title": "New version of Elastic Search",
  "content": "...",
  "tags":["announce", "elasticsearch",
        "release"]}
'
```

ดูข้อมูลหน่อย

```
curl -XGET http://127.0.0.1:9200/blog/article/_mapping?pretty=true
```

```
{
  "blog" : {
    "mappings" : {
      "article" : {
        "properties" : {
          "content" : {
            "type" : "string"
          },
          "tags" : {
            "type" : "string"
          },
          "title" : {
            "type" : "string"
          }
        }
      }
    }
  }
}
```

ตรวจสอบผลการทำงาน

The screenshot shows the Elasticsearch Kibana interface at `localhost:9200/_plugin/head/`. The main header displays the **Elasticsearch** logo, the connection URL `http://localhost:9200/`, a **Connect** button, and the cluster name **elasticsearch** with a status of **cluster health: yellow (5 of 10)**. Below the header, there are tabs for **Overview**, **Indices**, **Browser**, **Structured Query**, and **Any Request**. The **Cluster Overview** section includes buttons for **Sort Cluster**, **View Aliases**, and an **Index Filter** input field.

The **blog** index is highlighted, showing a size of **3.46ki (3.46ki)** and **docs: 1 (1)**. Below this, there are **Info** and **Actions** buttons. The node allocation table shows two nodes: **Unassigned** and **Somkiat**. The **Unassigned** node has five empty slots (0-4), while the **Somkiat** node has five slots (0-4) that are all filled with green, indicating they are assigned.

Node	0	1	2	3	4
Unassigned					
Somkiat	0	1	2	3	4

ตรวจสอบผลการทำงาน

The screenshot displays the KOPF web interface for managing an Elasticsearch cluster. The browser address bar shows `localhost:9200/_plugin/kopf/`. The top navigation bar includes tabs for **KOPF**, **cluster** (active), **rest**, **aliases**, **analysis**, **percolator**, **warmers**, and **snapshot**.

Cluster summary statistics are shown at the top:

- 1 nodes
- 1 indices
- 10 shards
- 5 unassigned

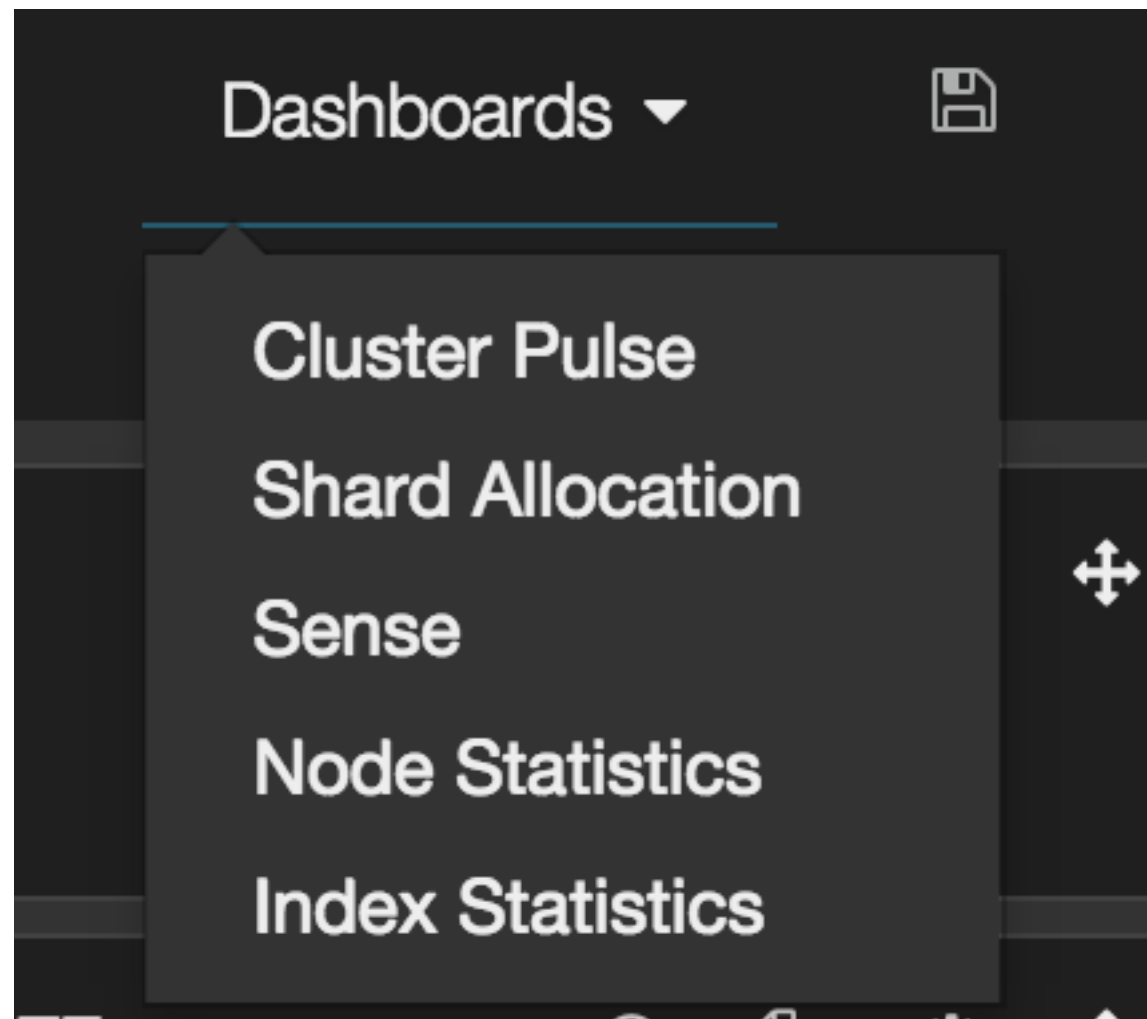
Below the summary, there are filters: "filter indices by name", a dropdown set to "all", a checkbox for "hide special (0)" which is checked, and "filter nodes by name".

The main content area shows the index **blog** at 16:02:51. The index details include:

- shards: 5 * 2 | docs: 1 | size: 3.46KB
- Node **Somkiat** (somkiatpui.local - Inet[192.168.1.34:9300]) is highlighted with a star. It shows 1 doc and 3.46KB size. Below this are progress bars for heap, disk, and cpu usage.
- A section for **unassigned shards** is visible.

Shard status is visualized with green boxes (0-4) for assigned shards and grey boxes (0-4) for unassigned shards.

ใช้งาน Sense



Delete index

```
curl -XDELETE http://localhost:9200/blog/
```

TIP :: Delete index

`action.destructive_requires_name: true`

<https://www.elastic.co/guide/en/elasticsearch/reference/1.7/indices-delete-index.html>