ElasticSearch Using Python

The cool way to search

CODE OF CONDUCT

WWCode is a non-profit organization dedicated to inspiring women to excel in technology careers. We are committed to our mission statement and equally committed to providing a harassment-free experience for everyone regardless of gender, gender identity and expression, sexual orientation, ability, physical appearance, body size, race, ethnicity, age, religion, socioeconomic status, caste or creed. We do not tolerate harassment of event participants in any form. Event participants violating these rules may be sanctioned or expelled permanently, at the discretion of the event organizers, which in most cases are members of the WWCode leadership team.

MONTHLY PYTHON LAB

WWCode has a monthly Python lab on the 3rd Wednesday and a Beginners Night @Fiscal Note every other first Wednesday of the Month from 6:30-8:30pm.

JOIN THE SLACK COMMUNITY

Join the Slack community at **http://bit.ly/wwcdcslack**

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About Me:

I am a developer, poet, data scientist, advocate, and dancer passionate about intersecting worlds. I encourage people to boldly envision a future that defies the status quo.

I code to move women and people of color into tech, and change the face of the industry. We challenge the bias in our data and demand integrity.

My mantra:

Humans don’t need big data. Big data needs humanity.

Oh. and D.C. Statehood.

Ice breaker

Your neighbor is your collaborator!

Form alliances!

Lift each other up!

Help each other out!

Download - cannot move on until ya do

Download:

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

Download:

https://www.elastic.co/downloads/kibana

For reference

Stack Overflow is great & all…

But good practice is to get to know the library and documentation.

https://elasticsearch-py.readthedocs.io/en/master/

What is elastic search?

Elasticsearch is a real-time distributed search and analytics engine. It allows you to explore your data at a speed and at a scale never before possible. It is used for full text search, structured search, analytics and all three in combination. ElasticSearch is an open source search engine built on top of Apache Lucecne, a full text search engine library.

Test it in browser @ ‘http://localhost:9200’

What is kibana?

Kibana is an open source data visualization plugin for **Elasticsearch**. It provides visualization capabilities on top of the content indexed on an **Elasticsearch** cluster.

@http://localhost:5601

Definitions - boring but necessary

Index:

An index is like a database in traditional database. It is the place to store related documents. It is a collection of documents with similar characteristics and is identified by a name. This name is used to refer to the index while performing inducing, search, update, and delete operations against the documents in it.

To retrieve any document we would need three pieces of information:

1. Index—Database
2. Datatype—Type of the document
3. Id—Id of the document

Type - a type is a logical category/partition of an index whose semantics is completely. It is defined for documents that have a set of common fields. You can define more than one type in your index.

Cluster - A cluster is a collection of one or more nodes that together holds the entire data. It provides federated indexing and search capabilities across all nodes and is identified by a unique name (by default is ‘elastic search’)

Node - A node is a single server which is a part of cluster, stores data, and participated in the cluster’s indexing and search capabilities.

Shards - each shard is in itself a fully functional and independent “index” that can be hosted on any node within the cluster

Replicas - allows you to make one or more copies of the index shards

You're ready grasshopper...

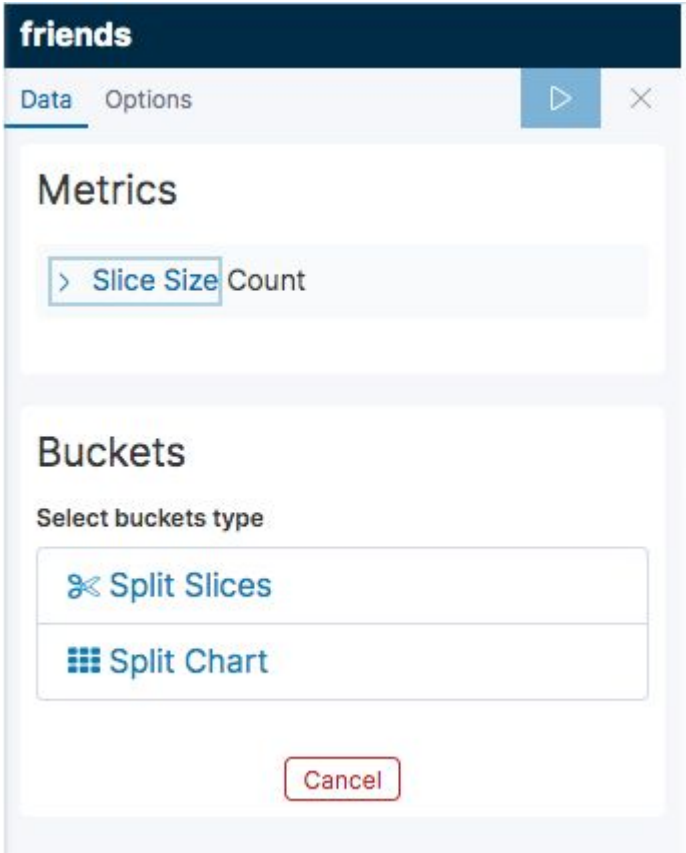
Let's get started.

https://github.com/brm2398/elasticsearchWWCDC

The first search

```
friends, romans, countrymen
```

Kibana visualizations - pie chart

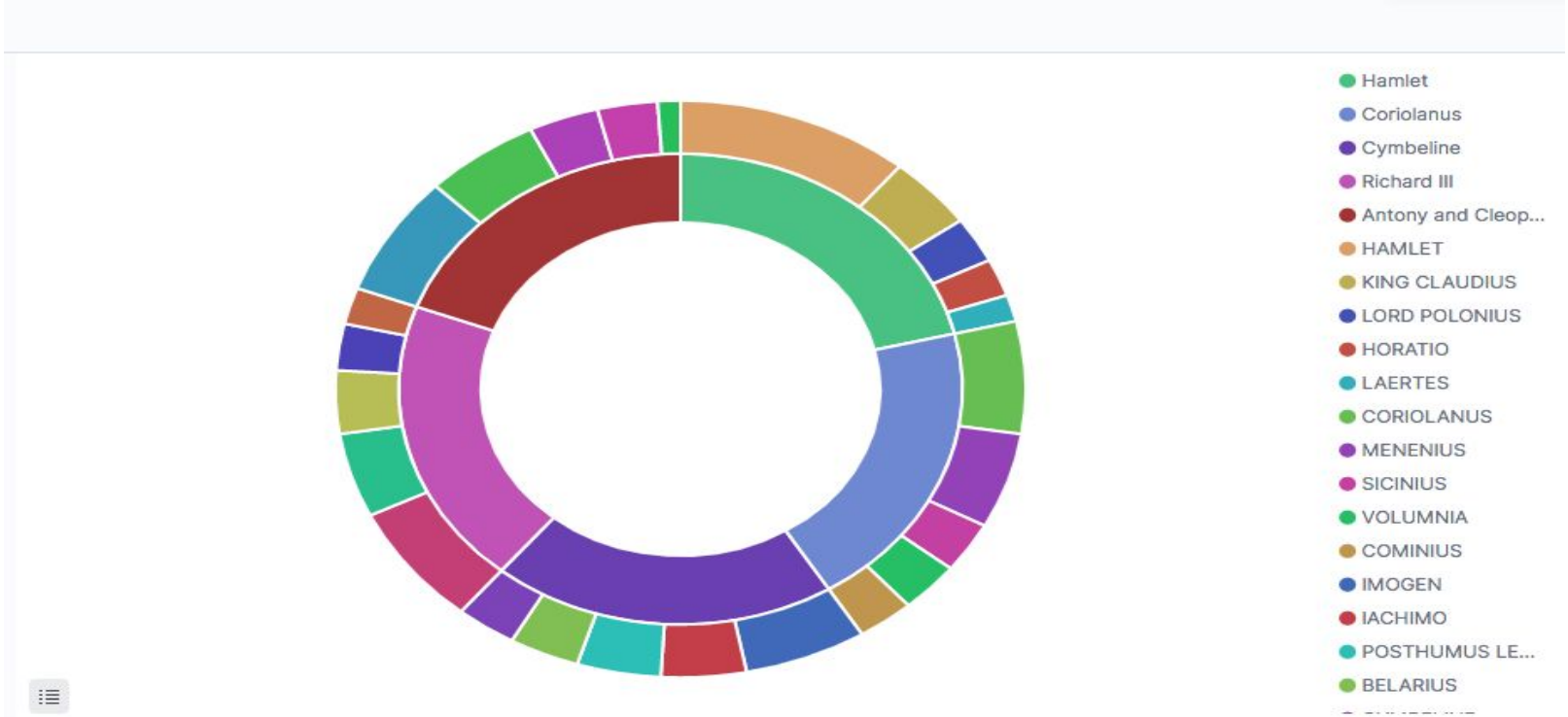


Metrics = y - axis

Buckets = x-axis

Exercise: get a unique count

Try and break down speakers within a play by play name.



Q&A

Ask me anything! Feedback?

To practice further:

https://www.elastic.co/guide/en/kibana/3.0/import-some-data.html

Wanna know what I'm up to?

Check out my website!

http://codetomove.com

Or my github: brm2398

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