Elasticsearch

Using the completion suggester

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Suggestion - Introduction

Suggestion - Introduction

- Different possibilites
  - Using queries (EdgeNGram, NGram, match prefix)
    - Returns the whole document
    - As fast as a query
- Term suggester
- Phrase suggester
  - did-you-mean

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Suggestion - Completion

- Search-as-you-type, **prefix** suggester
- Creates an in-memory structure (speed!)
- FST is written on disk on indexing
- Responses < 1ms
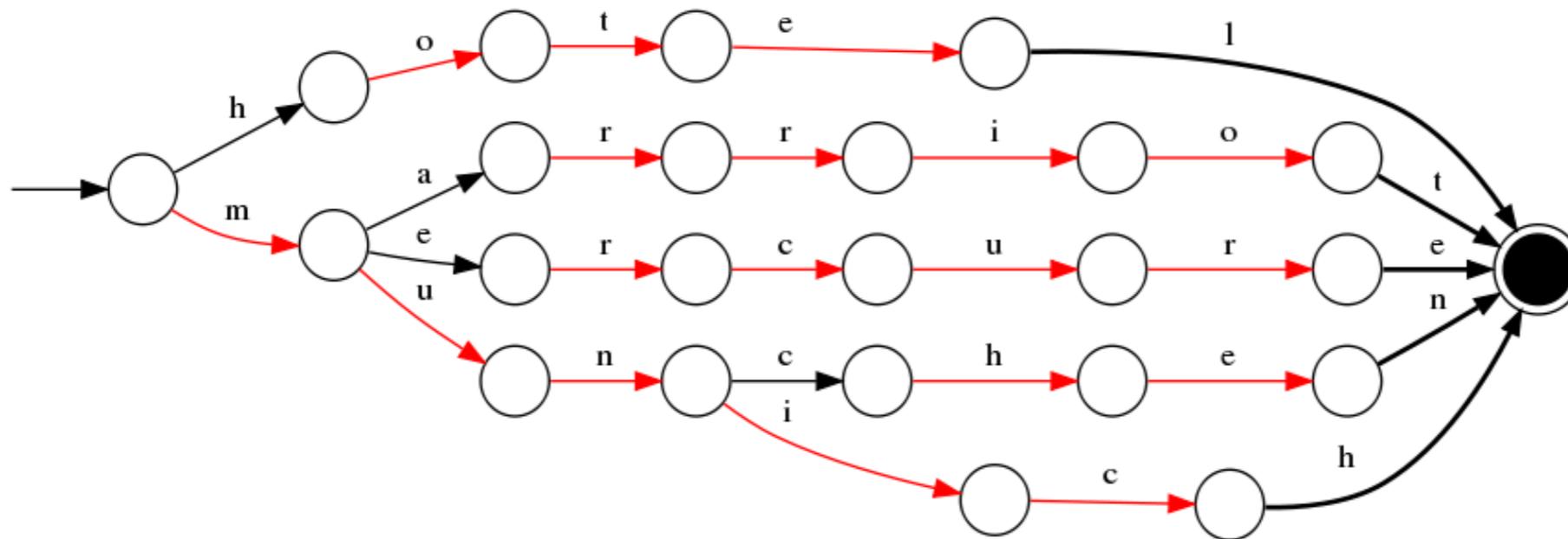
Indexing

```
curl -X PUT localhost:9200/products/product/1 -d
'
{
  "name" : "Apple Iphone 5",
  "name_suggest" : {
    "input" :  [ "Apple Iphone 5", "Iphone 5" ],
    "output" : "Apple Iphone 5",
    "weight" : 100,
    "payload" : 1
  }
}'
```

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```
curl -X POST localhost:9200/products/_suggest -d '
{
  "suggestions" : {
    "text" : "i",
    "completion" : {
      "field" : "name_suggest"
    }
  }
}'
```

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Querying - Response

```
{
    ...
      "options" : [ {
        "text" : "Apple Iphone 5",
        "score" : 100.0
        "payload" : 1
      }, {
        "text" : "iphone 4 GS",
        "score" : 1.0
      }, {
        "text" : "iPhone 6",
        "score" : 1.0
      }, {
        "text" : "iPhone case",
        "score" : 1.0
      } ]
    } ]
}
```

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Suggestion - In operation

- Completion suggester needs memory to be fast

- Monitoring per node/index/field

- Keep your payloads small

- Improve relevancy by constant monitoring

- Optional: Maintain an own index for suggestions

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Suggestion - Future

- Done: Fuzzy
- Highlighting
- Improved handling of stopwords
- Geo-Suggestions
- More than prefix-only suggestions

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Thanks for listening!

- http://elasticsearch.org

- http://elasticsearch.com

- https://groups.google.com/forum/#!forum/elasticsearch

- http://www.elasticsearch.org/blog/you-complete-me/

- http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-suggesters.html

- http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/search-suggesters-completion.html

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