



elasticsearch
for developer

Mapping (Schema definition)

book_05.txt

ทำการกำหนดค่าต่างๆ ?

ชื่อ field

ชนิดของ field

กำหนด analyzer ของแต่ละ field

Mapping ไส่

GET /store/_mapping/book/

```
{
  "store": {
    "mappings": {
      "book": {
        "properties": {
          "published_date": {
            "type": "date",
            "format": "dateOptionalTime"
          },
          "title": {
            "type": "string"
          }
        }
      }
    }
  }
}
```

Simple Field types

string

byte

short

integer

long

float

double

boolean

date

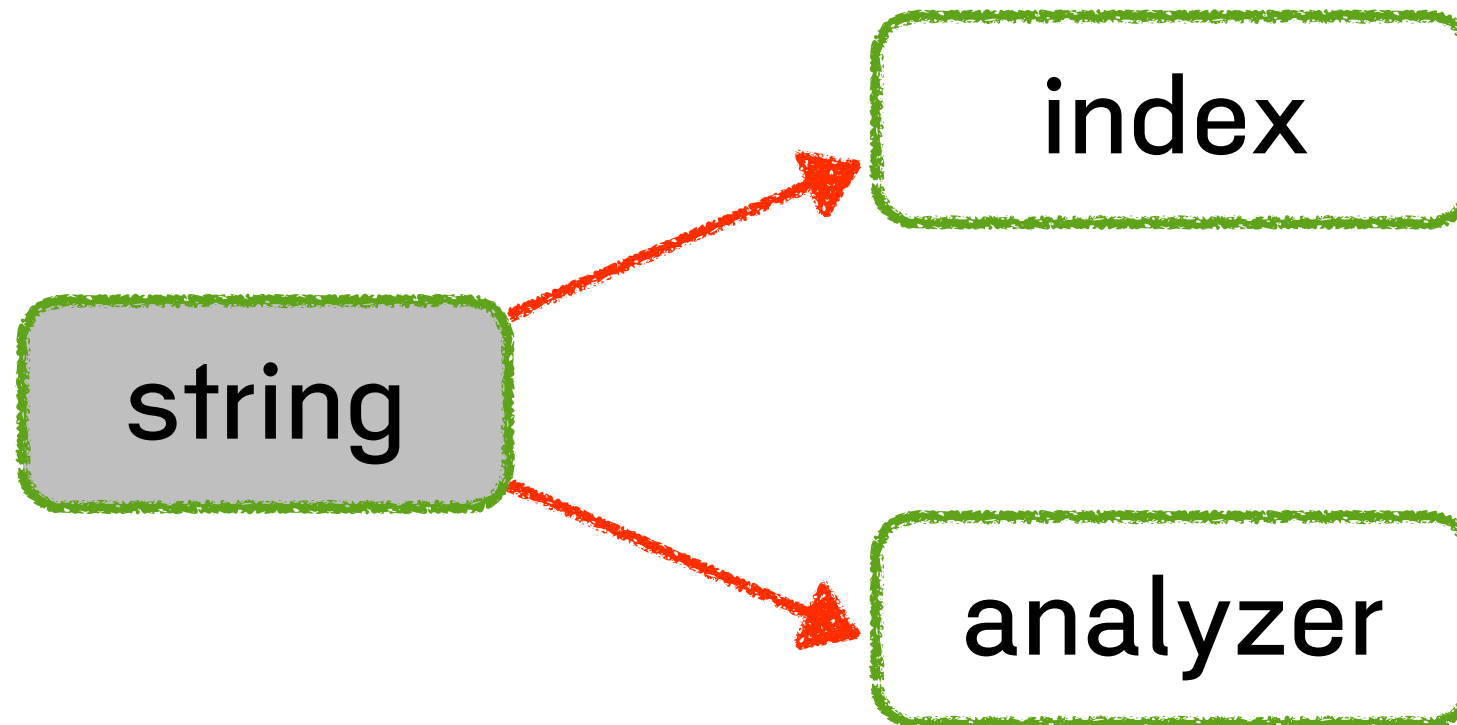
Custom mapping

Exact value หรือ Full text

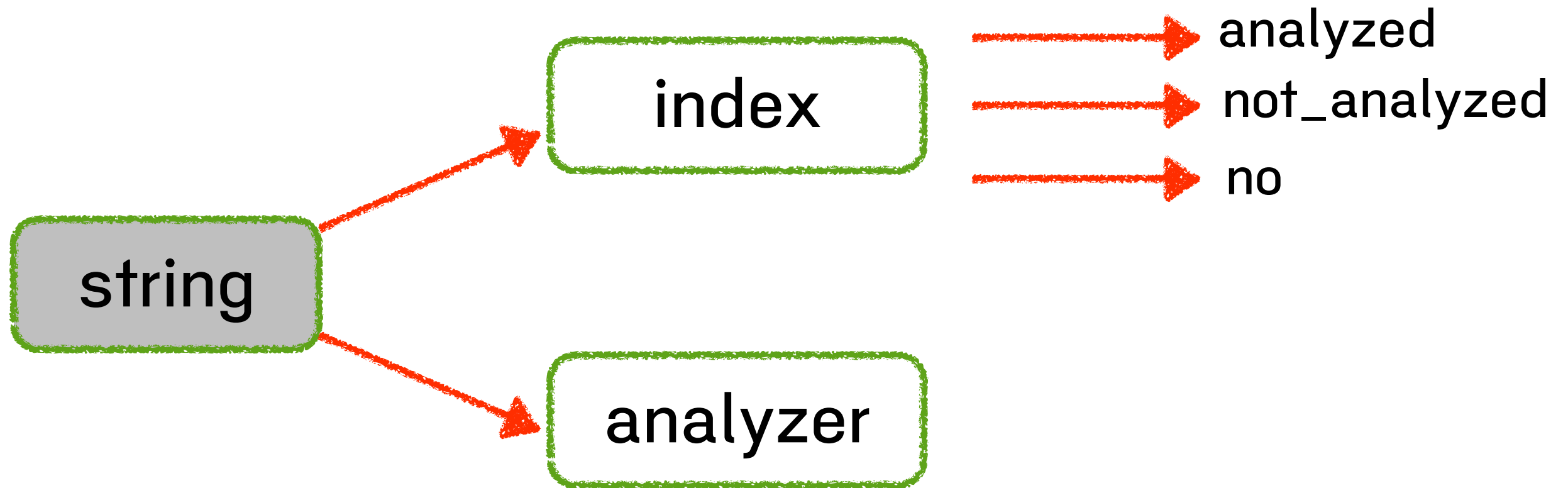
Analyzer

Date formatter

Custom mapping

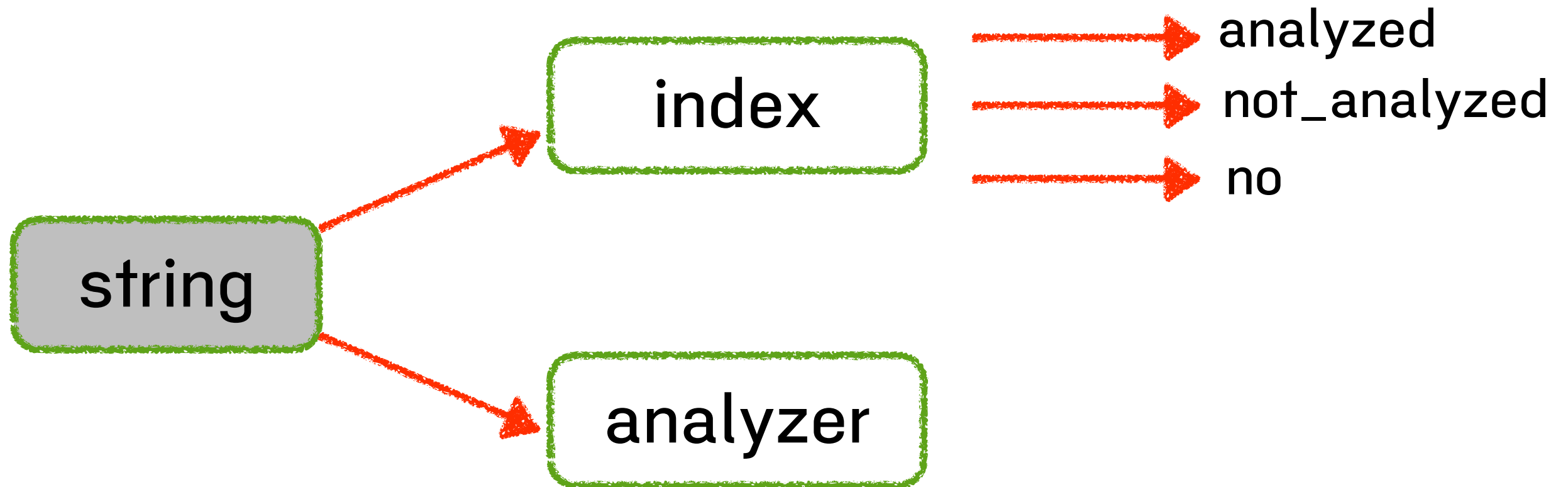


Custom mapping

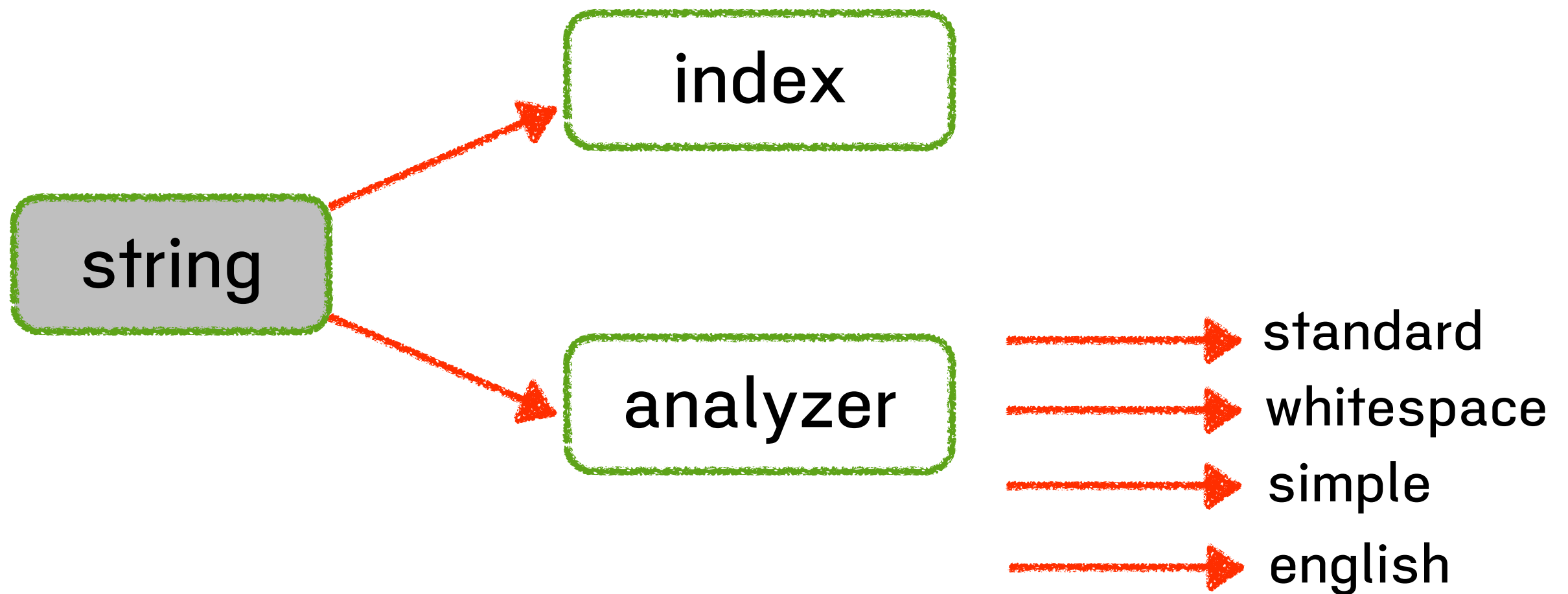


Custom mapping

ส่วน simple type อื่นๆ ไม่รองรับ **analyzed**



Custom mapping



Create mapping

PUT /store

```
{  
  "mappings": {  
    "book": {  
      "properties": {  
        "title": {  
          "type": "string",  
          "analyzer": "english"  
        },  
        "published_date": {  
          "type": "date"  
        }  
      }  
    }  
  }  
}
```

Update mapping

ไม่สามารถ field ที่มีอยู่ได้นะ !!!

PUT /store/_mapping/book

```
{  
  "properties": {  
    "tag": {  
      "type": "string",  
      "index": "not_analyzed"  
    }  
  }  
}
```

Book mapping

GET /store/_mapping/book

```
{
  "store": {
    "mappings": {
      "book": {
        "properties": {
          "published_date": {
            "type": "date",
            "format": "dateOptionalTime"
          },
          "tag": {
            "type": "string",
            "index": "not_analyzed"
          },
          "title": {
            "type": "string",
            "analyzer": "english"
          }
        }
      }
    }
  }
}
```

Testing mapping

GET store/_analyze?field=**title**&text=i love you

vs.

GET store/_analyze?field=**tag**&text=i love you

ทดสอบ Thai Analyzer

PUT /store

```
{  
  "mappings": {  
    "book": {  
      "properties": {  
        "title": {  
          "type": "string",  
          "analyzer": "thai"  
        },  
        "published_date": {  
          "type": "date"  
        }  
      }  
    }  
  }  
}
```

ทดสอบ Thai Analyzer

localhost:9200/store/_analyze?field=title&text=สวัสดีประเทศไทย&pretty

```
{
  "tokens" : [ {
    "token" : "สวัสดี",
    "start_offset" : 0,
    "end_offset" : 6,
    "type" : "word",
    "position" : 1
  }, {
    "token" : "ประเทศ",
    "start_offset" : 6,
    "end_offset" : 12,
    "type" : "word",
    "position" : 2
  }, {
    "token" : "ไทย",
    "start_offset" : 12,
    "end_offset" : 15,
    "type" : "word",
    "position" : 3
  } ]
}
```

Complex Field types

Multi-value/Array

Empty

Multiple-level objects

Inner objects

Array of Inner objects

Array

```
{
  "tweet" : {
    "message" : "some arrays in this tweet...",
    "tags" : ["elasticsearch", "wow"],
    "lists" : [
      {
        "name" : "prog_list",
        "description" : "programming list"
      },
      {
        "name" : "cool_list",
        "description" : "cool stuff list"
      }
    ]
  }
}
```

Array

```
{  
  "tweet" : {  
    "message" : "some arrays in this tweet...",  
    "tags" : ["elasticsearch", "wow"],  
    "lists" : [  
      {  
        "name" : "prog_list",  
        "description" : "programming list"  
      },  
      {  
        "name" : "cool_list",  
        "description" : "cool stuff list"  
      }  
    ]  
  }  
}
```

Mapping of array

```
{
  "tweet" : {
    "properties" : {
      "message" : {"type" : "string"},
      "tags" : {"type" : "string", "index_name" : "tag"},
      "lists" : {
        "properties" : {
          "name" : {"type" : "string"},
          "description" : {"type" : "string"}
        }
      }
    }
  }
}
```

Empty Field

ไม่ถูก index นะ !!

“” => Empty string

null => Null value

[] => Empty array

[null] => Array with null value

Another Field types

IP

Geo point

Geo shape

Attachment

<http://www.elasticsearch.org/guide/en/elasticsearch/reference/current/mapping-types.html>