



elasticsearch  
for developer

Mapping (Schema definition)

book\_05.txt

# ทำการกำหนดค่าต่างๆ ?

ชื่อ field

ชนิดของ field

กำหนด analyzer ของแต่ละ field

# Mapping ง่าย

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

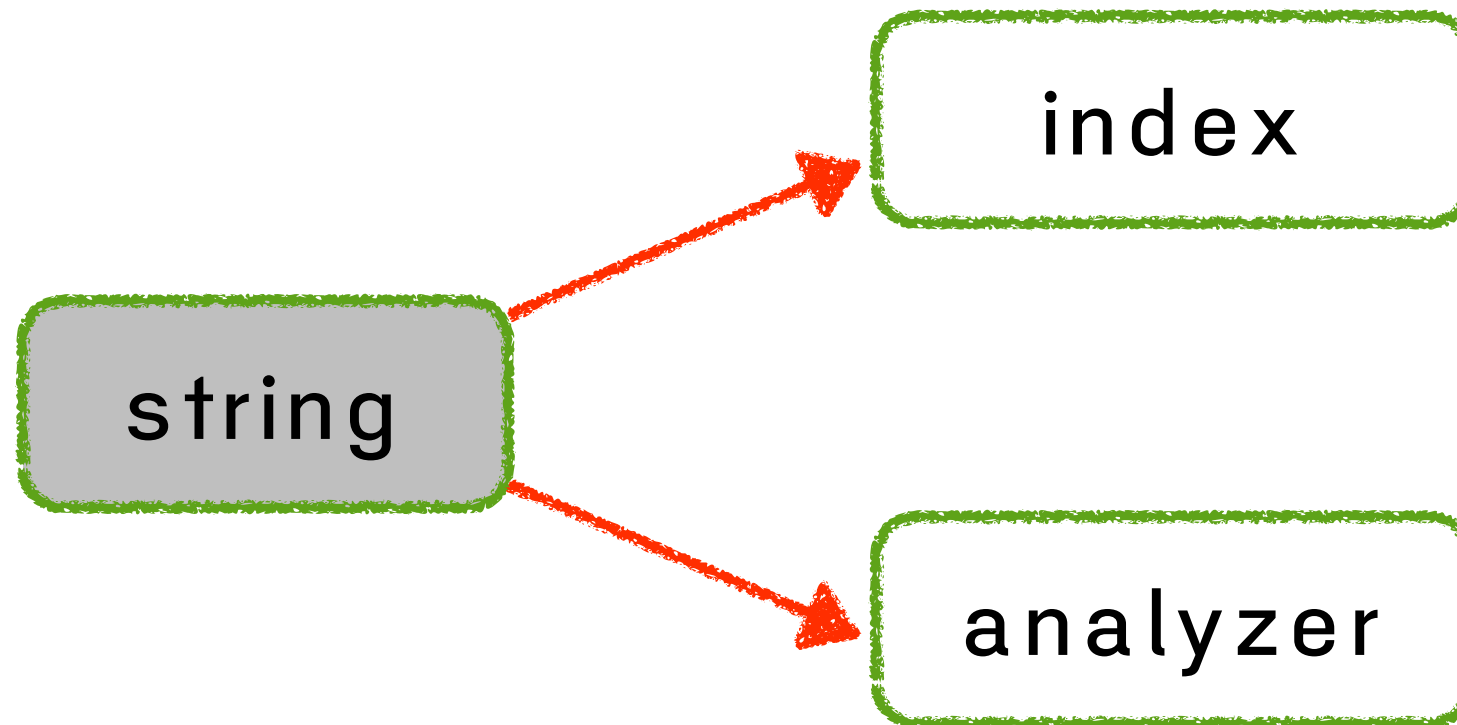
# Custom mapping

Exact value หรือ Full text

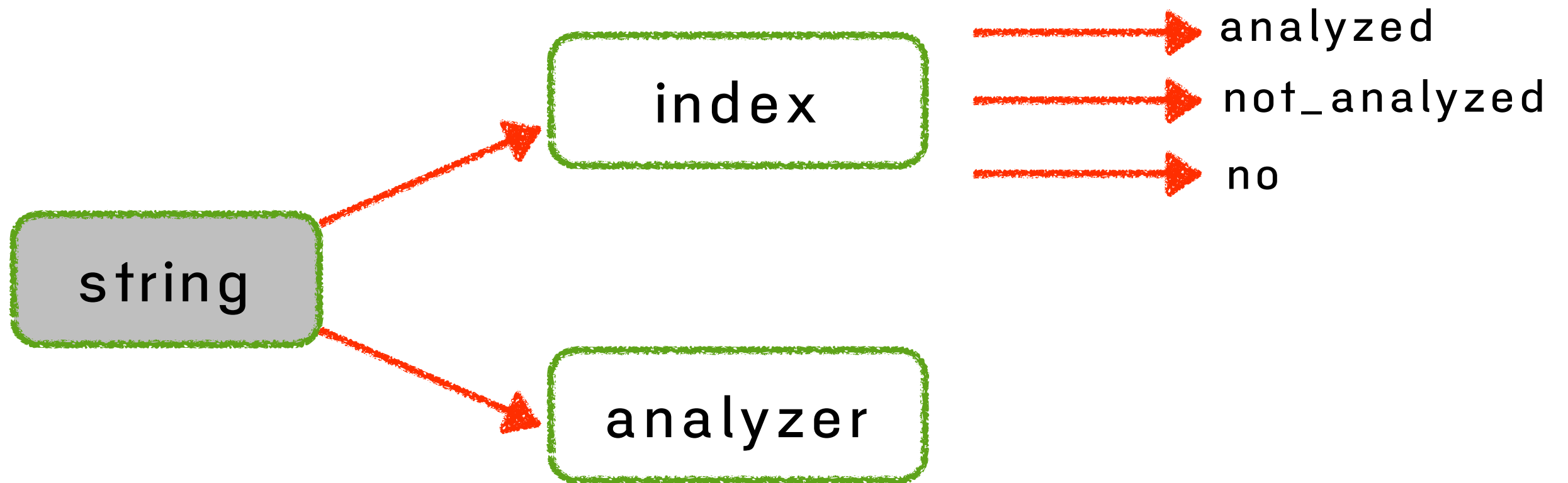
Analyzer

Date formatter

# Custom mapping

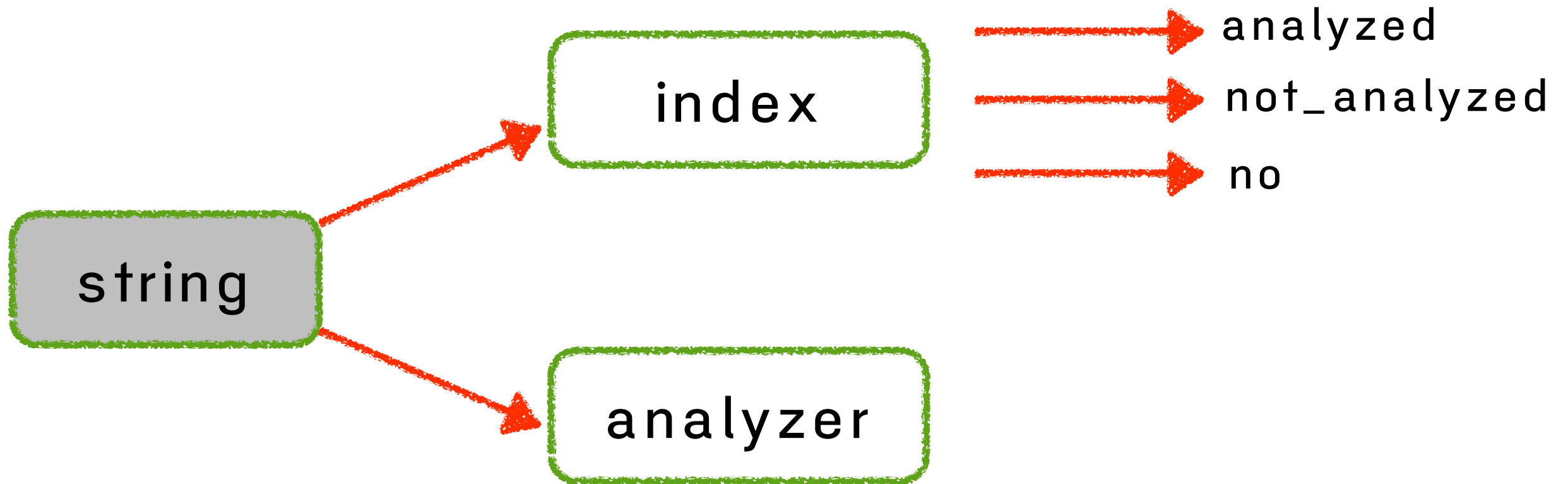


# Custom mapping



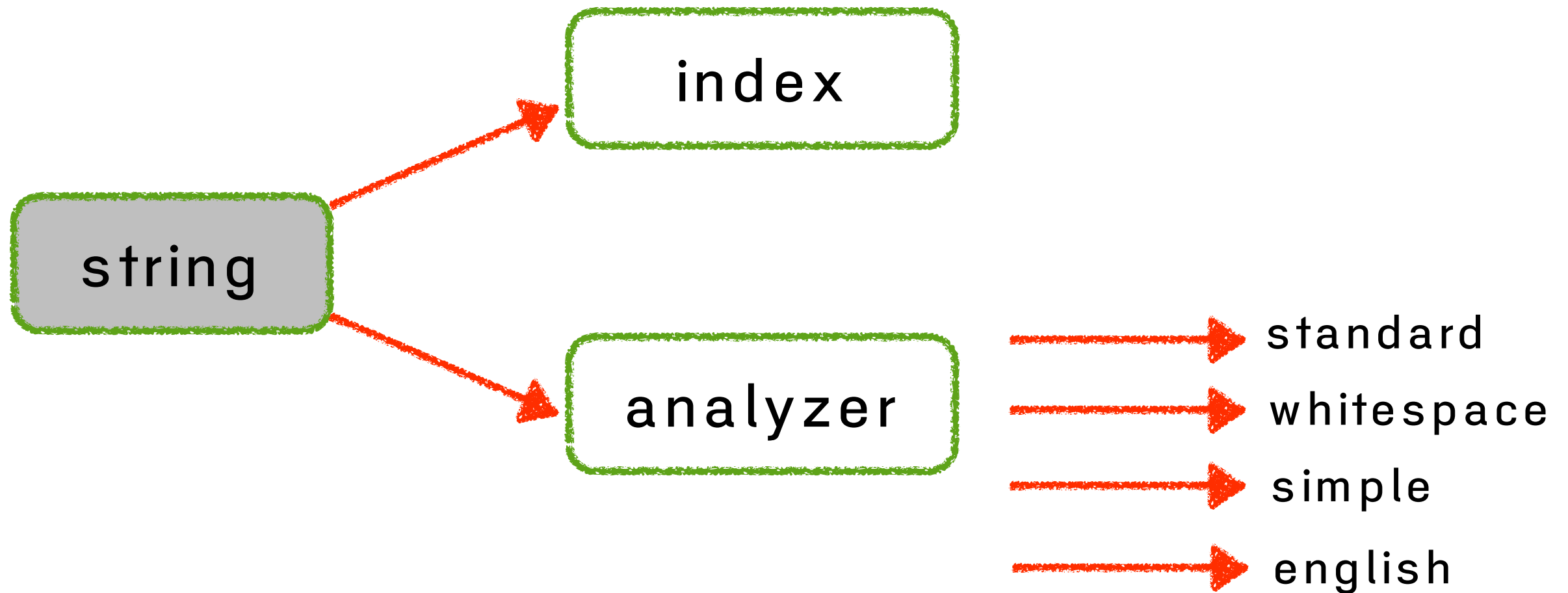
# Custom mapping

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




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>