

## 1、multivalue field多种混合类型

例：{ "tags":["tag1","tag2"]}

建立索引时与string是一样的，数据类型不能混

## 2、empty field 空类型

null, [], [null]

## 3、object field 对象数据类型

例如下是 dynamic mapping es根据数据自动生成的 mapping 结构

```
1 {
2   "world": {
3     "mappings": {
4       "people": {
5         "properties": {
6           "addr": {
7             "properties": {
8               "city": {
9                 "type": "text",
10                "fields": {
11                  "keyword": {
12                    "type": "keyword",
13                    "ignore_above": 256
14                  }
15                }
16              },
17              "country": {
18                "type": "text",
19                "fields": {
20                  "keyword": {
21                    "type": "keyword",
22                    "ignore_above": 256
23                  }
24                }
25              },
26              "province": {
```

```

27         "type": "text",
28         "fields": {
29             "keyword": {
30                 "type": "keyword",
31                 "ignore_above": 256
32             }
33         }
34     },
35     "age": {
36         "type": "long"
37     },
38     "name": {
39         "type": "text",
40         "fields": {
41             "keyword": {
42                 "type": "keyword",
43                 "ignore_above": 256
44             }
45         }
46     },
47     "sex": {
48         "type": "text",
49         "fields": {
50             "keyword": {
51                 "type": "keyword",
52                 "ignore_above": 256
53             }
54         }
55     }
56 }
57 }
58 }
59 }
60 }
61 }
62 }

```

数据串（创建时候直接嵌套即可）

```

1 POST world/people
2 {
3     "addr":{
4         "country":"China",
5         "province":"jiangxi",
6         "city":"nanchang"

```

```
7   },
8   "age":22,
9   "sex":"male",
10  "name":"daiwei"
11 }
```

## 4、es 底层数据存储结构

例如 上面 people 数据在底层的存储

```
1  {
2    "name":  ["daiwei","",....],
3    "age":   [22, , ....],
4    "sex":   ["male","",....],
5    "addr.country":  ["China","",....],
6    "addr.province": ["jiangxi","",....],
7    "addr.city":     ["nanchang","",....]
8  }
```

如果有多个 数据会以一个**数组的存放**

从横向存储转变为列式，存储，**一行存储在一起。。**