## 1、首先索引数据

**建立索引的方式**：/日期\_cookieid/tags/cookieid

/日期\_userid/tags/userid

**索引example**：/20181110\_userid/tags/

**每天更新数据策略**： 先索引新数据，确认没问题，再删除旧的索引

**导入数据example：**

{"cookieid":"fc8fc515-aa0f-429b-808d-42799dc68a30","tags":{"C120H020\_3\_011":"4","C120H012\_3\_007":"3","C120H008\_7\_006":"37","A111H085\_0\_001":"0.5094912280701754","B220H082\_0\_011":"6.0","C120H002\_3\_016":"3","B121H030\_0\_005":"256","C120H036\_3\_013":"7","C120H008\_2\_009":"1","C120H008\_3\_009":"11","C120H024\_3\_003":"1","C120H008\_7\_009":"11","C120H018\_7\_002":"5","C120H007\_6\_008":"1","E220H088\_0\_001":"","B220H039\_0\_001":"2","B220H009\_0\_001":"1.0","C120H002\_6\_010":"2","C120H002\_2\_017":"1","B220H080\_0\_008":"2.0","A220H029\_0\_001":"10","C120H003\_3\_003":"15","C120H002\_3\_001":"1","C120H018\_2\_005":"2","C120H002\_7\_017":"36","B220H080\_0\_005":"1.0","C120H010\_7\_001":"13","C120H008\_6\_006":"2","C120H008\_7\_001":"11","C120H007\_3\_008":"1","C120H002\_7\_010":"14","C120H022\_3\_001":"12","B220H018\_0\_001":"108.38","B220H068\_0\_001":"1.0","B220H014\_0\_001":"108.38","A121H013\_0\_006":"","C120H003\_2\_005":"2","B220H026\_0\_001":"2","C120H022\_7\_001":"12","B220H077\_0\_008":"0.12","B220H027\_0\_001":"1","C120H002\_3\_017":"17","B220H082\_0\_006":"3.0","C120H002\_6\_017":"3","A120H089\_0\_001":"","C120H003\_6\_005":"4","C120H018\_3\_005":"19","B220H080\_0\_015":"1.0","C120H007\_7\_006":"8","B220H078\_0\_005":"1","C120H003\_3\_005":"22","A220H054\_0\_001":"1","C120H036\_7\_013":"7","B220H077\_0\_002":"0.12","A121H002\_0\_002":"","C120H002\_2\_016":"1","E220H091\_0\_001":"ar","B220H082\_0\_008":"2.0","C120H033\_3\_005":"1","C120H003\_7\_005":"30","C120H002\_7\_016":"3","B220H081\_0\_013":"2.0","E220H093\_0\_001":"","C120H011\_6\_002":"1","C120H011\_3\_004":"2","B220H021\_0\_001":"1.0","B220H082\_0\_014":"3.0","C120H033\_7\_003":"5","C120H022\_2\_001":"1","C120H012\_7\_004":"2","E220H089\_0\_001":"1440x2560","C120H018\_6\_005":"2","B220H082\_0\_013":"2.0","B220H081\_0\_008":"2.0","A121H030\_0\_002":"8","C120H002\_6\_016":"1","C120H008\_3\_001":"2","C120H011\_7\_002":"23","C120H002\_7\_024":"88","B220H017\_0\_001":"108.38","B220H066\_0\_001":"0","C120H012\_7\_007":"4","C120H011\_7\_004":"2","E220H090\_0\_001":"SM-G935F","C120H039\_7\_004":"1","B220H080\_0\_014":"3.0","B220H013\_0\_001":"1.0","B220H082\_0\_005":"1.0","C120H024\_7\_003":"1","B220H081\_0\_006":"3.0","C120H008\_3\_006":"37","C120H017\_3\_020":"2","C120H007\_6\_006":"1","C120H008\_6\_009":"1","B220H081\_0\_014":"3.0","C120H003\_2\_007":"1","B220H019\_0\_001":"141.0","C120H011\_7\_006":"8","C120H003\_7\_003":"82","B220H080\_0\_006":"3.0","E220H092\_0\_001":"","B220H078\_0\_002":"1","C120H002\_7\_026":"1","B220H080\_0\_011":"6.0","A220H053\_0\_001":"108.38","A220H090\_0\_001":"8","C120H011\_6\_003":"1","B220H034\_0\_002":"0.45","C120H017\_7\_003":"2","C120H003\_7\_007":"7","C120H033\_7\_002":"2","C120H002\_6\_001":"1","C120H043\_7\_008":"2","B121H031\_0\_002":"","C120H018\_7\_005":"19","C120H020\_7\_011":"4","B220H010\_0\_001":"108.38","C120H002\_7\_001":"8","C120H008\_2\_006":"2","B220H022\_0\_001":"7.0","C120H018\_3\_002":"5","C120H022\_7\_003":"1","B220H082\_0\_015":"1.0","C120H002\_3\_024":"8","C120H033\_3\_002":"2","C120H011\_7\_003":"5","C120H008\_7\_008":"1","C120H017\_7\_020":"2","C120H011\_3\_002":"1","B220H081\_0\_005":"1.0","A111H008\_0\_007":"","B220H081\_0\_011":"6.0","B220H080\_0\_002":"10.0","C120H007\_7\_008":"15","B220H011\_0\_001":"152.0","C120H002\_6\_024":"7","C120H036\_6\_013":"1","C120H022\_3\_003":"1","C120H003\_7\_004":"10","C120H017\_3\_003":"2","B220H081\_0\_002":"10.0","B220H080\_0\_013":"2.0","E220H094\_0\_001":"Al Fahd","C120H003\_3\_007":"4","B121H034\_001\_005":"7","A221H024\_0\_002":"","C120H022\_6\_001":"1","B220H079\_0\_005":"1","C120H036\_2\_013":"1","B220H015\_0\_001":"9.0","B220H079\_0\_008":"1","C120H003\_6\_007":"1","C120H033\_6\_003":"1","B220H078\_0\_008":"1","C120H039\_3\_004":"1","A121H031\_0\_001":"","B220H016\_0\_001":"1.0","C120H003\_3\_004":"10","C120H033\_7\_005":"1","B120H008\_0\_006":"","B220H079\_0\_002":"1","C120H010\_3\_001":"11","C120H033\_3\_003":"1","B220H082\_0\_002":"10.0","C120H003\_6\_003":"5","B220H081\_0\_015":"1.0","B220H034\_0\_001":"0.33","B120H008\_0\_003":"","A111H001\_0\_002":"-1472.5","B220H038\_0\_001":"1"}}

这样数据一个cookieid或者userid一个文档id，不需要在将数据根据标签拆成很多条数据

### 2、计算人群：

用bool组合处理，规则解析需要整合被减人群的规则：

分类型标签在被减人群中，当前人群规则中也有此标签的话，就要去掉此标签，

统计型标签在被减人群中，当前人群中也有此标签的话，就要将标签取值范围整合。 如果整合后标签的取值范围有多个区域，那就要用嵌套bool should must must\_not等等来处理

**userid**

**规则：**[{"A121U002\_0\_002":""},{"A111U008\_0\_001":""},{"B220U071\_0\_001":"[null,0.5]"}]，**减去一个人群：**[{"A121U002\_0\_002":""},{"B220U074\_0\_001":"[10,null]"}]

**整合后的规则：**

必须满足的条件[{"A111U008\_0\_001":""},{"B220U071\_0\_001":"[null,0.5]"}],

必须排除的标签[{"A121U002\_0\_002":""},{"B220U074\_0\_001":"[10,null]"}]

**形成搜索条件如下：**

curl -XPOST "http://10.142.170.221:9200/20181110\_userid/tags/\_search" -H 'Content-Type: application/json' -d'

{

"size": 0,

"query": {

"bool": {

"must": [

{

"range": {

"tags.B220U071\_0\_001": {

"lte": 1000

}

}

},

{

"exists": {"field": "tags.A111U008\_0\_001"}

}

],

"must\_not": [

{

"exists": {"field": "tags.A121U002\_0\_002"}

},

{

"range": {

"tags.B220U074\_0\_001": {

"lte": 10

}

}

}

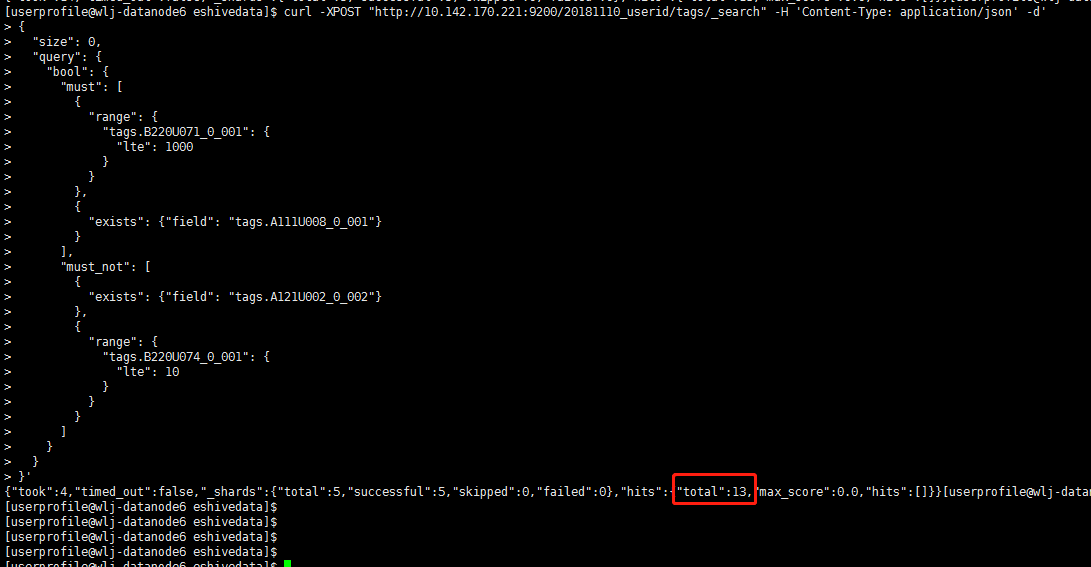
]

}

}

}'

**计算结果：**



**cookieid**

**规则：**

[{"B120H008\_0\_001":"","B120H008\_0\_006":"","B120H008\_0\_003":""},{"A221H024\_0\_002":"","A221H024\_0\_001":""},{"A121H002\_0\_002":"","A121H002\_0\_010":"","A121H002\_0\_007":""},{"A220H029\_0\_001":"[3,null]"},{"B220H082\_0\_002":"[1,null]"},{"B220H082\_0\_006":"[1,null]"},{"B220H082\_0\_010":"[1,null]"},{"C120H045\_6\_001":"[1,null]"},{"C120H045\_6\_002":"[1,null]"},{"C120H002\_6\_001":"[1,null]"},{"C120H002\_6\_016":"[1,null]"},{"C120H002\_6\_017":"[1,null]"}]

**被减人群规则：**

[{"A121H002\_0\_010":"","A121H002\_0\_011":"","A121H002\_0\_009":""},{"A111H041\_0\_001":""},{"A220H029\_0\_001":"[10,null]"},{"B220H082\_0\_002":"[2,null]"},{"B220H082\_0\_012":"[2,null]"}]

**整合后的规则：**

**必须满足的标签：**

[{"B120H008\_0\_001":"","B120H008\_0\_006":"","B120H008\_0\_003":""},{"A221H024\_0\_002":"","A221H024\_0\_001":""},{"A121H002\_0\_002":"","A121H002\_0\_007":""},{"A220H029\_0\_001":"[3,10)"},{"B220H082\_0\_002":"[1,2)"},{"B220H082\_0\_006":"[1,null]"},{"B220H082\_0\_010":"[1,null]"},{"C120H045\_6\_001":"[1,null]"},{"C120H045\_6\_002":"[1,null]"},{"C120H002\_6\_001":"[1,null]"},{"C120H002\_6\_016":"[1,null]"},{"C120H002\_6\_017":"[1,null]"}]

**必须排除的标签：**

[{"A121H002\_0\_010":"","A121H002\_0\_011":"","A121H002\_0\_009":""},{"A111H041\_0\_001":""},{"B220H082\_0\_012":"[2,null]"}]

**然后形成搜索条件如下：**

curl -XPOST "http://10.142.170.221:9200/20181113\_cookieid/tags/\_search" -H 'Content-Type: application/json' -d'

{

"size": 2,

"query": {

"bool": {

"must": [

{

"range": {

"tags.A220H029\_0\_001": {

"gte": 3,

"lt": 10

}

}

},

{

"range": {

"tags.B220H082\_0\_002": {

"gte": 1,

"lt": 2

}

}

},

{

"range": {

"tags.B220H082\_0\_006": {

"gte": 1

}

}

},

{

"range": {

"tags.B220H082\_0\_010": {

"gte": 1

}

}

},

{

"bool": {

"should": [

{

"range": {

"tags.C120H045\_6\_001": {

"gte": 1

}

}

},

{

"range": {

"tags.C120H045\_6\_002": {

"gte": 1

}

}

},

{

"range": {

"tags.C120H002\_6\_001": {

"gte": 1

}

}

},

{

"range": {

"tags.C120H002\_6\_016": {

"gte": 1

}

}

},

{

"range": {

"tags.C120H002\_6\_017": {

"gte": 1

}

}

}

]

}

},

{

"bool": {

"should": [

{

"exists": {

"field": "tags.A121H002\_0\_002"

}

},

{

"exists": {

"field": "tags.A121H002\_0\_007"

}

}

]

}

},

{

"bool": {

"should": [

{

"exists": {

"field": "tags.A221H024\_0\_002"

}

},

{

"exists": {

"field": "tags.A221H024\_0\_001"

}

}

]

}

},

{

"bool": {

"should": [

{

"exists": {

"field": "tags.B120H008\_0\_001"

}

},

{

"exists": {

"field": "tags.B120H008\_0\_006"

}

},

{

"exists": {

"field": "tags.B120H008\_0\_003"

}

}

]

}

}

],

"must\_not": [

{

"bool": {

"should": [

{

"exists": {

"field": "tags.A121H002\_0\_010"

}

},

{

"exists": {

"field": "tags.A121H002\_0\_011"

}

},

{

"exists": {

"field": "tags.A121H002\_0\_009"

}

}

]

}

},

{

"exists": {

"field": "tags.A111H041\_0\_001"

}

},

{

"range": {

"tags.B220H082\_0\_012": {

"gte": 2

}

}

}

]

}

}

}'

计算结果：

