Exerc-Aula04-Elastic-Consultas por Intervalo

Consultas por Intervalo

1. Verificar se existe o índice população

** Resposta: HEAD populacao

Dica: 200 existe

```
1 HEAD populacao ▷ 🖏 🛘 1 200 - OK
```

2. Executar as consultas no índice populacao

```
a) Mostrar os documentos com o atributo "Total Population" menor que 100
```

```
** Resposta
GET populacao/_search
{
    "query":{
        "range": {
            "Ite": 100
            }
            }
}
```

```
31 ^
32 ▼
             "_index" : "populacao",
"_type" : "_doc",
"_id" : "pBlyu38BOKuL5gTUT5ur",
33
34
35
              "_score" : 1.0,
36
              "source" : {
37 ₹
38
                "Total Population" : 15,
               "Total Households" : 0,
39
                "Total Females" : 2,
40
               "Zip Code" : 90071,
41
              "Median Age" : 45.5,
42
               "Total Males" : 13,
43
               "Average Household Size" : 0.0
44
45 ^
46 ^
47 ₹
             "_index" : "populacao",
"_type" : "_doc",
"_id" : "pxlyu38BOKuL5gTUT5ur",
48
49
50
             "_score" : 1.0,
51
              "source" : {
52 ₹
53
                "Total Population" : 0,
               "Total Households" : 0,
54
                "Total Females" : 0,
55
                "Zip Code" : 90079,
56
               "Median Age" : 0.0,
57
               "Total Males" : 0,
58
                "Average Household Size": 0.0
59
60 ^
61 ^
```

b) Mostrar os documentos com o atributo "Median Age" maior que 70

** Resposta

```
D № 1 + {
1 GET populacao/_search
                                                                "took" : 0,
"timed_out" : false,
2 ₹ {
 3 ₹
       "query":{
                                                          3
                                                                "_shards" : {
          "range": {
 4 ₹
                                                          4 +
                                                                  "total" : 1,
           "Median Age": {
 5 🕶
                                                          5
           "gt": 70
                                                                  "successful" : 1,
 6
                                                          6
 7 -
                                                          7
                                                                  "skipped" : 0,
 8 🛎
                                                          8
                                                                  "failed" : 0
9 🛦
                                                          9 4
10 - }
                                                         10 +
                                                                "hits" : {
                                                                   "total" : {
11
                                                         11 🔻
                                                                    "value" : 2,
                                                         12
12
                                                                    "relation" : "eq"
13
                                                         13
14
                                                         14 ^
15
                                                         15
                                                                   "max score" : 1.0,
                                                                  "hits" : [
16
                                                         16 *
17
                                                         17 🕶
                                                                      "_index" : "populacao",
"_type" : "_doc",
"_id" : "ZXlyu38BOKuL5gTUT5ur",
18
                                                         18
19
                                                         19
20
                                                         20
                                                                        score" : 1.0,
                                                         21
21
                                                                         source" : {
                                                         22 🔻
22
23
                                                         23
                                                                          "Total Population" : 1,
                                                                         "Total Households" : 1,
                                                         24
24
25
                                                         25
                                                                         "Total Females" : 1,
                                                                         "Zip Code" : 91371,
26
                                                         26
27
                                                         27
                                                                         "Median Age" : 73.5,
```

```
"Total Males" : 0,
  28
  29
                      "Average Household Size" : 1.0
  30 4
  31 *
  32 ₹
                   "_index" : "populacao",
"_type" : "_doc",
"_id" : "Gxlyu38BOKuL5gTUT5yr",
33
  34
  35
                   "_score" : 1.0,
"_source" : {
  36
  37 ▼
                     "Total Population" : 156,
  38
                     "Total Households" : 114,
  39
                     "Total Females" : 105,
  40
                    "Zip Code" : 91046,
"Median Age" : 74.0,
"Total Males" : 51,
  41
  42
  43
                    "Average Household Size" : 1.37
  44
  45 ^
  46 ^
  47 ^
  48 *
  49 ^ }
  50
```

c) Mostrar os documentos 50 (Zip Code: 90056) à 60 (Zip Code: 90067) do índice de população ** Resposta:

```
}
      }
 }
}
                                                 ▷ ᢀ ■ 1 + {
    GET populacao/_search
 1
                                                                         "took" : 0,
"timed_out" : false,
 2 * {
        "query": {
 3 ▼
                                                                  3
 4 +
          "range": {
                                                                         " shards" : {
                                                                           "total" : 1,
"successful" : 1,
 5 +
             "Zip Code": {
                                                                  5
            "gte": 90056,
"lte": 90067
 6
                                                                  6
                                                                            "skipped" : 0,
"failed" : 0
 8 *
                                                                  8
 9 *
                                                                  9 4
                                                                         10 ^
                                                                 10 🕶
                                                                 11 •
11
12 ^ }
                                                                 12
                                                                             "relation" : "eq"
13
                                                                 13
                                                                 14 ^
14
                                                                            "max_score" : 1.0,
15
                                                                 15
16
                                                                 16 *
                                                                            "hits" : [
17
                                                                 17 🕶
                                                                                "_index" : "populacao",
"_type" : "_doc",
"_id" : "lxlyu38BOKuL5gTUT5ur",
18
                                                                 18
19
                                                                 19
20
                                                                 20
                                                                                "_score" : 1.0,
"_source" : {
21
                                                                 21
22
                                                                 22 +
                                                                                   "Total Population" : 7827,
"Total Households" : 3371,
23
                                                                 23
24
                                                                 24
25
                                                                 25
                                                                                   "Total Females" : 4391,
                                                                                   "Zip Code" : 90056,
"Median Age" : 48.4,
26
                                                                 26
27
                                                                 27
                                                                                  "Total Males" : 3436,
28
                                                                 28
```

```
29
              "Average Household Size" : 2.32
30 *
31 ^
          },
32 ₹
            "_index" : "populacao",
33
            "_type" : "_doc",
34
            "_id" : "mBlyu38BOKuL5gTUT5ur",
35
            "_score" : 1.0,
36
            "_source" : {
37 ₹
             "Total Population" : 44998,
38
              "Total Households": 15658,
39
              "Total Females" : 20698,
40
              "Zip Code" : 90057,
41
42
              "Median Age" : 31.2,
              "Total Males" : 24300,
43
              "Average Household Size": 2.81
44
45 ^
46 ^
          },
47 -
            "_index" : "populacao",
48
            "_type" : "_doc",
49
            "id": "mRlyu38BOKuL5gTUT5ur",
50
            "_score" : 1.0,
51
              source" : {
52 ₹
             "Total Population" : 3223,
53
             "Total Households" : 892,
54
             "Total Females" : 1668,
```

```
"Zip Code" : 90058,
               "Median Age" : 26.0,
57
               "Total Males" : 1555,
58
               "Average Household Size" : 3.6
59
60 ^
61 ^
           },
62 -
             " index" : "populacao",
63
             "type": " doc",
             "_id" : "mhlyu38BOKuL5gTUT5ur",
65
             "score": 1.0,
66
               source" : {
67 🕶
              "Total Population" : 40952,
68
              "Total Households" : 9596,
69
              "Total Females" : 21329,
70
              "Zip Code": 90059,
71
              "Median Age" : 25.7,
72
              "Total Males": 19623,
73
              "Average Household Size": 4.19
74
75 ^
76 ^
77 -
             " index" : "populacao",
78
             "_type" : "_doc",
79
             "_id" : "mxlyu38BOKuL5gTUT5ur",
80
             "_id" : "mxlyu38BOKuL5gTUT5ur",
 80
             "score" : 1.0,
             "source" : {
 82 -
              "Total Population" : 26872,
 83
              "Total Households" : 6892,
 84
              "Total Females" : 13823,
 85
              "Zip Code" : 90061,
 86
              "Median Age" : 28.4,
 87
               "Total Males": 13049,
 88
              "Average Household Size" : 3.85
89
90 *
91 *
92 🕶
             "_index" : "populacao",
93
             "_type" : "_doc",
94
             "id": "nBlyu38BOKuL5gTUT5ur",
95
             "score" : 1.0,
             " source" : {
97 ₹
              "Total Population" : 32821,
98
              "Total Households" : 9155,
99
              "Total Females" : 17101,
100
              "Zip Code" : 90062,
```

"Median Age" : 31.8,

"Total Males" : 15720,

"Average Household Size" : 3.55

"Total Females" : 1668,

55

101

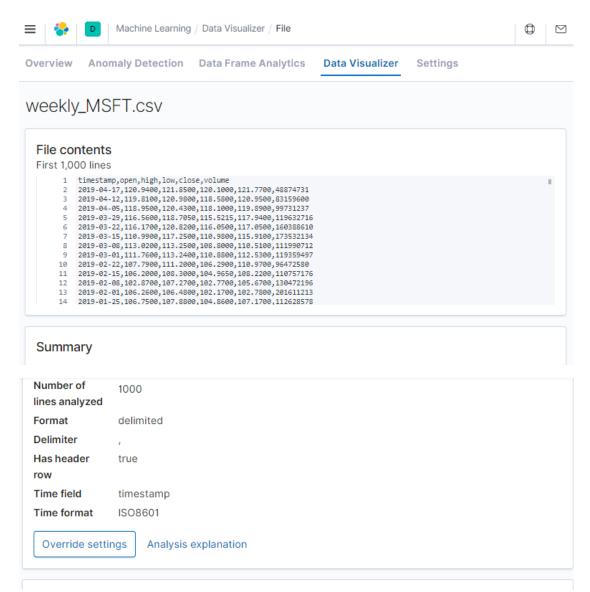
102

103

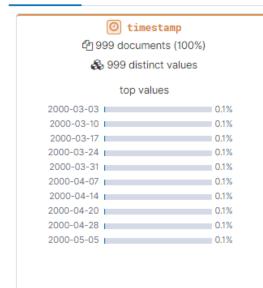
104 105 ^ 106 *

3. Importar através do Kibana o arquivo weekly_MSFT.csvPré-visualizar o documento (Guia Arquivos/dataset/weekly_MSFT.csv) com o índice bolsa

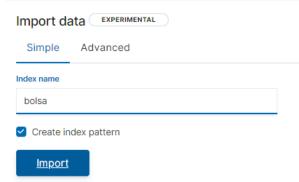
Dica: Munu--> Kibana-->machine learning-->upload file

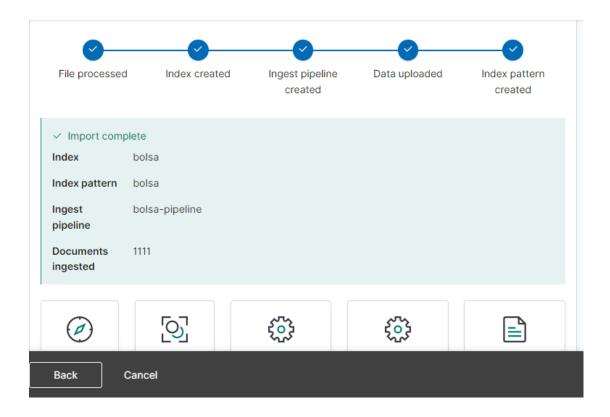


File stats









4. Executar as consultas no índice bolsa

Para verificar o nome dos campos

```
D 🗞 🗉
      GET bolsa/_mapping
                                                                                   "bolsa" : {
    "mappings" : {
    | "_meta" : {
    | | "created_by" : "ml-file-data-visualizer"
                                                                           2 ₹
                                                                           3 ₹
  3
                                                                           4 +
  4
                                                                           5
  5
  6
                                                                            6 ^
                                                                                         "properties" : {
                                                                           7 -
                                                                                            "@timestamp" : {
| "type" : "date"
  8
                                                                           8 *
  9
                                                                           9
                                                                                           ;
"close" : {
| "type" : "double"
 10
                                                                          10 -
                                                                          11 *
 11
 12
                                                                          12
 13
                                                                          13 *
                                                                                             "high" : {
  "type" : "double"
 14
                                                                          14 🕶
                                                                         15
 15
                                                                                           },
"low" : {
  "type" : "double"
                                                                          16 *
 16
 17
                                                                          17 -
                                                                          18
 18
                                                                          19 *
 19
                                                                                             "open" : {
  "type" : "double"
                                                                          20 🕶
 20
 21
                                                                          21
                                                                                           },
"timestamp" : {
   "type" : "date",
   "format" : "iso8601"
                                                                          22 ^
 22
                                                                          23 ₹
 23
 24
                                                                          24
 25
                                                                          25
                                                                          26 ^
 26
                                                                                             "volume" : {
  "type" : "long"
                                                                          27 🕶
27
 28
                                                                          28
                                                                          29 🛎
```

Dica: podemos observar que temos aqui 2 tipos de campos date(timestamp, @timestamp),

qualquer um que for escolhido dará o mesmo resultado.

```
total : {
"value" : 1111,
"relation" : "eq"
1 GET bolsa/ search
                                                                        D 23
                                                                                                 12
                                                                                                 13
     3
                                                                                                 14 ^
                                                                                                                "max_score" : 1.0,
"hits" : [
                                                                                                 15
                                                                                                 16 *
                                                                                                 17 🕶
                                                                                                                      "_index" : "bolsa",
"_type" : "_doc",
"_id" : "QBmyx8BOKuL5gTUyP-S",
                                                                                                 18
                                                                                                 19
                                                                                                 20
   10
                                                                                                                      "_score" : 1.0,
"_source" : {
    "volume" : 48874731,
                                                                                                 21
   11
                                                                                                 22 -
                                                                                                 23
   13
                                                                                                                          "high" : 121.85,
"@timestamp" : "2019-04-17T00:00:00.000
                                                                                                 24
   14
   15
                                                                                                                          "low": 120.1,
"close": 121.77,
"open": 120.94,
"timestamp": "2019-04-17"
   16
                                                                                                 26
   17
                                                                                                 27
   18
                                                                                                 28
   19
                                                                                                 29
   20
                                                                                                 30 ^
   21
                                                                                                 31 *
   22
                                                                                                 32 ₹
                                                                                                                     "_index" : "bolsa",
    "_type" : "_doc",
    "_id" : "QRmpxX8BOKuL5gTUyP-S",
    "_score" : 1.0,
    "_source" : {
        "volume" : 83159600,
   23
                                                                                                 33
   24
                                                                                                 34
   25
                                                                                                 35
   26
                                                                                                 36
   27
                                                                                                 37 ▼
   28
```

```
a) Visualizar os documentos do dia 2019-01-01 à 2019-03-01. (hits = 9) ** Resposta:

Dica sempre usar o format quando trabalhar com data

GET bolsa/_search
```

```
GET bolsay_search
{
    "query": {
        "range": {
            "gte": "2019-01-01",
            "Ite": "2019-03-01"
            , "format": "yyyy-MM-dd"
        }
    }
}
```

```
▷ ୬ । 1 + {
  1 GET bolsa/_search
                                                                              "took" : 1,
"timed_out" : false,
  3 ▼
          "query": {
                                                                        3
                                                                              "_shards" : {
    "total" : 1,
    "successful" : 1,
  4 +
             "range": {
                                                                        4 +
               "timestamp": {
    "gte": "2019-01-01",
    "lte": "2019-03-01"
  5 +
                                                                       5
   6
                                                                       6
                                                                                 "skipped" : 0,
"failed" : 0
                                                                       7
   8
                 , "format": "yyyy-MM-dd"
                                                                       8
  9 🛦
                                                                       9 *
                                                                               "hits" : {
| "total" : {
| | "value" : 9,
  10 ^
                                                                      10 -
 11 ^
                                                                      11 -
 12 ^ }
                                                                      12
                                                                                    "relation" : "eq"
 13
                                                                      13
 14
                                                                      14 ^
                                                                                 "max_score" : 1.0,
"hits" : [
15
                                                                      15
 16
                                                                      16 -
 17
                                                                      17 🕶
                                                                                      "_index" : "bolsa",

"_type" : "_doc",

"_id" : "RxmpxX8BOKuL5gTUyP-S",

"_score" : 1.0,
 18
                                                                      18
 19
                                                                      19
 20
                                                                      20
 21
                                                                      21
                                                                                        _source" : {
   "volume" : 119359497,
 22
                                                                      22 =
 23
                                                                      23
                                                                                         "high" : 113.24,
"@timestamp" : "2019-03-01T00:00:00.000
 24
                                                                      24
 25
                                                                       25
                                                                                            -03:00",
 26
                                                                                         "low" : 110.88,
"close" : 112.53,
 27
                                                                      26
 28
                                                                      27
                                                                                          "open" : 111.76,
                                                                    28
                                                                                          "timestamp" : "2019-03-01"
                                                                    29
                                                                    30 ^
                                                                    31 ^
                                                                    32 ▼
                                                                                       "_index" : "bolsa",
                                                                    33
                                                                                      __index : Bolsa ,
"_type" : "_doc",
"_id" : "SBmpxX8BOKuL5gTUyP-S",
"_score" : 1.0,
                                                                    34
                                                                    35
                                                                    36
                                                                                      "_source" : {
                                                                    37 ▼
                                                                                          "volume" : 96472580,
                                                                    38
                                                                                         "high" : 111.2,
"@timestamp" : "2019-02-22T00:00:00.000
                                                                    39
                                                                    40
                                                                                            -03:00",
                                                                                         "low" : 106.29,
                                                                    41
                                                                                          "close" : 110.97,
                                                                    42
                                                                                          "open": 107.79,
                                                                    43
                                                                                          "timestamp" : "2019-02-22"
                                                                    44
                                                                    45 ^
                                                                    46 ^
                                                                    47 -
                                                                                      "_index" : "bolsa",
"_type" : "_doc",
"_id" : "SRmpxX8BOKuL5gTUyP-S",
                                                                    48
                                                                    49
                                                                    50
                                                                                      "_score" : 1.0,
                                                                    51
                                                                                        _source" : {
  "volume" : 110757176,
                                                                    52 ₹
                                                                    53
```

b) Visualizar os documentos do dia 2019-04-01 até agora. (hits = 3)

** Resposta:

```
"Ite": "now"
                 , "format": "yyyy-MM-dd"
            }
        }
    }
}
                                                                      Painless Lab BETA
Console Search Profiler
                                         Grok Debugger
                                                                                                                                      200 - OK 56 m
History Settings Help
1 GET bolsa/_search
                                                           ▷ ♥ 1 1 - {
                                                                                     "took" : 1,
"timed_out" : false,
       2 ▼
3 ▼
                                                                                     "_shards" : {
    "total" : 1,
    "successful" : 1,
       4 +
                  "range": {
                    "timestamp": {
    "gte": "2019-01-01",
    "lte": "now"
       5 +
       6
                                                                              6
                                                                                       "skipped" : 0,
                      , "format": "yyyy-MM-dd"
                                                                                       "failed" : 0
       8
                                                                              8
       9 🛦
                                                                             9 4
                                                                                     10 -
                                                                            10 -
      11 *
                                                                            11 -
      12 4 1
                                                                            12
      13
                                                                            13
      14
                                                                            14 ^
                                                                                         "max_score" : 1.0,
      15
                                                                            15
      16
                                                                            16 🕶
                                                                                       "hits" : [
      17
                                                                             17 🕶
                                                                                            "_index" : "bolsa",
"_type" : "_doc",
"id" : "OBMmpxX8BOKuL5gTUyP-S",
"_score" : 1.0,
"_source" : {
    "volume" : 48874731,
    "volume" : 428.74731,
    "volume" : 421.85.
      18
                                                                            18
      19
                                                                            19
      20
                                                                            20
      21
                                                                            21
      22
                                                                            22 -
      23
                                                                            23
                                                                                                "high" : 121.85,
"@timestamp" : "2019-04-17T00:00:00.000
      24
                                                                            24
      25
                                                                            25
      26
                                                                                                   -03:00",
                                                                                                "low": 120.1,
"close": 121.77,
"onen": 120.94.
| "timestamp": "2019-04-17"
      27
                                                                             26
      28
                                                                            27
      29
                                                                                   29
                                                                                   30 4
                                                                                   31 ^
                                                                                                  },
                                                                                  32 ₹
                                                                                                    "_index" : "bolsa",
"_type" : "_doc",
"_id" : "QRmpxX8BOKuL5gTUyP-S",
                                                                                  33
                                                                                  34
                                                                                  35
                                                                                                     "_score" : 1.0,
                                                                                  36
                                                                                                       _source" : {
  "volume" : 83159600,
                                                                                  37 ▼
                                                                                  38
                                                                                                        "high" : 120.98,
"@timestamp" : "2019-04-12T00:00:00.000
                                                                                  39
                                                                                  40
                                                                                                           -03:00",
                                                                                                        "low" : 118.58,
"close" : 120.95,
                                                                                  41
                                                                                  42
                                                                                                        "open" : 119.81,
                                                                                  43
                                                                                  44
                                                                                                        "timestamp" : "2019-04-12"
                                                                                  45 ^
                                                                                  46 *
                                                                                  47 -
                                                                                                     "_index" : "bolsa",
"_type" : "_doc",
"_id" : "QhmpxX8BOKuL5gTUyP-S",
"_score" : 1.0,
                                                                                  48
                                                                                  49
                                                                                  50
                                                                                  51
                                                                                                       _source" : {
  "volume" : 99731237,
                                                                                  52 7
                                                                                  53
                                                                                                       "high" : 120.43,
"@timestamp" : "2019-04-05T00:00:00.000
                                                                                  54
                                                                                  55
                                                                                                          -03:00",
                                                                                                        "low" : 118.1,
                                                                                  56
```

"close": 119.89,

5. Clicar no botão de Enviar Tarefa, e enviar o texto: ok