

Elasticsearch:

Pesquisando e Analisando Seus Dados

Conceitos





kibana

<http://localhost:5601/>

Banco Relacional	Elasticsearch
Instância	Index
Tabela	Type
Esquema	Mapping
Tupla	Document
Coluna	Attribute

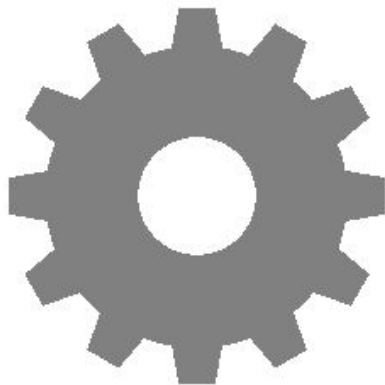
CRUD

Operações de leitura/escrita

POST

insert

API REST



GET

select

PUT

update

/insert (sem duplicar)

DELETE

delete

HTTP HEAD

descobrimo se um documento
existe


```
select 1 from pessoas where id = N
```

```
select 1 from pessoas where id = N
```

=

HTTP HEAD



A screenshot of a Windows Command Prompt window. The title bar at the top reads "c:\ Prompt de Comando" and includes standard window controls (minimize, maximize, close). The main area has a black background with white text. The prompt "c:\>" is followed by the command "curl" and a white cursor. A vertical scrollbar is visible on the right side of the command area.

```
c:\>curl
```

C:\ Prompt de Comando

c:\>curl -XHEAD_

HTTP HEAD

- retorna apenas cabeçalhos HTTP
- não retorna o documento
- serve para saber se existe o documento

```
curl -XHEAD -v
```

```
http://localhost:9200/catalogo/_doc/1
```

```
Prompt de Comando - curl -XHEAD -v http://localhost:9200/catalogo/pessoas/1

c:\>curl -XHEAD -v http://localhost:9200/catalogo/pessoas/1
Warning: Setting custom HTTP method to HEAD with -X/--request may not work the
Warning: way you want. Consider using -I/--head instead.
* Trying ::1...
* TCP_NODELAY set
* Connected to localhost (::1) port 9200 (#0)
> HEAD /catalogo/pessoas/1 HTTP/1.1
> Host: localhost:9200
> User-Agent: curl/7.55.1
> Accept: */*
>
< HTTP/1.1 200 OK
< Warning: 299 Elasticsearch-7.4.0-22e1767283e61a198cb4db791ea66e3f11ab9910 "[type
s removal] Specifying types in document get requests is deprecated, use the /{inde
x}/_doc/{id} endpoint instead."
< content-type: application/json; charset=UTF-8
< content-length: 261
<

```

```
curl -XHEAD -v
```

```
http://localhost:9200/catalogo/_doc/100
```



```
Prompt de Comando - curl -XHEAD -v http://localhost:9200/catalogo/pessoas/100

c:\>curl -XHEAD -v http://localhost:9200/catalogo/pessoas/100
Warning: Setting custom HTTP method to HEAD with -X/--request may not work the
Warning: way you want. Consider using -I/--head instead.
* Trying ::1...
* TCP_NODELAY set
* Connected to localhost (::1) port 9200 (#0)
> HEAD /catalogo/pessoas/100 HTTP/1.1
> Host: localhost:9200
> User-Agent: curl/7.55.1
> Accept: */*
>
< HTTP/1.1 404 Not Found
< Warning: 299 Elasticsearch-7.4.0-22e1767283e61a198cb4db791ea66e3f11ab9910 "[type
s removal] Specifying types in document get requests is deprecated, use the /{inde
x}/_doc/{id} endpoint instead."
< content-type: application/json; charset=UTF-8
< content-length: 65
<
```

HEAD /catalogo/_doc/100

HTTP GET

obtendo um documento

GET /catalogo/_doc/1

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "1",
  "_version" : 3,
  "_seq_no" : 3,
  "_primary_term" : 1,
  "found" : true,
  "_source" : {
    "nome" : "João Silva",
    "interesses" : [
      "futebol", "música", "literatura"
    ],
    "cidade" : "São Paulo",
    "formação" : "Letras",
    "estado" : "SP",
    "país" : "Brasil"
  }
}
```

```
GET catalogo/_doc/100
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "100",
  "found" : false
}
```

HTTP PUT

criando ou atualizando um
documento

PUT vs POST

PUT catalogo/_doc/50

PUT /catalogo/_doc/50

```
{  
  "nome": "Marcelo Oliveira",  
  "interesses": [  
    "cinema", "música", "programação"  
  ],  
  "cidade": "São Paulo",  
  "formação": "Tecnologia da  
Informação",  
  "estado": "SP",  
  "país": "Brasil"  
}
```

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "50",
  "_version" : 1,
  "result" : "created",
  "_shards" : {
    "total" : 1,
    "successful" : 1,
    "failed" : 0
  },
  "_seq_no" : 4,
  "_primary_term" : 1
}
```

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "50",
  "_version" : 5,
  "result" : "updated",
  "_shards" : {
    "total" : 1,
    "successful" : 1,
    "failed" : 0
  },
  "_seq_no" : 8,
  "_primary_term" : 1
}
```

```
PUT /catalogo/_doc/50
{
  "nome": "Marcelo Ricardo de Oliveira",
  "interesses": [
    "cinema",
    "música",
    "programação"
  ],
  "cidade": "São Paulo",
  "formação": "Tecnologia da
Informação",
  "estado": "SP",
  "país": "Brasil"
}
```

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "50",
  "_version" : 6,
  "result" : "updated",
  "_shards" : {
    "total" : 1,
    "successful" : 1,
    "failed" : 0
  },
  "_seq_no" : 9,
  "_primary_term" : 1
}
```

GET /catalogo/_doc/50

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "50",
  "_version" : 6,
  "_seq_no" : 9,
  "_primary_term" : 1,
  "found" : true,
  "_source" : {
    "nome" : "Marcelo Ricardo de
Oliveira",
    "interesses" : [
      "cinema",
      "música",
      "programação"
    ],
    "cidade" : "São Paulo",
    "formação" : "Tecnologia da
Informação",
    "estado" : "SP",
    "país" : "Brasil"
  }
}
```


HTTP DELETE

Apagando Documentos

GET catalogo/_doc/1

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "1",
  "_version" : 3,
  "_seq_no" : 3,
  "_primary_term" : 1,
  "found" : true,
  "_source" : {
    "nome" : "João Silva",
    "interesses" : [ "futebol", "música", "literatura"
  ],
    "cidade" : "São Paulo",
    "formação" : "Letras",
    "estado" : "SP",
    "país" : "Brasil"
  }
}
```

```
DELETE catalogo/_doc/1
```

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "1",
  "_version" : 4,
  "result" : "deleted",
  "_shards" : {
    "total" : 1,
    "successful" : 1,
    "failed" : 0
  },
  "_seq_no" : 10,
  "_primary_term" : 1
}
```

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "1",
  "_version" : 5,
  "result" : "not_found",
  "_shards" : {
    "total" : 1,
    "successful" : 1,
    "failed" : 0
  },
  "_seq_no" : 11,
  "_primary_term" : 1
}
```

HTTP POST

Inserindo documentos

POST catalogo/_update/50

```
{  
  "doc": {  
    "nome": "Marcelo R. Oliveira"  
  }  
}
```



```
{
  "_index": "catalogo",
  "_type": "pessoas",
  "_id": "50",
  "_version": 9,
  "result": "updated",
  "_shards": {
    "total": 1,
    "successful": 1,
    "failed": 0
  },
  "_seq_no": 22,
  "_primary_term": 1
}
```

GET /catalogo/_doc/50

```
{
  "_index" : "catalogo",
  "_type" : "_doc",
  "_id" : "50",
  "_version" : 7,
  "_seq_no" : 12,
  "_primary_term" : 1,
  "found" : true,
  "_source" : {
    "nome" : "Marcelo R. Oliveira",
    "interesses" : ["cinema","música","programação" ],
    "cidade" : "São Paulo",
    "formação" : "Tecnologia da Informação",
    "estado" : "SP",
    "país" : "Brasil"
  }
}
```

Shards

Os "pedaços" do índice

Catalogo
10GB

Catalogo
10GB

Catalogo

Shard 1
2.5GB

Shard 2
2.5GB

Shard 3
2.5GB

Shard 4
2.5GB

Catalogo
10GB

Catalogo

Shard 1
2.5GB

Shard 2
2.5GB

Shard 3
2.5GB

Shard 4
2.5GB

Status

Health:  Green

Total

13.9 KB

Primaries

13.9 KB

Documents

2

Total Shards

1

Unassigned Shards

0

Shard Legend

Primary

Replica

Relocating

Initializing

Unassigned Primary

Unassigned Replica

Nodes

DESKTOP-1O7RCON★

0

DESKTOP-107RCON★

0



DESKTOP-107RCON★

0



DESKTOP-1O7RCON★

0

