

# Elasticsearch: Pesquisando e Analizando Seus Dados

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# Instalação

Baixando Elasticsearch e Kibana

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# elasticsearch

<https://www.elastic.co/pt/downloads/past-releases/elasticsearch-7.4.2>



kibana

<https://www.elastic.co/pt/downloads/past-releases/kibana-7-4-2>

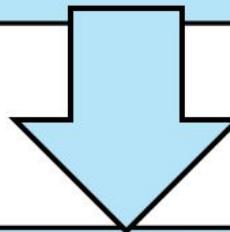
Lucene



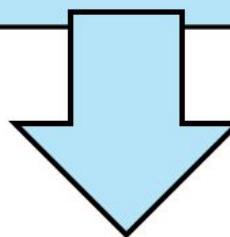
Elasticsearch

Lucene

**elasticsearch API**



**lucene API**





elasticsearch



elasticsearch.bat



elasticsearch-certgen



elasticsearch-certgen.bat



elasticsearch-certutil

- porta 9200: fornece o web service REST
- porta 9300: comunicação entre os nós (nodes).



localhost:9200

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□

×



localhost:9200



:

```
{  
  "name" : "DESKTOP-107RCON",  
  "cluster_name" : "elasticsearch",  
  "cluster_uuid" : "-hm-FgImSzSETwQymEy0WA",  
  "version" : {  
    "number" : "7.4.0",  
    "build_flavor" : "default",  
    "build_type" : "zip",  
    "build_hash" : "22e1767283e61a198cb4db791ea66e3f11ab9910",  
    "build_date" : "2019-09-27T08:36:48.569419Z",  
    "build_snapshot" : false,  
    "lucene_version" : "8.2.0",  
    "minimum_wire_compatibility_version" : "6.8.0",  
    "minimum_index_compatibility_version" : "6.0.0-beta1"  
  },  
  "tagline" : "You Know, for Search"  
}
```

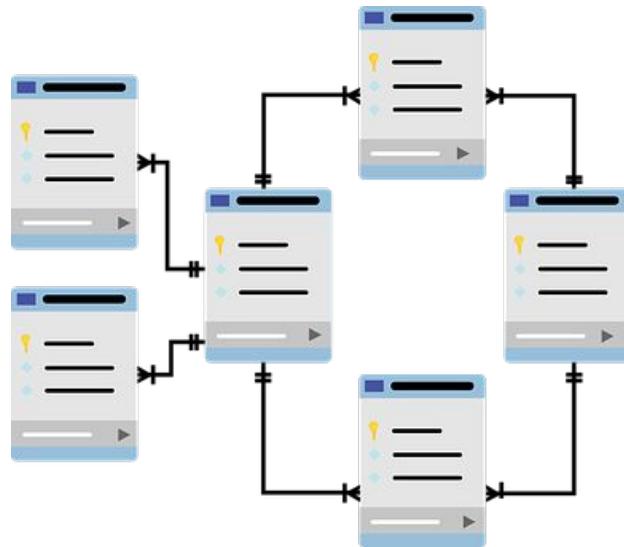
---

# Acesso

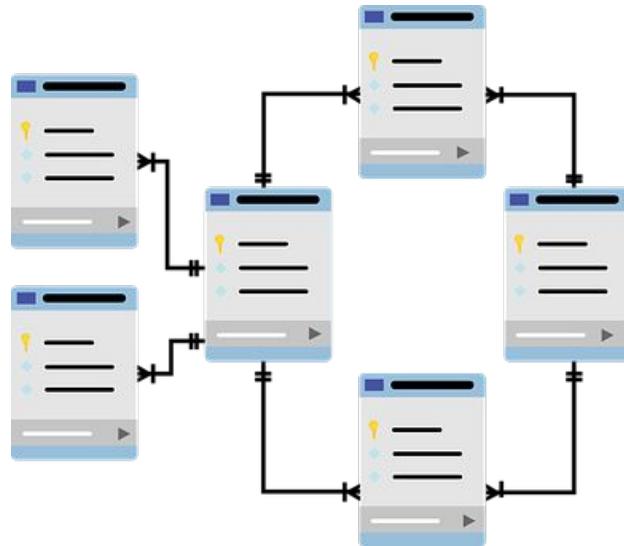
ler / criar / modificar / excluir dados

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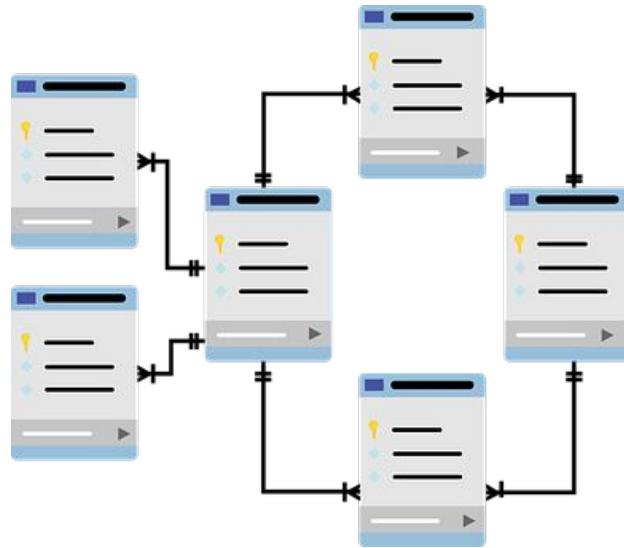
# Banco Relacional: como inserir/atualizar?



# Banco Relacional: Linguagem SQL



# Banco Relacional: INSERT ou UPDATE



# Elasticsearch: como inserir/atualizar?



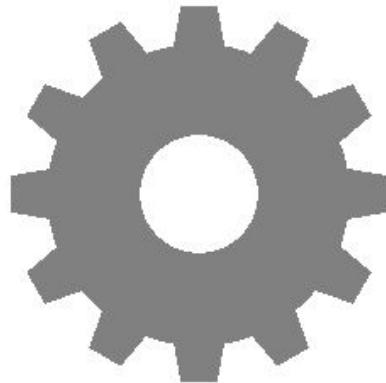
# elasticsearch

# Elasticsearch: comandos HTTP REST

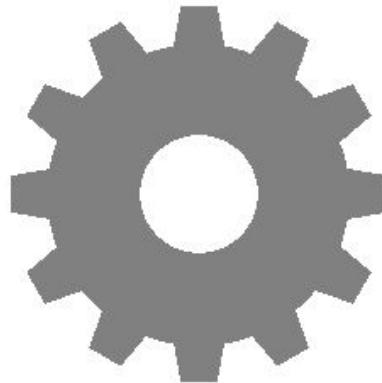


# elasticsearch

# API REST



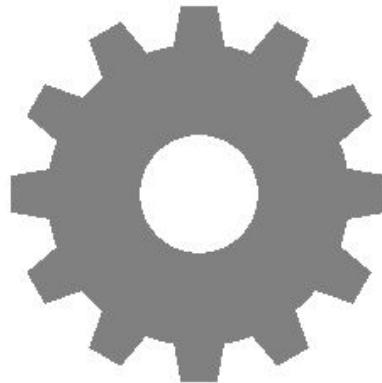
**POST** API REST



**POST**

API REST

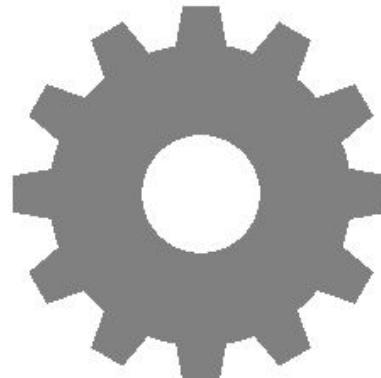
**GET**



**POST**

API REST

**GET**

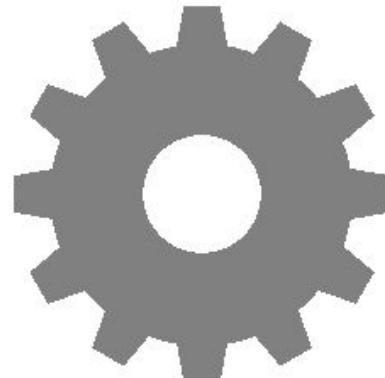


**PUT**

**POST**

**API REST**

**GET**



**PUT**

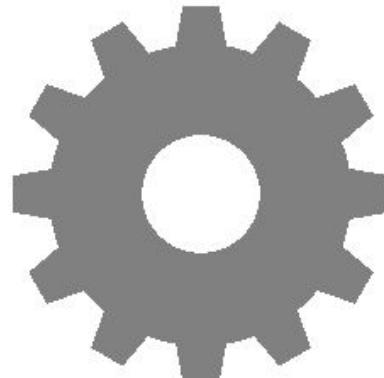
**DELETE**

**POST**

**insert**

**PUT**

**API REST**



**GET**

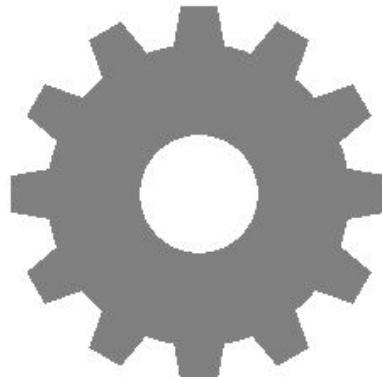
**DELETE**

**POST**

**insert**

**PUT**

**API REST**



**GET**

**select**

**DELETE**

**POST**

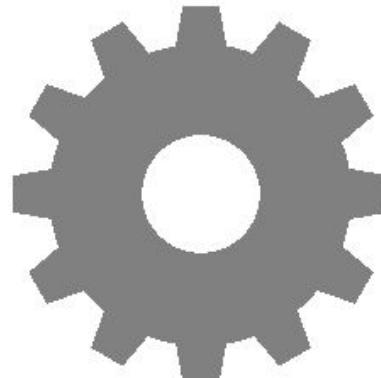
**insert**

**PUT**

**update**

**/insert (sem duplicar)**

**API REST**



**GET**

**select**

**DELETE**

**POST**

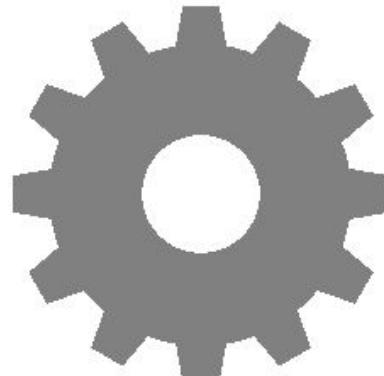
**insert**

**PUT**

**update**

**/insert (sem duplicar)**

**API REST**



**GET**

**select**

**DELETE**

**delete**



kibana

<http://localhost:5601/>

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# O Método HTTP POST

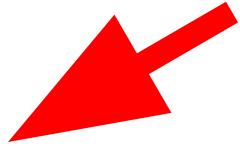
Inserindo dados no Elastic

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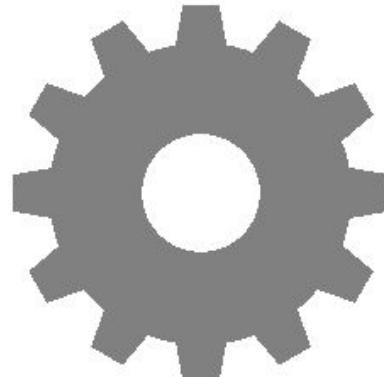
**POST**

**insert**



API REST

PUT



GET

DELETE

**POST [índice]/\_doc**

POST [índice]/\_doc  
{*JSON\_COM\_DOCUMENTO*}

```
POST catalogo/_doc
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
"música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

```
POST catalogo/_doc
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
"música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

```
POST catalogo/pessoas
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
"música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

```
POST catalogo/_doc
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
"música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

```
POST catalogo/_doc
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
"música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

```
POST catalogo/_doc
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
 "música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

```
POST catalogo/_doc
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
"música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

---

# Configurando Replicação







```
PUT catalog/_settings
{
  "index": {
    "number_of_replicas": 0
  }
}
```

---

# O Método HTTP GET

Lendo dados do Elastic

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**GET [índice]/\_count**

**GET catalog/\_count**

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# Criando Novo Documento

Como os dados são armazenados?

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**GET catalog/\_count**

POST [índice]/\_doc/{id}  
{JSON COM DOCUMENTO}

```
POST catalogo/_doc/1
```

```
{
```

```
  "nome": "João Silva",  
  "interesses": ["futebol",  
"música", "literatura"],  
  "cidade": "São Paulo",  
  "formação": "Letras",  
  "estado": "SP",  
  "país": "Brasil"
```

```
}
```

**GET [índice]/\_doc/{id}**

**GET catalog/\_doc/1**

---

# Busca Geral

Procure o dado onde ele estiver

---

**GET [índice]/\_search**

**GET catalog/\_search**

**GET [índice]/\_search/?q=[termo]**

**GET catalog/\_search/?q=futebol**

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# Resumo da Aula

## Primeiros passos com Elasticsearch

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