Iniciando o Elasticsearch em Docker

Docker Desktop Windows

```
PS E:\projetos\docker-elasticsearch\elastic> wsl -l -v
  NAME                   STATE           VERSION
* docker-desktop-data    Running         2
  docker-desktop         Running         2
  Ubuntu-20.04           Running         2
```

```
PS E:\projetos\docker-elasticsearch\elastic> wsl -d docker-desktop
LAPTOP-V176DRSL:/tmp/docker-desktop-root/mnt/host/e/projetos/docker-elasticsearch/elastic# sysctl -w vm.max_map_count=262144
vm.max_map_count = 262144
LAPTOP-V176DRSL:/tmp/docker-desktop-root/mnt/host/e/projetos/docker-elasticsearch/elastic#
```

Docker Wsl2 Linux

```
feliciani@LAPTOP-V176DRSL:~$ sudo sysctl -w vm.max_map_count=262144
[sudo] password for feliciani:
vm.max_map_count = 262144
```

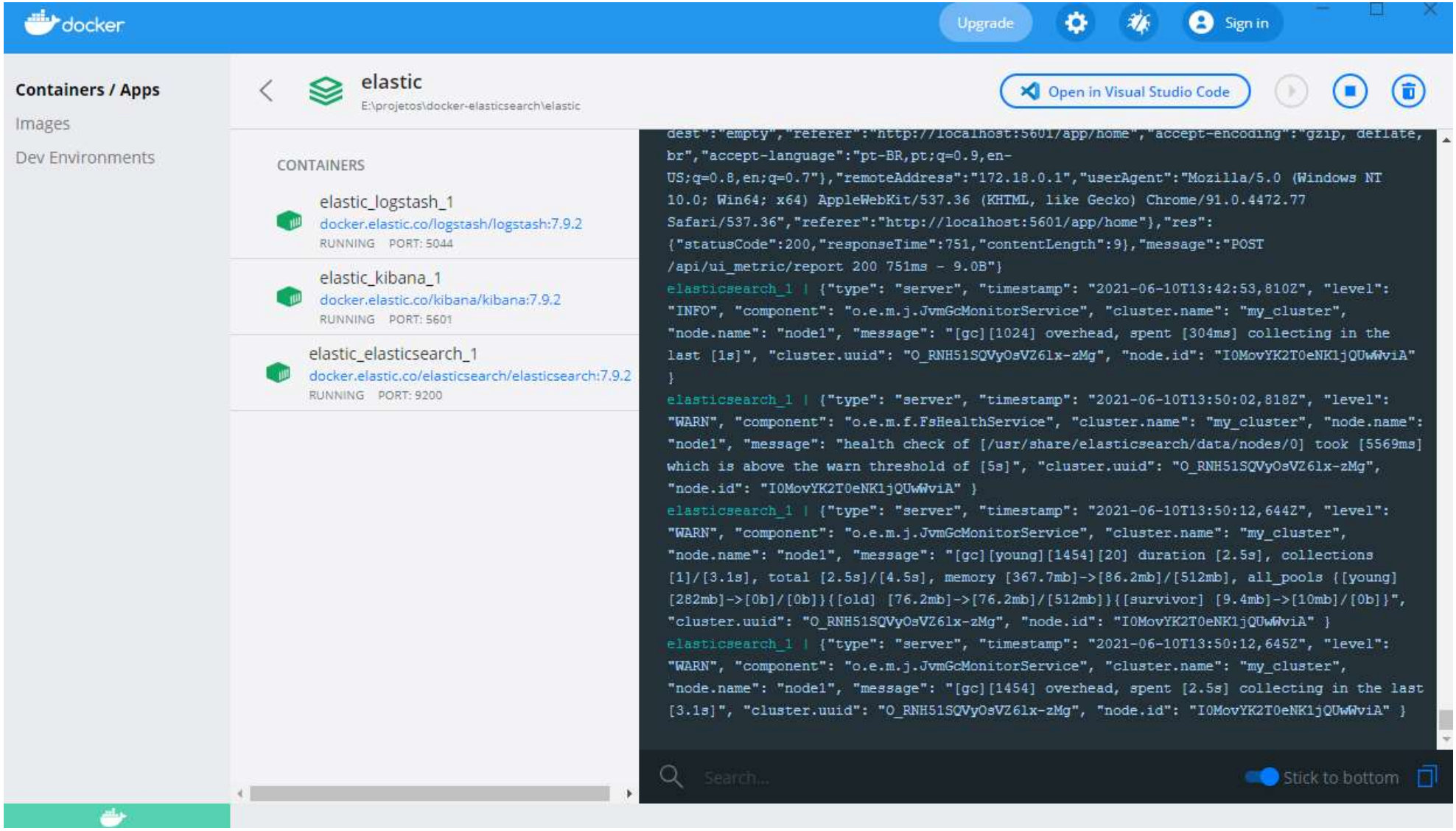
Docker Desktop Windows

```
PS E:\projetos\docker-elasticsearch\elastic> docker-compose up -d
Docker Compose is now in the Docker CLI, try `docker compose up`

Starting elastic_elasticsearch_1 ... done
Starting elastic_kibana_1        ... done
Starting elastic_logstash_1      ... done
```

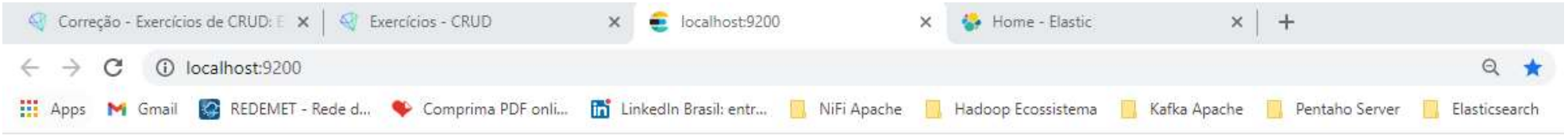
```
PS E:\projetos\docker-elasticsearch\elastic> docker ps
CONTAINER ID   IMAGE                                                  COMMAND                  CREATED        STATUS          PORTS                                            NAMES
d3d012693acc   docker.elastic.co/logstash/logstash:7.9.2              "/usr/local/bin/dock…"   17 hours ago   Up 33 minutes   0.0.0.0:5044->5044/tcp, :::5044->5044/tcp, 0.0.0.0:9600->9600/tcp, :::9600->9600/tcp   elastic_logstash_1
ca700688aa0d   docker.elastic.co/kibana/kibana:7.9.2                  "/usr/local/bin/dumb…"   17 hours ago   Up 33 minutes   0.0.0.0:5601->5601/tcp, :::5601->5601/tcp                                       elastic_kibana_1
37a2fb5958f4   docker.elastic.co/elasticsearch/elasticsearch:7.9.2    "/tini -- /usr/local…"   17 hours ago   Up 34 minutes   0.0.0.0:9200->9200/tcp, :::9200->9200/tcp, 9300/tcp                             elastic_elasticsearch_1
```

Docker


docker
Upgrade
Sign in
Containers / Apps
Images
Dev Environments
elastic
E:\projetos\docker-elasticsearch\elastic
Open in Visual Studio Code
CONTAINERS
elastic_logstash_1
docker.elastic.co/logstash/logstash:7.9.2
RUNNING PORT: 5044
elastic_kibana_1
docker.elastic.co/kibana/kibana:7.9.2
RUNNING PORT: 5601
elastic_elasticsearch_1
docker.elastic.co/elasticsearch/elasticsearch:7.9.2
RUNNING PORT: 9200
dest":"empty","referer":"http://localhost:5601/app/home","accept-encoding":"gzip, deflate, br","accept-language":"pt-BR,pt;q=0.9,en-US;q=0.8,en;q=0.7"},"remoteAddress":"172.18.0.1","userAgent":"Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/91.0.4472.77 Safari/537.36","referer":"http://localhost:5601/app/home"},"res":{"statusCode":200,"responseTime":751,"contentLength":9},"message":"POST /api/ui_metric/report 200 751ms - 9.0B"}
elasticsearch_1 | {"type": "server", "timestamp": "2021-06-10T13:42:53,810Z", "level": "INFO", "component": "o.e.m.j.JvmGcMonitorService", "cluster.name": "my_cluster", "node.name": "node1", "message": "[gc][1024] overhead, spent [304ms] collecting in the last [1s]", "cluster.uuid": "O_RNH51SQVyOsVZ6lx-zMg", "node.id": "I0MovYK2T0eNK1jQUwWviA" }
elasticsearch_1 | {"type": "server", "timestamp": "2021-06-10T13:50:02,818Z", "level": "WARN", "component": "o.e.m.f.FsHealthService", "cluster.name": "my_cluster", "node.name": "node1", "message": "health check of [/usr/share/elasticsearch/data/nodes/0] took [5569ms] which is above the warn threshold of [5s]", "cluster.uuid": "O_RNH51SQVyOsVZ6lx-zMg", "node.id": "I0MovYK2T0eNK1jQUwWviA" }
elasticsearch_1 | {"type": "server", "timestamp": "2021-06-10T13:50:12,644Z", "level": "WARN", "component": "o.e.m.j.JvmGcMonitorService", "cluster.name": "my_cluster", "node.name": "node1", "message": "[gc][young][1454][20] duration [2.5s], collections [1]/[3.1s], total [2.5s]/[4.5s], memory [367.7mb]->[86.2mb]/[512mb], all_pools {[young] [282mb]->[0b]/[0b]}{[old] [76.2mb]->[76.2mb]/[512mb]}{[survivor] [9.4mb]->[10mb]/[0b]}", "cluster.uuid": "O_RNH51SQVyOsVZ6lx-zMg", "node.id": "I0MovYK2T0eNK1jQUwWviA" }
elasticsearch_1 | {"type": "server", "timestamp": "2021-06-10T13:50:12,645Z", "level": "WARN", "component": "o.e.m.j.JvmGcMonitorService", "cluster.name": "my_cluster", "node.name": "node1", "message": "[gc][1454] overhead, spent [2.5s] collecting in the last [3.1s]", "cluster.uuid": "O_RNH51SQVyOsVZ6lx-zMg", "node.id": "I0MovYK2T0eNK1jQUwWviA" }
Search...
Stick to bottom

Acessado o Elasticsearch

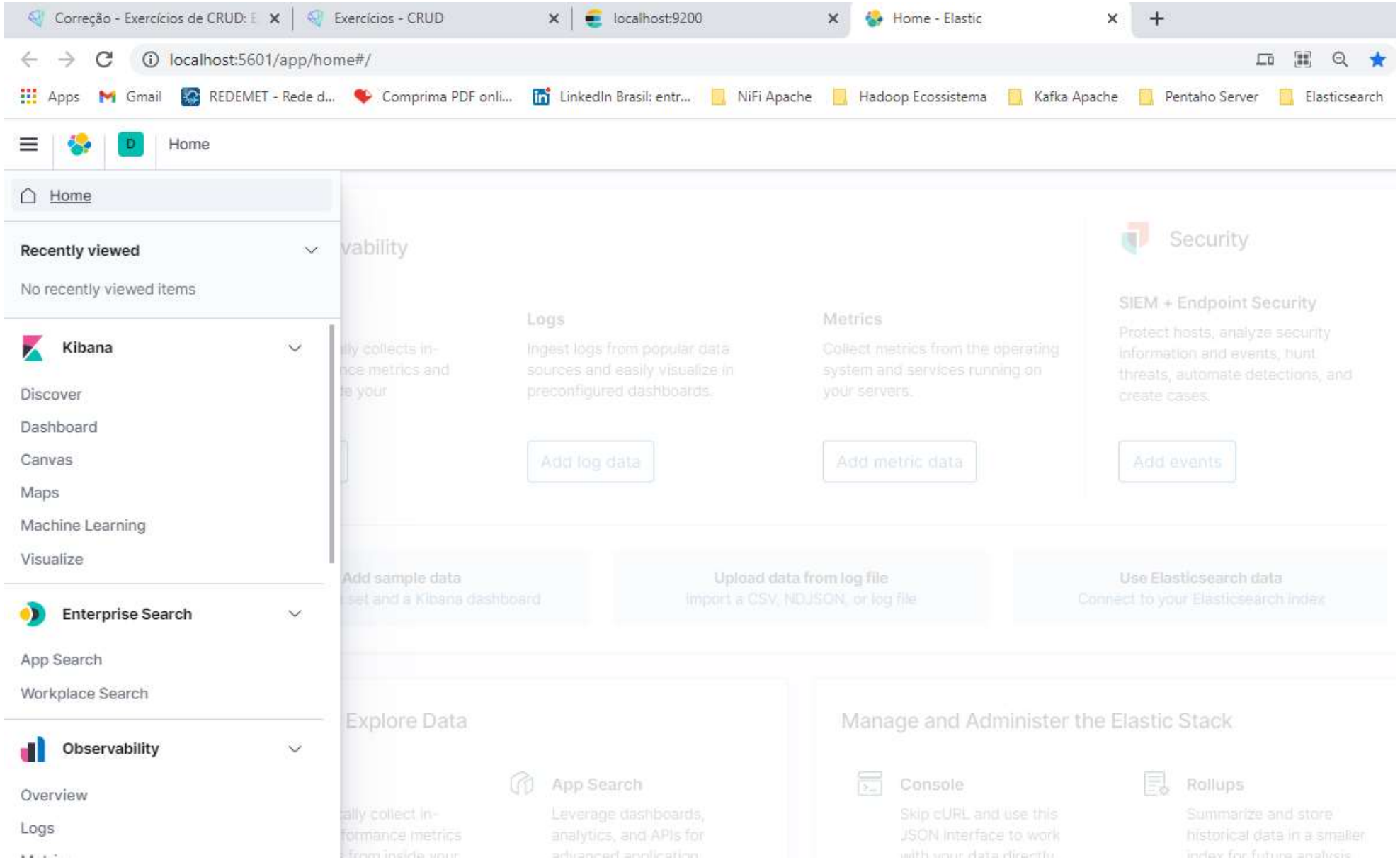
http://localhost:9200




```
{
  "name" : "node1",
  "cluster_name" : "my_cluster",
  "cluster_uuid" : "O_RNH51SQVyOsVZ61x-zMg",
  "version" : {
    "number" : "7.9.2",
    "build_flavor" : "default",
    "build_type" : "docker",
    "build_hash" : "d34da0ea4a966c4e49417f2da2f244e3e97b4e6e",
    "build_date" : "2020-09-23T00:45:33.626720Z",
    "build_snapshot" : false,
    "lucene_version" : "8.6.2",
    "minimum_wire_compatibility_version" : "6.8.0",
    "minimum_index_compatibility_version" : "6.0.0-beta1"
  },
  "tagline" : "You Know, for Search"
}
```

Acessando o KIBANA

http://localhost:5601



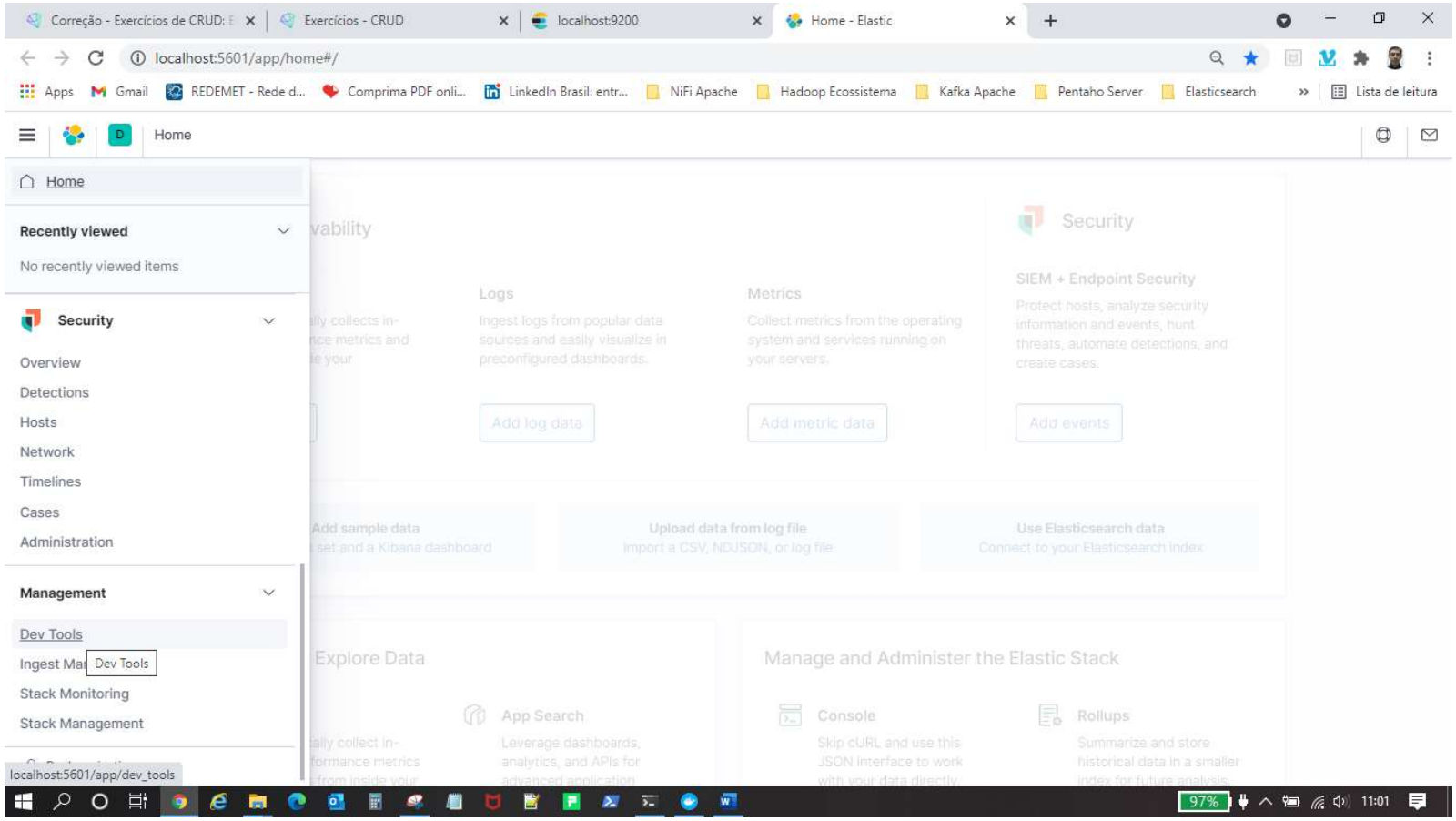
Exercitando CRUD no Elasticsearch atráves da interface do Kibana

1. Criar o índice produto e inserir os seguintes documentos:

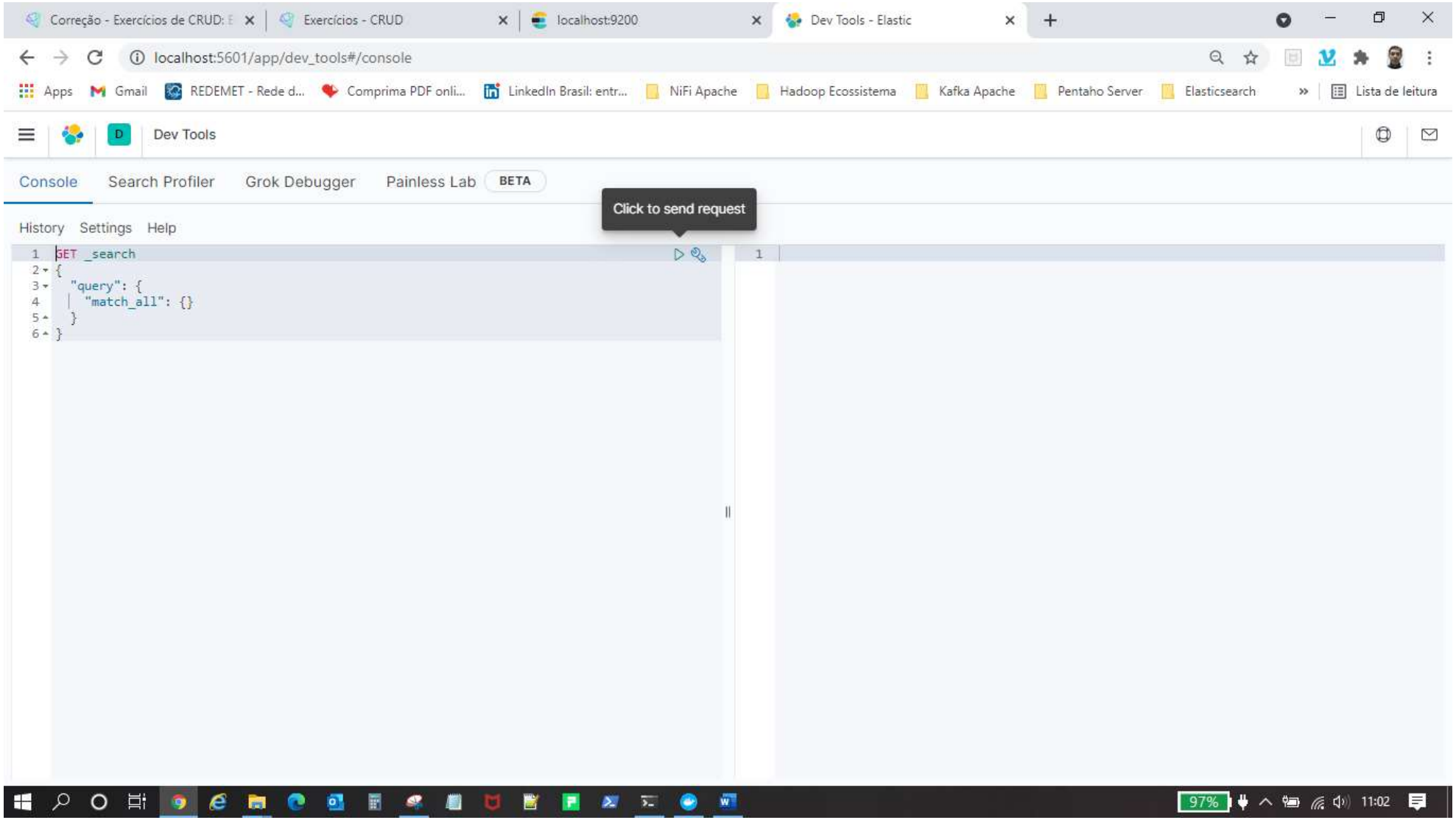
- _id: 1, "nome": "mouse", "qtd": 50, "descricao": "com fio USB, compatível com Windows, Mac e Linux"
- _id: 2, "nome": "hd", "qtd": 20, "descricao": "Interface USB 2.0, 500GB, Sistema: Windows 10, Windows 8, Windows 7 "
- _id: 3, "nome": "memória ram", "qtd": 10, "descricao": "8GB, DDR4"
- _id: 4, "nome": "cpu", "qtd": 15, "descricao": "i5, 2.5Ghz"

- Clicar no Menu

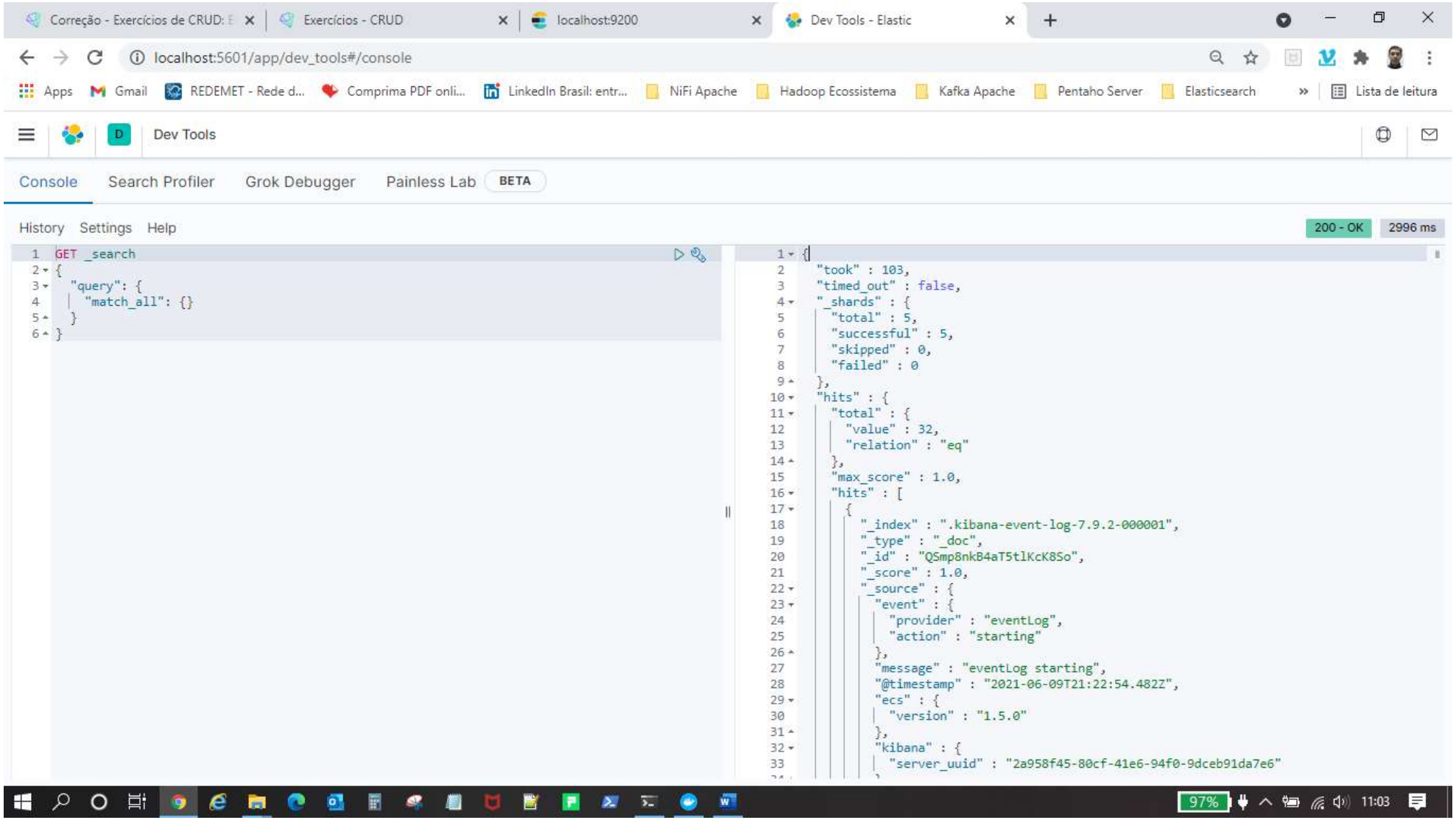
- Clicar em Dev Tools



- Clicar no Send

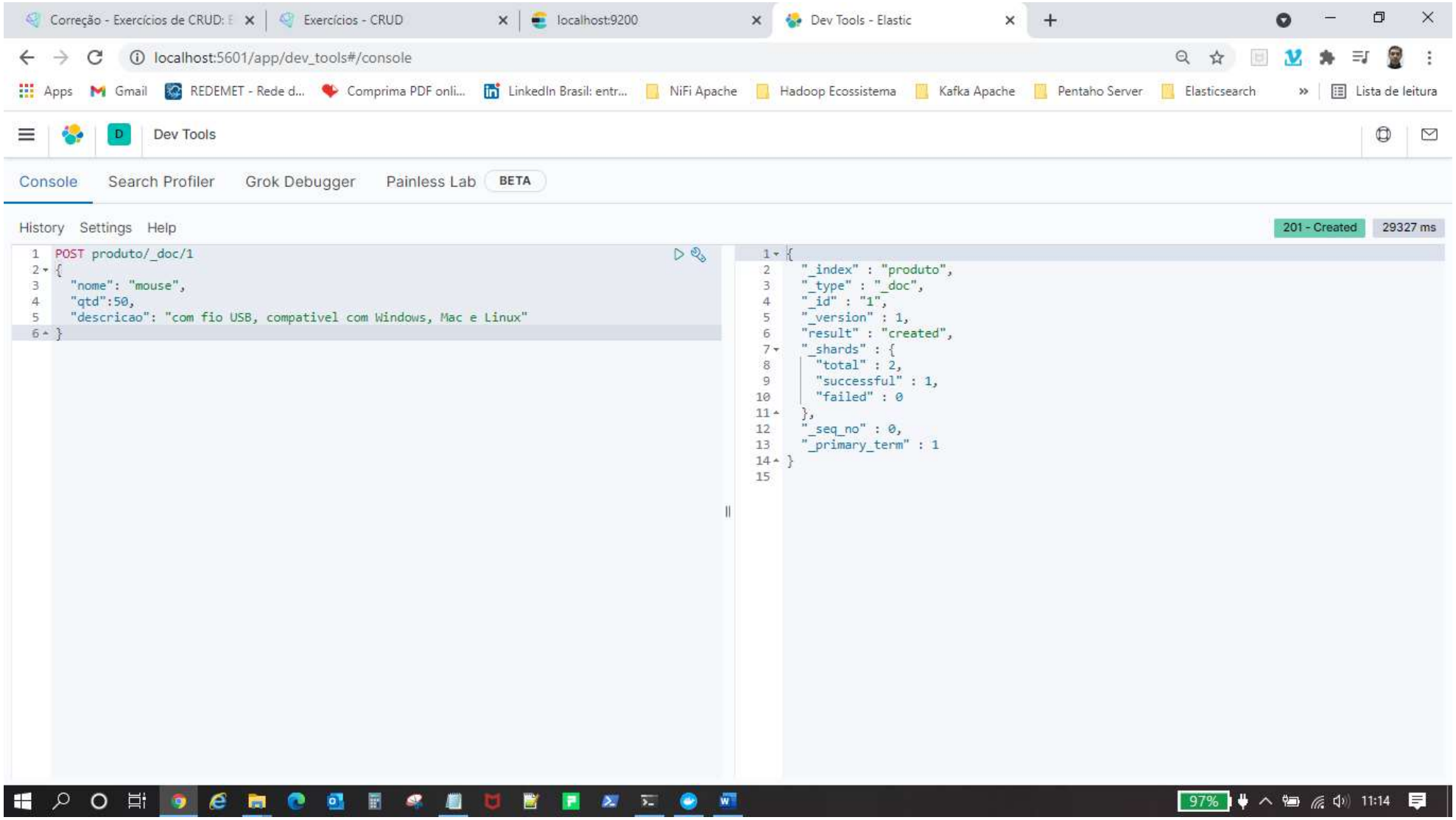


Após clicar no send aparecerá todas as informações de todos os ÍNDICES



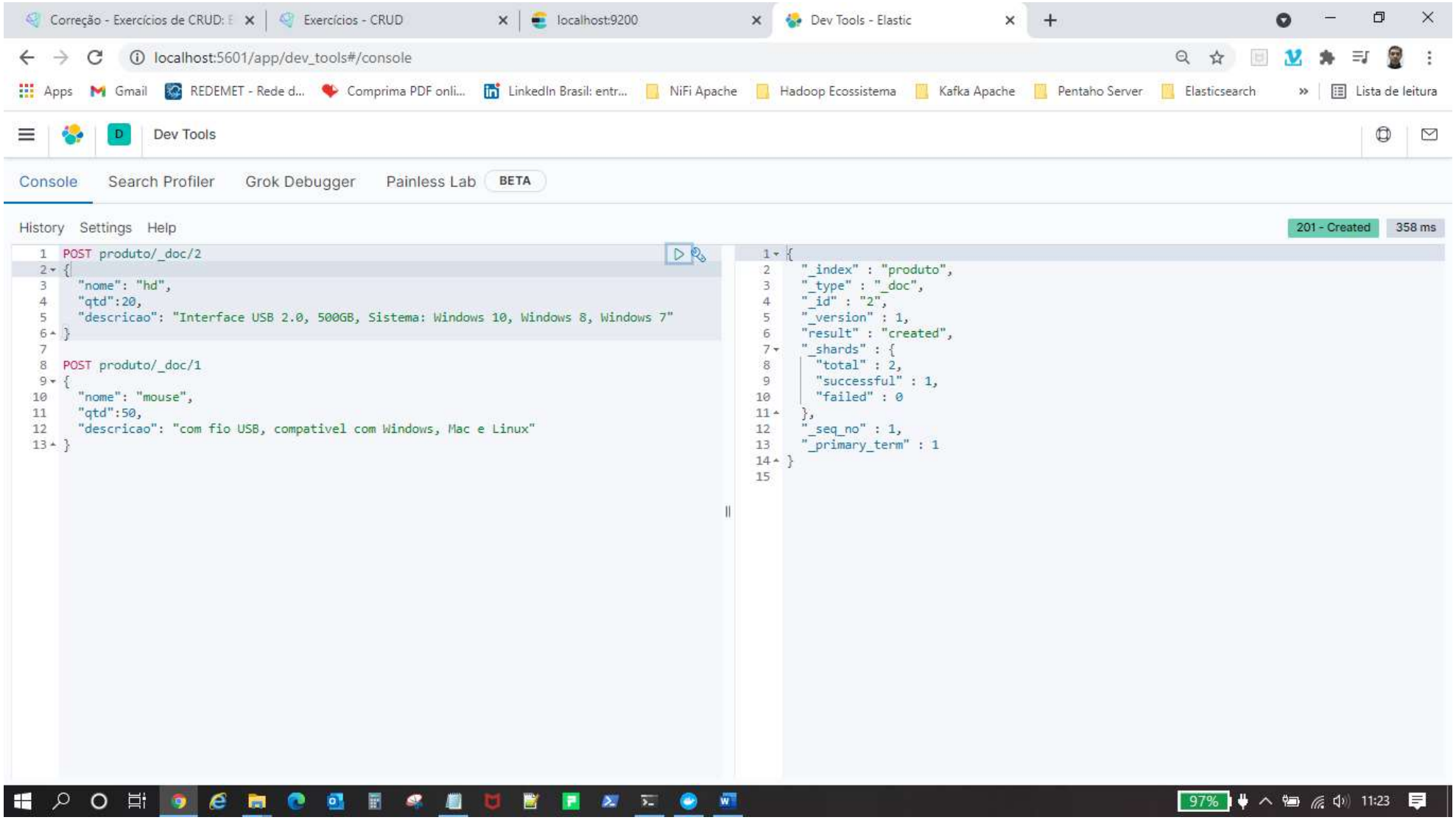
Após digitar as informações do POST e clicar no send, aparecerá o INDEX criado

_id: 1, "nome": "mouse", "qtd": 50, "descricao": "com fio USB, compatível com Windows, Mac e Linux"



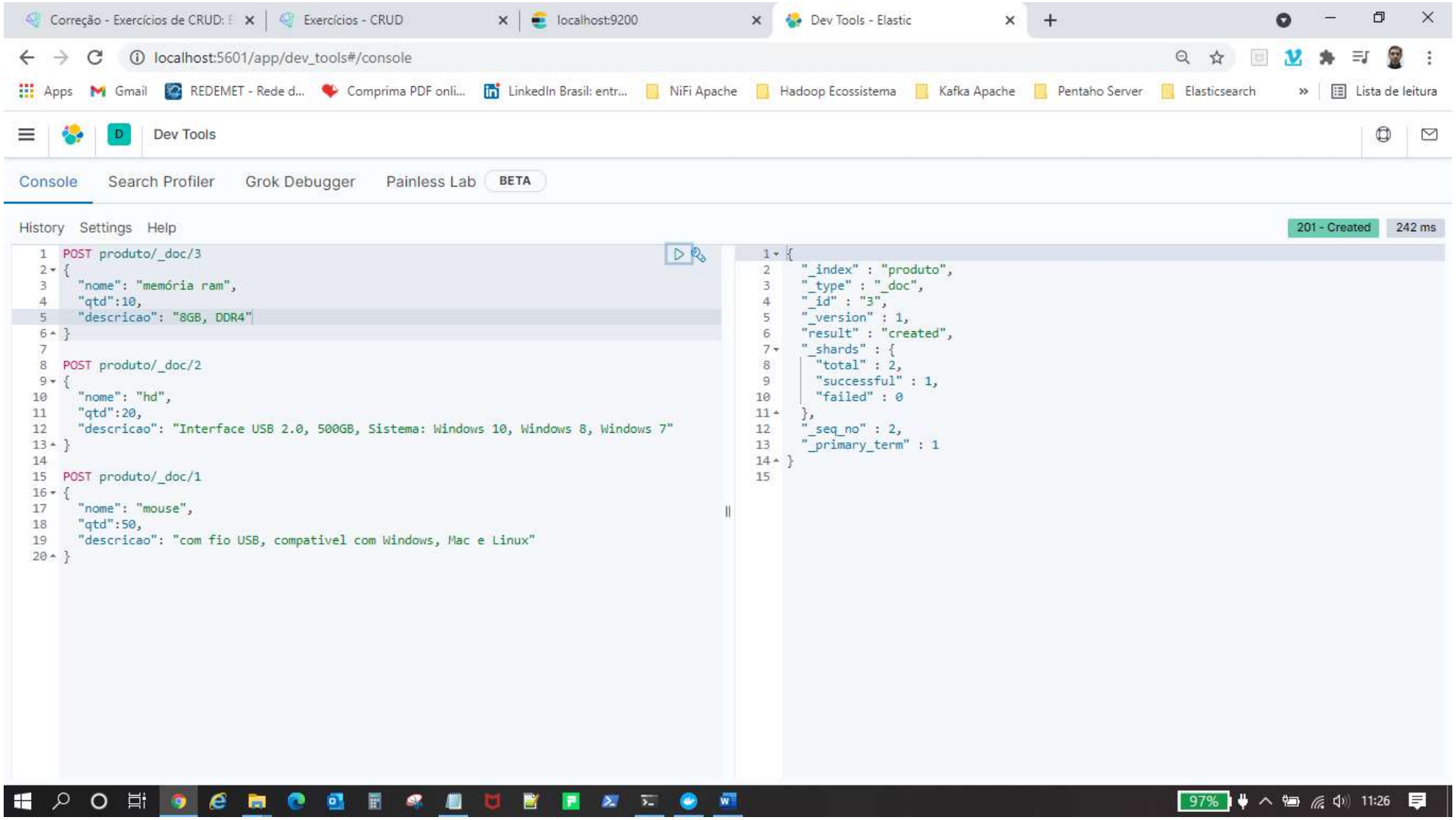
- Criado o ID 2 com o segundo produto

_id: 2, "nome": "hd", "qtd": 20, "descricao": "Interface USB 2.0, 500GB, Sistema: Windows 10, Windows 8, Windows 7 "



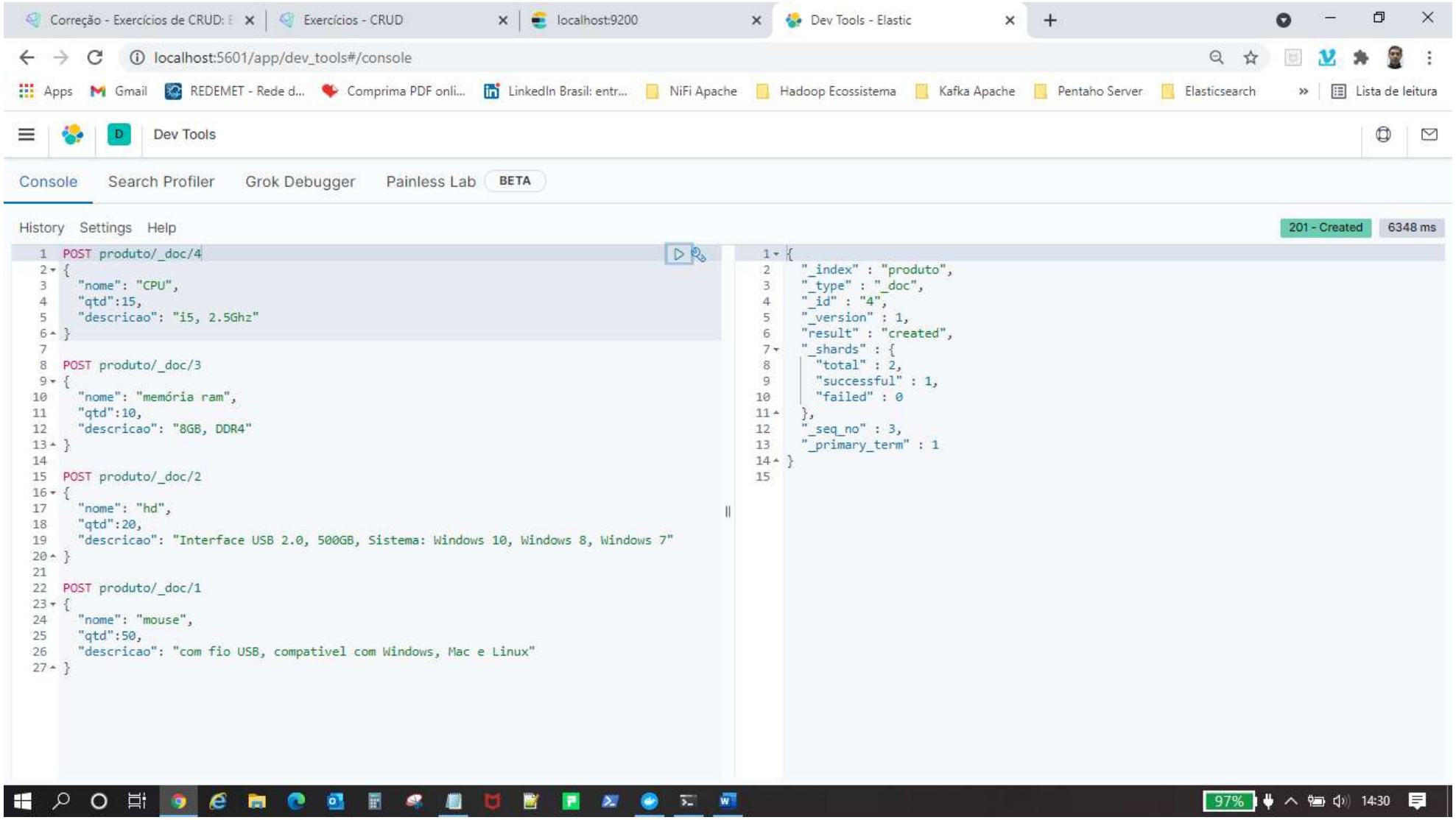
- Criado o terceiro INDEX

_id: 3, "nome": "memória ram", "qtd": 10, "descricao": "8GB, DDR4"



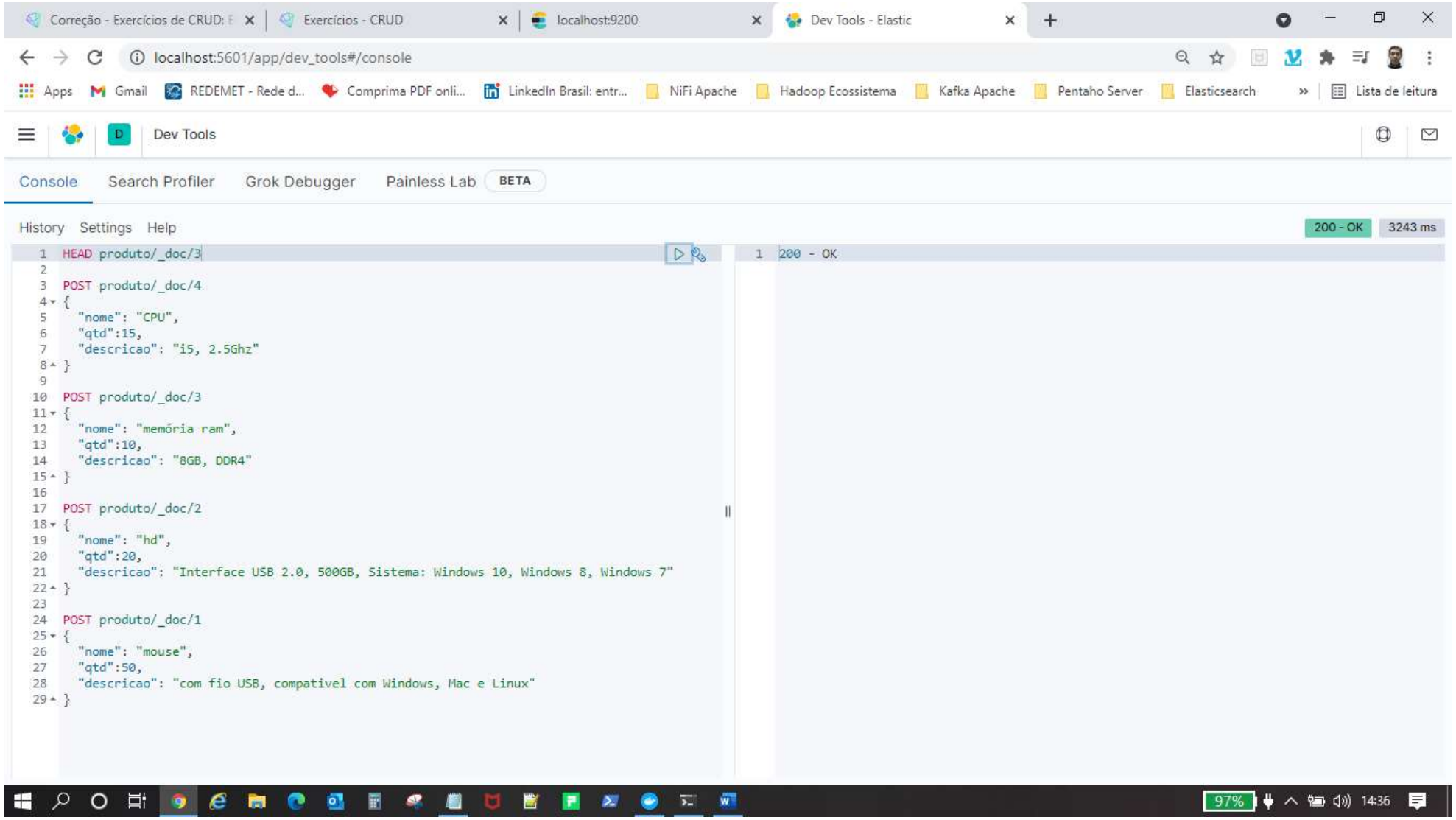
- Criado o quarto INDEX

_id: 4, "nome": "cpu", "qtd": 15, "descricao": "i5, 2.5Ghz"



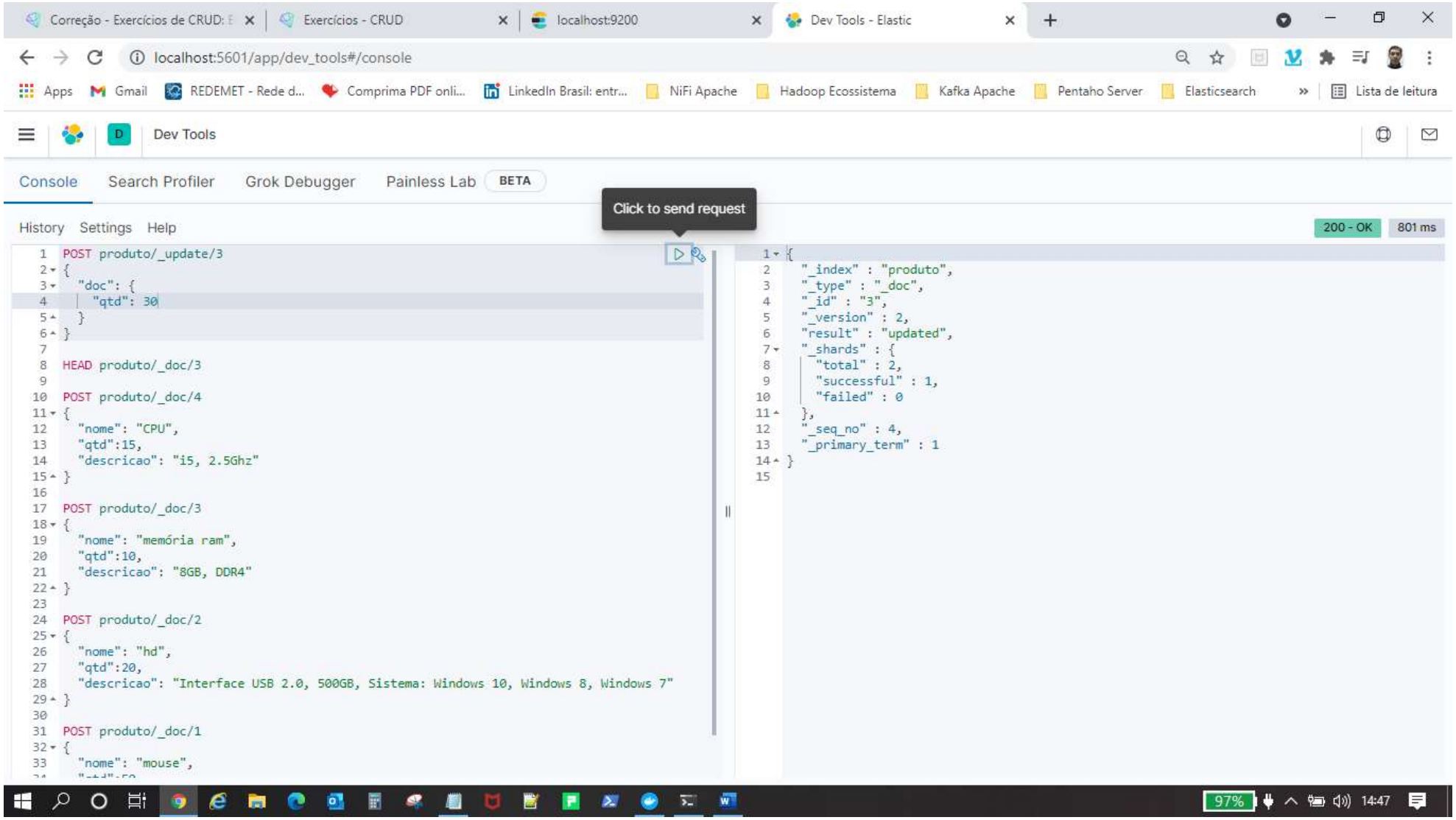
2. Verificar se existe o documento com id 3

HEAD produto/_doc/3



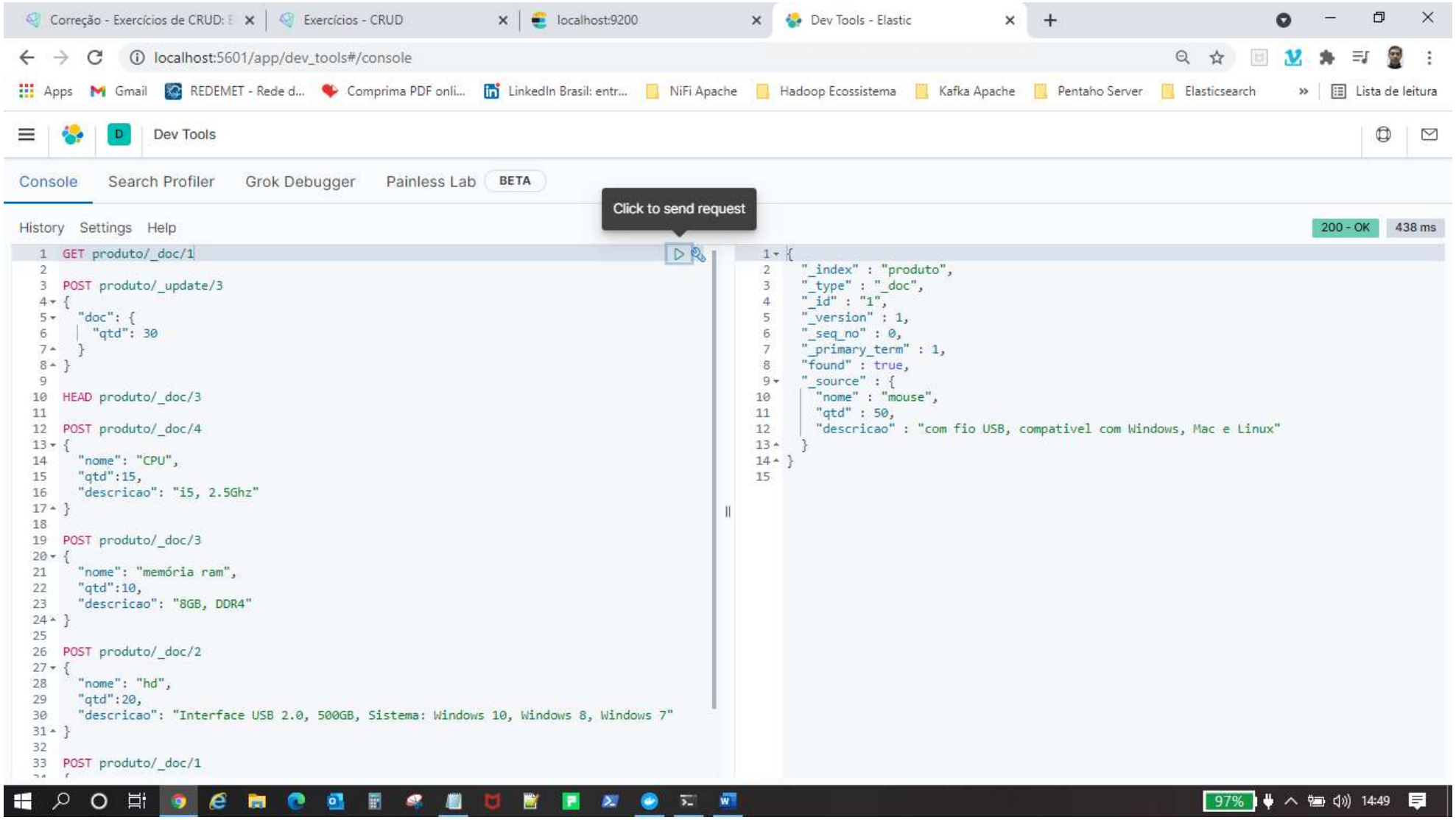
3. Alterar o valor do atributo qtd para 30 do documento com id 3

A qtd do ID 3 foi atualizado para 30, e a versão está como 2



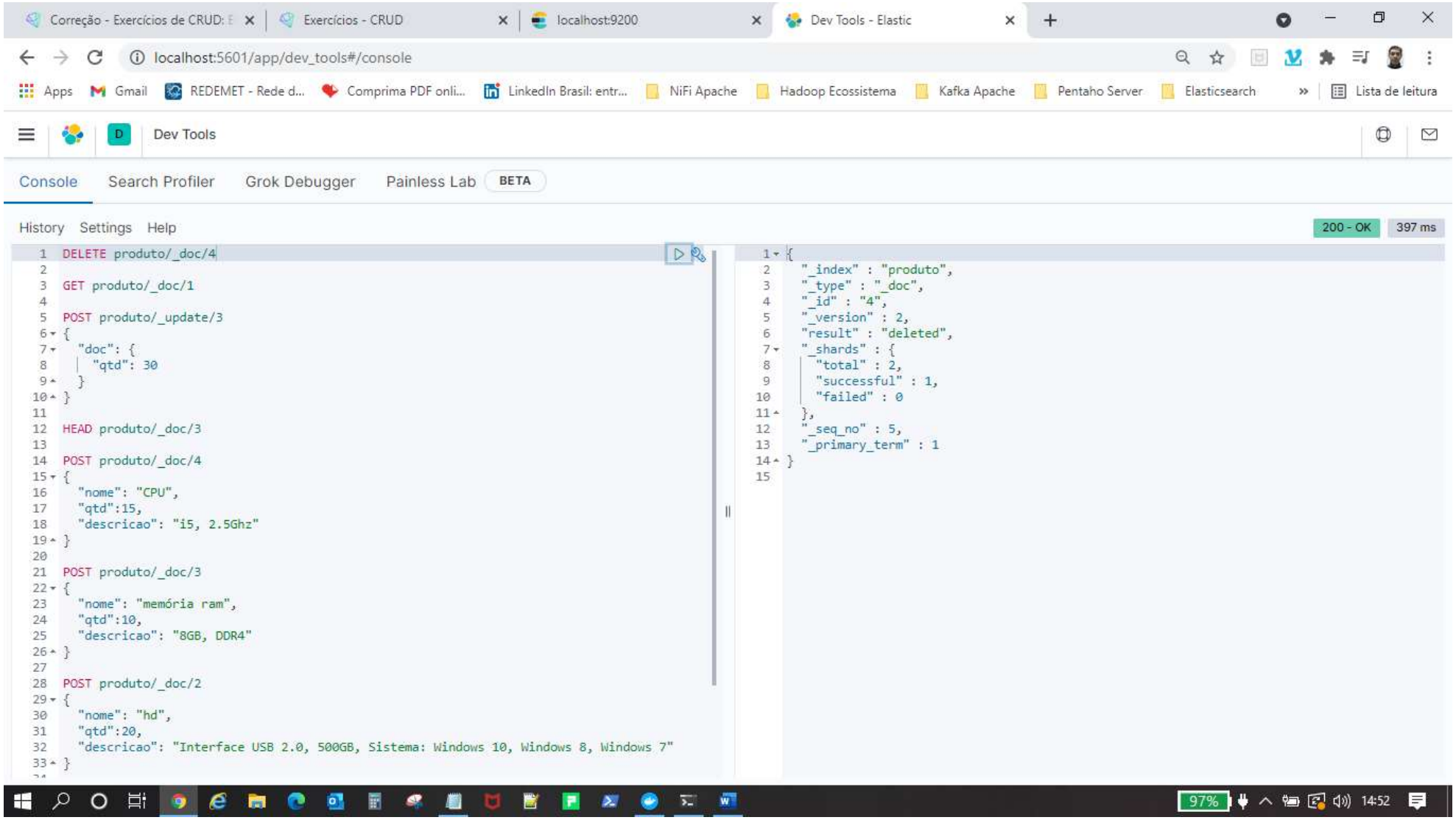
4. Buscar o documento com id 1

GET produto/_doc/1

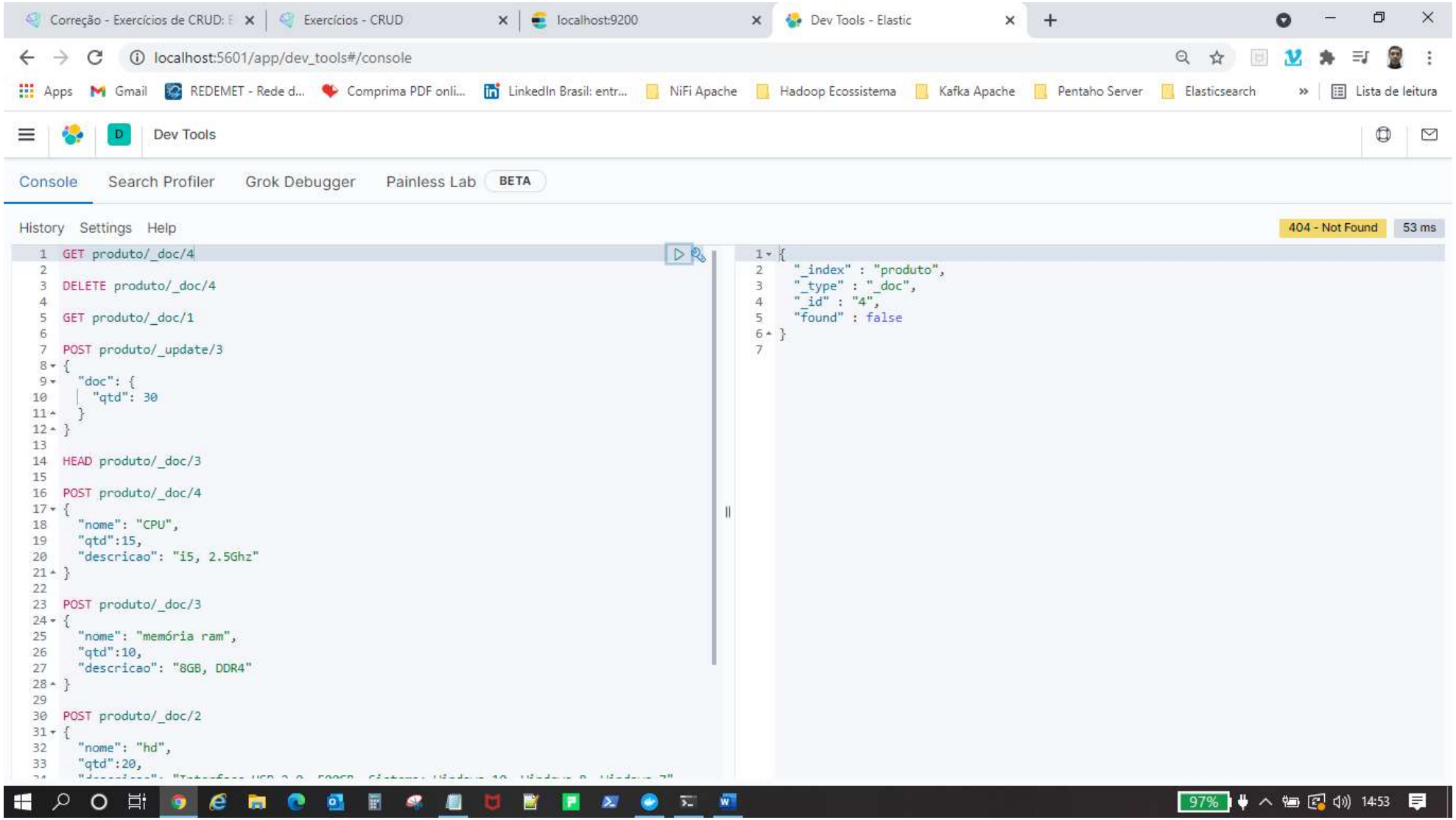


5. Deletar o documento com id 4

DELETE produto/_doc/4



NÃO EXISTE O INDEX 4, POR QUE FOI DELETADO



6. Contar quantos documentos tem o índice produto

GET produto/_count