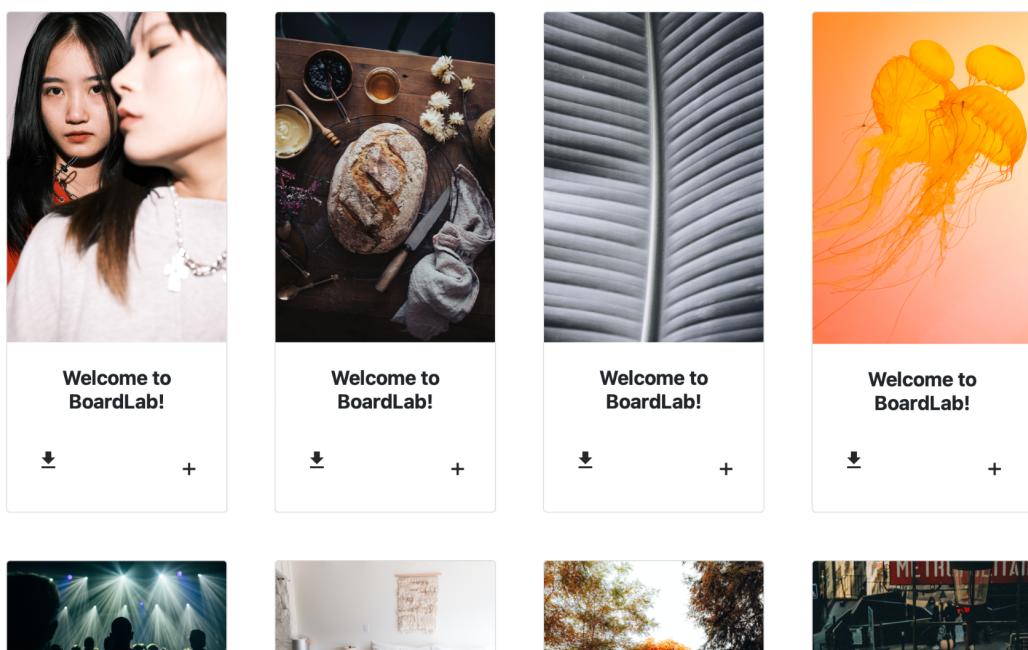
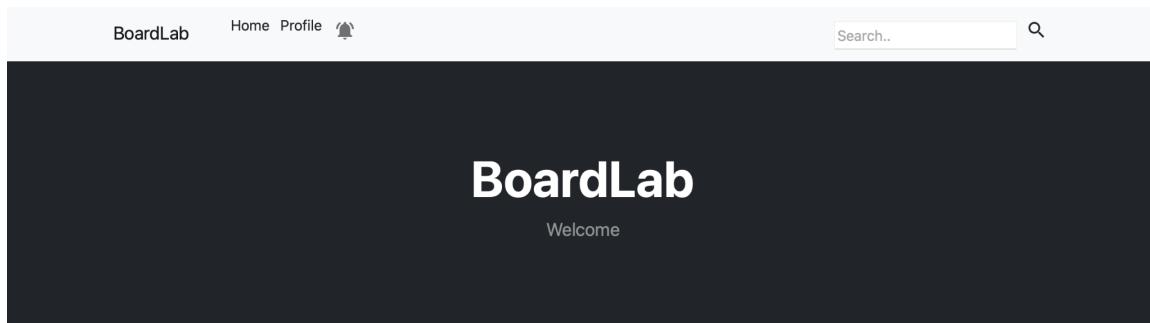


- Fabricio Juarez 20190361
- Katherine García 20190418
- Andrea Reyes 20190265

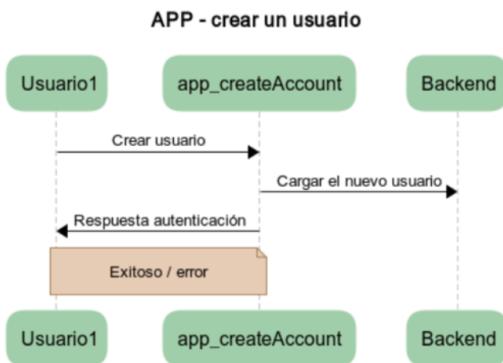
Documentación BoardLab

Descripción del proyecto

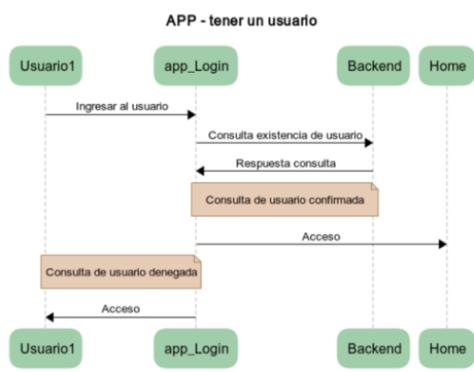
BoardLab es una plataforma desarrollada en Python basada en el concepto de Pinterest. El menú de la plataforma contiene tres opciones principales: home, profile y search. Los usuarios en la opción de home pueden visualizar imágenes random, las cuales pueden descargar para guardar localmente en sus computadoras o guardarlas en sus tableros personales dentro de la aplicación. En la barra de búsquedas del menú, los usuarios pueden buscar imágenes y visualizar una lista infinita de imágenes relacionadas con el tag que escribieron en el buscador. Cada usuario creado tiene acceso a su perfil que consta de un tablero con todas la imágenes que han guardado ya sea desde home o desde las búsquedas realizadas.



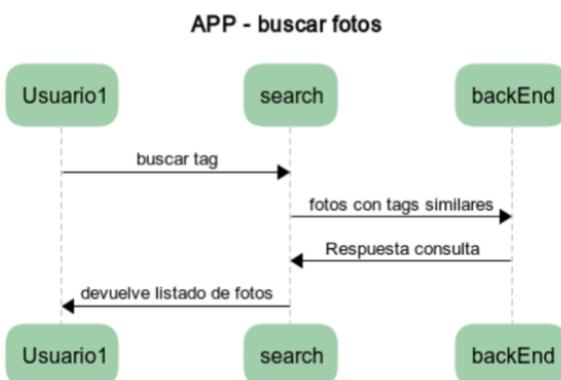
Crear usuario:



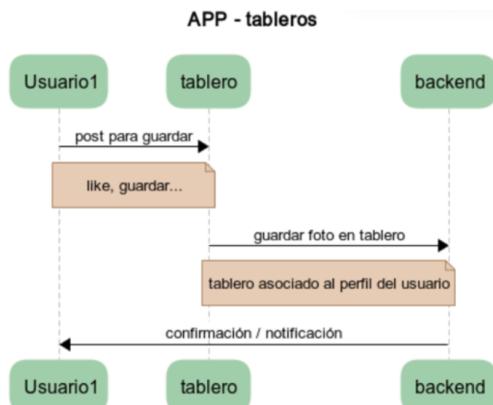
Login:



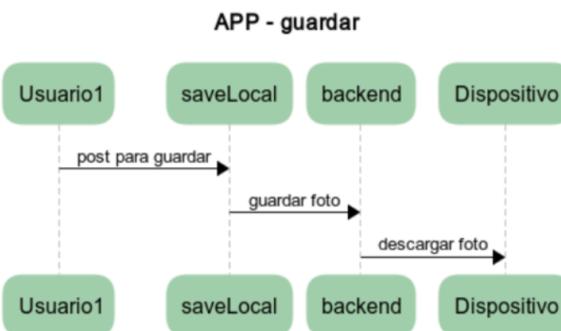
Buscar imágenes:



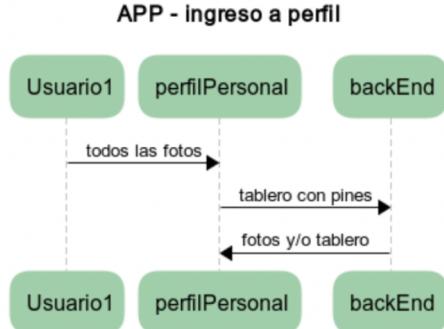
Tableros:



Guardar:

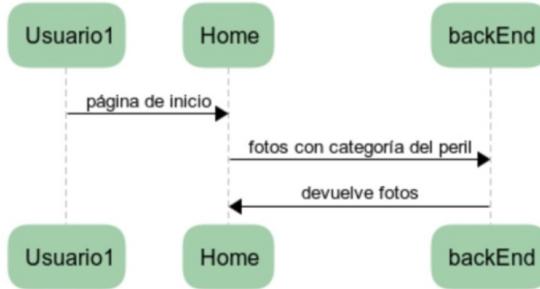


Perfil:



Home:

APP – recomendaciones



Ejecución

Para que este proyecto funcione a su máximo potencial es necesario levantar distintos servicios previos a correr la app principal:

- **ElasticSearch:**
 - .\elasticsearch-7.15.2\bin\elasticsearch.bat
- **Caché:**
 - memcached.exe -d start
- **Kafka:**
 - .\bin\zookeeper-server-start.sh config/zookeeper.properties
 - .\bin\windows\kafka-server-start.bat .\config\server.properties
- **Logstash:**
 - .\bin\logstash -f .\config\logstash.yml
- **Python:**
 - python3 app.py

App

Se puede acceder a la plataforma con el siguiente url: <http://localhost:5000/>

ElasticSearch

El proyecto cuenta con 2 nodos que se ejecutan de la siguiente manera:

```
C:\Windows\system32\cmd.exe
.co/guide/en/elasticsearch/reference/7.15/security-minimal-setup.html to enable security.
[2021-11-23T16:14:55,245][INFO ][o.e.g.GatewayService] [LAPTOP-NBEFMPFE] recovered [11] indices into cluster_state
[2021-11-23T16:14:55,881][INFO ][o.e.i.g.GeoIpDownloader] [LAPTOP-NBEFMPFE] updating geoip databases
[2021-11-23T16:14:55,883][INFO ][o.e.i.g.GeoIpDownloader] [LAPTOP-NBEFMPFE] fetching geoip databases overview from [https://geoplugin.net/v1/database?elastic_geoplugin_service_tos-agree]
[2021-11-23T16:14:56,534][INFO ][o.e.i.g.GeoIpDownloader] [LAPTOP-NBEFMPFE] geoip database [GeoLite2-ASN.mmdb] is up to date, updated timestamp
[2021-11-23T16:14:56,584][INFO ][o.e.i.g.DatabaseRegistry] [LAPTOP-NBEFMPFE] downloading geoip database [GeoLite2-Country.mmdb] to [C:\Users\FABRIC-1\AppData\Local\Temp\elasticsearch\geoip-databases\SGP5dDU3QuGyTzHtEYTUmw\GeoLite2-Country.mmdb.tmp.gz]
[2021-11-23T16:14:56,589][INFO ][o.e.i.g.DatabaseRegistry] [LAPTOP-NBEFMPFE] downloading geoip database [GeoLite2-ASN.mmdb] to [C:\Users\FABRIC-1\AppData\Local\Temp\elasticsearch\geoip-databases\SGP5dDU3QuGyTzHtEYTUmw\GeoLite2-ASN.mmdb.gz]
[2021-11-23T16:14:56,592][INFO ][o.e.i.g.DatabaseRegistry] [LAPTOP-NBEFMPFE] downloading geoip database [GeoLite2-City.mmdb] to [C:\Users\FABRIC-1\AppData\Local\Temp\elasticsearch\geoip-databases\SGP5dDU3QuGyTzHtEYTUmw\GeoLite2-City.mmdb.tmp.gz]
[2021-11-23T16:14:57,245][INFO ][o.e.i.g.DatabaseRegistry] [LAPTOP-NBEFMPFE] successfully reloaded changed geoip database file [C:\Users\FABRIC-1\AppData\Local\Temp\elasticsearch\geoip-databases\SGP5dDU3QuGyTzHtEYTUmw\GeoLite2-Country.mmdb]
[2021-11-23T16:14:57,435][INFO ][o.e.i.g.DatabaseRegistry] [LAPTOP-NBEFMPFE] successfully reloaded changed geoip database file [C:\Users\FABRIC-1\AppData\Local\Temp\elasticsearch\geoip-databases\SGP5dDU3QuGyTzHtEYTUmw\GeoLite2-ASN.mmdb]
[2021-11-23T16:14:57,575][INFO ][o.e.i.g.GeoIpDownloader] [LAPTOP-NBEFMPFE] geoip database [GeoLite2-City.mmdb] is up to date, updated timestamp
[2021-11-23T16:14:57,583][INFO ][o.e.c.r.a.AllocationService] [LAPTOP-NBEFMPFE] Cluster health status changed from [RED] to [YELLOW] (reason: [shards started [[users][0], [busquedas][0], [.kibana-event-log-7.15.2-000001][0]]]).
[2021-11-23T16:14:57,941][INFO ][o.e.i.g.GeoIpDownloader] [LAPTOP-NBEFMPFE] geoip database [GeoLite2-Country.mmdb] is up to date, updated timestamp
[2021-11-23T16:14:58,865][INFO ][o.e.i.g.DatabaseRegistry] [LAPTOP-NBEFMPFE] successfully reloaded changed geoip database file [C:\Users\FABRIC-1\AppData\Local\Temp\elasticsearch\geoip-databases\SGP5dDU3QuGyTzHtEYTUmw\GeoLite2-City.mmdb]
```

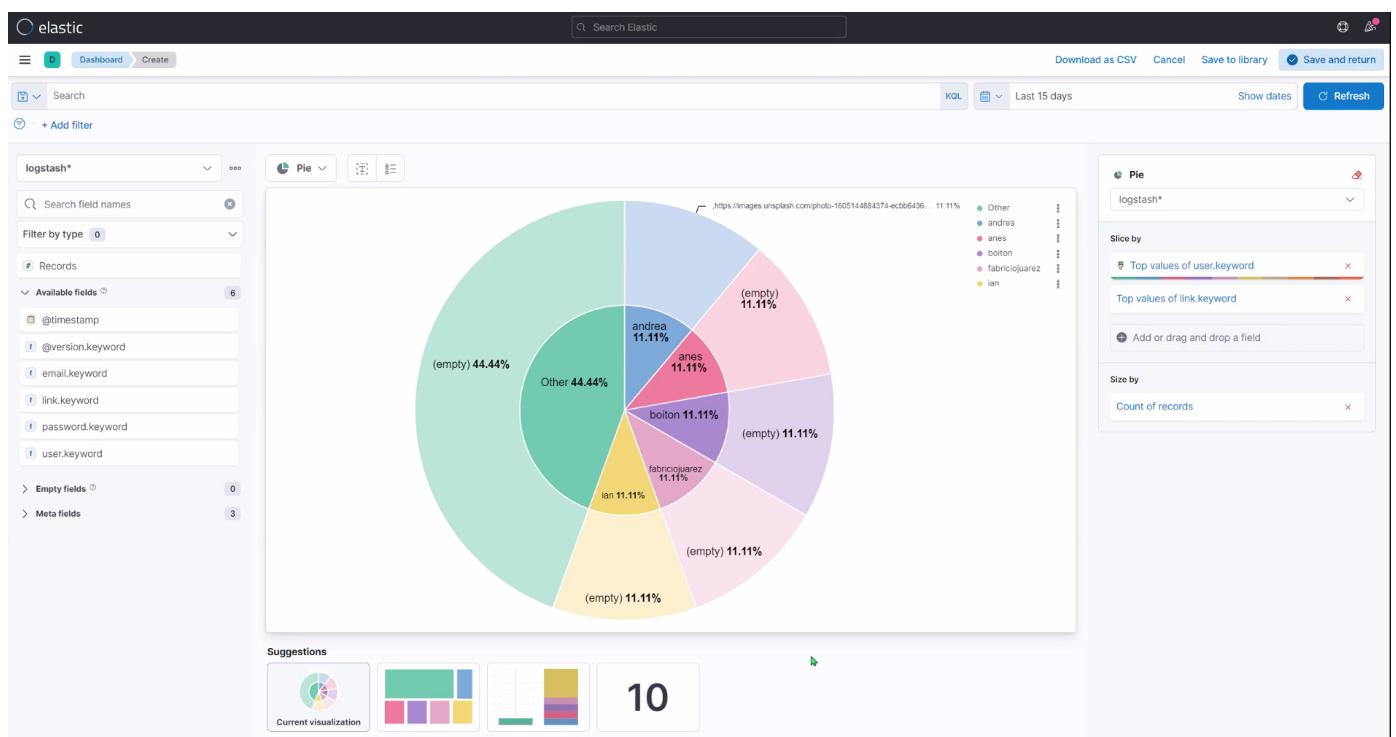
Kibana

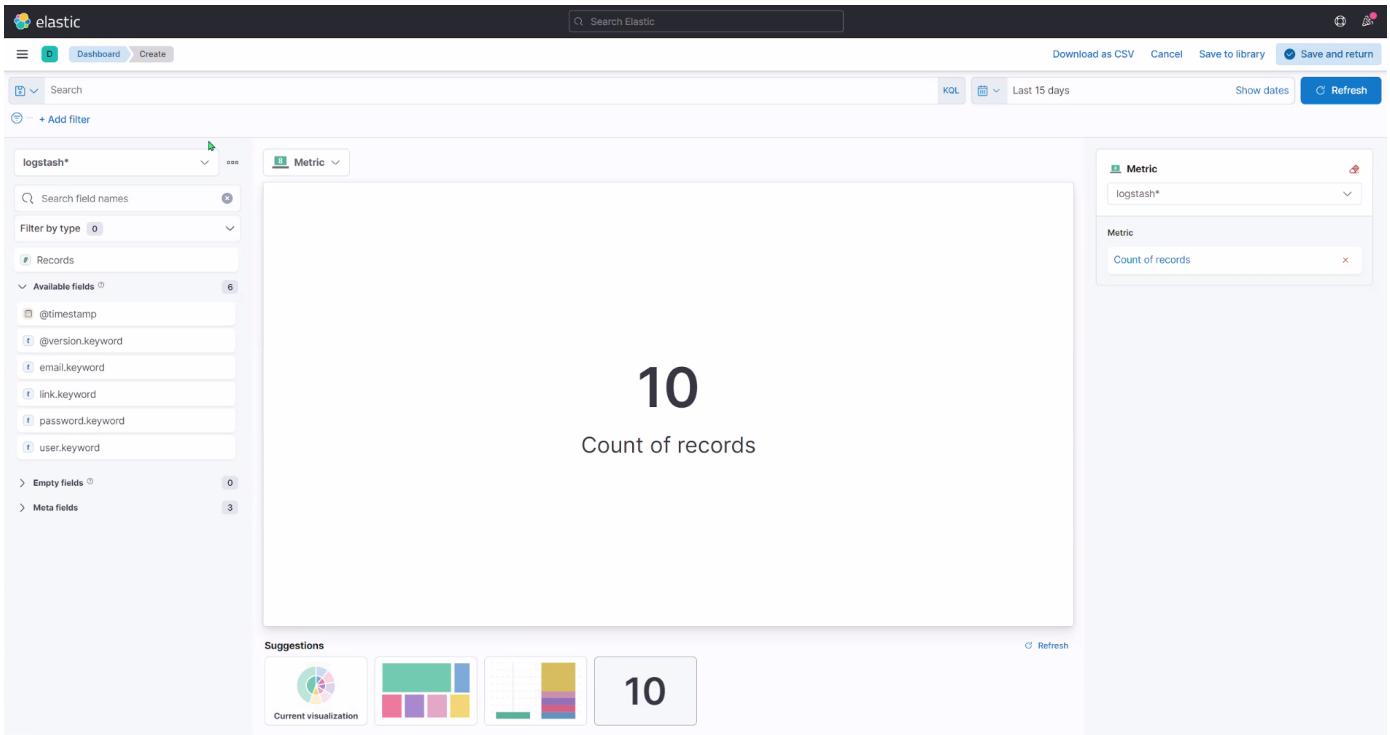
Las siguientes capturas de pantalla son ejemplos del dashboard de Kibana de BoardLab:

```

3   "took" : 2,
4   "timed_out" : false,
5   "shards" : {
6     "total" : 1,
7     "successful" : 1,
8     "skipped" : 0,
9     "failed" : 0
10  },
11  "hits" : [
12    {
13      "total" : 8,
14      "relation" : "eq"
15    },
16    {
17      "max_score" : 1.0,
18      "hits" : [
19        {
20          "_index" : "logstash",
21          "_type" : "doc",
22          "_id" : "fabricojuarez",
23          "_score" : 1.0,
24          "_source" : {
25            "password" : "1234",
26            "link" : "",
27            "timestamp" : "2021-11-20T02:21:26.381Z",
28            "version" : "1",
29            "user" : "fabricojuarez",
30            "email" : "bicho@juarez.me.uk"
31          }
32        },
33        {
34          "_index" : "logstash",
35          "_type" : "doc",
36          "_id" : "katty",
37          "_score" : 1.0,
38          "_source" : {
39            "password" : "1234",
40            "user" : "katty",
41            "timestamp" : "2021-11-20T02:46:38.056Z",
42            "link" : "",
43            "email" : "bicho@juarez.me.uk",
44            "version" : "1"
45          }
46        },
47        {
48          "_index" : "logstash",
49          "_type" : "doc",
50          "_id" : "bolton",
51          "_score" : 1.0,
52          "_source" : {
53            "email" : "fabriciojuarez@ufm.edu.mx",
54            "password" : "1234",
55            "version" : "1",
56            "link" : "",
57            "timestamp" : "2021-11-20T03:08:46.334Z",
58          }
59        }
60      ]
61    }
62  ]
63}

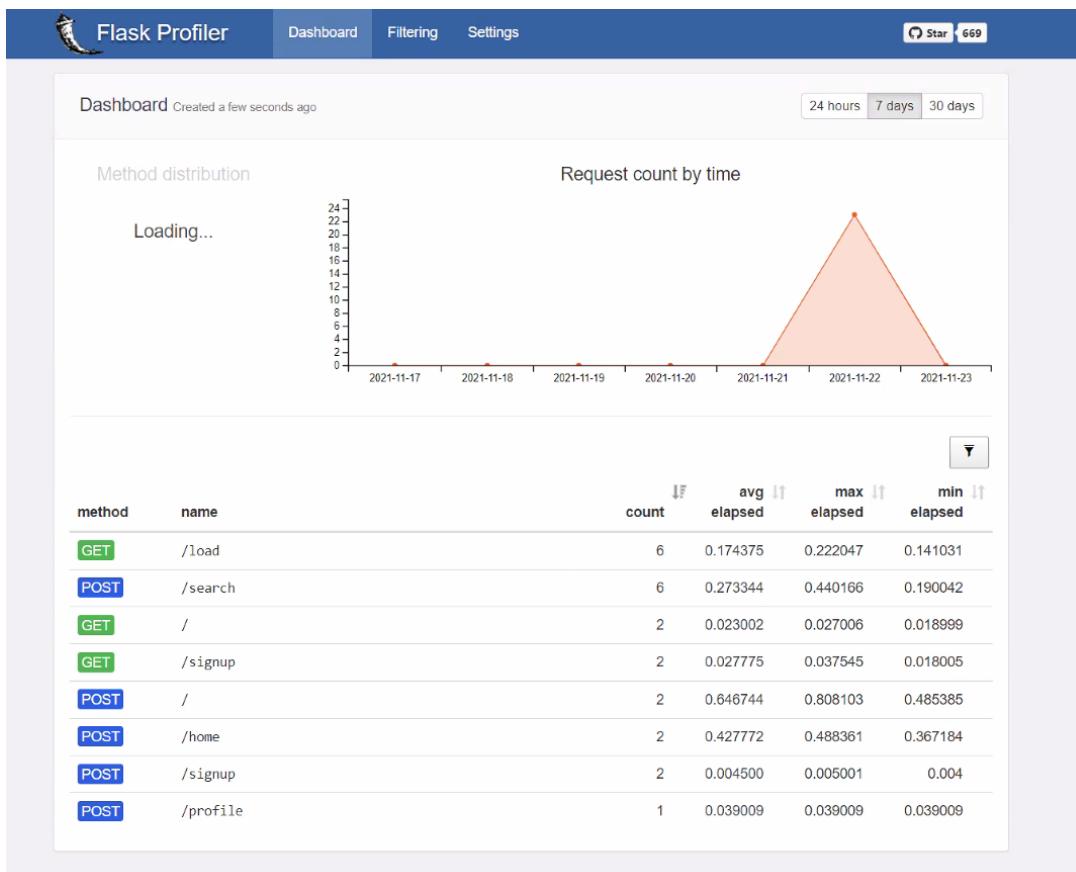
```





Profiler

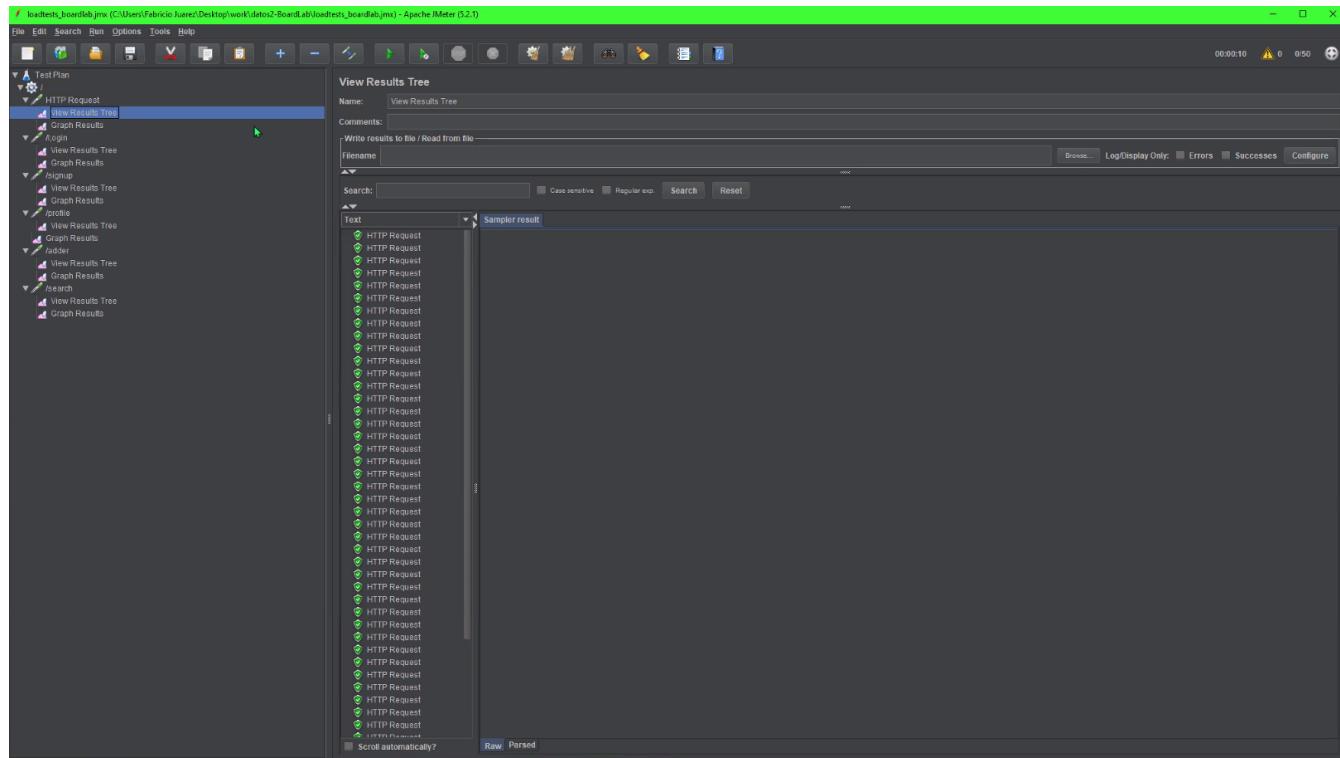
Para realizar profiling al proyecto se utilizó flask-profiler. Después de ejecutar todas las opciones de la plataforma, se accedió a la información que genera flask-profiler para visualizar las gráficas obtenidas:



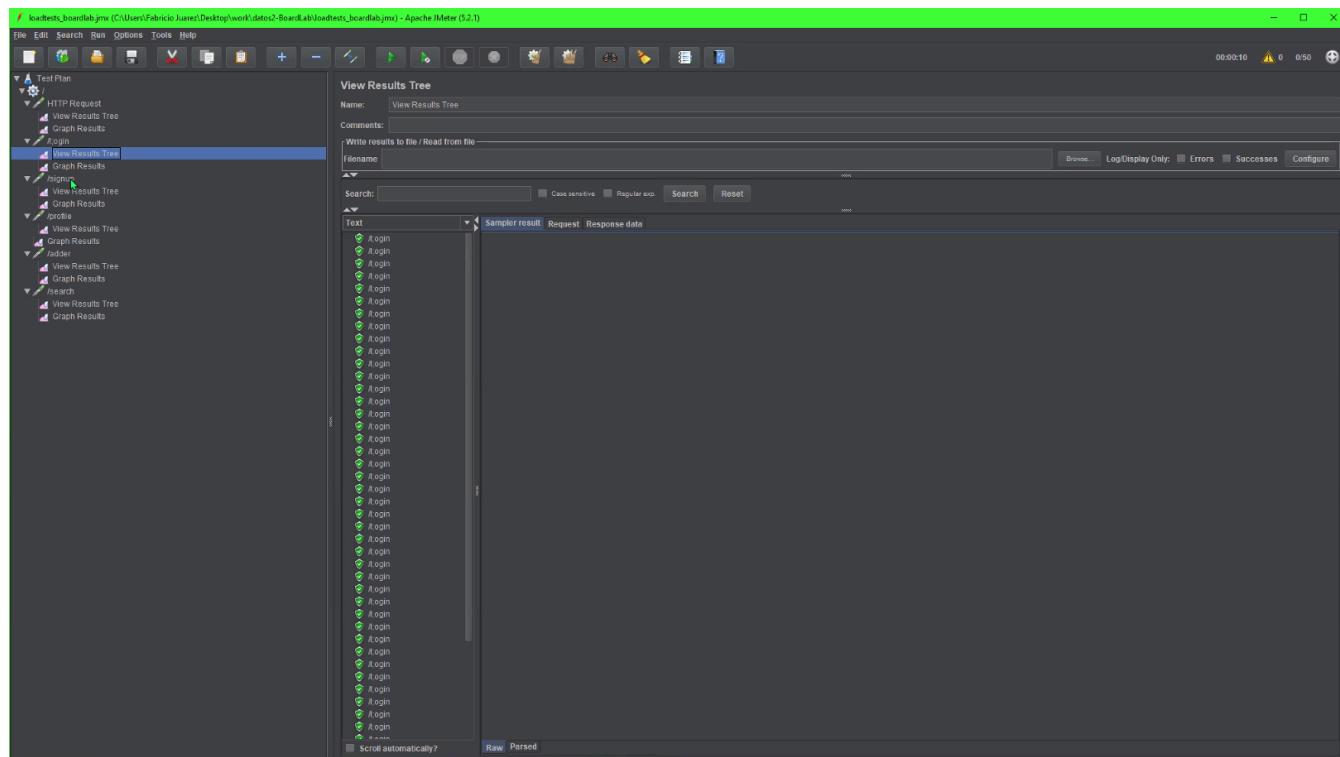
Pruebas de carga

Las pruebas de carga del proyecto se realizaron con Jmeter, con las cuales se obtuvieron los siguientes resultados:

/



Login



Signup

The screenshot shows the Apache JMeter interface with a test plan named 'loadtest_boardlab.jmx'. The 'Test Plan' tree on the left contains a single node: 'View Results Tree' under the 'signup' thread group. The main panel displays the results of this sampler, which consists of multiple 'Signup' entries. The results are presented in a tree view with a search bar at the top labeled 'Text' and 'Sampler result'. The status bar at the bottom indicates '00:02:10' and '0 0:50'.

Search

The screenshot shows the Apache JMeter interface with a test plan named 'loadtest_boardlab.jmx'. The 'Test Plan' tree on the left contains a single node: 'View Results Tree' under the 'search' thread group. The main panel displays the results of this sampler, which consists of multiple '/search' entries. The results are presented in a tree view with a search bar at the top labeled 'Text' and 'Sampler result'. The status bar at the bottom indicates '00:02:10' and '0 0:50'.

Profile

The screenshot shows the Apache JMeter interface with a test plan containing the following structure:

- Test Plan
 - HTTP Request
 - View Results Tree
 - Graph Results
 - Login
 - View Results Tree
 - Graph Results
 - Profile
 - View Results Tree
 - Graph Results
 - /profile
 - View Results Tree
 - Graph Results
 - Logout
 - View Results Tree
 - Graph Results
 - Search
 - View Results Tree
 - Graph Results

Adder

The screenshot shows the Apache JMeter interface with a test plan containing the following structure:

- Test Plan
 - HTTP Request
 - View Results Tree
 - Graph Results
 - Login
 - View Results Tree
 - Graph Results
 - /profile
 - View Results Tree
 - Graph Results
 - /adder
 - View Results Tree
 - Graph Results
 - Logout
 - View Results Tree
 - Graph Results
 - Search
 - View Results Tree
 - Graph Results

Requerimientos - Librerías para el proyecto

- pip install Flask
- pip install peewee
- pip install python-memcached
- pip install flask-profiler
- pip install elasticsearch
- pip install kafka-python
- pip install python-logstash