

Redis project : newslater

author: Amat François

contact: amat.francois@gmail.com

Intro

This mini-project has been done to get familiar with redis functions. It implements a very simple newslater system.

Set-up

First install on your machine redis, python3 and the following python libraries :

```
pip3 install redis,gensim,urllib,progress,termcolor
```

Launch Redis server by the following command :

```
redis-server
```

The redis-server should be launched at the port 6379

Open two terminals and launch

```
python3 server.py  
python3 client.py
```

The server will start to seed the redis database by parsing some wikipedia pages.

Redis structure

news.py is the file where all the redis functions are used.

I have defined the news as an hset with an id and their body.

I have defined a global set of keywords for an easier implementation of the get_subjects function.

In addition, there is a set mapping all keywords to their news_id.

Finally, the user is just an id in a simple store with an set "user_keyword:" to store all keyword for each user.

Client/Server structure

The client here do all the functions (subscribe and publish).

There is an socket with a communication of a couple of (id, command) from the client to the server.

The server will handle all the commands given in the section below.

In addition, useful activity logs will be print in the console used to launch the server.

Fonctionnalités:

- help :
Prompt help will show all the possible commands.
- get_IDuser:
Prompt help and the server will send you your id.
- get_subjects :
Prompt get_subjects and the server will send you all the current subject in the database.
- get_subscriptions:
Prompt get_subscriptions and the server will send you all the subscriptions associated with your id.
- subscribe(keyword):
Prompt subscribe(keyword) and the server will subscribe the user to this keyword
- unsubscribe(keyword):
Prompt subscribe(keyword) and the server will unsubscribe the user to this keyword

- `add_news(url)`:

Prompt `add_news(url)` with an **wikipedia url** and the server will parse the body of this html page, get the keywords associated and store (html body, keywords) in the database.

Screenshots

```

python3 (Python)
→ lab1_redis python3 client.py
your ID user is : 73 please keep it to manage your account
Press help to get all commands
help
Sent
Server: get_IDUser will give you a userID
get_subjects will give you a list of keyword
get_subscriptions() will return the list of your subscriptions
unsubscribe(keyword) will remove the keyword subscription
subscribe(keyword) will remove the keyword subscription
add_news(url) will add the news and its keyword from the url
note: only tested on wikipedia url
get_subjects
Sent
Server: remplace operations integers complex presentant textes precis inte
rface erreurs ltr presentations appelee 2 arabe orientes performance nous entie
r discussion premier byte background orientees recherche harbison compilers simpl
e declarant son premiere accolades declare basa dill sous cette etre pas appel
ees texte frwiki supporter nosql emerge verifications optimisation marche repres
entant compilation auteurs graphes lang freebsd developpement certains types san
relational limitation normal total utilisees evolution non generant libre utilis
ant car comportement kohhammer input operateurs sont parfois lignes previsualise
r avant appel modification information ces autres syntaxe precise tene typiques
fonction wikidata avertissement valeur sous meme static agregats objets interna
tional cles programmer certains tres pratique systems jorn materials support
tes chinese retournant book signe

python3 (Python)
Last login: Tue Oct 2 20:33:17 on ttys004
→ ~ /Users/famat/Desktop/labs_to_finish/lab1_redis
→ lab1_redis ls
__pycache__  news.py  notice-lab1.md  venv
client.py  news.pyc  server.py
m2_dk_mdin_redis.pdf  notes-lab1.md  src
→ lab1_redis python3 server.py
seed of redis database |#####| 4/4
Listening ...
[+] new thread for 127.0.0.1 57275
Connection of 127.0.0.1 57275
Listening ...
0 get_IDUser
[+] new thread for 127.0.0.1 57276
Connection of 127.0.0.1 57276
Listening ...
73 help
[+] new thread for 127.0.0.1 57277
Connection of 127.0.0.1 57277
Listening ...
73 get_subjects
[+] new thread for 127.0.0.1 57279
Connection of 127.0.0.1 57279
Listening ...

```

```

python3 (Python)
r avant appel modification information ces autres syntaxe precise tene typiques
fonction wikidata avertissement valeur sous meme static agregats objets interna
tional cles programmer certains tres pratique systems jorn materials support
tes chinese retournant book signe
subscribe(freebsd)
Sent
Server: subscribed to :
freebsd successfully

get_subscriptions()
Sent
Server: your subcriptions:
freebsd

get_news()
Sent
Server: your adapted news:
news with id:8
news with id:14
news with id:18
news with id:22
news with id:26
news with id:30
news with id:34

add_news(https://fr.wikipedia.org/wiki/SPARQL)
Sent
Server: added news from :
https://fr.wikipedia.org/wiki/SPARQL successfully

get_subjects
Sent
Server: remplace operations integers complex presentant textes precis inte
rface erreurs ltr presentations appelee 2 arabe orientes performance nous entie
r discussion premier byte background orientees recherche harbison compilers simpl
e declarant son premiere accolades declare basa dill sous cette etre pas appel
ees texte frwiki supporter nosql emerge verifications optimisation marche repres
entant compilation auteurs graphes lang freebsd developpement certains types san
relational limitation normal total utilisees evolution non generant libre utilis
ant car comportement kohhammer input operateurs sont parfois lignes previsualise
r avant appel modification information ces autres syntaxe precise tene typiques
fonction wikidata avertissement valeur sous meme static agregats objets interna
tional cles programmer certains tres pratique systems jorn materials support
tes chinese retournant book signe

python3 (Python)
→ ~ /Users/famat/Desktop/labs_to_finish/lab1_redis
→ lab1_redis ls
__pycache__  news.py  notice-lab1.md  venv
client.py  news.pyc  server.py
m2_dk_mdin_redis.pdf  notes-lab1.md  src
→ lab1_redis python3 server.py
seed of redis database |#####| 4/4
Listening ...
[+] new thread for 127.0.0.1 57275
Connection of 127.0.0.1 57275
Listening ...
0 get_IDUser
[+] new thread for 127.0.0.1 57276
Connection of 127.0.0.1 57276
Listening ...
73 help
[+] new thread for 127.0.0.1 57277
Connection of 127.0.0.1 57277
Listening ...
73 get_subjects
[+] new thread for 127.0.0.1 57279
Connection of 127.0.0.1 57279
Listening ...
73 subscribe(freebsd)
73 b'freebsd'
[+] new thread for 127.0.0.1 57288
Connection of 127.0.0.1 57288
Listening ...
73 get_subscriptions()
[+] new thread for 127.0.0.1 57292
Connection of 127.0.0.1 57292
Listening ...
73 get_news()
[+] new thread for 127.0.0.1 57293
Connection of 127.0.0.1 57293
Listening ...
73 add_news(https://fr.wikipedia.org/wiki/SPARQL)
[+] new thread for 127.0.0.1 57326
Connection of 127.0.0.1 57326
Listening ...
73 get_subjects
[+] new thread for 127.0.0.1 57327
Connection of 127.0.0.1 57327
Listening ...

```

leads for further fonctionnalities

- Right now the system is made without the server knowing which are the clients, therefore the server cannot publish as a notification to the new clients.
However, There is an empty publish function in news.py that can be adapted to send an

email for example.

- The second lead would be to implement an web interface in order to subscribe directly from an url.

Conclusion:

I found the redis database very simple in its usage and very convenient for simple project like that.