How users graph works?

Enter the list of new users.

Was the user scraped more than DAYS_TO_UPDATE_TWEETS days ago?
Or the user does not exist in DB?

Yes

Collect Tweets and update User info
(low cost, 1~3 requests/user)

Sort users by number of Followers

No

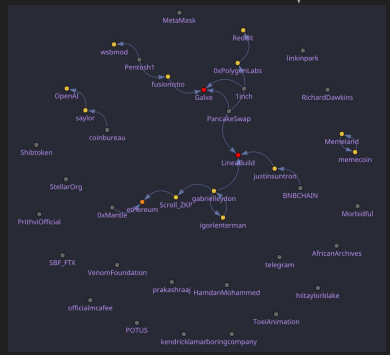
Maintains the N_BEST_USERS with the highest number of followers

From the set of resulting users. You get who follows who.
(N*(N-1) requests for N users.)
(high cost, be careful with big N)

Then, clusters of connected users will be generated within the graph. You can get the keywords by cluster, and individually.

With Tweets from the last DAYS_TO_UPDATE_TWEETS days, you get the keywords.

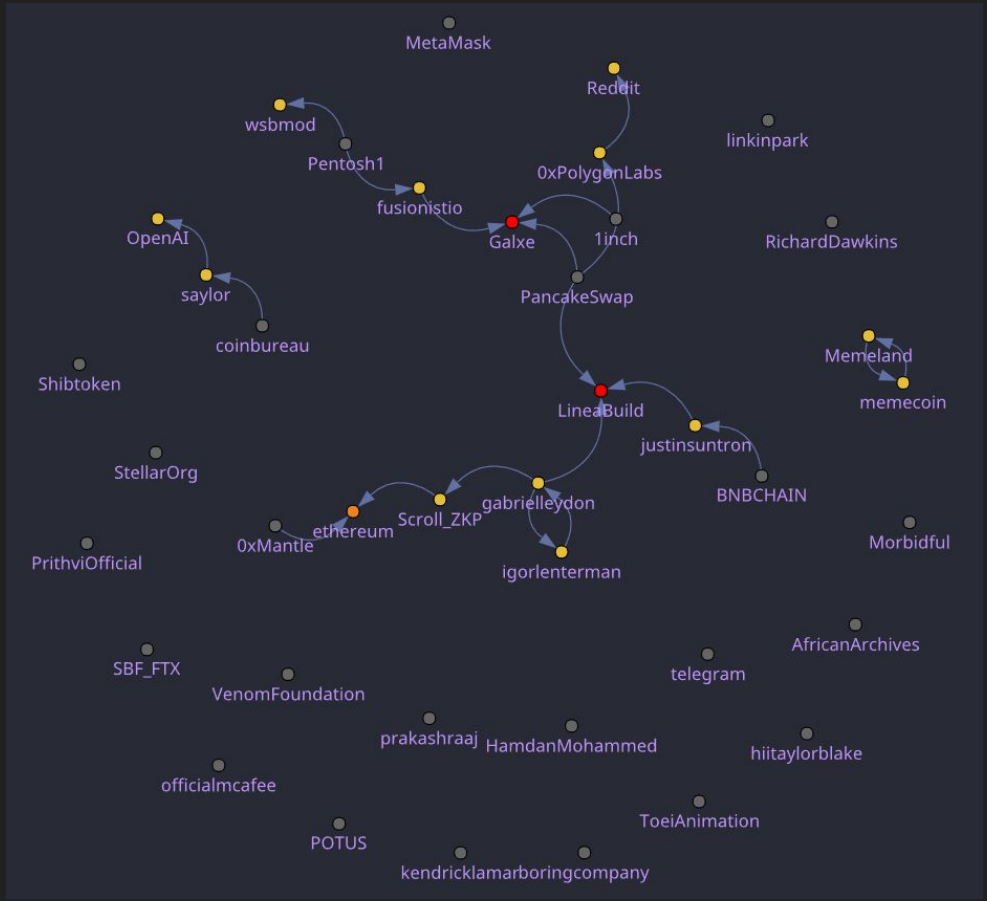
	Cluster 0: profiles	Cluster 0: kw	Cluster 0: count
0	justinsuntron	co	149
1	BNBCHAIN	RT	37
2	ethereum	BNB	22
3	0xPolygonLabs	Mantle	19
4	PancakeSwap	time	17
5	1inch	Chain	17
6	Galxe	Join	16
7	Reddit	projects	16
8	gabrielleydon	new	15
9	LineaBuild	Galxe	15
10	Pentosh1	ecosystem	14
11	wsbmod	week	14
12	fusionistio	chain	14
13	Scroll_ZKP	Web3	13
14	igorlenterman	Polygon	13
15	0xMantle	NFT	13
16		us	12
17		support	11
18		today	11
19		web3	11
20		rewards	10
21		Jan	10



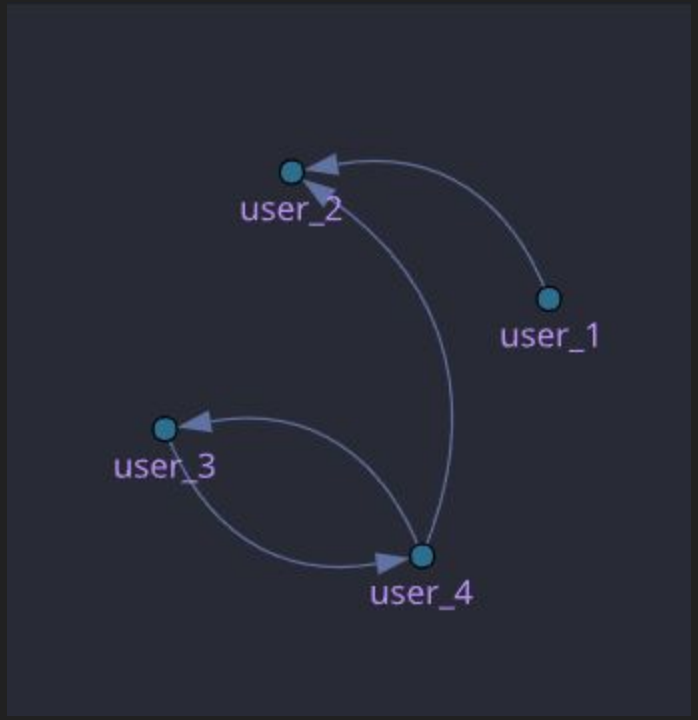
Real Graph of followers and following

The colors of the graph nodes depend on the number of followers within this plot.
They can be modified by the user.
https://htmlcolorcodes.com/

```
colors_ranges = [
    (0, "#666666"),
    (1, "#E6BE37"),
    (2, "#ED851D"),
    (3, "#FF0000"),
]
```



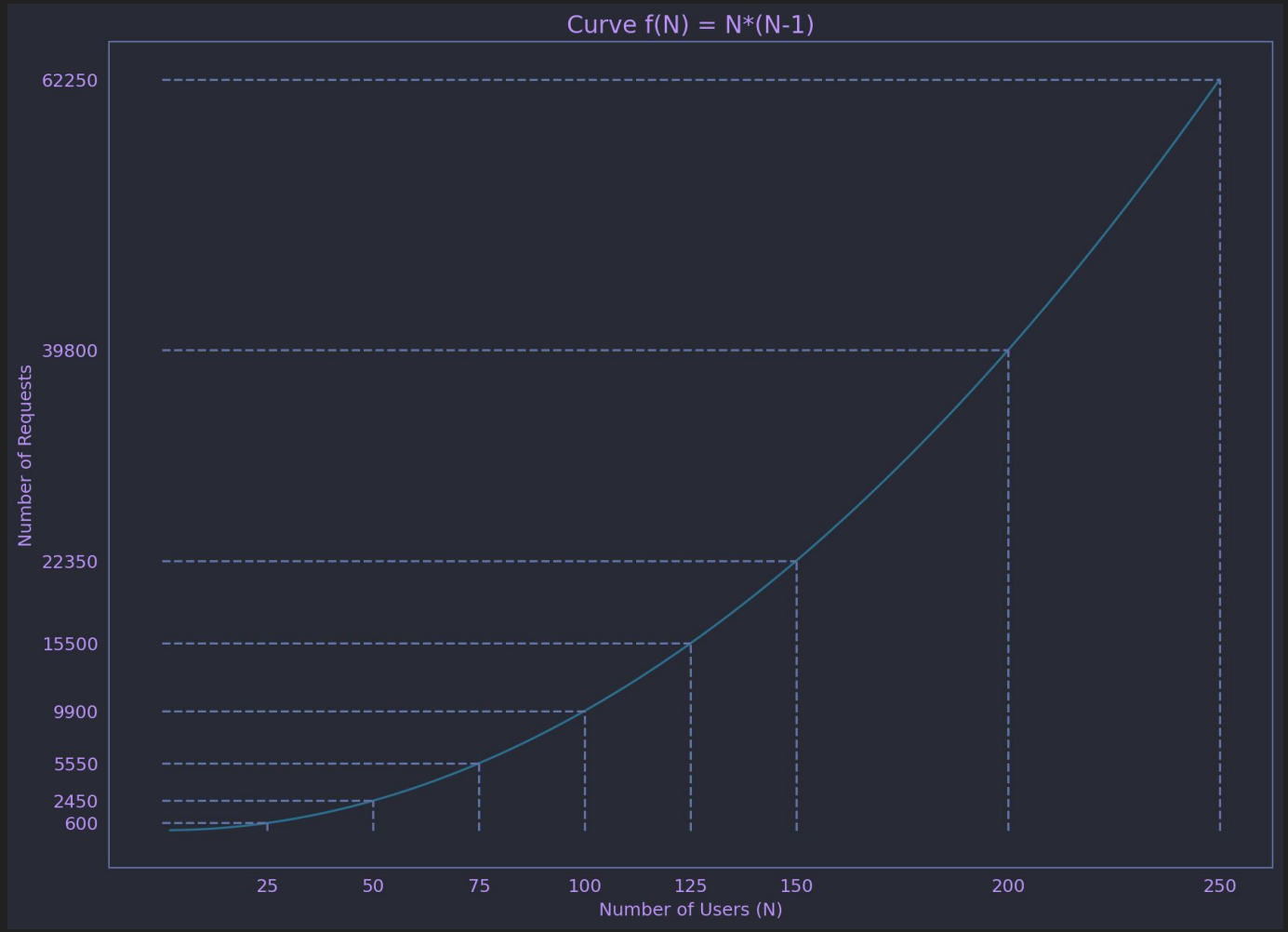
Example of collecting followers for 4 users.



	source	target	source follow target?
0	user_1	user_2	True
1	user_1	user_3	False
2	user_1	user_4	False
3	user_2	user_1	False
4	user_2	user_3	False
5	user_2	user_4	False
6	user_3	user_1	False
7	user_3	user_2	False
8	user_3	user_4	True
9	user_4	user_1	False
10	user_4	user_2	True
11	user_4	user_3	True

The system needs to check for every possible pair of users, who follows who.
Which determines 2 requests per pair of users.

In this example with 4 users, 12 requests must be made to the server.
Both True and False connections are saved in the DB.
And they will only be updated every DAYS_TO_UPDATE_FOLLOWS_LINK days.



The following plot shows the number of requests to the server based on the number of users in the follower graph.