

▼ Redis Assignment

In this assignment, you will access a redis server and user redis commands to find out answers. The redis server is at 34.143.227.66. You also have to authenticate as username 'hw' with password 'hw'.

The populated data in the redis database is similar to the example "simple social network" in the class. Answer all questions in mycourseville assignment.

Note that this user can only use "read" commands e.g. "get", "lrange", "llen", "scan", etc.

```
1 !pip install redis
```

```
Looking in indexes: https://pypi.org/simple, https://us-python.pkg.dev/colab-wheels/public/simple/
Collecting redis
  Downloading redis-4.5.1-py3-none-any.whl (238 kB)
    238.5/238.5 KB 8.2 MB/s eta 0:00:00
Requirement already satisfied: async-timeout>=4.0.2 in /usr/local/lib/python3.8/dist-packages (from redis) (4.0.2)
Installing collected packages: redis
Successfully installed redis-4.5.1
```

```
1 import redis
2 import numpy as np
```

```
1 rd = redis.Redis(host='34.143.227.66', charset="utf-8", decode_responses=True)
2 rd.auth(username='hw', password='hw')
```

```
True
```

```
1 rd.keys('*')
```

```
['user:648:follows',
 'user:519:followed_by',
 'user:568:follows',
 'user:548:follows',
 'username:betrayedCamel9',
 'user:567:name',
 'user:553:name',
 'user:670:followed_by',
 'username:boredSeafowl3',
 'username:selfishFalcon5',
 'user:644:name',
 'user:610:followed_by',
 'user:503:follows',
 'username:mereMacaw4',
 'user:644:follows',
 'username:excitedPie4',
 'user:526:follows',
 'user:653:followed_by',
 'user:578:name',
 'user:599:name',
 'user:678:follows',
 'username:zestyPear9',
 'user:638:name',
 'user:537:follows',
 'user:631:follows',
 'user:548:followed_by',
 'user:647:followed_by',
 'user:551:followed_by',
 'user:694:name',
 'user:506:follows',
 'user:649:followed_by',
 'user:595:name',
 'username:enragedSausage0',
 'user:657:name',
 'username:forsakenOcelot0',
 'user:579:followed_by',
 'username:debonairPudding9',
 'user:620:name',
 'username:puzzledLollies9',
 'user:660:follows',
 'user:688:name',
 'username:scornfulSeafowl14',
 'user:586:followed_by',
 'user:574:follows',
 'user:594:follows',
 'user:579:follows',
 'user:700:name',
 'user:504:name',
 'user:539:name',
 'user:581:followed_by',
 'user:507:followed_by',
 'user:536:followed_by',
```

```
'username:finickyFalcon7',
'username:peacefulOtter5',
'user:600:followed_by',
'user:611:followed_by',
'username:anxiousCrackers3',
'user:545:follows',
```

▼ What is the username of user id "600"?

```
1 rd.get('user:600:name')

'cautiousCrackers9'
```

▼ What is the id of username "excitedPie4" ?

```
1 all_user_id = rd.keys('user*:name')

1 all_username = rd.mget(all_user_id)

1 all_username = np.array(all_username)
2 all_user_id = np.array(all_user_id)
3
4 print('ans:', all_user_id[all_username == "excitedPie4"][0])

ans: user:567:name
```

▼ How many users that "excitedPie4" follows ?

```
1 excitedPie4_Following = rd.smembers('user:567:follows')
2 print('ans:', len(excitedPie4_Following))
3 print(excitedPie4_Following)

ans: 9
{'622', '566', '609', '587', '603', '670', '537', '529', '556'}
```

▼ How many users are there in the database?

```
1 print('ans:', all_user_id.shape[0])

ans: 200
```

▼ What is the average number of follows per user?

```
1 total = 0.0
2 all_user_follows = rd.keys('user*:follows')
3 for userid in all_user_follows:
4     total += rd.scard(userid)
5 print('ans:', total/all_user_id.shape[0])

ans: 8.605
```

▼ How many users follows between 5-10 users?

```
1 num_count = 0
2 for userid in all_user_follows:
3     num_follows = rd.scard(userid)
4     if num_follows >= 5 and num_follows <= 10:
5         num_count +=1
6 print('ans:', num_count)

ans: 60
```

▼ Which account has the most followers?

```
1 max_followers = -1
```

```
- .....-  
2 account = -1  
3 all_user_followedby = rd.keys('user*:followed_by')  
4 for userid in all_user_followedby:  
5     num_followers = rd.scard(userid)  
6     if num_followers > max_followers:  
7         account = userid  
8         max_followers = num_followers  
9 print('ans:', account)
```

```
ans: user:630:followed_by
```

[Colab paid products](#) - [Cancel contracts here](#)

✓ 31s completed at 2:19 PM

