2110446: Assignment 7

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1 Redis Assignment

In this assignment, you will access a redis server and user redis commands to find out answers. The redis server is at *lab.aimet.tech*. 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.

[78]:
```
import redis
```

[79]:
```
rd = redis.Redis(host='lab.aimet.tech', charset="utf-8",␣
 ↪decode_responses=True)
rd.auth(username='hw', password='hw')
```

[79]:
```
True
```

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

1.2 ans: cautiousCrackers9

[80]:
```
rd.get('user:600:name')
```

[80]:
```
'cautiousCrackers9'
```

1.3 What is the id of username "excitedPie4" ?

1.4 ans: 567

[81]:
```
# GET username:excitedPie4
rd.get('username:excitedPie4')
```

[81]:
```
'567'
```

1.5 How many users that “excitedPie4” follows ?

1.6 ans: 9

[82]:
```
# SCARD user:567:follows
rd.scard('user:567:follows')
```

[82]: 9

1.7 How many users are there in the database?

1.8 ans: 200

[83]:
```
# KEYS username*
len(rd.keys('username*'))
```

[83]: 200

1.9 What is the average number of follows per user?

1.10 ans: 8.605

[84]:
```
users = rd.keys('user:*:name')
```

[85]:
```
sum = 0
for i in users:
    user_id = i.split(':')[1]
    sum += rd.scard(f"user:{user_id}:follows")
print(f"average: {sum / len(users)}")
```

```
average: 8.605
```

1.11 How many users follows between 5-10 users?

1.12 ans: 60 users

[86]:
```
follows_between_5_10 = 0
for i in users:
    user_id = i.split(':')[1]
    if 5 <= rd.scard(f"user:{user_id}:follows") <= 10:
        follows_between_5_10 += 1

print(f"follows between 5-10: {follows_between_5_10}")
```

```
follows between 5-10: 60
```

1.13 Which account has the most followers?

1.14 ans: 630

[87]:
```
key = ""
max_follower = 0
for i in users:
    user_id = i.split(':')[1]
    fc = rd.scard(f"user:{user_id}:followed_by")
    if (fc > max_follower):
        key = i
        max_follower = fc
print(key.split(":")[1])
```

```
630
```