<u>**Comp430 Data Privacy and Security Homework4 Report Fall-2022**</u>
Name – Surname: Barış KAPLAN (**KU Login Name:** bkaplan18)
KU ID Number: 0069054 (69054)

IMPORTANT NOTE: If you have not got "pandas" library in your machine, you should install pandas by typing "pip install pandas" or "pip3 install pandas" before running my codes in the Question-1.

<u>Question – 1</u>

<u>Part - 1:</u>

<u>Passwords of **Creed**, **Meredith**, **Stanley**, and **Phyllis:**</u>

Password of Creed: cocacola

Password of Meredith: 50cent

Password of Stanley: patrick

Password of Phyllis: newyork

The first screenshot which displays the username, the corresponding password of this username, and the corresponding hash of this password (For each user in the set of users which include Creed, Meredith, Stanley, and Phyllis).

This screenshot is just for showing the parts that are exceeding the shown part of my terminal (in Part1 of the Question1)

Part - 2:

<u>True Passwords of **Kevin**, **Angela**, **Oscar**, **and Darryl:**</u>

True Password of Kevin: tinkerbell

True Password of Angela: chrisbrown

True Password of Oscar: chivas

True Password of Darryl: eminem

```
/Users/barissss/Downloads/pythonProject/venv/bin/python /Users/barissss/Downloads/pythonProject/Part2.py

The dictionary attack with salt usage and no key streching usage starts running now !!!

The user named Kevin has the following password tinkerbell which has a following found hash c6050538cc65f06079a3e17abe415cb31c2ef1d5c8a18d2b9d90cb85b62d29dabe664879331c1
User: Kevin, Password: tinkerbell, Hash: c6050538cc65f06079a3e17abe415cb31c2ef1d5c8a18d2b9d90cb85b62d29dabe664879331c1e1d46f207982ee32d7f2cec94384a142b76ca0e8b504ea4cdc0


The user named Angela has the following password chrisbrown which has a following found hash 9cfe4177d36350de4dbacb41ec735b5e07492415e9aa624fa407b4cf63fe93ee32753e1e4d1e9
User: Angela, Password: chrisbrown, Hash: 9cfe4177d36350de4dbacb41ec735b5e07492415e9aa624fa407b4cf63fe93ee32753e1e4d1e9bbe80dd88a5169a366a96ac11215dc56bd269e3ad80f4ea1559


The user named Oscar has the following password chivas which has a following found hash 6be96652538e7ae4835e071e101117279c1a8e0f37a562689f90008468710a1af7ad617acc15e3d169
User: Oscar, Password: chivas, Hash: 6be96652538e7ae4835e071e101117279c1a8e0f37a562689f90008468710a1af7ad617acc15e3d169a77b37fac0ff034e9176921624d44debc779f20298d401
|

The user named Darryl has the following password eminem which has a following found hash cfedd51710a577ee51277cdcac2045a8483275f4b61a2749d34b064bf937e90071d96aabcec5690a
User: Darryl, Password: eminem, Hash: cfedd51710a577ee51277cdcac2045a8483275f4b61a2749d34b064bf937e90071d96aabcec5690a9e865d2d2ca59de9e11ea55c33d93694bf5e8c1c0564b5ee



The dictionary attack with salt usage and no key streching usage terminates running now !!!


Process finished with exit code 0
```

The first screenshot which displays the username, the corresponding password of this username, and the corresponding hash of this password (For each user in the set of users which include Kevin, Angela, Oscar, and Darryl).

```
rissss/Downloads/pythonProject/Part2.py

starts running now !!!

has a following found hash c6050538cc65f06079a3e17abe415cb31c2ef1d5c8a18d2b9d90cb85b62d29dabe664879331c1e1d46f207982ee32d7f2cec94384a142b76ca0e8b504ea4cdc0
be415cb31c2ef1d5c8a18d2b9d90cb85b62d29dabe664879331c1e1d46f207982ee32d7f2cec94384a142b76ca0e8b504ea4cdc0


 has a following found hash 9cfe4177d36350de4dbacb41ec735b5e07492415e9aa624fa407b4cf63fe93ee32753e1e4d1e9bbe80dd88a5169a366a96ac11215dc56bd269e3ad80f4ea1559
1ec735b5e07492415e9aa624fa407b4cf63fe93ee32753e1e4d1e9bbe80dd88a5169a366a96ac11215dc56bd269e3ad80f4ea1559


a following found hash 6be96652538e7ae4835e071e101117279c1a8e0f37a562689f90008468710a1af7ad617acc15e3d169a77b37fac0ff034e9176921624d44debc779f20298d401
17279c1a8e0f37a562689f90008468710a1af7ad617acc15e3d169a77b37fac0ff034e9176921624d44debc779f20298d401


 a following found hash cfedd51710a577ee51277cdcac2045a8483275f4b61a2749d34b064bf937e90071d96aabcec5690a9e865d2d2ca59de9e11ea55c33d93694bf5e8c1c0564b5ee
045a8483275f4b61a2749d34b064bf937e90071d96aabcec5690a9e865d2d2ca59de9e11ea55c33d93694bf5e8c1c0564b5ee



terminates running now !!!
```

This screenshot is just for showing the parts that are exceeding the shown part of my terminal (in Part2 of the Question1)

```
/Users/barissss/Downloads/pythonProject/venv/bin/python /Users/barissss/Downloads/pythonProject/Part3.py

The dictionary attack with salt usage and no key streching usage starts running now !!!

User Jim having the password hottie having the hash 3b3a82652d9f3a5a3ed894665f106ffe36b845490d588d4b58938ede28e514a3187fa63cd3d6cafc37cec8918b8c6ec05488258ce6af3a9e11
The number of iterations is 1258
User Pam having the password cutiepie having the hash 817367d6e9b8e4219fa5c78d85ca75e9ed1dc6f64eb7476e1f582f088d1f023b299ba6148b84ff439e538ab18f61a5165f0c34d1b39a6788
The number of iterations is 1258
User Dwight having the password angelica having the hash 483075aa9c8b9298eb882d22c4a54bd522f8694d44b91f4a8fe48c580e06f47b4ebe0b6c579d1322dcc501297cd7416dfca0f7d370d19
The number of iterations is 1258
User Michael having the password superstar having the hash 3e4d009b62c74dd4a14085deb5463bec3b7f8cf2ed3a38e0ccf9e0b2eedbc7ba38e563aa730e3397b48a50389bd34cfe86e8df14c25
The number of iterations is 1258

The dictionary attack with salt usage and no key streching usage terminates running now !!!


Process finished with exit code 0
```

This screenshot shows the passwords of Jim, Pam, Dwight, and Michael (I have taken this SS from my Pycharm terminal)

As you can also see in the above screenshot, the passwords of Jim, Pam, Dwight, and Michael are as follows:

Password of Jim: hottie
Password of Pam: cutiepie
Password of Dwight: angelica
Password of Michael: superstar

```
367d6e9b8e4219fa5c78d85ca75e9ed1dc6f64eb7476e1f582f088d1f023b299ba6148b84ff439e538ab18f61a5165f0c34d1b39a6788968bcd139355cd7c


483075aa9c8b9298eb882d22c4a54bd522f8694d44b91f4a8fe48c580e06f47b4ebe0b6c579d1322dcc501297cd7416dfca0f7d370d199f0d05d79d9c55b53e9


3e4d009b62c74dd4a14085deb5463bec3b7f8cf2ed3a38e0ccf9e0b2eedbc7ba38e563aa730e3397b48a50389bd34cfe86e8df14c252b3a137ea4bfef83da51f


g usage terminates running now !!!
```

This screenshot is just for showing the hash parts exceeding the terminal screen