

```
kali@kali:~$ hash-identifier
#####
#                                     #
#   ^^^^      ^^^^      ^^^^       #
#  / \ / \    / \ / \    / \ / \   #
# /   X   \  /   X   \  /   X   \  #
# \   X   /  \   X   /  \   X   /   #
#  \ / \ \    \ / \ \    \ / \ \   #
#   ^^^^      ^^^^      ^^^^       #
#                                     #
# System v1.2                        #
# By Zion3R                         #
# www.Blackexploit.com              #
# Root@Blackexploit.com             #
#####

HASH: 81dc9bdb52d04dc20036dbd8313ed055

Possible Hashes:
[+] MD5
[+] Domain Cached Credentials - MD4(MD4(($pass)).(strtolower($username)))

81dc9bdb52d04dc20036dbd8313ed055:1234

Session.....: hashcat
Status.....: Cracked
Hash.Mode.....: 0 (MD5)
Hash.Target.....: 81dc9bdb52d04dc20036dbd8313ed055
Time.Started.....: Sun Aug 21 05:51:13 2022 (0 secs)
Time.Estimated...: Sun Aug 21 05:51:13 2022 (0 secs)
Kernel.Feature ...: Pure Kernel
Guess.Mask.....: ?1?2?2?2 [4]
Guess.Charset....: -1 ?l?d?u, -2 ?l?d, -3 ?l?d*!$@_ , -4 Undefined
Guess.Queue.....: 4/15 (26.67%)
Speed.#1.....: 71690.5 kH/s (0.30ms) @ Accel:256 Loops:62 Thr:1 Vec:8
Recovered.....: 1/1 (100.00%) Digests
Progress.....: 31744/2892672 (1.10%)
Rejected.....: 0/31744 (0.00%)
Restore.Point....: 0/46656 (0.00%)
Restore.Sub.#1...: Salt:0 Amplifier:0-62 Iteration:0-62
Candidate.Engine.: Device Generator
Candidates.#1....: sari → Xhni
Hardware.Mon.#1.. : Util: 53%

Started: Sun Aug 21 05:50:44 2022
Stopped: Sun Aug 21 05:51:15 2022
```

2.

b021d0862bc76b0995927902ec697d97b5080341a53cd90b780f50fd5886f4160bbb9d4a573b76c230
04c9b3a44ac95cfde45399e3357d1f651b556dfbd0d58f

typ: SHA-512

komenda: hashcat -m 1700 -a 3

b021d0862bc76b0995927902ec697d97b5080341a53cd90b780f50fd5886f4160bbb9d4a573b76c230
04c9b3a44ac95cfde45399e3357d1f651b556dfbd0d58f

hasło: 6969

```
HASH: b021d0862bc76b0995927902ec697d97b5080341a53cd90b780f50fd5886f4160bbb9d4a
573b76c23004c9b3a44ac95cfde45399e3357d1f651b556dfbd0d58f
Possible Hashs:
[+] SHA-512
[+] Whirlpool

Least Possible Hashs:
[+] SHA-512(HMAC)
[+] Whirlpool(HMAC)

b021d0862bc76b0995927902ec697d97b5080341a53cd90b780f50fd5886f4160bbb9d4a573b76c23004c9b3a44ac95cfde45399e3357d1f651b556dfbd0d58f:6969
Session.....: hashcat
Status.....: Cracked
Hash.Mode.....: 1700 (SHA2-512)
Hash.Target.....: b021d0862bc76b0995927902ec697d97b5080341a53cd90b780 ... d0d58f
Time.Started.....: Sun Aug 21 06:24:24 2022 (0 secs)
Time.Estimated...: Sun Aug 21 06:24:24 2022 (0 secs)
Kernel.Feature...: Pure Kernel
Guess.Mask.....: ?1?2?2?2 [4]
Guess.Charset....: -1 ?l?d?u, -2 ?l?d, -3 ?l?d*!$@_, -4 Undefined
Guess.Queue.....: 4/15 (26.67%)
Speed.#1.....: 15172.3 kH/s (2.01ms) @ Accel:256 Loops:62 Thr:1 Vec:4
Recovered.....: 1/1 (100.00%) Digests
Progress.....: 190464/2892672 (6.58%)
Rejected.....: 0/190464 (0.00%)
Restore.Point....: 2560/46656 (5.49%)
Restore.Sub.#1...: Salt:0 Amplifier:0-62 Iteration:0-62
Candidate.Engine.: Device Generator
Candidates.#1....: su99 -> Xnju
Hardware.Mon.#1...: Util: 71%

Started: Sun Aug 21 06:24:01 2022
Stopped: Sun Aug 21 06:24:26 2022
```

3. 7aaa0f57

typ: CRC-32 (typu nie było w man hashcat, wzięty z hashcat --help | grep -i CRZ3)

komenda: hashcat -m 11500 -a 3 7aaa0f57:00000000

//przykład trenera: hashcat -m 11500 -a 3 zad3.hash --increment --increment-min 1 --increment-max 5 ?d?d?d?d -o zad3.txt//

hasło: 2022

```
HASH: 7aaa0f57

Possible Hashs:
[+] ADLER-32
[+] CRC-32

Least Possible Hashs:
[+] CRC-32B
[+] XOR-32
```

4.

31bca02094eb78126a517b206a88c73cfa9ec6f704c7030d18212cace820f025f00bf0ea68dbf3f3a5436ca63b53bf7bf80ad8d5de7d8359d0b7fed9dbc3ab99

typ: SHA-512

komenda: hashcat -m 1700 -a 3

31bca02094eb78126a517b206a88c73cfa9ec6f704c7030d18212cace820f025f00bf0ea68dbf3f3a5436ca63b53bf7bf80ad8d5de7d8359d0b7fed9dbc3ab99

hasło: 0

```
HASH: 31bca02094eb78126a517b206a88c73cfa9ec6f704c7030d18212cace820f025f00bf0ea68dbf3f3a5436ca63b53bf7bf80ad8d5de7d8359d0b7fed9dbc3ab99

Possible Hashs:
[+] SHA-512
[+] Whirlpool

Least Possible Hashs:
[+] SHA-512(HMAC)
[+] Whirlpool(HMAC)
```

```
31bca02094eb78126a517b206a88c73cfa9ec6f704c7030d18212cace820f025f00bf0ea68dbf3f3a5436ca63b53bf7bf80ad8d5de7d8359d0b7fed9dbc3ab99:0

Session.....: hashcat
Status.....: Cracked
Hash.Mode.....: 1700 (SHA2-512)
Hash.Target.....: 31bca02094eb78126a517b206a88c73cfa9ec6f704c7030d182 ... c3ab99
Time.Started.....: Sun Aug 21 06:33:27 2022 (0 secs)
Time.Estimated...: Sun Aug 21 06:33:27 2022 (0 secs)
Kernel.Feature...: Pure Kernel
Guess.Mask.....: ?1 [1]
Guess.Charset....: -1 ?l?d?u, -2 ?l?d, -3 ?l?d*!$@_, -4 Undefined
Guess.Queue.....: 1/15 (6.67%)
Speed.#1.....: 100.2 kH/s (0.01ms) @ Accel:256 Loops:62 Thr:1 Vec:4
Recovered.....: 1/1 (100.00%) Digests
Progress.....: 62/62 (100.00%)
Rejected.....: 0/62 (0.00%)
Restore.Point....: 0/1 (0.00%)
Restore.Sub.#1...: Salt:0 Amplifier:0-62 Iteration:0-62
Candidate.Engine.: Device Generator
Candidates.#1....: s -> X
Hardware.Mon.#1..: Util: 53%

Started: Sun Aug 21 06:33:26 2022
Stopped: Sun Aug 21 06:33:29 2022
```

Zadanie 1 - łamanie haseł (met.brute-force) 2/3

Środowisko: Kali Linux

Dla podanych niżej hashy określ typ wykorzystanego algorytmu hashującego, a następnie złam hasło metodą brute-force.

Każde hasło składa się z maksymalnie 5 znaków (małe i wielkie litery).

1.

9e66d646cfb6c84d06a42ee1975ffaae90352bd016da18f51721e2042d9067dcb120accc574105b43139b6c9c887dda8202eff20cc4b98bad7b3be1e471b3aa5

typ: SHA-512

komenda: hashcat -m 1700 -a 3

9e66d646cfb6c84d06a42ee1975ffaae90352bd016da18f51721e2042d9067dcb120accc574105b43139b6c9c887dda8202eff20cc4b98bad7b3be1e471b3aa5

hasło: sda

```
HASH: 9e66d646cfb6c84d06a42ee1975ffaae90352bd016da18f51721e2042d9067dcb120accc574105b43139b6c9c887dda8202eff20cc4b98bad7b3be1e471b3aa5

Possible Hashs:
[+] SHA-512
[+] Whirlpool

Least Possible Hashs:
[+] SHA-512(HMAC)
[+] Whirlpool(HMAC)
```

```
9e66d646cfb6c84d06a42ee1975ffaae90352bd016da18f51721e2042d9067dcb120accc574105b43139b6c9c887dda8202eff20cc4b98bad7b3be1e471b3aa5:sda
Session.....: hashcat
Status.....: Cracked
Hash.Mode.....: 1700 (SHA2-512)
Hash.Target.....: 9e66d646cfb6c84d06a42ee1975ffaae90352bd016da18f5172 ... 1b3aa5
Time.Started.....: Sun Aug 21 06:51:38 2022 (0 secs)
Time.Estimated...: Sun Aug 21 06:51:38 2022 (0 secs)
Kernel.Feature...: Pure Kernel
Guess.Mask.....: ?1?2?2 [3]
Guess.Charset....: -1 ?l?d?u, -2 ?l?d, -3 ?l?d*!$@_, -4 Undefined
Guess.Queue.....: 3/15 (20.00%)
Speed.#1.....: 14025.6 kH/s (2.10ms) @ Accel:256 Loops:62 Thr:1 Vec:4
Recovered.....: 1/1 (100.00%) Digests
Progress.....: 31744/80352 (39.51%)
Rejected.....: 0/31744 (0.00%)
Restore.Point....: 0/1296 (0.00%)
Restore.Sub.#1...: Salt:0 Amplifier:0-62 Iteration:0-62
Candidate.Engine.: Device Generator
Candidates.#1....: sar -> Xhn
Hardware.Mon.#1...: Util: 64%

Started: Sun Aug 21 06:51:37 2022
Stopped: Sun Aug 21 06:51:40 2022
```

2.

8a04bd2d079ee38f1af784317c4e2442625518780ccff3213feb2e207d2be42ca0760fd8476184a004b7
1bcb5841db5cd0a546b9b8870f1cafee57991077c4a9

typ: SHA-512

komenda: hashcat -m 1700 -a 3

8a04bd2d079ee38f1af784317c4e2442625518780ccff3213feb2e207d2be42ca0760fd8476184a004b7
1bcb5841db5cd0a546b9b8870f1cafee57991077c4a9

hasło: Asia

```
HASH: 8a04bd2d079ee38f1af784317c4e2442625518780ccff3213feb2e207d2be42ca0760fd8476184a004b71  
bcb5841db5cd0a546b9b8870f1cafee57991077c4a9  
Possible Hashs:  
[+] SHA-512  
[+] Whirlpool  
Least Possible Hashs:  
[+] SHA-512(HMAC)  
[+] Whirlpool(HMAC)
```

```
8a04bd2d079ee38f1af784317c4e2442625518780ccff3213feb2e207d2be42ca0760fd8476184a004b71bcb5841db5cd0a546b9b8870f1cafee57991077c4a9:Asia  
Session.....: hashcat  
Status.....: Cracked  
Hash.Mode.....: 1700 (SHA2-512)  
Hash.Target.....: 8a04bd2d079ee38f1af784317c4e2442625518780ccff3213fe ... 77c4a9  
Time.Started....: Sun Aug 21 06:56:10 2022 (0 secs)  
Time.Estimated...: Sun Aug 21 06:56:10 2022 (0 secs)  
Kernel.Feature...: Pure Kernel  
Guess.Mask.....: ?1?2?2?2 [4]  
Guess.Charset....: -1 ?l?d?u, -2 ?l?d, -3 ?l?d*!$@_, -4 Undefined  
Guess.Queue.....: 4/15 (26.67%)  
Speed.#1.....: 13679.7 kH/s (2.22ms) @ Accel:256 Loops:62 Thr:1 Vec:4  
Recovered.....: 1/1 (100.00%) Digests  
Progress.....: 666624/2892672 (23.05%)  
Rejected.....: 0/666624 (0.00%)  
Restore.Point....: 10240/46656 (21.95%)  
Restore.Sub.#1...: Salt:0 Amplifier:0-62 Iteration:0-62  
Candidate.Engine.: Device Generator  
Candidates.#1....: s4vm → Xcia  
Hardware.Mon.#1...: Util: 81%  
Started: Sun Aug 21 06:56:08 2022  
Stopped: Sun Aug 21 06:56:11 2022
```


Zadanie 1 - łamanie haseł (met.brute-force) 3/3

Środowisko: Kali Linux

Dla podanego niżej hasha określ typ wykorzystanego algorytmu hashującego, a następnie złam hasło metodą brute-force.

Hasło składa się z dokładnie z 6 znaków alfanumerycznych.

W miarę możliwości skorzystaj z GPU lub wykonaj zadanie po zajęciach.

1.

44d9886c0a57ddbfbdb31aa936bd498bf2ab70f741ee47047851e768db953fc4e43f92be953e205a3d1b3ab752ed90379444b651b582b0bc209a739a624e109da

typ: SHA-512

komenda: hashcat -m 1700 -a 3

44d9886c0a57ddbfbdb31aa936bd498bf2ab70f741ee47047851e768db953fc4e43f92be953e205a3d1b3ab752ed90379444b651b582b0bc209a739a624e109da

hasło: T0^^3k

```
HASH: 44d9886c0a57ddbfbdb31aa936bd498bf2ab70f741ee47047851e768db953fc4e43f92be953e205a3d1b3ab752ed90379444b651b582b0bc209a739a624e109da

Possible Hashs:
[+] SHA-512
[+] Whirlpool

Least Possible Hashs:
[+] SHA-512(HMAC)
[+] Whirlpool(HMAC)
```

```
44d9886c0a57ddbfbdb31aa936bd498bf2ab70f741ee47047851e768db953fc4e43f92be953e205a3d1b3ab752ed90379444b651b582b0bc209a739a624e109da:T0^^3k

Session.....: hashcat
Status.....: Cracked
Hash.Mode.....: 1700 (SHA2-512)
Hash.Target.....: 44d9886c0a57ddbfbdb31aa936bd498bf2ab70f741ee47047851...e109da
Time.Started.....: Sun Aug 21 15:33:21 2022 (8 mins, 18 secs)
Time.Estimated...: Sun Aug 21 15:41:39 2022 (0 secs)
Kernel.Feature...: Pure Kernel
Guess.Mask.....: ?a?a?a?a?a [6]
Guess.Queue.....: 1/1 (100.00%)
Speed.#1.....: 79187.0 kH/s (68.07ms) @ Accel:16 Loops:32 Thr:512 Vec:1
Recovered.....: 1/1 (100.00%) Digests
Progress.....: 178927828992/735091890625 (24.34%)
Rejected.....: 0/178927828992 (0.00%)
Restore.Point...: 19791872/81450625 (24.30%)
Restore.Sub.#1...: Salt:0 Amplifier:2304-2336 Iteration:0-32
Candidate.Engine.: Device Generator
Candidates.#1...: v2BYEH -> *3uBM.
Hardware.Mon.#1...: Temp: 60c Fan: 38% Util:100% Core:1442MHz Mem:3004MHz Bus:8

Started: Sun Aug 21 15:33:18 2022
Stopped: Sun Aug 21 15:41:40 2022

C:\Users\PB\Downloads\hashcat-6.2.5>
```