

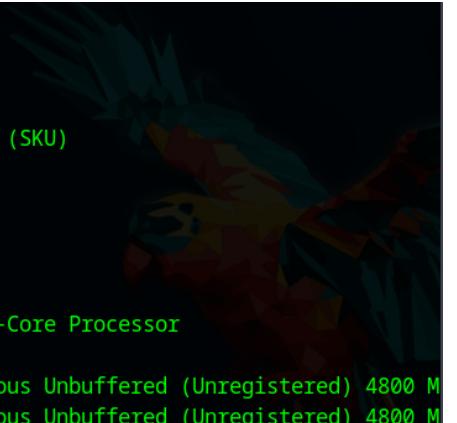
## Parola Güvenliğinde Hash Algoritmalarının Güvenirliliğinin Test Edilmesi

Hangi hash algoritması wordlist saldırılara karşı daha savunmasızdır?

Bu test işleminde Rockyou 2024 wordlist'i kullanılmıştır. 20+ Hash algoritması test edilmiştir.

# Sistem ve Yazılım Bilgileri

```
[root@parrot]~[~/home/user]
└─#lshw -short
H/W path          Device      Class      Description
=====          =====      =====
/0                  system    System Product Name (SKU)
/0/0                 bus       PRIME B650M-A II
/0/d                 memory   64KiB BIOS
/0/e                 memory   512KiB L1 cache
/0/f                 memory   8MiB L2 cache
/0/10                processor AMD Ryzen 7 7700X 8-Core Processor
/0/13                 memory   32MiB L3 cache
/0/13/0                memory   64GiB System Memory
/0/13/0                memory   16GiB DIMM Synchronous Unbuffered (Unregistered) 4800 M
/0/13/1                memory   16GiB DIMM Synchronous Unbuffered (Unregistered) 4800 M
/0/13/2                memory   16GiB DIMM Synchronous Unbuffered (Unregistered) 4800 M
/0/13/3                memory   16GiB DIMM Synchronous Unbuffered (Unregistered) 4800 M
```



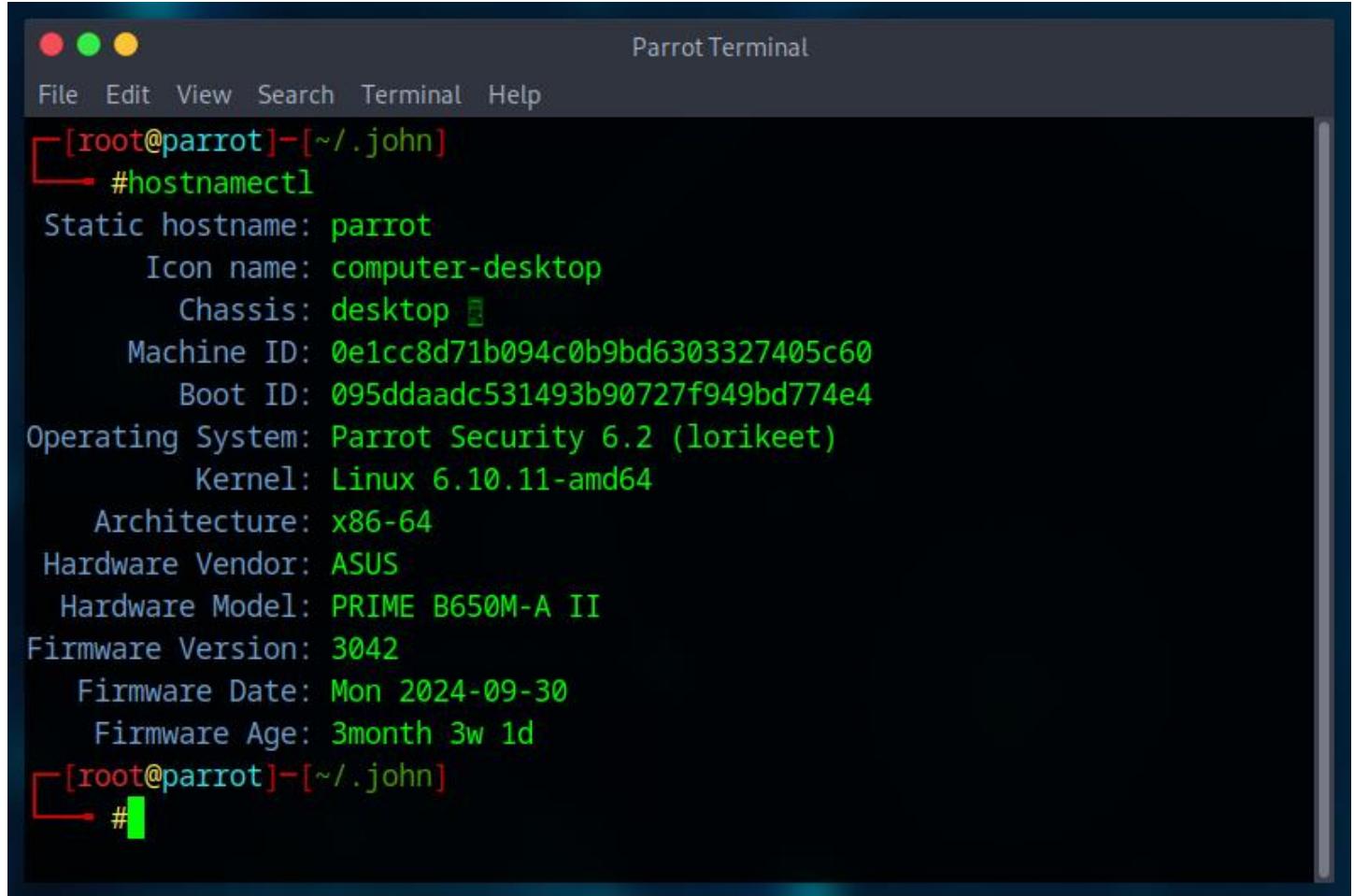
Parrot Terminal

File Edit View Search Terminal Help

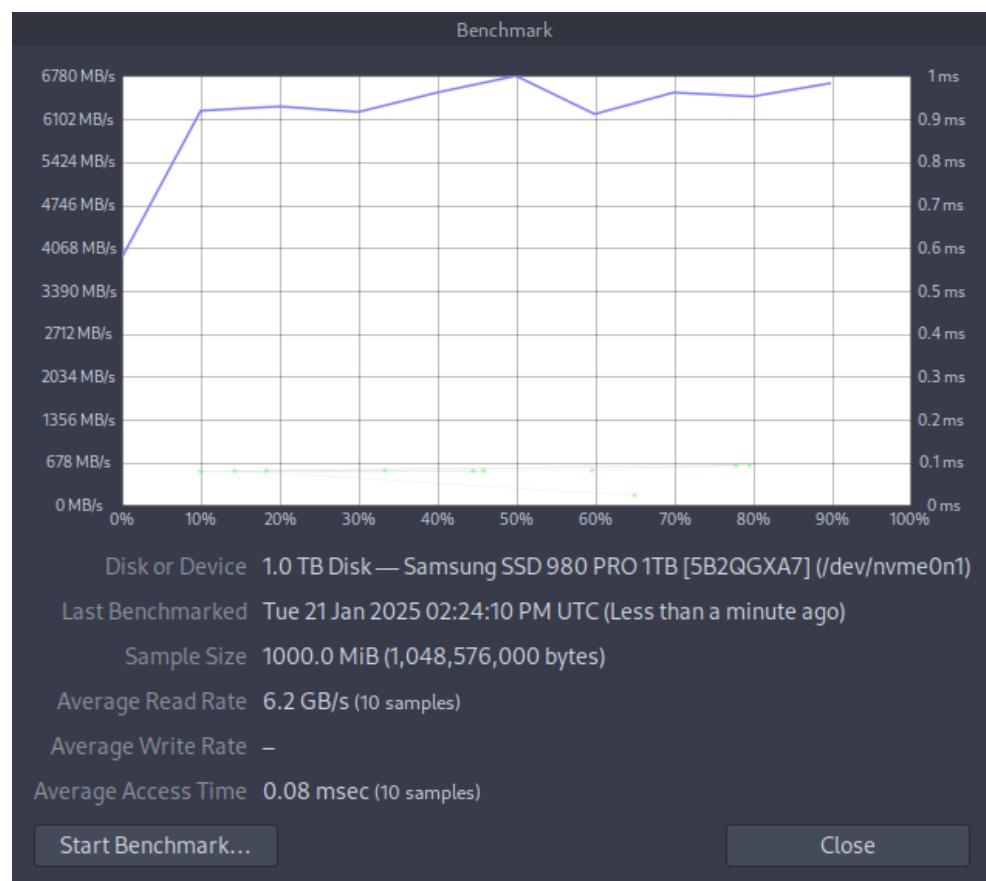
```
[root@parrot]~[~/john]
└─#john
John the Ripper 1.9.0-jumbo-1+bleeding-aec1328d6c 2021-11-02 10:45:52
+0100 OMP [linux-gnu 64-bit x86_64 AVX512BW AC]
Copyright (c) 1996-2021 by Solar Designer and others
Homepage: https://www.openwall.com/john/

Usage: john [OPTIONS] [PASSWORD-FILES]

Use --help to list all available options.
[root@parrot]~[~/john]
└─#
```



```
[root@parrot]~/.john
└─#hostnamectl
Static hostname: parrot
    Icon name: computer-desktop
    Chassis: desktop
Machine ID: 0e1cc8d71b094c0b9bd6303327405c60
    Boot ID: 095ddaadc531493b90727f949bd774e4
Operating System: Parrot Security 6.2 (lorikeet)
      Kernel: Linux 6.10.11-amd64
Architecture: x86-64
Hardware Vendor: ASUS
Hardware Model: PRIME B650M-A II
Firmware Version: 3042
Firmware Date: Mon 2024-09-30
Firmware Age: 3month 3w 1d
[root@parrot]~/.john
└─#
```



# Test Hakkında Bilgilendirme

Yapılan parola kırma saldırısında rockyou2024 wordlistinin ve dosyada **9.948.574.970.** sırada bulunan “dog80” parolası kullanılmıştır. Her hash kırma işlemi öncesi işlemci sıcaklığı 36 derece altına düşmesi beklenmiştir.

## Test Sonuçları

N	Algoritma	Bit	Parola Kırılma Süresi (sn)	Hız (parola/sn)	Hız (milyon/sn)
1	Blake2b	512	425	23408411,69	23,41
2	Gost R 34.11-94	256	1154	8620948,85	8,62
3	Has	160	766	12987695,78	12,99
4	Haval128-4	128	2223	4475292,38	4,48
5	Haval256-3	256	1709	5821284,36	5,82
6	Keccak	256	715	13914090,87	13,91
7	Keccak	512	649	15329083,16	15,33
8	MD4	128	216	46058217,45	46,06
9	MD5	128	238	41800735,17	41,80
10	Ripemd	128	887	11215980,80	11,22
11	Ripemd	160	1236	8049008,88	8,05
12	SHA1	160	289	34424134,84	34,42
13	SHA256	256	335	29697238,72	29,70
14	SHA512	512	453	21961534,15	21,96
15	SHA3-512	512	667	14915404,75	14,92
16	Snefru	128	1331	7474511,62	7,47
17	Snefru	256	1352	7358413,44	7,36
18	Tiger	192	513	19392933,66	19,39
19	Whirlpool	512	758	13124769,09	13,12
20	Whirlpool-0	512	788	12625095,14	12,63
21	Whirlpool-T	512	764	13021694,99	13,02

# Tartışma

Kullanıcı parolalarının sadece standart hash algoritmaları kullanarak depolanması durumunda ne kadar hızlı parola kırma saldırılara maruz kaldığını yukarıdaki tabloda görüntüledik.

## Öneri

Kullanıcı parolalarına tuzlama (salting) işlemi uyguladıktan sonra güvenliğin arttırılması adına PBKDF2, scrypt, Argon2 (gpu saldırılara karşı ödüllüdür.), HKDF, bcrypt, KDF1, KDF2, SP800-108, X9.63KDF, Catena vb. algoritmalarının kullanılarak parola kırma saldırılara hızının düşürülmesi önerilmektedir.

## Test Görüntüleri

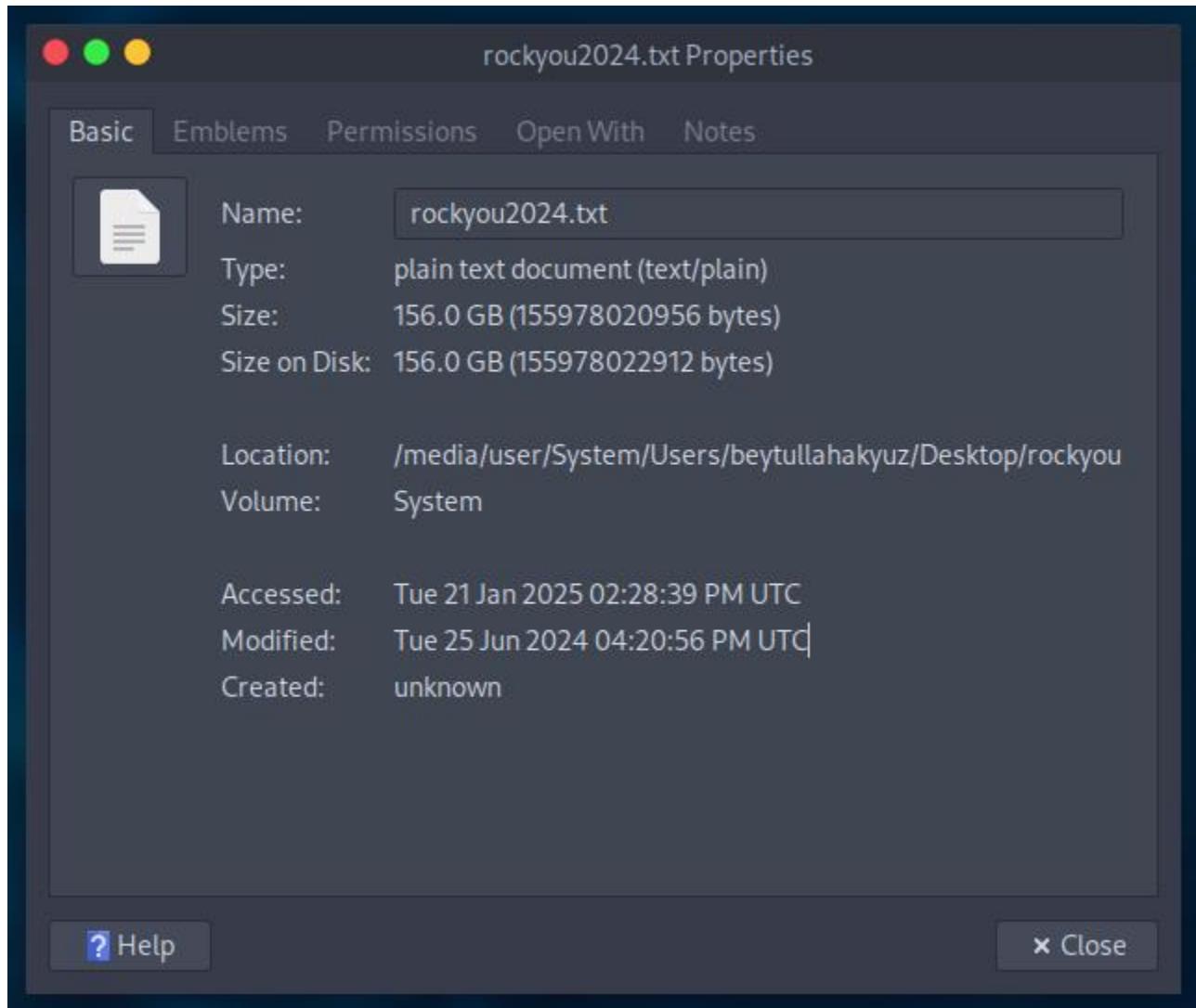
Test sırasında işlemci kullanımı aşağıdaki gibi gözlemlenmiştir.

The screenshot shows a terminal window titled "Parrot Terminal". At the top, there are three colored circles (red, green, yellow). The menu bar includes File, Edit, View, Search, Terminal, and Help. Below the menu, there's a system status bar showing memory usage (Mem: 1.20G/62.0G), tasks (Tasks: 86, 190 thr, 262 kthr; 16 running, 0K/0K), load average (Load average: 16.30 15.50 10.96), and uptime (Uptime: 03:17:31).

The main area displays a process list with columns: PID, USER, PRI, NI, VIRT, RES, SHR, S, CPU%, MEM%, TIME+, and Command. The processes listed are all named "john" and have a priority of 20. They are using 45.1G of virtual memory and 45.1G of resident memory, and are in the R (running) state. The CPU% column shows values ranging from 99.1 to 1571.3, and the TIME+ column shows values ranging from 15:01.44 to 3h59:37. The command column shows "--formal" for each process.

At the bottom of the terminal, there is a footer with keyboard shortcuts: F1Help, F2Setup, F3Search, F4Filter, F5Tree, F6SortBy, F7Nice -, F8Nice +, F9Kill, and F10Quit.

## Wordlist – Rockyou 2024 – Yaklaşık 10 Milyar Parola



## Blake2b (512 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command run is:

```
[root@parrot]# /media/user/System/Users/beytullahakyuz/Desktop/rockyou
[root@parrot]# john --format=Raw-Blake2 --wordlist=rockyou2024.txt hashes/blake2b
```

Output:

Using default input encoding: UTF-8  
Loaded 1 password hash (Raw-Blake2 [BLAKE2b 512 128/128 AVX])  
Will run 16 OpenMP threads  
Press 'q' or Ctrl-C to abort, almost any other key for status  
\*.\* dog\*.\* 80 (?)  
1g 0:00:07:05 DONE (2025-01-21 14:53) 0.002347g/s 22050Kp/s 22050Kc/s 22050KC/s яоченьсильнолюблюникуту..||\x9E\xE5\xE7  
Use the "--show" option to display all of the cracked passwords reliably  
Session completed.

```
[root@parrot]# /media/user/System/Users/beytullahakyuz/Desktop/rockyou
[root@parrot]#
```

## Gost R 34.11-94 (256 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command run is:

```
[root@parrot]# /media/user/System/Users/beytullahakyuz/Desktop/rockyou
[root@parrot]# john --format=gost --wordlist=rockyou2024.txt hashes/gost-dtest
```

Output:

Using default input encoding: UTF-8  
Loaded 1 password hash (gost, GOST R 34.11-94 [64/64])  
Will run 16 OpenMP threads  
Press 'q' or Ctrl-C to abort, almost any other key for status  
\*.\* dog\*.\* 80 (?)  
1g 0:00:19:14 DONE (2025-01-21 18:01) 0.000866g/s 8139Kp/s 8139Kc/s 8139KC/s яоченьсильнолюблюникуту..||\x9E\xE5\xE7  
Use the "--show" option to display all of the cracked passwords reliably  
Session completed.

```
[root@parrot]# /media/user/System/Users/beytullahakyuz/Desktop/rockyou
[root@parrot]#
```

## Has (160 Bit)

```
● ● ● Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=has-160 --wordlist=rockyou2024.txt hashes/has160
Using default input encoding: UTF-8
Loaded 1 password hash (has-160 [HAS-160 32/64])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:02:34 24.40% (ETA: 23:50:23) 0g/s 11682Kp/s 11682Kc/s 11682KC/s 5ad6a651ad274ca19c1c22862330cd90b3fa407
5..5ad6a8d24543465d3192879816499ef5
*.* dog*.* 80 (?) 
1g 0:00:12:46 DONE (2025-01-21 23:52) 0.001304g/s 12262Kp/s 12262Kc/s 12262KC/s 965
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## Haval128-4 (128 Bit)

```
● ● ● Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=HAVAL-128-4 --wordlist=rockyou2024.txt hashes/haval128_4
Using default input encoding: UTF-8
Loaded 1 password hash (HAVAL-128-4 [32/64])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:19:22 57.19% (ETA: 21:04:06) 0g/s 4232Kp/s 4232Kc/s 4232KC/s acf73385cc398b96d280960cae2caa01..acf73506
6300ae45e13380b52e5d9b2c
0g 0:00:31:11 86.63% (ETA: 21:06:14) 0g/s 4227Kp/s 4227Kc/s 4227KC/s paddi081..paddi0867
*.* dog*.* 80 (?) 
1g 0:00:37:03 DONE (2025-01-21 21:07) 0.000449g/s 4225Kp/s 4225Kc/s 4225KC/s 584.. 965
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

	A	B	C	D	E	F
8	7	SHA1	160	289	34424134,84	
9	SHA512	512	453	21961534,15	#DIV/0!	
10	SHA3-256	256		#DIV/0!		
11	SHA3-512	512	667	14919404,75		
12	Snefru	128		#DIV/0!		
13	Snefru	256		#DIV/0!		
14	Whirlpool	512		#DIV/0!		
15						
16						

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## Haval256-3 (256 Bit)

```
[root@parrot]#/media/user/System/Users/beytullahakyuz/Desktop/rockyou
└─#john --format=HAVAL-256-3 --wordlist=rockyou2024.txt hashes/haval256_3
Using default input encoding: UTF-8
Loaded 1 password hash (HAVAL-256-3 [32/64])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
*!* dog*!*80      (?)
1g 0:00:28:29 DONE (2025-01-21 21:39) 0.000584g/s 5496Kp/s 5496Kc/s 5496KC/s => 584..@ 965
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]#/
```

## Keccak (256 Bit)

```
[root@parrot]#/media/user/System/Users/beytullahakyuz/Desktop/rockyou
└─#john --format=Raw-Keccak-256 --wordlist=rockyou2024.txt hashes/keccak256
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-Keccak-256 [Keccak 256 32/64])
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
*!* dog*!*80      (?)
1g 0:00:11:55 DONE (2025-01-21 15:43) 0.001398g/s 13137Kp/s 13137Kc/s 13137KC/s => 000000..@ \x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]#/
```

## Keccak (512 Bit)

Parrot Terminal

```
[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=Raw-Keccak --wordlist=rockyou2024.txt hashes/keccak512
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-Keccak [Keccak 512 32/64])
Warning: poor OpenMP scalability for this hash type, consider --fork=16
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
* * dog@* 80      (?)
1g 0:00:10:49 DONE (2025-01-21 15:06) 0.001540g/s 14473Kp/s 14473Kc/s 14473KC/s яоченьсильнолюблюникуту..\x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.

[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## MD4 (128 Bit)

Parrot Terminal

```
[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=Raw-MD4 --wordlist=rockyou2024.txt hashes/md4
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-MD4 [MD4 512/512 AVX512BW 16x3])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
* * dog@* 80      (?)
1g 0:00:03:36 DONE (2025-01-21 14:33) 0.004629g/s 42086Kp/s 42086Kc/s 42086KC/s ██████████1..\x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.

[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## MD5 (128 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command run was `#john --format=Raw-MD5 --wordlist=rockyou2024.txt hashes/md5`. The output indicates that one password hash was loaded (Raw-MD5 [MD5 512/512 AVX512BW 16x3]). A warning about OpenMP support is present. The session completed successfully, cracking a password: `*_dog80`. The total time taken was 0:00:03:58.

```
[root@parrot]#/media/user/System/Users/beytullahakyuz/Desktop/rockyou
[+] #john --format=Raw-MD5 --wordlist=rockyou2024.txt hashes/md5
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-MD5 [MD5 512/512 AVX512BW 16x3])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
*_dog80 (?) 
1g 0:00:03:58 DONE (2025-01-21 14:40) 0.004193g/s 38195Kp/s 38195Kc/s 38195KC/s [|||||||1..]
Use the "--show --format=Raw-MD5" options to display all of the cracked passwords reliably
Session completed.

[root@parrot]#/
```

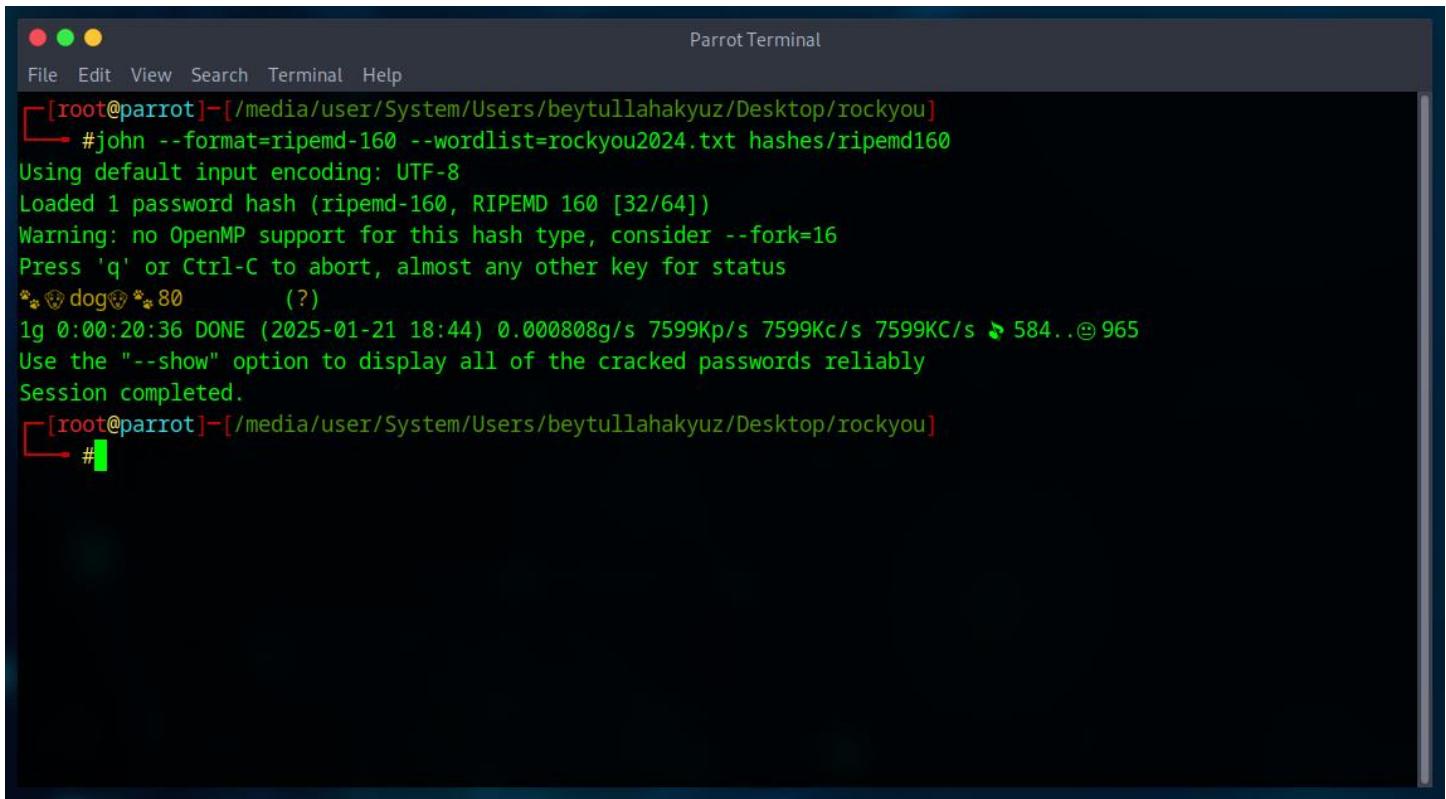
## Ripemd (128 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command run was `#john --format=ripemd-128 --wordlist=rockyou2024.txt hashes/ripemd128`. The output indicates that one password hash was loaded (ripemd-128, RIPEMD 128 [32/64]). A warning about OpenMP support is present. The session completed successfully, cracking a password: `*_dog80`. The total time taken was 0:00:14:47.

```
[root@parrot]#/media/user/System/Users/beytullahakyuz/Desktop/rockyou
[+] #john --format=ripemd-128 --wordlist=rockyou2024.txt hashes/ripemd128
Using default input encoding: UTF-8
Loaded 1 password hash (ripemd-128, RIPEMD 128 [32/64])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
*_dog80 (?) 
1g 0:00:14:47 DONE (2025-01-21 18:17) 0.001127g/s 10589Kp/s 10589Kc/s 10589KC/s 584..@ 965
Use the "--show" option to display all of the cracked passwords reliably
Session completed.

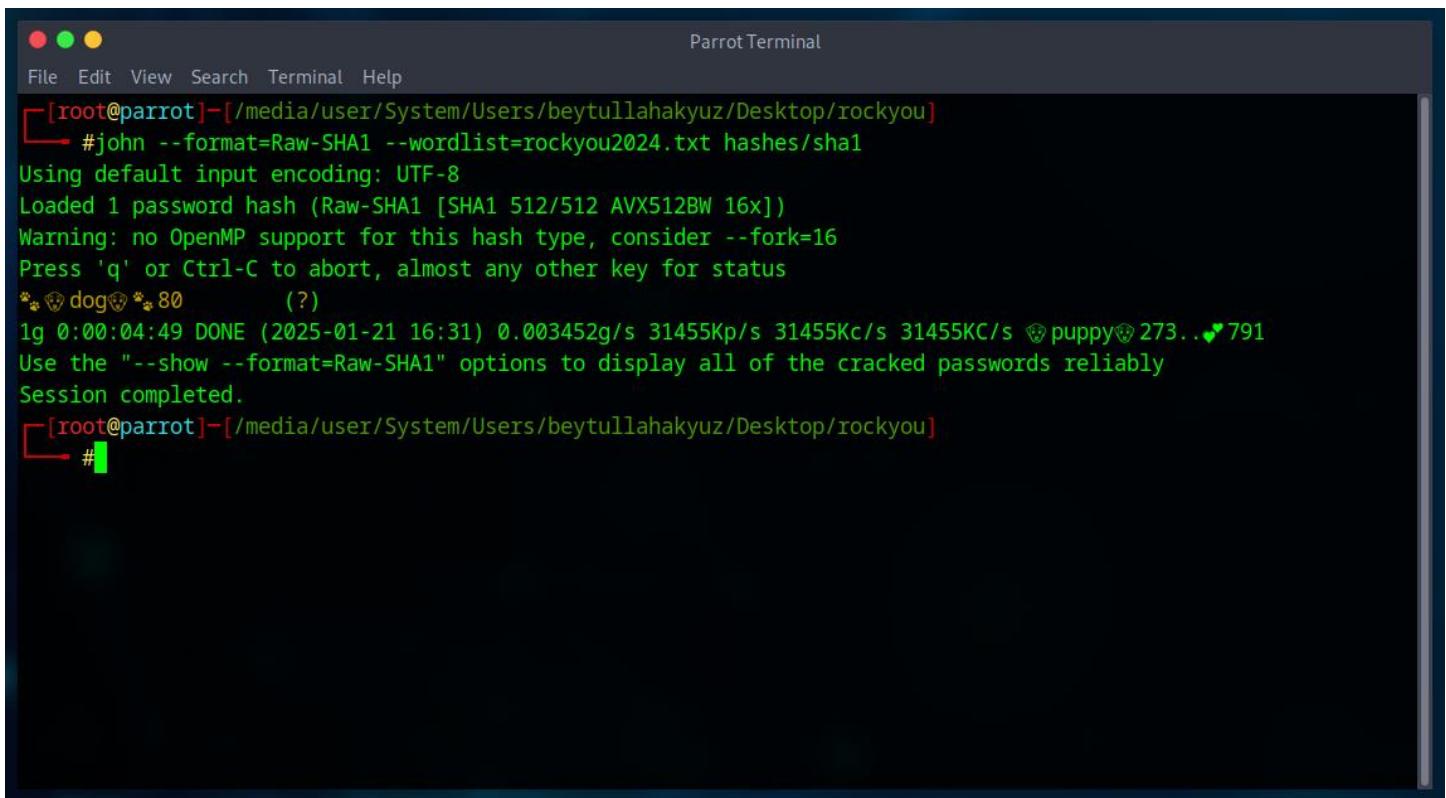
[root@parrot]#/
```

## Ripemd (160 Bit)



```
Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=ripemd-160 --wordlist=rockyou2024.txt hashes/ripemd160
Using default input encoding: UTF-8
Loaded 1 password hash (ripemd-160, RIPEMD 160 [32/64])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
* * dog* 80      (?)
1g 0:00:20:36 DONE (2025-01-21 18:44) 0.000808g/s 7599Kp/s 7599Kc/s 7599KC/s 584.. 965
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## SHA1 (160 Bit)



```
Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=Raw-SHA1 --wordlist=rockyou2024.txt hashes/sha1
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-SHA1 [SHA1 512/512 AVX512BW 16x])
Warning: no OpenMP support for this hash type, consider --fork=16
Press 'q' or Ctrl-C to abort, almost any other key for status
* * dog* 80      (?)
1g 0:00:04:49 DONE (2025-01-21 16:31) 0.003452g/s 31455Kp/s 31455Kc/s 31455KC/s puppy* 273.. 791
Use the "--show --format=Raw-SHA1" options to display all of the cracked passwords reliably
Session completed.
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## SHA256 (256 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command run was `#john --format=Raw-SHA256 --wordlist=rockyou2024.txt hashes/sha256`. The output indicates that one password hash was loaded (Raw-SHA256 [SHA256 512/512 AVX512BW 16x]). It shows progress: 0g at 0:00:01:30 (35.07% ETA 00:14:44), 0g at 0:00:04:52 (89.52% ETA 00:15:54), and 1g at 0:00:05:35 (DONE at 2025-01-22 00:16). The cracked password is `ARVIN635..ASAMSI`. The session completed successfully.

```
[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=Raw-SHA256 --wordlist=rockyou2024.txt hashes/sha256
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-SHA256 [SHA256 512/512 AVX512BW 16x])
Warning: poor OpenMP scalability for this hash type, consider --fork=16
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:01:30 35.07% (ETA: 00:14:44) 0g/s 26741Kp/s 26741Kc/s 26741KC/s ARVIN635..ASAMSI
0g 0:00:04:52 89.52% (ETA: 00:15:54) 0g/s 27271Kp/s 27271Kc/s 27271KC/s rockovtoplica..rockylane7
* * dog* * 80      (?)
1g 0:00:05:35 DONE (2025-01-22 00:16) 0.002982g/s 27136Kp/s 27136Kc/s 27136KC/s ff28051998..d\x9E\xE5\xE7
Session completed.

[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## SHA512 (512 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command run was `#john --format=Raw-SHA512 --wordlist=rockyou2024.txt hashes/sha512`. The output indicates that one password hash was loaded (Raw-SHA512 [SHA512 512/512 AVX512BW 8x]). It shows progress: 0g at 0:00:07:33 (ETA 00:00:00.5). The cracked password is `ARVIN635..L..d\x9E\xE5\xE7`. The session completed successfully.

```
[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=Raw-SHA512 --wordlist=rockyou2024.txt hashes/sha512
Using default input encoding: UTF-8
Loaded 1 password hash (Raw-SHA512 [SHA512 512/512 AVX512BW 8x])
Warning: poor OpenMP scalability for this hash type, consider --fork=16
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
* * dog* * 80      (?)
1g 0:00:07:33 DONE (2025-01-21 16:59) 0.002206g/s 20734Kp/s 20734Kc/s 20734KC/s <REDACTED>.L..d\x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.

[root@parrot]-/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## SHA3-512 (512 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command entered is:

```
[root@parrot]#john --format=Raw-SHA3 --wordlist=rockyou2024.txt hashes/sha3_512
```

The output shows the progress of the cracking process:

- Using default input encoding: UTF-8
- Loaded 1 password hash (Raw-SHA3 [SHA3 512 32/64])
- Warning: poor OpenMP scalability for this hash type, consider --fork=16
- Will run 16 OpenMP threads
- Press 'q' or Ctrl-C to abort, almost any other key for status
- \*.\* dog\*.\*80 (?)
- 1g 0:00:11:07 DONE (2025-01-21 19:12) 0.001497g/s 14082Kp/s 14082Kc/s 14082KC/s яоченьсильнолюблюникути..\x9E\xE5\xE7
- Use the "--show" option to display all of the cracked passwords reliably
- Session completed.

The terminal prompt is shown again at the end:

```
[root@parrot]#
```

## Snefru (128 Bit)

The screenshot shows a terminal window titled "Parrot Terminal". The command entered is:

```
[root@parrot]#john --format=Snefru-128 --wordlist=rockyou2024.txt hashes/snefru128
```

The output shows the progress of the cracking process:

- Using default input encoding: UTF-8
- Loaded 1 password hash (Snefru-128 [32/64])
- Will run 16 OpenMP threads
- Press 'q' or Ctrl-C to abort, almost any other key for status
- 0g 0:00:10:27 49.66% (ETA: 22:12:36) 0g/s 7115Kp/s 7115Kc/s 7115KC/s Tata554433..Tata\_X0
- \*.\* dog\*.\*80 (?)
- 1g 0:00:22:11 DONE (2025-01-21 22:13) 0.000751g/s 7057Kp/s 7057Kc/s 7057KC/s \x9E\xE5\xE7
- Use the "--show" option to display all of the cracked passwords reliably
- Session completed.

The terminal prompt is shown again at the end:

```
[root@parrot]#
```

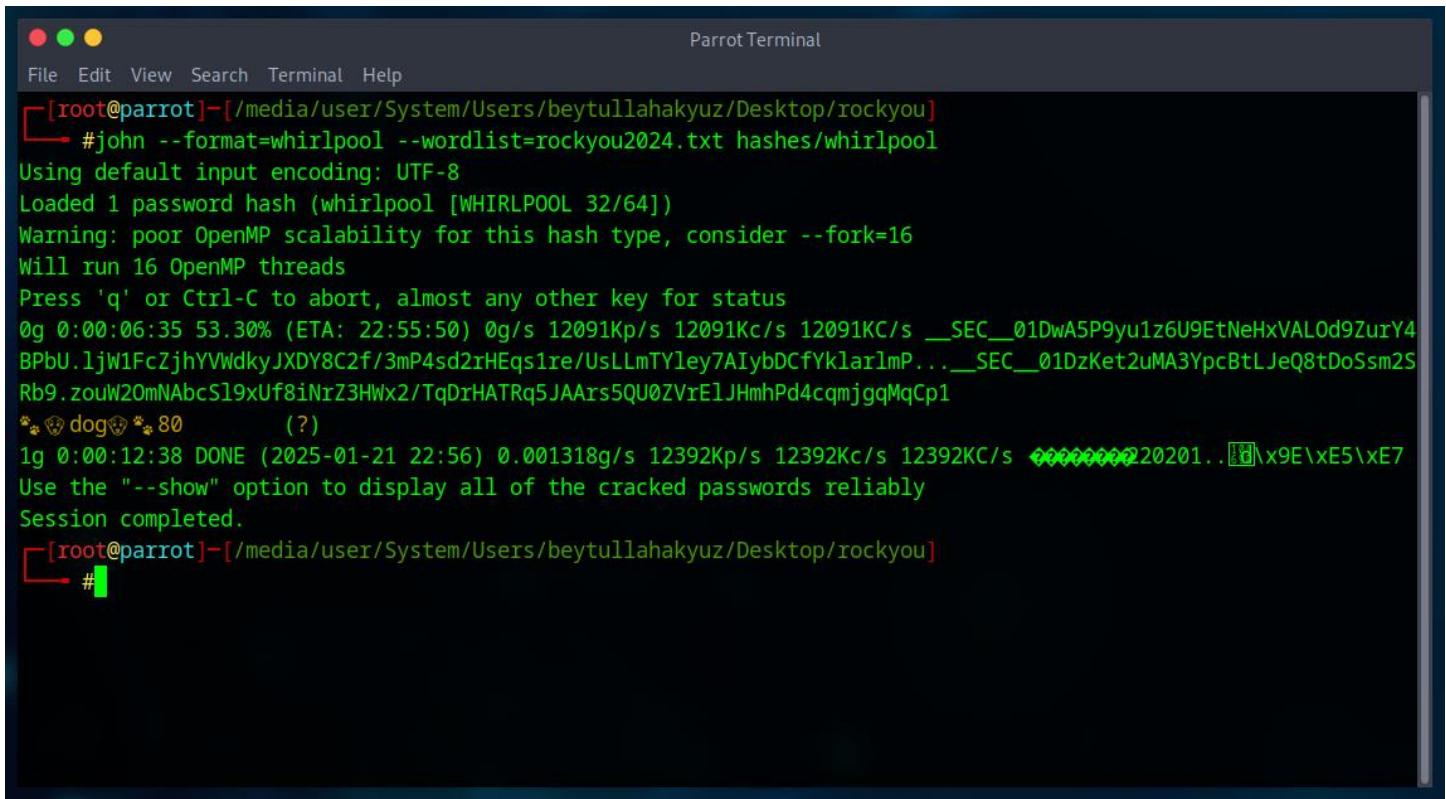
## Snefru (256 Bit)

```
Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─# john --format=Snefru-256 --wordlist=rockyou2024.txt hashes/snefru256
Using default input encoding: UTF-8
Loaded 1 password hash (Snefru-256 [32/64])
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
*!* dog@*! 80      (?)
1g 0:00:22:32 DONE (2025-01-21 22:36) 0.000739g/s 6947Kp/s 6947Kc/s 6947KC/s  ↻ ↻ ↻ .. \| \x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## Tiger (192 Bit)

```
Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=Tiger --wordlist=rockyou2024.txt hashes/tiger192
Using default input encoding: UTF-8
Loaded 1 password hash (Tiger [Tiger 32/64])
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:02:32 34.59% (ETA: 00:02:46) 0g/s 16925Kp/s 16925Kc/s 16925KC/s ABUEL4102..ABURAcAT
* * dog* 80      (?)
1g 0:00:08:33 DONE (2025-01-22 00:04) 0.001948g/s 18310Kp/s 18310Kc/s 18310KC/s ██████████20201.. └─\x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]~[/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#
```

## Whirlpool (512 Bit)

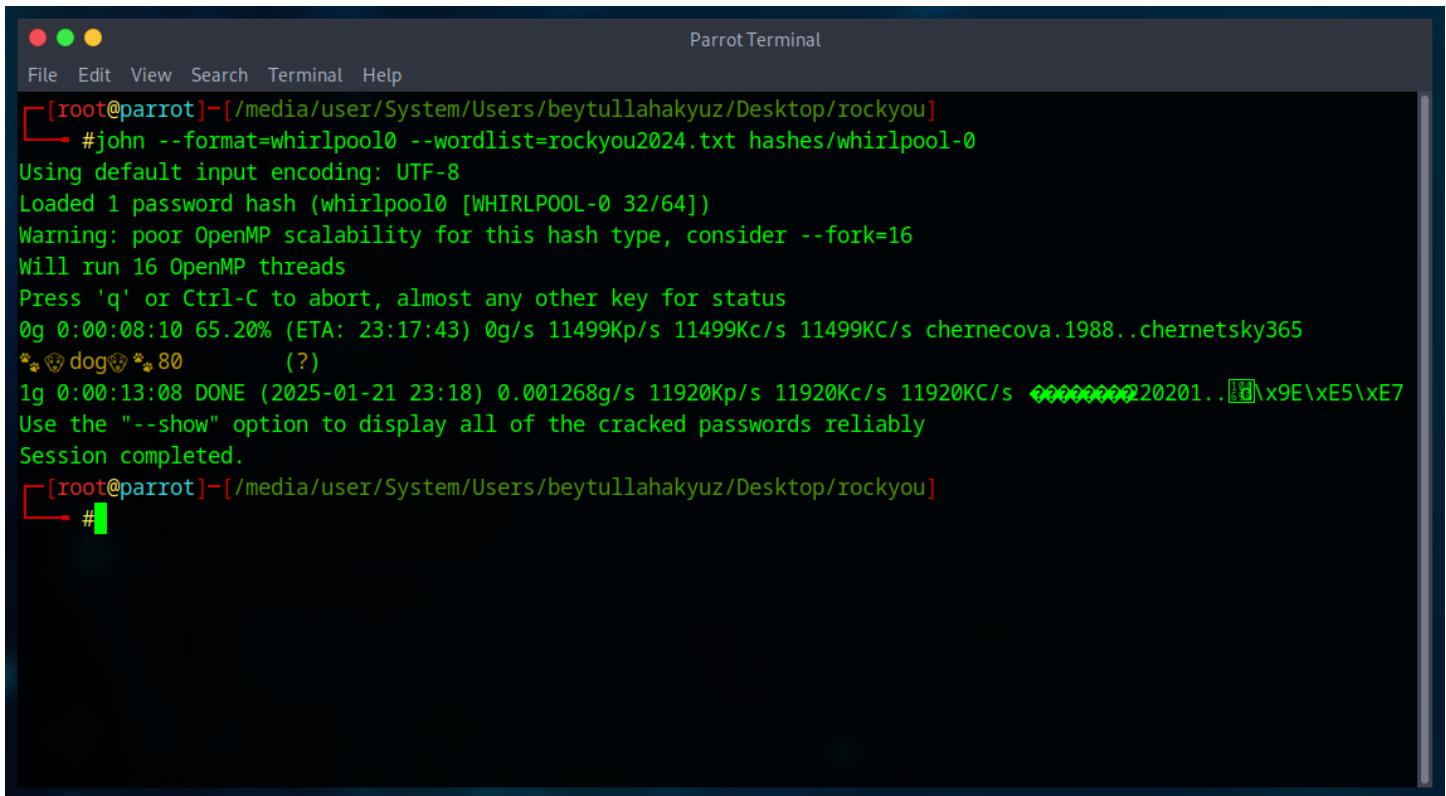


```

Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=whirlpool --wordlist=rockyou2024.txt hashes/whirlpool
Using default input encoding: UTF-8
Loaded 1 password hash (whirlpool [WHIRLPOOL 32/64])
Warning: poor OpenMP scalability for this hash type, consider --fork=16
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:06:35 53.30% (ETA: 22:55:50) 0g/s 12091Kp/s 12091Kc/s 12091KC/s __SEC__01DwA5P9yu1z6U9EtNeHxVAL0d9ZurY4
BPBu.ljW1FcZjhYVWdkyJXDY8C2f/3mP4sd2rHEqs1re/U$LLmTYley7AIybDCfYklarlmP...__SEC__01DzKet2uMA3YpcBtLJeQ8tDoSsm2S
Rb9.zouW20mNAbcSl9xUf8iNrZ3Hwx2/TqDrHATRq5JArs5QU0ZVrElJHmhPd4cqmjgqMqCp1
*.* dog*.* 80      (?)
1g 0:00:12:38 DONE (2025-01-21 22:56) 0.001318g/s 12392Kp/s 12392Kc/s 12392KC/s *00000000220201..¶\x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#

```

## Whirlpool-0 (512 Bit)

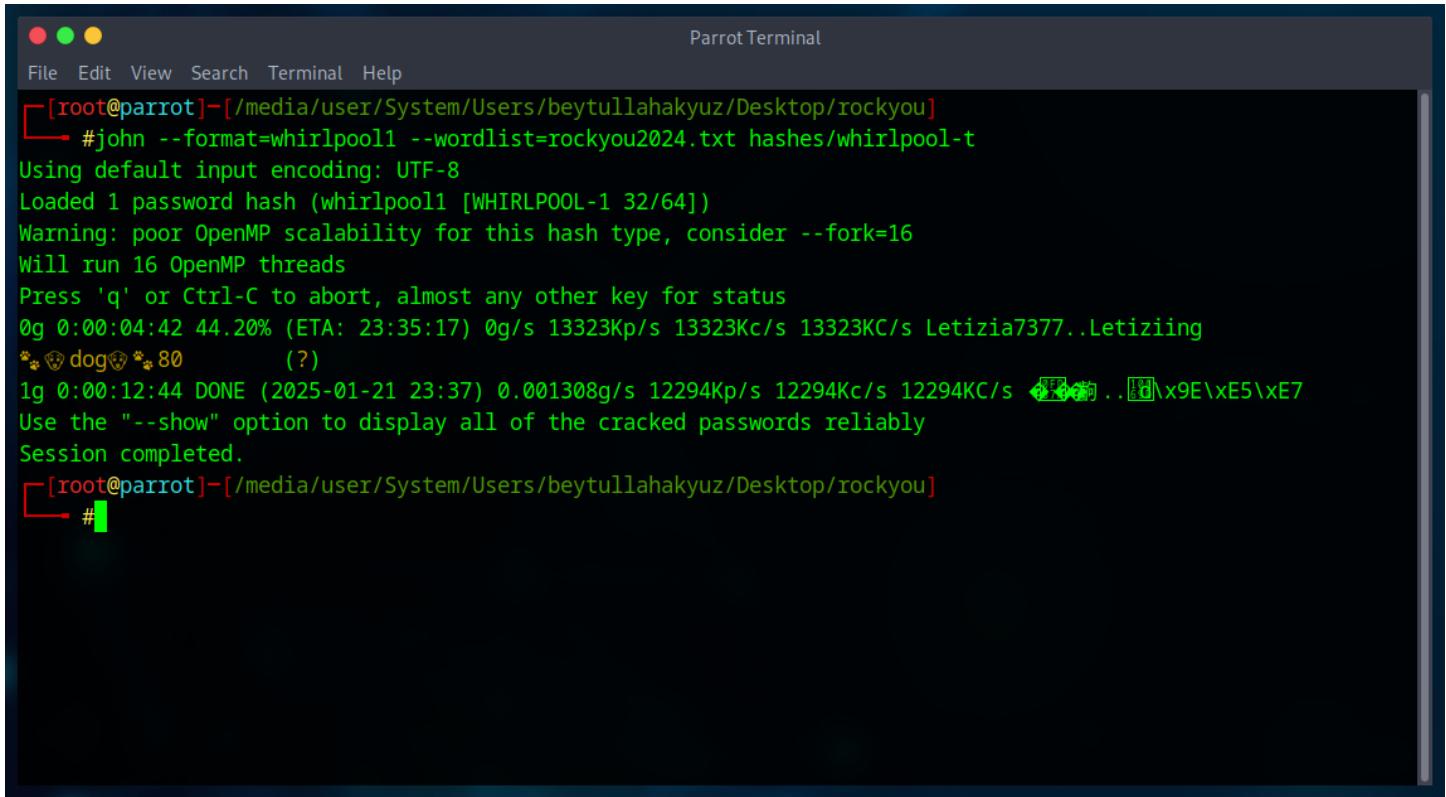


```

Parrot Terminal
File Edit View Search Terminal Help
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#john --format=whirlpool0 --wordlist=rockyou2024.txt hashes/whirlpool-0
Using default input encoding: UTF-8
Loaded 1 password hash (whirlpool0 [WHIRLPOOL-0 32/64])
Warning: poor OpenMP scalability for this hash type, consider --fork=16
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:08:10 65.20% (ETA: 23:17:43) 0g/s 11499Kp/s 11499Kc/s 11499KC/s cherneкова.1988..chernetsky365
*.* dog*.* 80      (?)
1g 0:00:13:08 DONE (2025-01-21 23:18) 0.001268g/s 11920Kp/s 11920Kc/s 11920KC/s *00000000220201..¶\x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
[root@parrot]~/media/user/System/Users/beytullahakyuz/Desktop/rockyou]
└─#

```

## Whirlpool-T (512 Bit)



The screenshot shows a terminal window titled "Parrot Terminal". The command run is:

```
[root@parrot]#/media/user/System/Users/beytullahakyuz/Desktop/rockyou]#john --format=whirlpool1 --wordlist=rockyou2024.txt hashes/whirlpool-t
```

Output from the command:

```
Using default input encoding: UTF-8
Loaded 1 password hash (whirlpool1 [WHIRLPOOL-1 32/64])
Warning: poor OpenMP scalability for this hash type, consider --fork=16
Will run 16 OpenMP threads
Press 'q' or Ctrl-C to abort, almost any other key for status
0g 0:00:04:42 44.20% (ETA: 23:35:17) 0g/s 13323Kp/s 13323Kc/s 13323KC/s Letizia7377..Letiziing
* * dog* * 80      (?)
1g 0:00:12:44 DONE (2025-01-21 23:37) 0.001308g/s 12294Kp/s 12294Kc/s 12294KC/s 0000..00\x9E\xE5\xE7
Use the "--show" option to display all of the cracked passwords reliably
Session completed.
```

Session completed.

Değerli kullanıcılar güncel listeye aşağıdaki linkten erişebilirsiniz.

<https://docs.google.com/spreadsheets/d/1dqSoCkHkYJNAyAUhoUcC5uDiXOZxaZDy/edit?usp=sharing&ouid=117867629114780477360&rtpof=true&sd=true>