

Host-only Networks

NAT Networks

Cloud Networks

Name	IPv4 Prefix	IPv6 Prefix	DHCP Server
NatNetwork	10.0.2.0/24	fd17:625c:f037:2::/64	Enabled

General Options

Port Forwarding

Name:

NatNetwork

IPv4 Prefix:

10.0.2.0/24


☒ Enable DHCP


VM1 - Settings


Basic


Expert


Search settings


General


System


Display


Storage


Audio

Network

Serial Ports

USB

Shared Folders

User Interface

Network

Network

Adapter 1

Adapter 2

Adapter 3

Adapter 4

☒ Enable Network Adapter

Attached to:

NAT Network

Name:

NatNetwork

Adapter Type:

Intel PRO/1000 MT Desktop (82540EM)

Promiscuous Mode:

Deny

MAC Address:

0800278DA7DC

☒ Cable Connected

Serial Ports

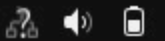
OK

Cancel

Help

```
faridkarimli@faridkarimli-VirtualBox:~$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast state UP group default qlen 1000
    link/ether 08:00:27:e1:9b:90 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
        valid_lft 74100sec preferred_lft 74100sec
faridkarimli@faridkarimli-VirtualBox:~$
```

May 14 16:55



faridvm1@VM1: ~



```
faridvm1@VM1:~$ ping 10.0.2.15
PING 10.0.2.15 (10.0.2.15) 56(84) bytes of data.
64 bytes from 10.0.2.15: icmp_seq=1 ttl=64 time=3.66 ms
64 bytes from 10.0.2.15: icmp_seq=2 ttl=64 time=2.94 ms
64 bytes from 10.0.2.15: icmp_seq=3 ttl=64 time=1.98 ms
64 bytes from 10.0.2.15: icmp_seq=4 ttl=64 time=1.49 ms
64 bytes from 10.0.2.15: icmp_seq=5 ttl=64 time=3.09 ms
64 bytes from 10.0.2.15: icmp_seq=6 ttl=64 time=1.96 ms
64 bytes from 10.0.2.15: icmp_seq=7 ttl=64 time=2.48 ms
64 bytes from 10.0.2.15: icmp_seq=8 ttl=64 time=2.05 ms
64 bytes from 10.0.2.15: icmp_seq=9 ttl=64 time=2.39 ms
64 bytes from 10.0.2.15: icmp_seq=10 ttl=64 time=2.02 ms
64 bytes from 10.0.2.15: icmp_seq=11 ttl=64 time=2.06 ms
64 bytes from 10.0.2.15: icmp_seq=12 ttl=64 time=2.02 ms
64 bytes from 10.0.2.15: icmp_seq=13 ttl=64 time=1.97 ms
64 bytes from 10.0.2.15: icmp_seq=14 ttl=64 time=1.39 ms
64 bytes from 10.0.2.15: icmp_seq=15 ttl=64 time=2.61 ms
64 bytes from 10.0.2.15: icmp_seq=16 ttl=64 time=2.34 ms
64 bytes from 10.0.2.15: icmp_seq=17 ttl=64 time=2.01 ms
64 bytes from 10.0.2.15: icmp_seq=18 ttl=64 time=2.68 ms
^C
--- 10.0.2.15 ping statistics ---
18 packets transmitted, 18 received, 0% packet loss, time 17024ms
rtt min/avg/max/mdev = 1.388/2.283/3.660/0.544 ms
```



Home





Ubuntu1 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

May 14 21:18



```
faridkarimli@faridkarimli-VirtualBox: ~  
Get:7 http://security.ubuntu.com/ubuntu noble-security/main amd64 Components [21  
.5 kB]  
Get:8 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages  
[1,041 kB]  
Get:9 http://security.ubuntu.com/ubuntu noble-security/restricted Translation-en  
[215 kB]  
Get:10 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Compone  
nts [212 B]  
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages  
[838 kB]  
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe Translation-en  
[183 kB]  
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Component  
s [52.2 kB]  
Get:14 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Package  
s [17.7 kB]  
Get:15 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Compone  
nts [212 B]  
Fetched 3,469 kB in 3s (1,225 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
411 packages can be upgraded. Run 'apt list --upgradable' to see them.  
faridkarimli@faridkarimli-VirtualBox:~$ sudo apt install openssh-server -y
```



Home

May 14 17:48



faridvm1@VM1: ~



```
faridvm1@VM1:~$ ping 10.0.2.15
PING 10.0.2.15 (10.0.2.15) 56(84) bytes of data.
64 bytes from 10.0.2.15: icmp_seq=1 ttl=64 time=3.37 ms
64 bytes from 10.0.2.15: icmp_seq=2 ttl=64 time=1.59 ms
64 bytes from 10.0.2.15: icmp_seq=3 ttl=64 time=1.65 ms
64 bytes from 10.0.2.15: icmp_seq=4 ttl=64 time=2.12 ms
64 bytes from 10.0.2.15: icmp_seq=5 ttl=64 time=1.55 ms
64 bytes from 10.0.2.15: icmp_seq=6 ttl=64 time=2.83 ms
64 bytes from 10.0.2.15: icmp_seq=7 ttl=64 time=3.25 ms
64 bytes from 10.0.2.15: icmp_seq=8 ttl=64 time=2.50 ms
64 bytes from 10.0.2.15: icmp_seq=9 ttl=64 time=1.61 ms
64 bytes from 10.0.2.15: icmp_seq=10 ttl=64 time=2.09 ms
64 bytes from 10.0.2.15: icmp_seq=11 ttl=64 time=2.42 ms
^C
--- 10.0.2.15 ping statistics ---
11 packets transmitted, 11 received, 0% packet loss, time 10017ms
rtt min/avg/max/mdev = 1.549/2.271/3.373/0.634 ms
faridvm1@VM1:~$
```



Home





faridvm1@VM1: ~



```
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '10.0.2.15' (ED25519) to the list of known hosts.
faridkarimli@10.0.2.15's password:
scp: /home/faridvm1/test.txt: No such file or directory
faridvm1@VM1:~$ realpath test.txt
/home/faridvm1/test.txt
faridvm1@VM1:~$ ls -l test.txt
-rw-rw-r-- 1 faridvm1 faridvm1 56 May 14 17:50 test.txt
faridvm1@VM1:~$ realpath test.txt
/home/faridvm1/test.txt
faridvm1@VM1:~$ scp faridkarimli@10.0.2.15:/home/faridvm1/test.txt .
faridkarimli@10.0.2.15's password:
scp: /home/faridvm1/test.txt: No such file or directory
faridvm1@VM1:~$ scp faridkarimli@10.0.2.15:/home/faridkarimli/test.txt .
faridkarimli@10.0.2.15's password:
scp: /home/faridkarimli/test.txt: No such file or directory
faridvm1@VM1:~$ scp faridkarimli@10.0.2.15:/home/faridkarimli/test.txt .
faridkarimli@10.0.2.15's password:
test.txt                               100%  22    0.3KB/s   00:00
faridvm1@VM1:~$ cat test.txt
Hello OS Lab 4 Part 1
faridvm1@VM1:~$
```

May 14 22:12



faridkarimli@faridkarimli-VirtualBox: ~



```
faridkarimli@faridkarimli-VirtualBox:~$ whoami
faridkarimli
faridkarimli@faridkarimli-VirtualBox:~$ echo "Hello OS Lab 4 Part 1" > /home/far
idkarimli/test.txt
faridkarimli@faridkarimli-VirtualBox:~$ ls
d1          Downloads  f1          Music       Public      Templates   x
d2          ex1        f3          newFolder   reader      test.txt
Desktop     ex2        f4          Pictures    snap        Videos
Documents  ex3        'Lab - 3'   program     subdir      writer
faridkarimli@faridkarimli-VirtualBox:~$
```



Home



100 packages can be upgraded. Run 'apt list --upgradable' to see them.

```
faridkarimli@faridkarimli-VirtualBox:~$ sudo apt install phyton3 -y
```

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

**E:** Unable to locate package phyton3

```
faridkarimli@faridkarimli-VirtualBox:~$
```

2. Unable to locate package python3-xyz

```
faridkarimli@faridkarimli-VirtualBox:~$ sudo apt install python3-cryptography
```

Reading package lists... Done

Building dependency tree... Done

Reading state information... Done

python3-cryptography is already the newest version (41.0.7-4ubuntu0.1).

python3-cryptography set to manually installed.

0 upgraded, 0 newly installed, 0 to remove and 402 not upgraded.

```
faridkarimli@faridkarimli-VirtualBox:~$
```

Files

Recent

Starred

Home

Documents

Downloads

Music

Pictures

Videos

Trash

Other Locations

Home / output\_le

images

azerbaijani.txt

Football\_players.csv

korean.txt

log.txt

metadata.txt

natavan.txt

NBA\_players.csv

nizami.txt

log.txt

~/output\_le

xt

korean.txt

azerbaijani.txt

nizami.txt

natavan.txt

log.txt

Error extracting file at index 0: Incorrect padding  
Error extracting file at index 3: Incorrect padding  
Error extracting file at index 9:



Files

Recent

Starred

Home

Documents

Downloads

Music

Pictures

Videos

Trash

Other Locations

Home / output\_le / images

placeholder.png

placeholder.png

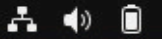
Could not load image "placeholder.png".

Fatal error reading PNG image file: Not a PNG file

Cancel

```
faridkarimli@faridkarimli-VirtualBox: ~  
faridkarimli@faridkarimli-VirtualBox:~$ python3 archextract.py -i test_fernet.bin -o output_test -v 1  
Traceback (most recent call last):  
  File "/home/faridkarimli/archextract.py", line 87, in extract_archive  
    original_size, offset = read_uint(data, offset, 8, endian)  
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  
  File "/home/faridkarimli/archextract.py", line 32, in read_uint  
    return struct.unpack_from(fmt, data, offset)[0], offset + size  
    ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  
struct.error: unpack_from requires a buffer of at least 2002270298 bytes for unpacking 8 bytes at offset 2002270290 (actual buffer size is 184)  
  
During handling of the above exception, another exception occurred:  
  
Traceback (most recent call last):  
  File "/home/faridkarimli/archextract.py", line 158, in <module>  
    extract_archive(bin_data, args.o, verbose=args.v)  
  File "/home/faridkarimli/archextract.py", line 135, in extract_archive  
    metadata_lines.append(f"ERROR_{index}\tERROR\tERROR\t{method_str}: {e}")  
    ^^^^^^^^^^^^^  
UnboundLocalError: cannot access local variable 'method_str' where it is not associated with a value  
faridkarimli@faridkarimli-VirtualBox:~$
```

May 16 09:04



faridkarimli@faridkarimli-VirtualBox: ~



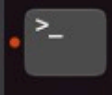
```
faridkarimli@faridkarimli-VirtualBox:~$ nano archextract.py
faridkarimli@faridkarimli-VirtualBox:~$ chmod +x archextract.py
faridkarimli@faridkarimli-VirtualBox:~$ python3 archextract.py -i archive_le.hex
-o output_le -v 1
[*] Extracting: english.txt (fernet)
[*] Extracting: azerbaijani.txt (lzma)
[*] Extracting: korean.txt (none)
[*] Extracting: sabir.txt (fernet)
[*] Extracting: natavan.txt (zlib)
[*] Extracting: nizami.txt (lzma)
[*] Extracting: NBA_players.csv (zlib)
[*] Extracting: Football_players.csv (lzma)
[*] Extracting: images/placeholder.png (zlib)
[*] Extracting: documents/reports/annual_report.txt (fernet)
Extraction complete.
faridkarimli@faridkarimli-VirtualBox:~$
```



Home



May 16 09:05



Files



Recent

Starred

Home

Documents

Downloads

Music

Pictures

Videos

Trash

+ Other Locations



Home / output\_le



documents



images



azerbaijani.txt



english.txt



Football\_players.csv



korean.txt



log.txt



metadata.txt



natavan.txt



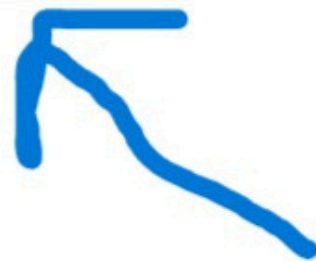
NBA\_players.csv



nizami.txt




sabir.txt



"sabir.txt" selected (309 bytes)

t

Open  metadata.txt  
~/output\_txt

annual\_report.txt | sabir.txt | metadata.txt | azerbaijani.txt | metadata.txt x

```
ERROR_0 ERROR ERROR fernet:
ERROR_1 ERROR ERROR fernet: 'utf-8' codec can't decode byte
0xa8 in position 25: invalid start byte
ERROR_2 ERROR ERROR fernet: 'utf-8' codec can't decode byte
0xa8 in position 21: invalid start byte
ERROR_3 ERROR ERROR fernet: 'utf-8' codec can't decode byte
0xa8 in position 17: invalid start byte
ERROR_4 ERROR ERROR fernet: 'utf-8' codec can't decode byte
0xa8 in position 13: invalid start byte
ERROR_5 ERROR ERROR fernet: 'utf-8' codec can't decode byte
0xa8 in position 9: invalid start byte
ERROR_6 ERROR ERROR fernet: 'utf-8' codec can't decode byte
0xa8 in position 5: invalid start byte
ERROR_7 ERROR ERROR none: [Errno 21] Is a directory:
'output_txt/'
```

Open ▾



log.txt

~/output\_txt



tab

sabir.txt

metadata.txt

azerbaijani.txt

metadata.txt

log.txt



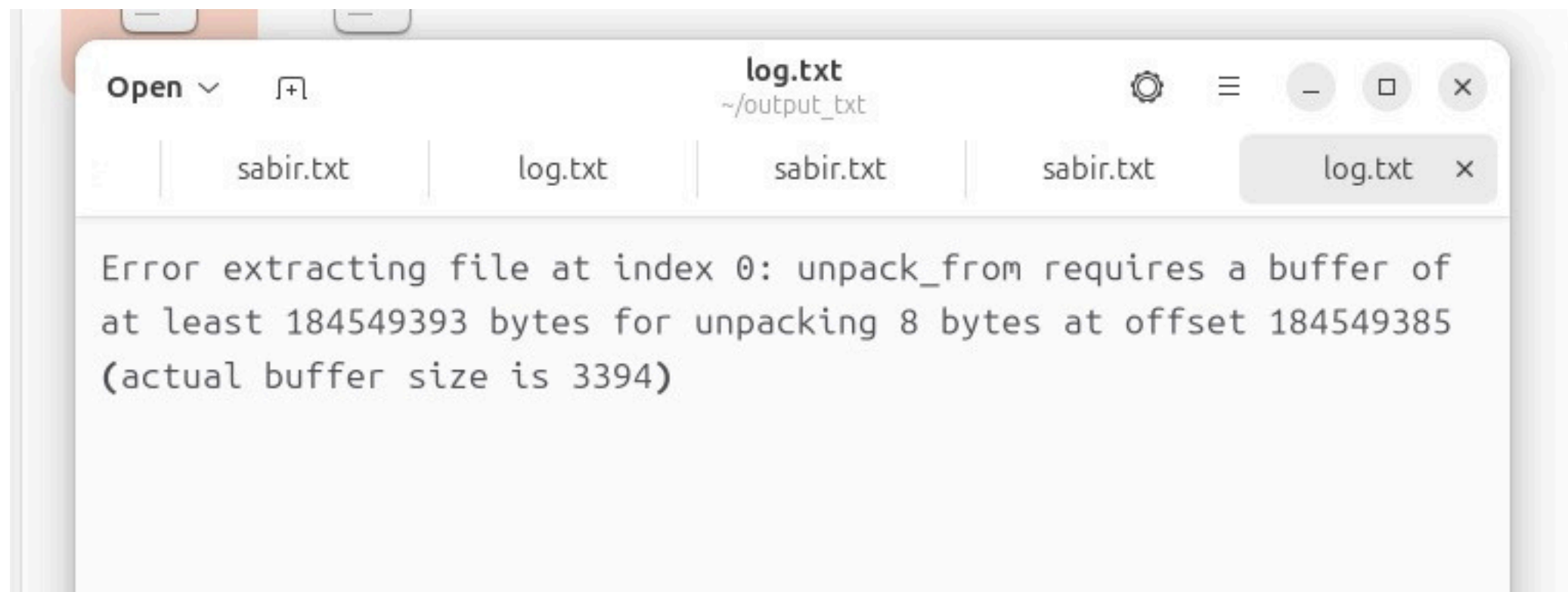
```
Error extracting file at index 0:
Error extracting file at index 1: 'utf-8' codec can't decode byte
0xa8 in position 25: invalid start byte
Error extracting file at index 2: 'utf-8' codec can't decode byte
0xa8 in position 21: invalid start byte
Error extracting file at index 3: 'utf-8' codec can't decode byte
0xa8 in position 17: invalid start byte
Error extracting file at index 4: 'utf-8' codec can't decode byte
0xa8 in position 13: invalid start byte
Error extracting file at index 5: 'utf-8' codec can't decode byte
0xa8 in position 9: invalid start byte
Error extracting file at index 6: 'utf-8' codec can't decode byte
0xa8 in position 5: invalid start byte
Error extracting file at index 7: [Errno 21] Is a directory:
'output_txt/'
```

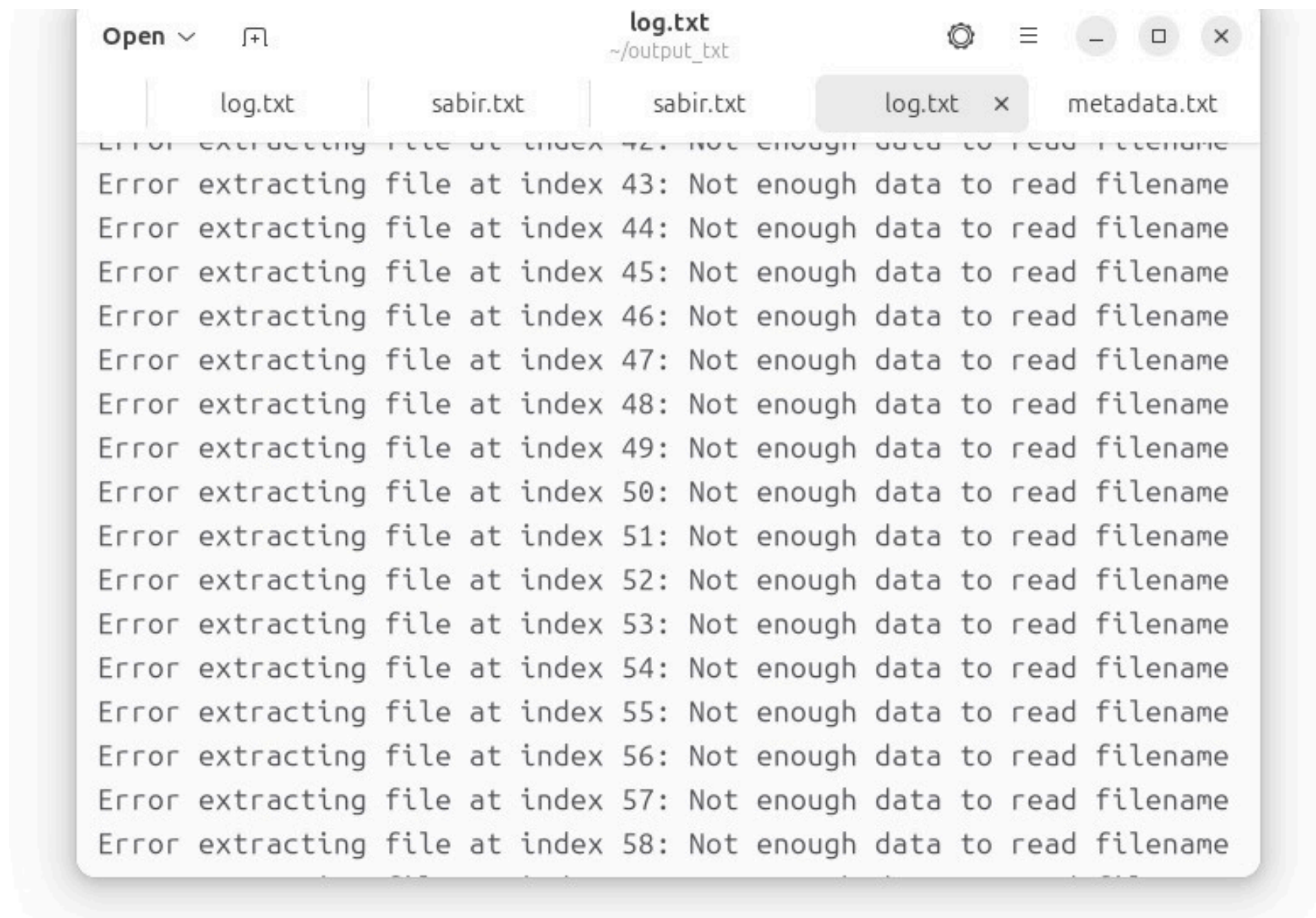


```
faridkarimli@faridkarimli-VirtualBox:~$ python3 archextract.py -i archive_le_wit
h_offsets.txt -o output_txt -v 1
Traceback (most recent call last):
  File "/home/faridkarimli/archextract.py", line 93, in extract_archive
    filename = data[offset:offset+name_length].decode('utf-8')
               ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^
UnicodeDecodeError: 'utf-8' codec can't decode byte 0x9d in position 11: invalid
start byte

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "/home/faridkarimli/archextract.py", line 162, in <module>
    extract_archive(bin_data, args.o, verbose=args.v)
  File "/home/faridkarimli/archextract.py", line 142, in extract_archive
    metadata_lines.append(f"ERROR_{index}\tERROR\tERROR\t{method_str}: {e}")
                           ^^^^^^^^^^^
UnboundLocalError: cannot access local variable 'method_str' where it is not ass
ociated with a value
faridkarimli@faridkarimli-VirtualBox:~$
```







log.txt

metadata.txt

Open ▾



log.txt

~/output\_txt



log.txt

sabir.txt

sabir.txt

log.txt



metadata.txt

```
Error extracting file at index 98: Not enough data to read filename
Error extracting file at index 99: Not enough data to read filename
Error extracting file at index 100: Not enough data to read
filename
Error extracting file at index 101: Not enough data to read
filename
Error extracting file at index 102: Not enough data to read
filename
Error extracting file at index 103: Not enough data to read
filename
Error extracting file at index 104: Not enough data to read
filename
Error extracting file at index 105: Not enough data to read
filename
Error extracting file at index 106: Not enough data to read
filename
```

```
faridkarimli@faridkarimli-VirtualBox: ~  
[*] Extracting: Football_players.csv (lzma)  
[*] Extracting: Tennis_players.csv (fernet)  
[*] Extracting: movies.json (fernet)  
[*] Extracting: images/test_image.png (zlib)  
[*] Extracting: images/test_image.jpg (lzma)  
[*] Extracting: images/icon.png (zlib)  
[*] Extracting: images/banner.jpg (lzma)  
[*] Extracting: documents/reports/annual_report.txt (fernet)  
[*] Extracting: index.html (lzma)  
Extraction complete.  
faridkarimli@faridkarimli-VirtualBox:~$ python3 archextract.py -i archive_le.hex  
-o output_le3 -v 1  
[*] Extracting: english.txt (fernet)  
[*] Extracting: azerbaijani.txt (lzma)  
[*] Extracting: korean.txt (none)  
[*] Extracting: sabir.txt (fernet)  
[*] Extracting: natavan.txt (zlib)  
[*] Extracting: nizami.txt (lzma)  
[*] Extracting: NBA_players.csv (zlib)  
[*] Extracting: Football_players.csv (lzma)  
[*] Extracting: images/placeholder.png (zlib)  
[*] Extracting: documents/reports/annual_report.txt (fernet)  
Extraction complete.  
faridkarimli@faridkarimli-VirtualBox:~$
```

