



CREATING A DISK IMAGE AND INVESTIGATING IT USING AUTOPSY

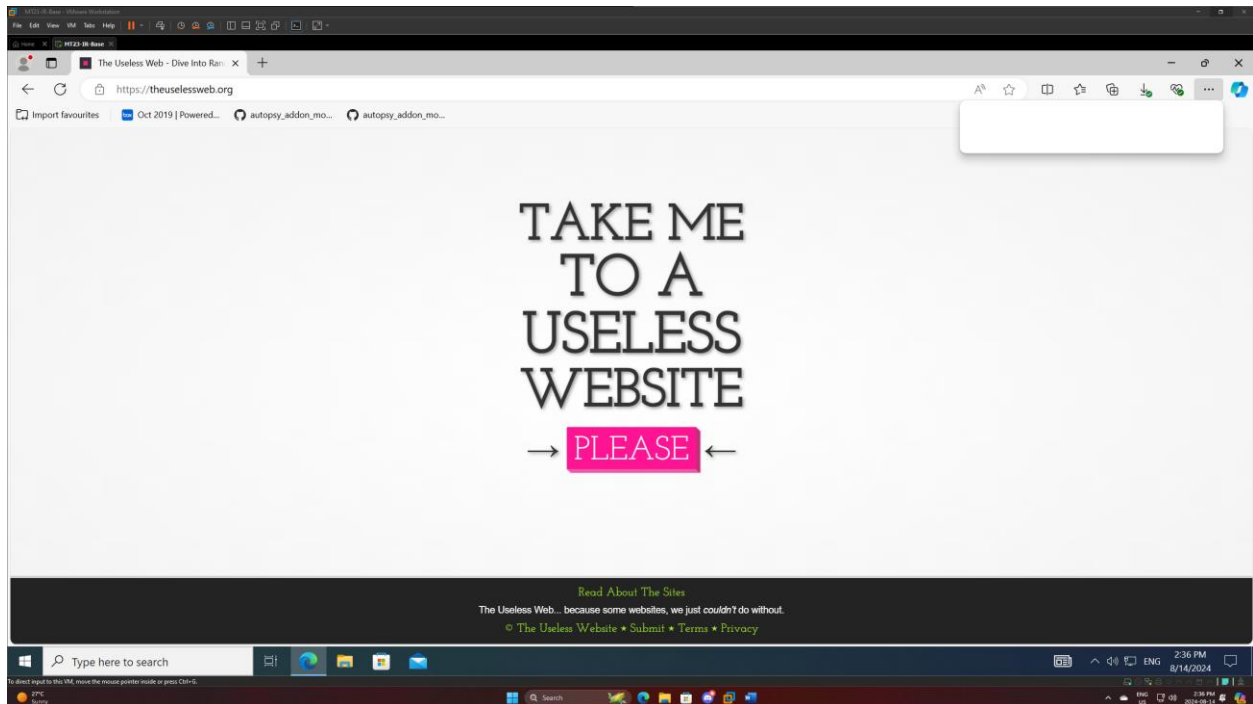
Jordan Patterson
2024

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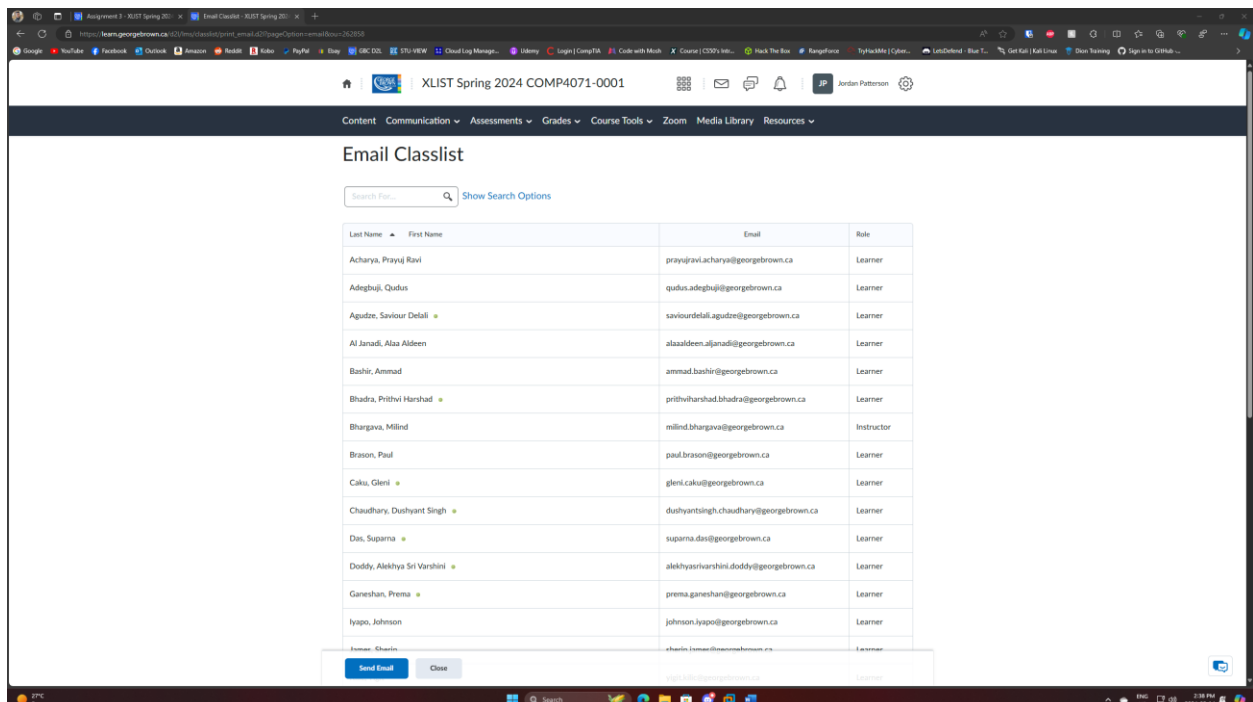
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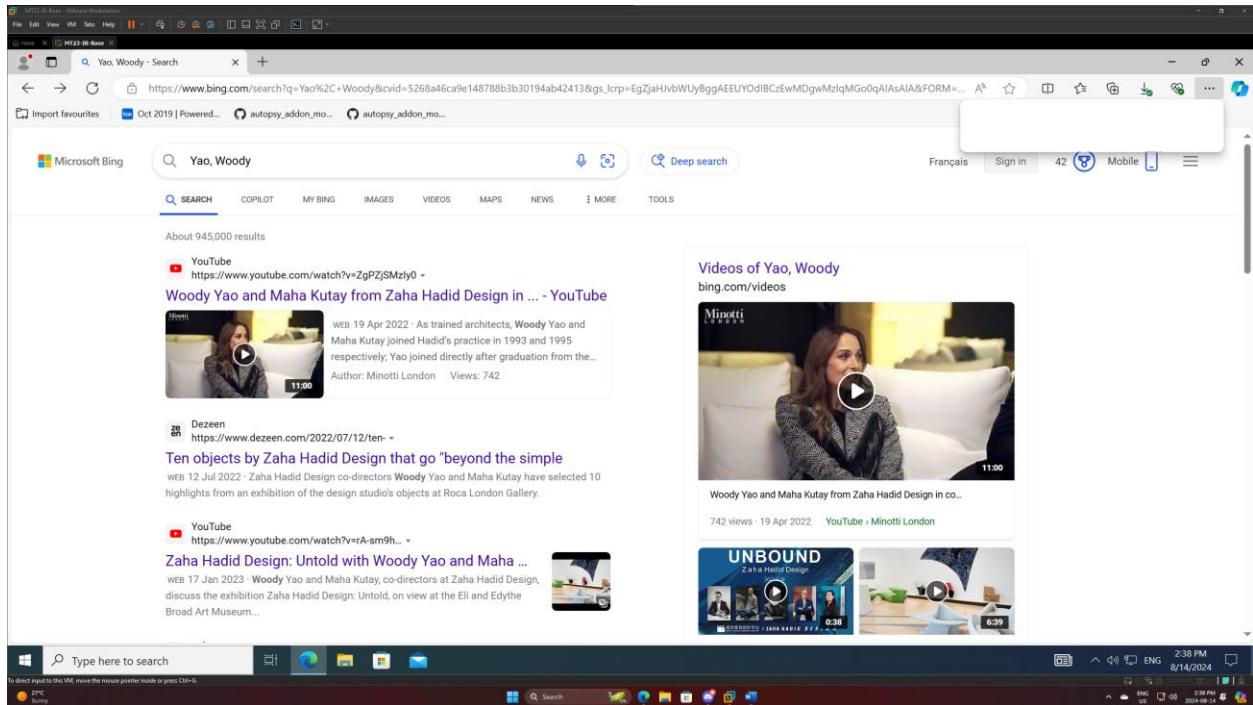
Virtual Machine preparation:

I Began this assignment by visiting the 10 websites provided in the assignment instructions.



Once all 10 sites were visited, I procured a list of all of my classmates names from D2L and searched for them each one at a time and visited the first 5 search results for each classmate.





I then visited Phishtank.org, navigated to their phish search section, and visited the first 10 websites that were validated as phishing and still online.

All sites visited:

https://docs.google.com/presentation/d/1wRmE87a5ZYfMlCs87z_VUyvMkBQYiiBC-Ehep6B-U2w/pub?start=false&loop=false&delayms=3000&slide=id.p

<http://validacion01020.serv00.net>

<https://onlinegtcgtq.netlify.app/>

https://notontop.com/extracte_wordprees/flbigsar/affinity-access/ss.html

https://docs.google.com/presentation/d/e/2PACX-1vQ2jnybVRYpr1ValOAVcoxIJ2xOt9RH7uNhVZ1TY00_Ag3LZK1KZ-HwSueffnq62cBjQUBIfU_RBKYK/pub?start=false&loop=false&delayms=3000&slide=id.p

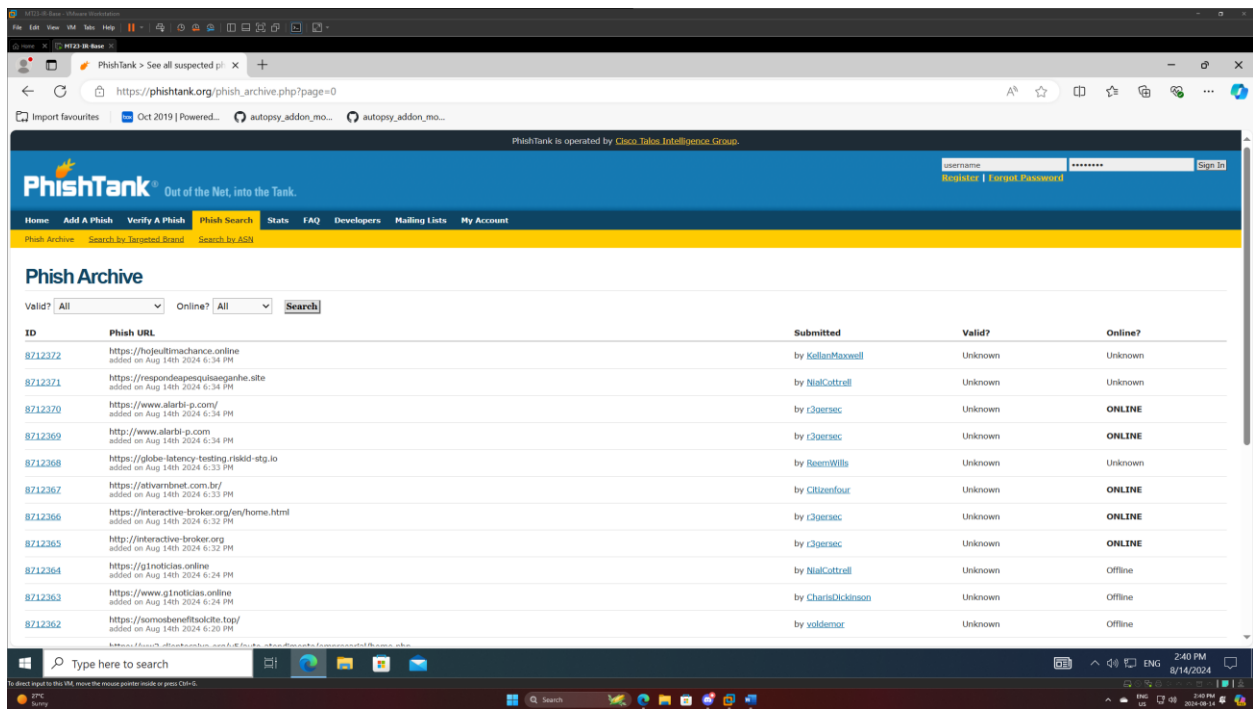
<https://7739707.weebly.com/>

<https://docs.google.com/presentation/d/1McJ1lzl94YhSLQarmYOMSEv5JdUtDGCWLnK5n9y-hfs/pub?start=false&loop=false&delayms=3000&pli=1&slide=id.p>

<https://bonusnot.com/s/vKmul>

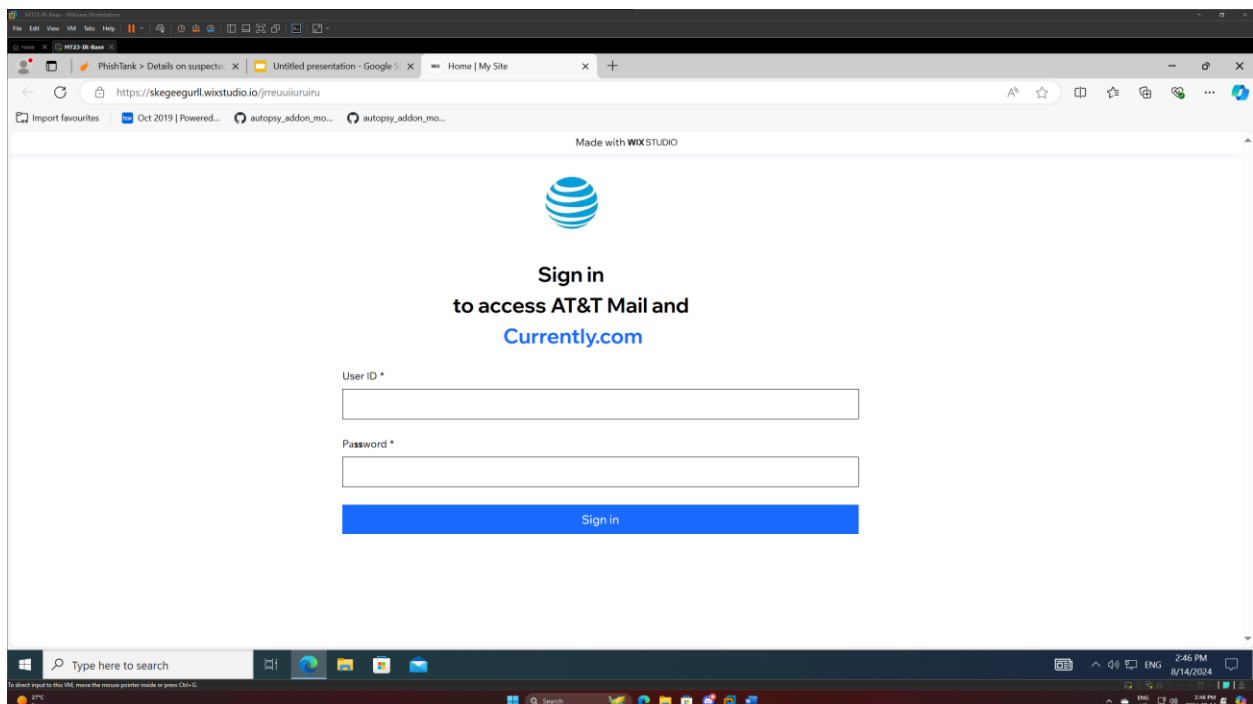
<https://xazjm.hp.peraichi.com/>

<https://02i1yah030ei-i9i1oi2-winios12-ios19.netlify.app/>



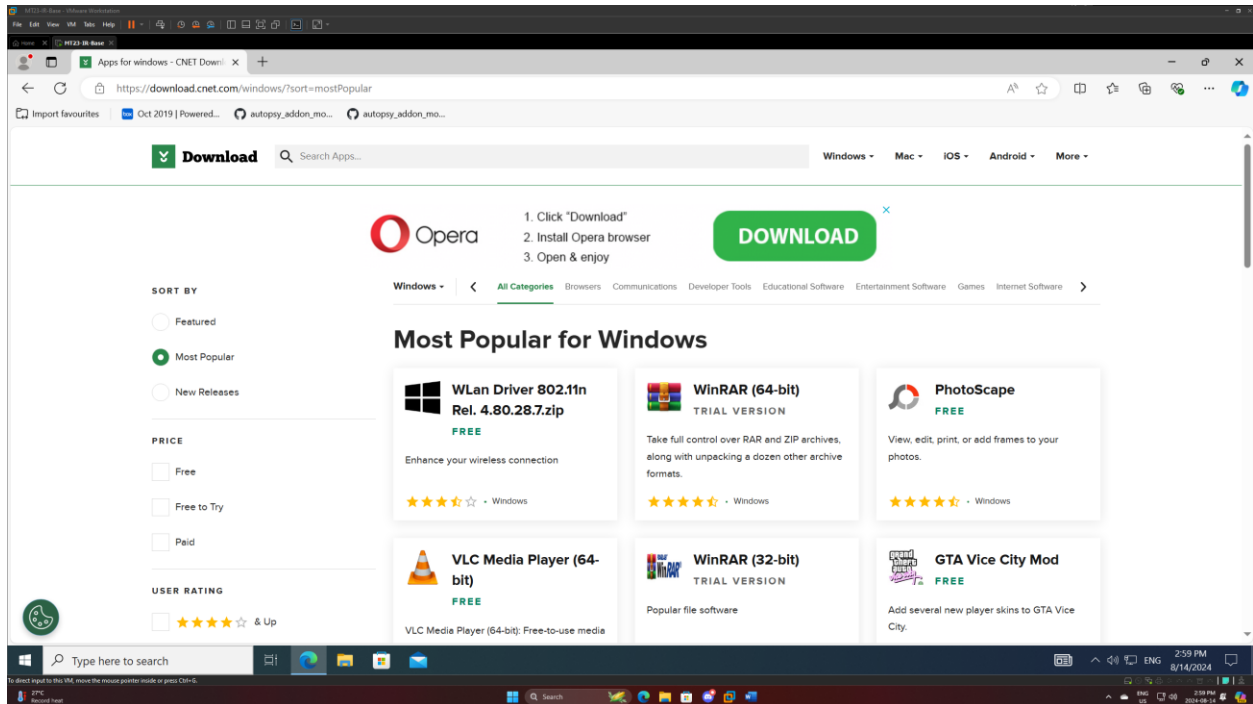
If any site required personal information or sign-in credentials, I generated them using <https://www.fakenamegenerator.com/>

Example of a phishing site that was visited during this exercise:



Once this task was completed, I visited the website

<https://download.cnet.com/windows/?sort=mostPopular> and then select and downloaded 10 non-security related applications.



The chosen applications were the following:

https://download.cnet.com/vlc-media-player-64-bit/3000-13632_4-75761094.html

https://download.cnet.com/need-for-speed-underground-2/3000-7513_4-10331372.html

https://download.cnet.com/marvell-libertas-802-11gb-wireless-lan-client-adapter/3000-2112_4-166388.html

https://download.cnet.com/sketchup-make-2017/3000-6677_4-10257337.html

https://download.cnet.com/poweriso-64-bit/3000-2646_4-76116067.html

https://download.cnet.com/virtualdj-2020/3000-18502_4-10212112.html

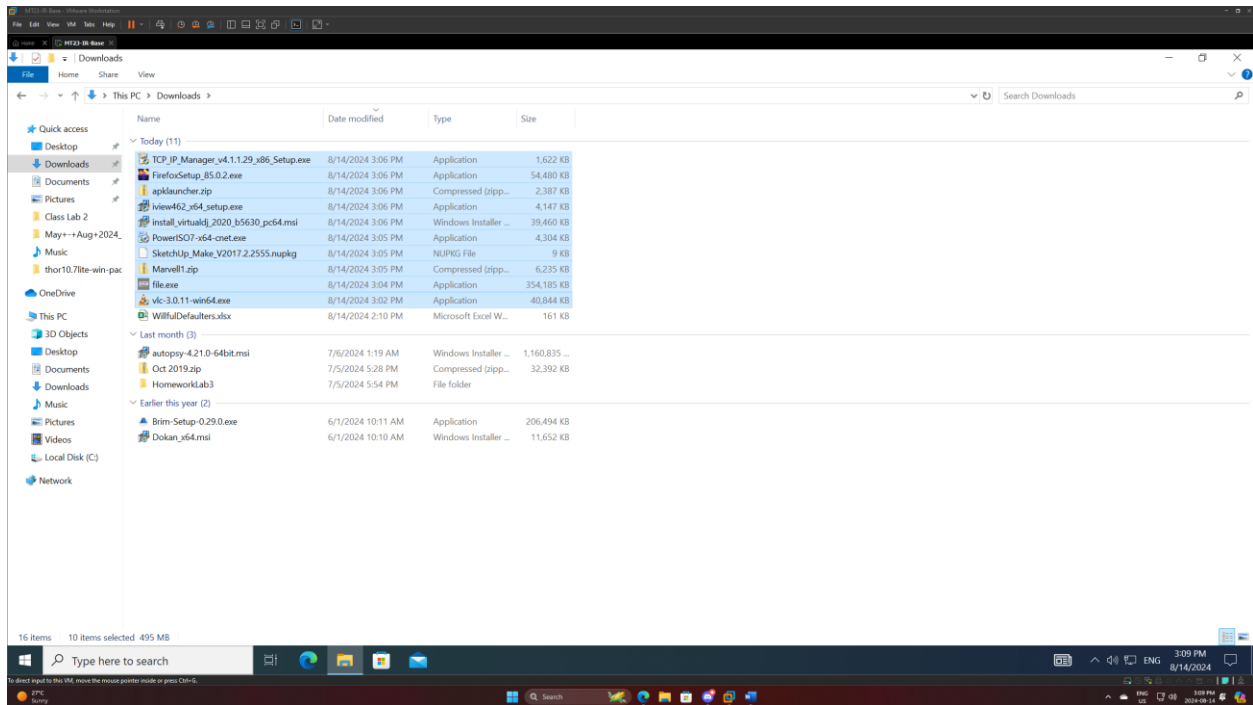
https://download.cnet.com/irfanview-64-bit/3000-2192_4-76444710.html

https://download.cnet.com/apk-installer-and-launcher/3000-20432_4-75915554.html

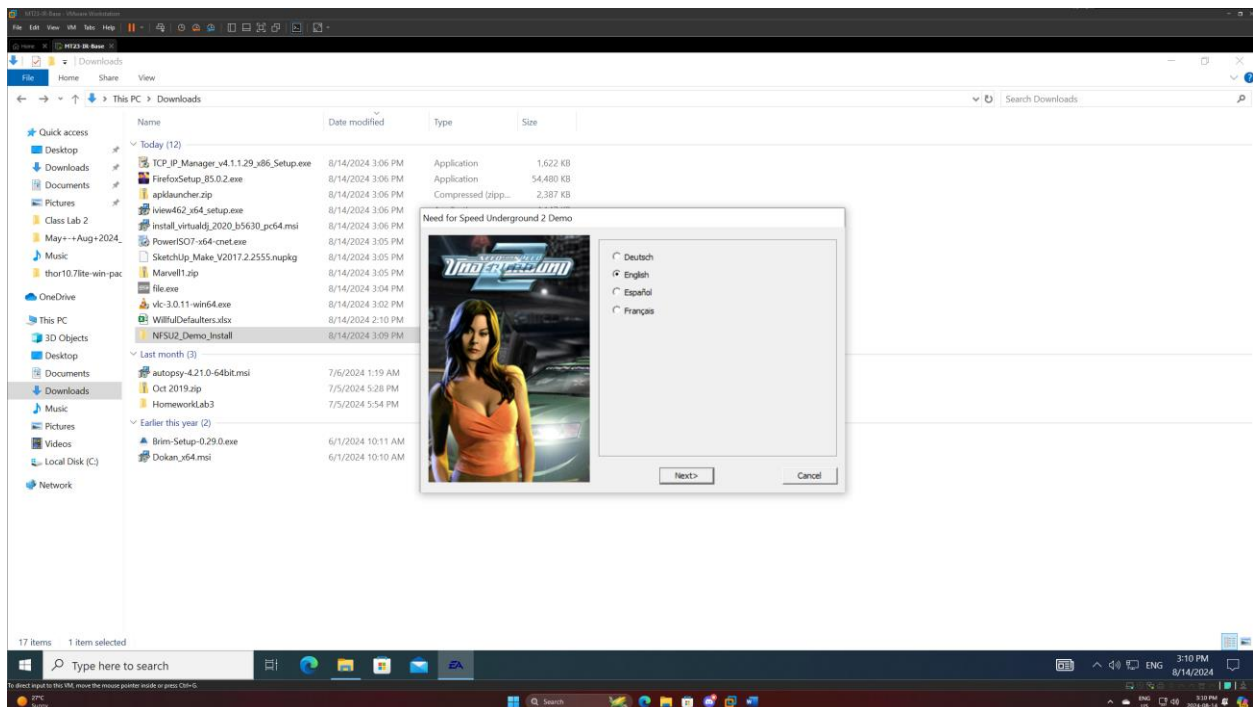
https://download.cnet.com/mozilla-firefox-64-bit/3000-2356_4-76472513.html

https://download.cnet.com/tcpip-manager/3000-2085_4-75031125.html

The list of applications provided to me by the links above:

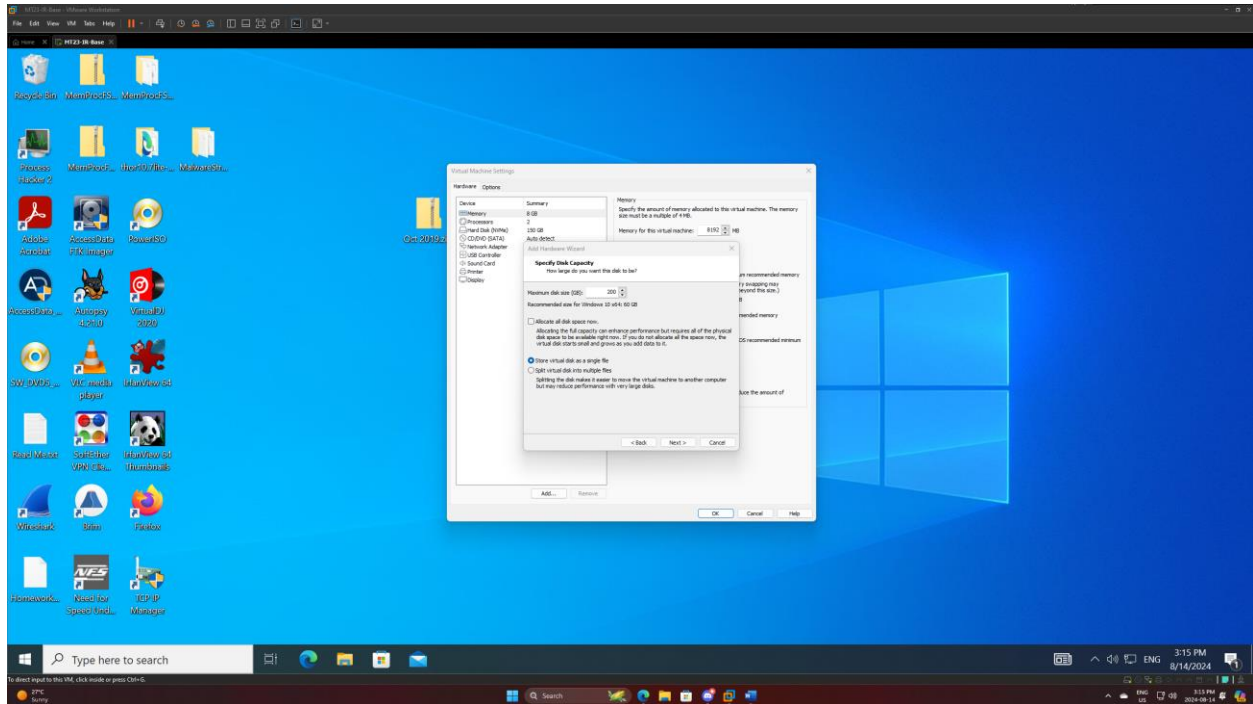


Once all of the installation files were acquired, I installed all of them

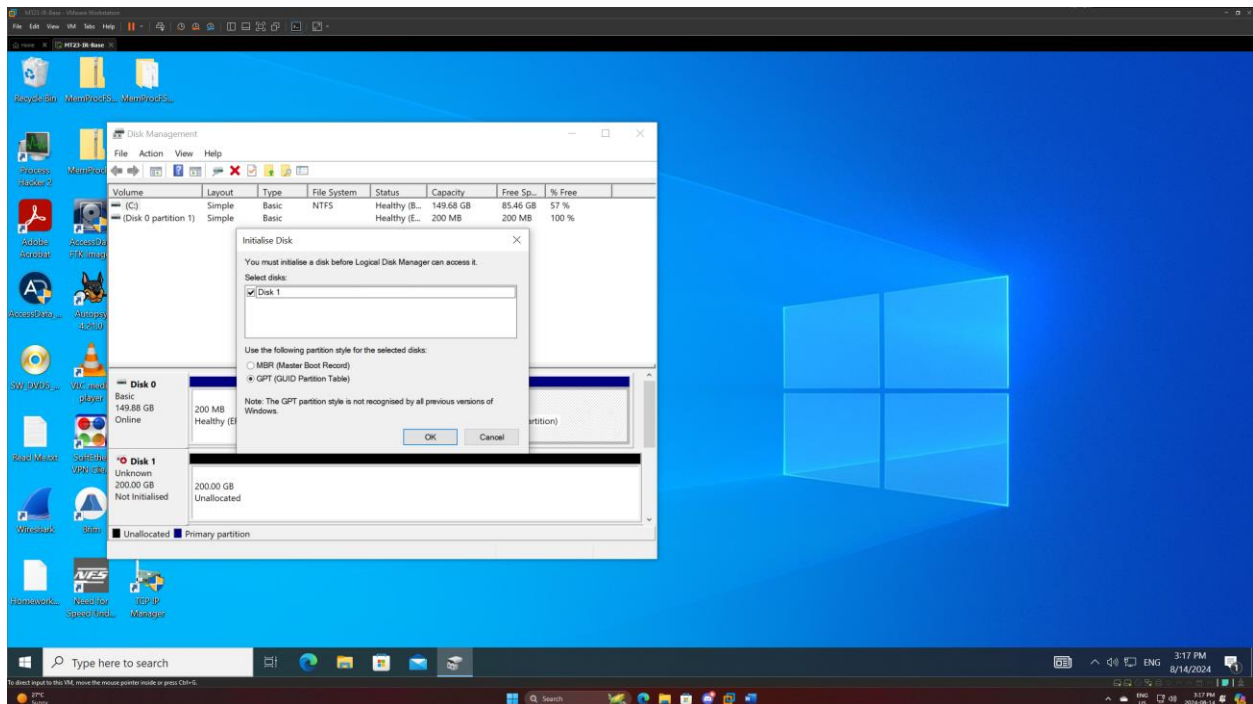


VM Drive Cloning:

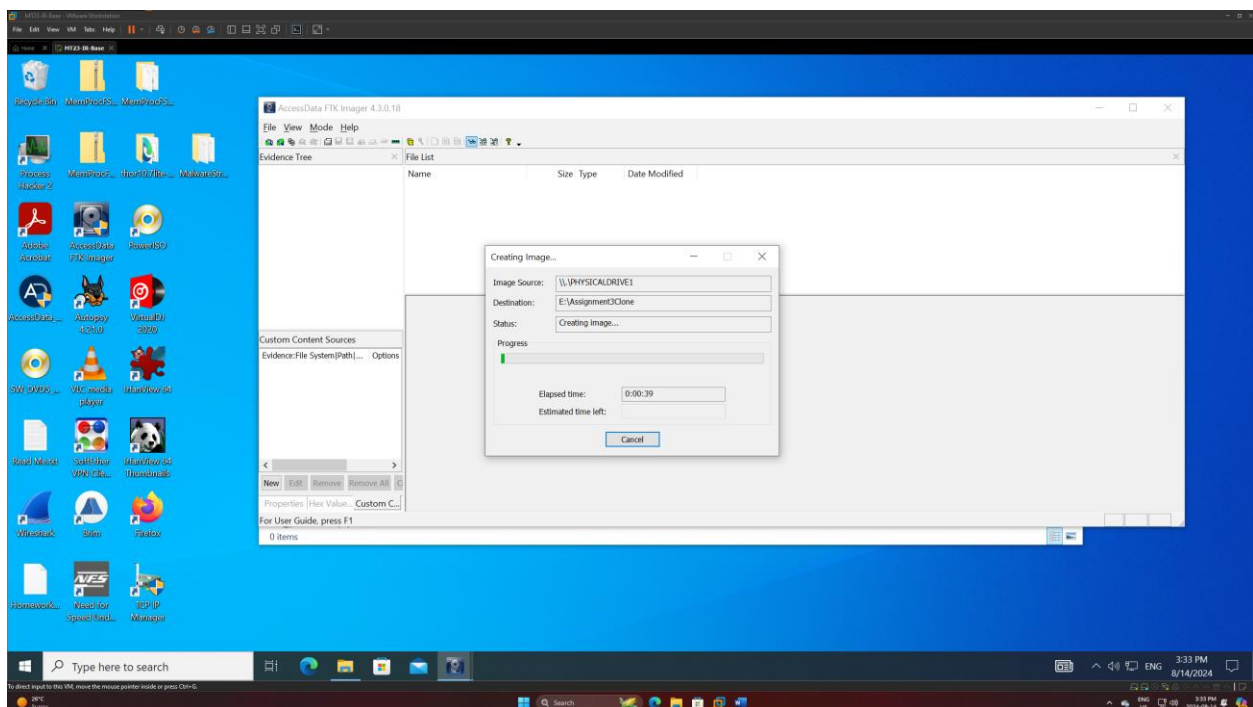
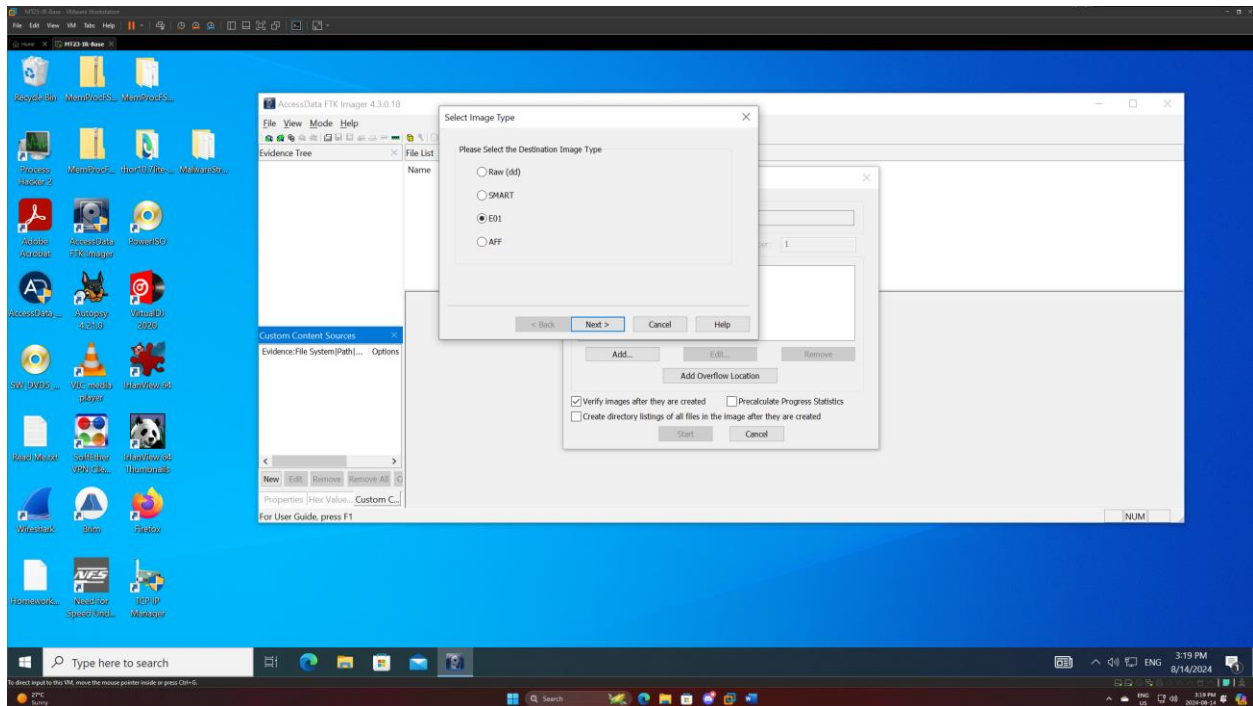
For my next step I opened the VM's properties and created a secondary 200gb disk comprised of a single file.



Within the VM, I initialized and properly formatted the new disk



Using FTK Imager, I then cloned the C: Drive of the VM to the newly created drive using the E01 Image type.

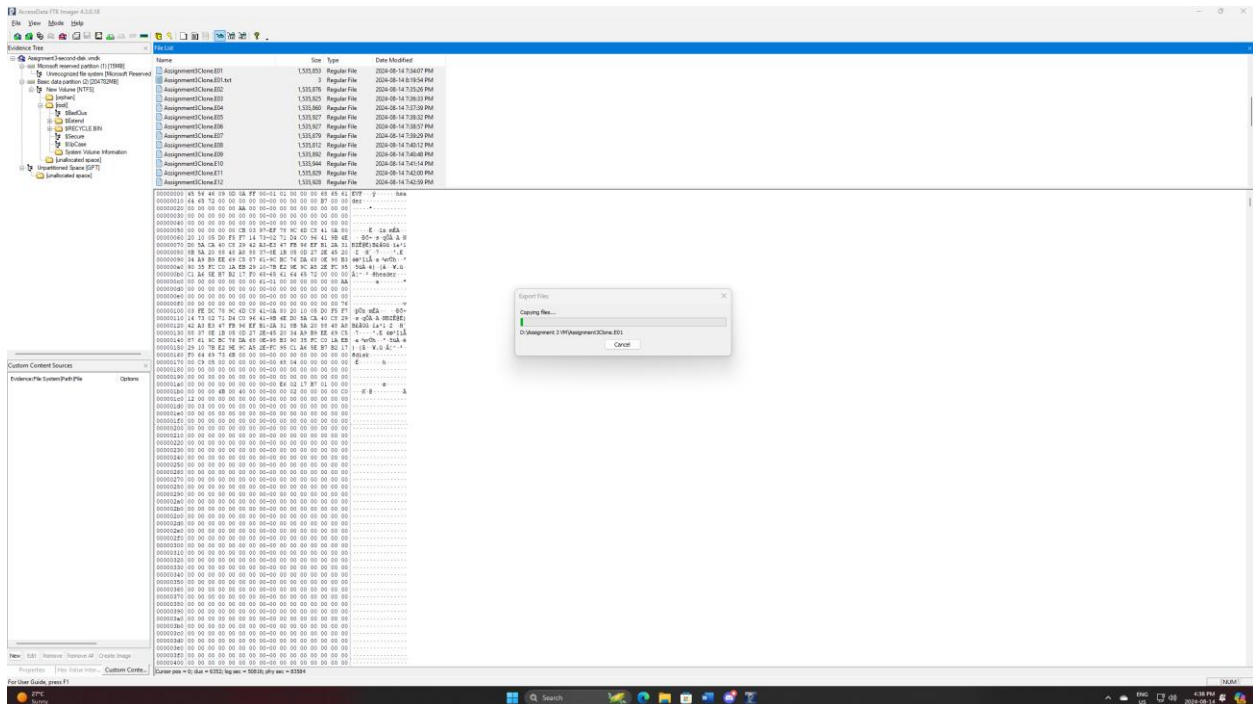


Once the drive was cloned, I shut down the VM

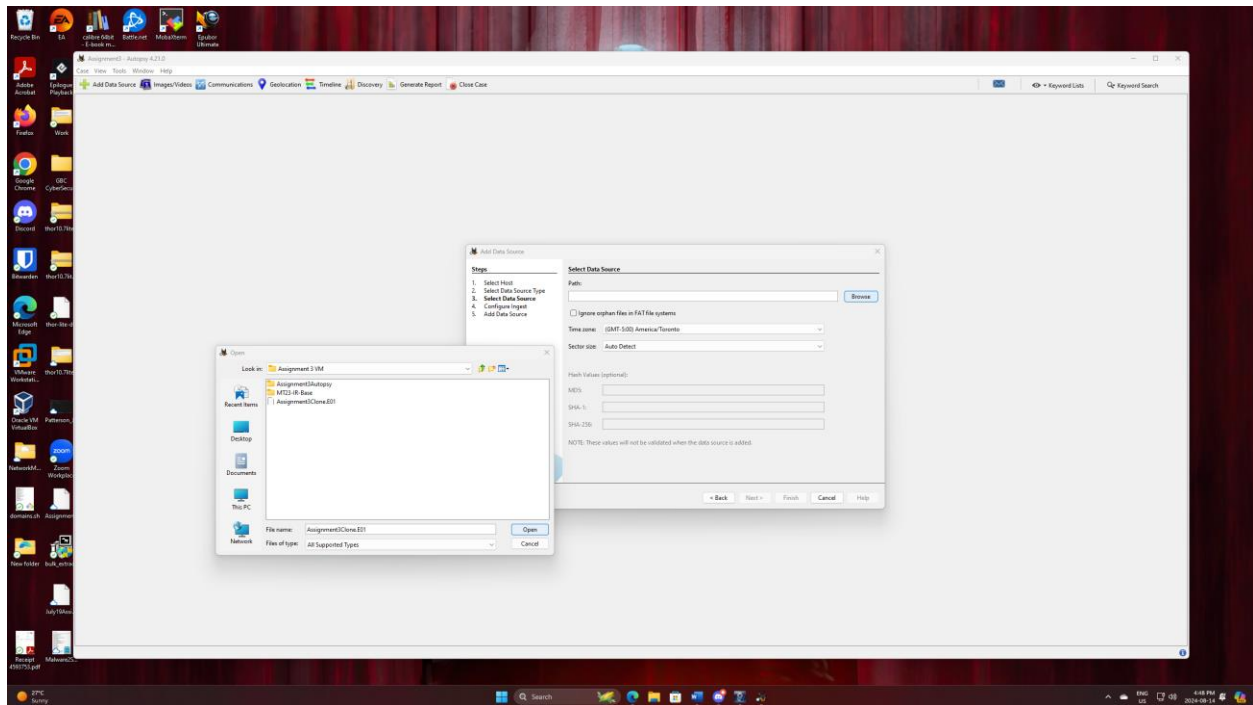
Autopsy Analysis:

On my host machine, I opened FTK Imager and mounted my VM's secondary 200gb drive.

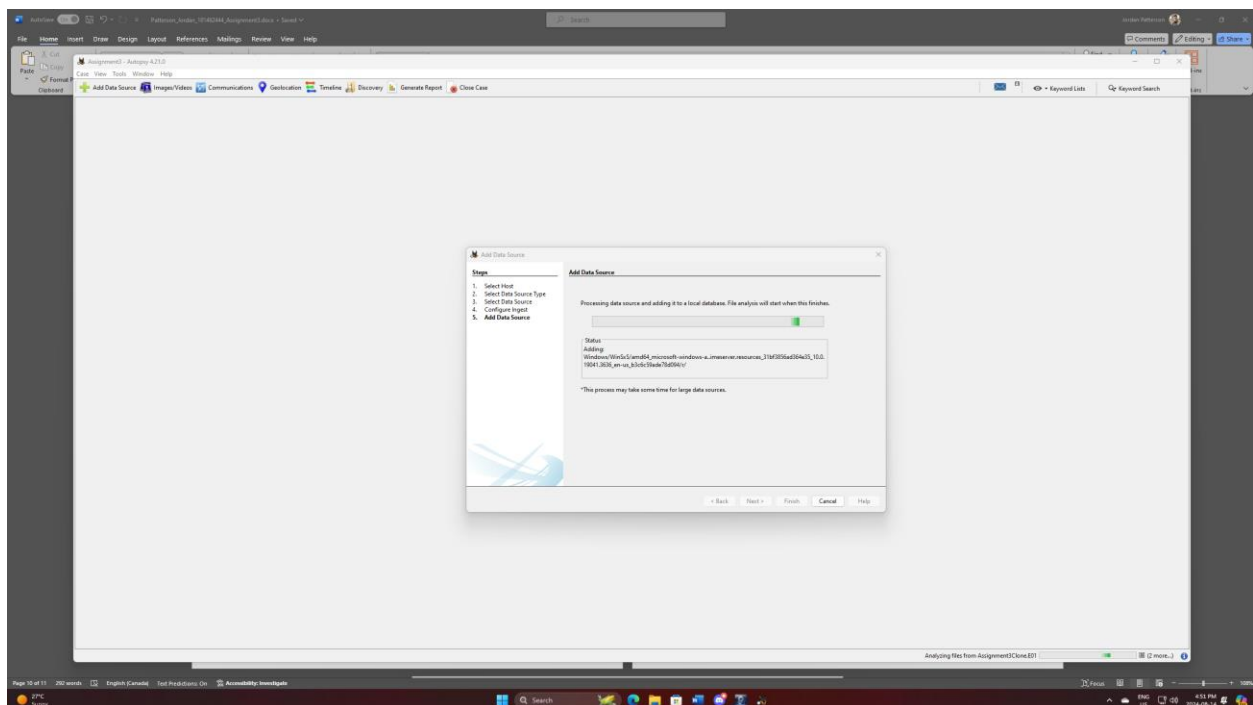
I then copied the .E01 files created based of the image of my VM's C: drive onto my host machine using FTK Imager.



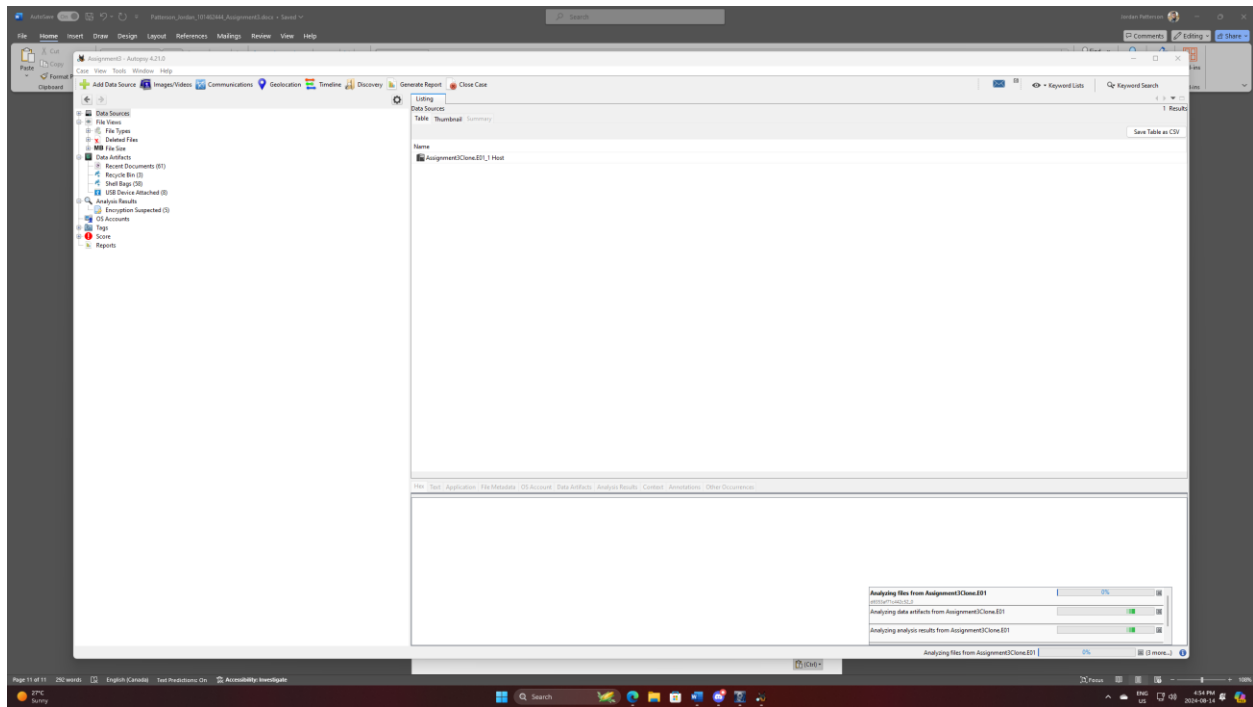
Once copied, I loaded the .E01 files into Autopsy for further analysis.



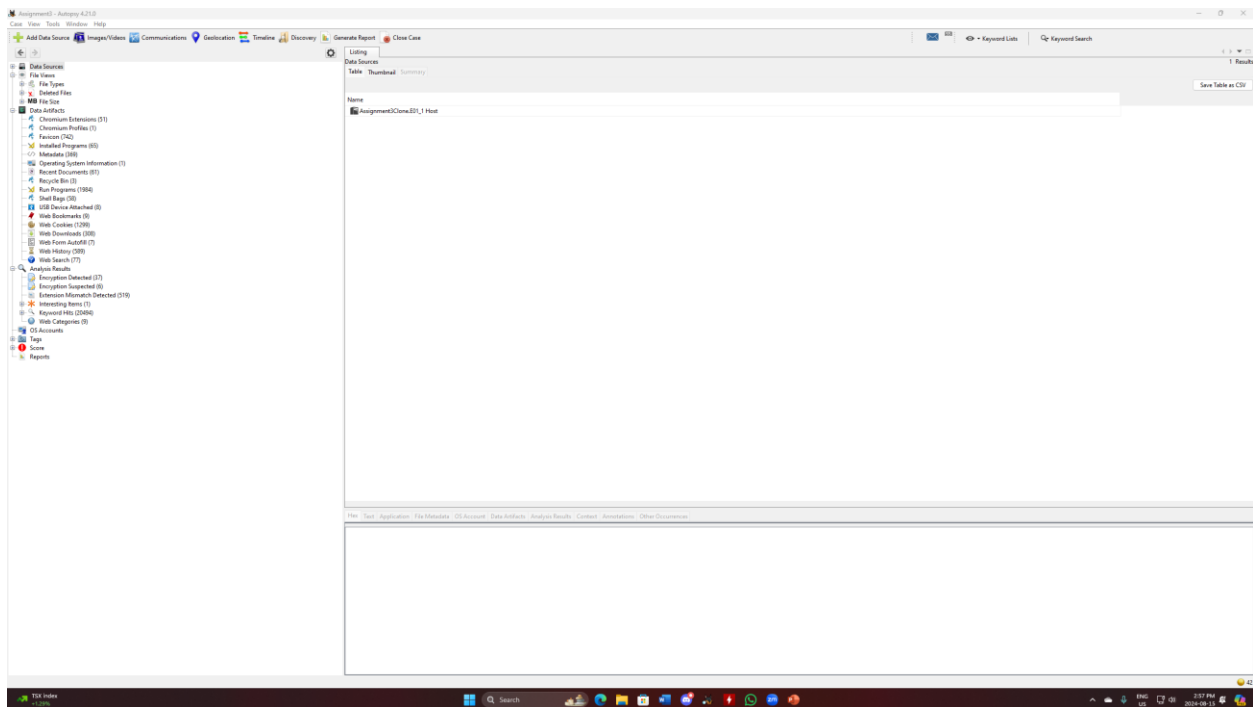
Autopsy Beginning Analysis:



Autopsy Analysis in Progress:



Autopsy Analysis Complete:



How many times was smartscreen invoked including timestamps for each?

In Autopsy, under “Data Artifacts” I found the “Run Programs” tab. Since I was looking for the amount of time SmartScreen was executed, I decided to start my search there. I found that Smartscreen was invoked 8 times on my virtual machine.

The timestamps were as follows:

2024-08-14 15:08:45 EDT

2024-08-14 15:01:16 EDT

2024-08-14 14:40:12 EDT

2024-08-14 15:28:44 EDT

2024-08-14 14:21:17 EDT

2024-08-14 14:51:16 EDT

2024-08-14 14:31:16 EDT

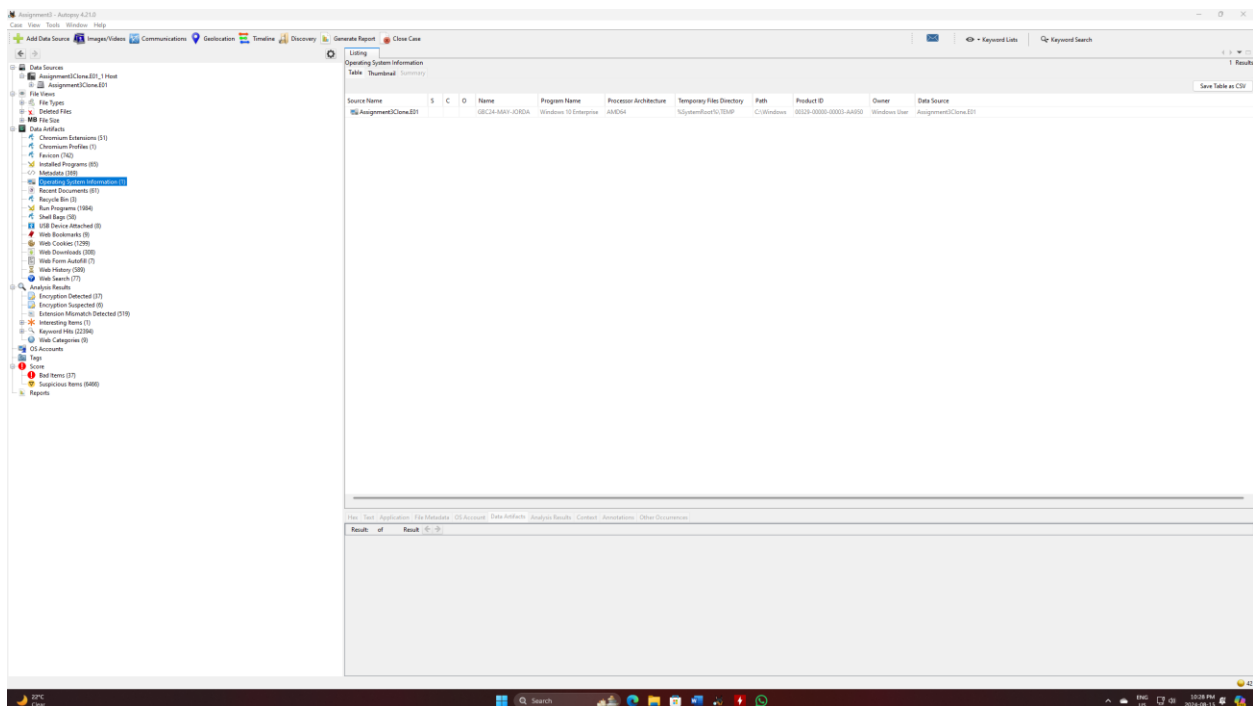
2024-08-14 14:09:54 EDT

[illegible]

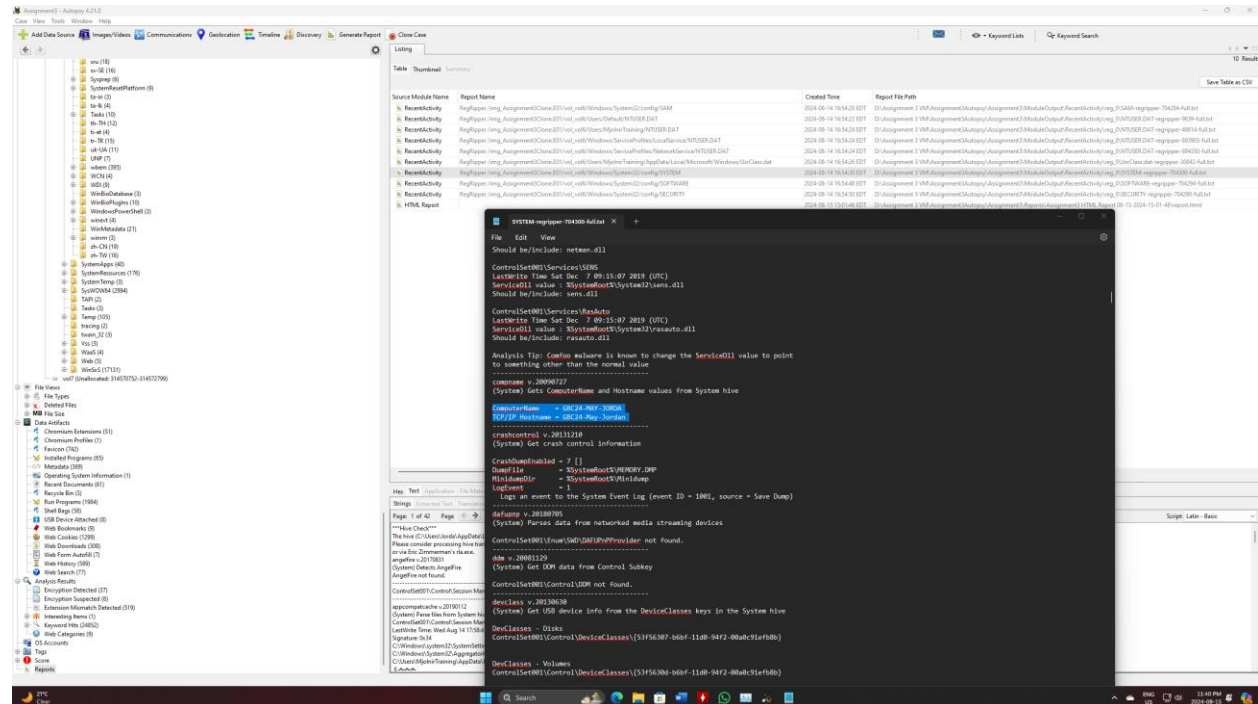
Hostname and OEM vendor of the machine

The Hostname of the machine is GBC24-May-Jordan.

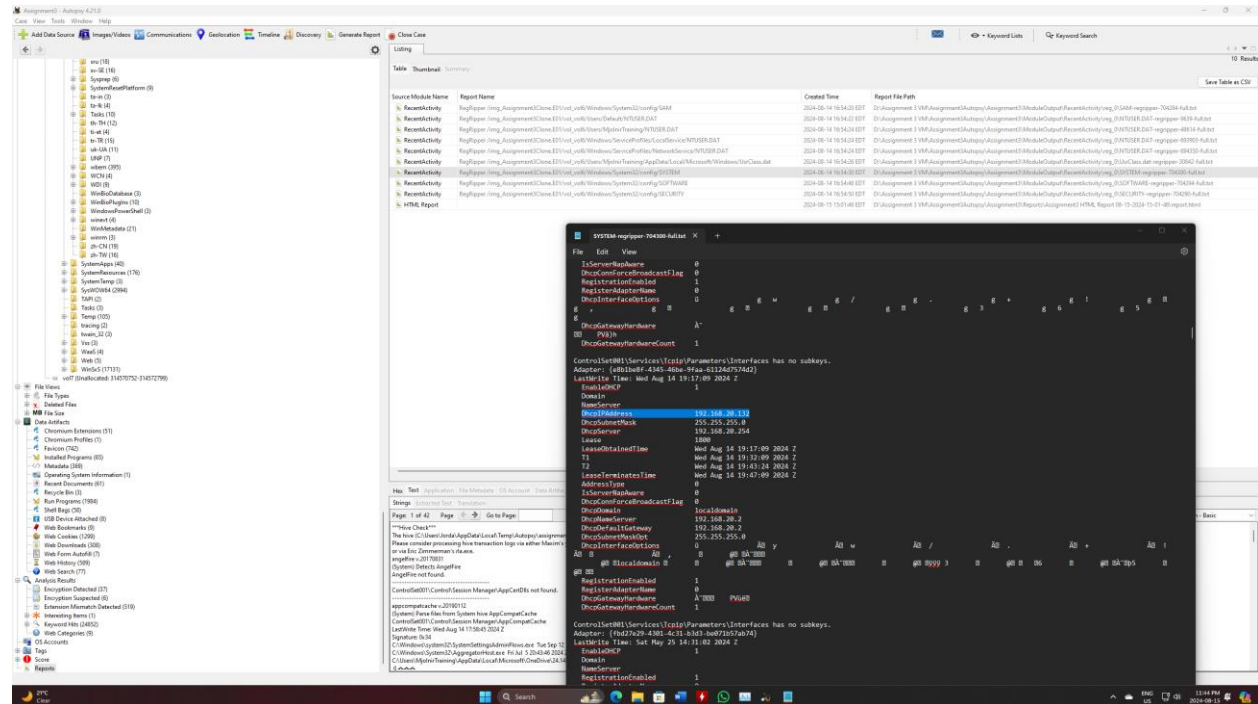
I initially found this information in the “Operating System Information” tab. The OEM vendor information of the machine has not been captured by Autopsy. Upon checking for the Registry key HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\OEMInformation in the regripper reports, it was not present. For this reason, the OEM vendor information could not be found. I suspect that the OEM vendor would be VMWare Inc. considering this is a VM created and running in VMWare.



RegRipper /img_Assignment3Clone.E01/vol_vol6/Windows/System32/config/SYSTEM



I was able to determine the IP address along with other Networking information. The IP address of this system is 192.168.20.132.



What was the auto suggest when you googled, was it completely off the target?

When googling the Auto Suggest seemed to be on target. In Autopsy, I opened the “Web Search” tab and viewed all of the searches that were made on this VM. All searches seemed to correspond to what I had intended to search for. I did not find any other information in Autopsy regarding Auto Suggest results.

[illegible]

Who is the author of all word documents?

I first found all of the word documents by going into the “FileViews” tab and then into the “Documents” tab and then choosing Office files. Once the office files were displayed I sorted them by filetype. This revealed that 25 word documents were found on the system. 23 .doc and 2 .docx files.

[illegible]

Doc2.doc found at the path below was authored by someone named Dudley McCullough and then further authored by Penelope Howe. The company that they/the file belongs to is Waelchi Group.

[illegible]

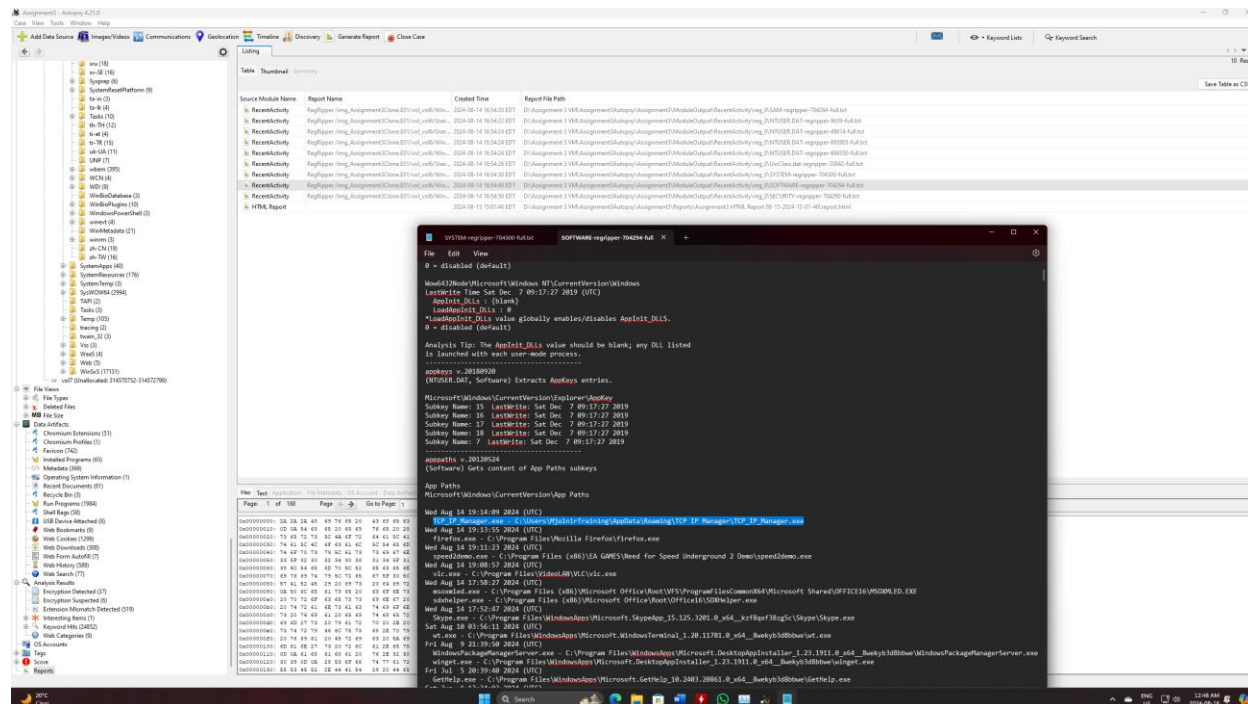
What applications were installed in 2024 and their paths?

I inspected the “Installed Programs” tab of Autopsy and found that 31 applications in the list were installed in 2024.

[illegible]

I then removed items from the list that were clearly components of the same install (example: Mozilla Maintenance Service is a part of Mozilla Firefox) and any installs that were clearly just a windows update or windows component updated by a Windows update. This left us with 12 legitimate installations 2024.

While the “Installed Programs” tab provided me with a list of applications installed in 2024, it did not seem to give me their path but instead gave me where the programs information was stored in the registry. I then opened the regripper Registry SOFTWARE report and searched for the applications in my list to get their actual installation paths.



The installed programs and their Paths are:

TCP/IP Manager 4.1.1

C:\Users\MjolinrTraining\AppData\Roaming\TCP IP Manager\TCP_IP_Manager.exe

Mozilla Firefox 85.0.1

C:\Program Files\Mozilla Firefox\firefox.exe

VirtualDJ 2020 v.8.4.5630.0

C:\Program Files\VirtualDJ\virtualdj8.exe

PowerISO v.8.0

C:\Program Files\PowerISO

Need for Speed Underground 2 Demo

C:\Program Files (x86)\EA GAMES\Need for Speed Underground 2 Demo\speed2demo.exe

VLC media player v.3.0.11

C:\Program Files\VideoLAN\VLC\vlc.exe

Microsoft Office Professional Plus 2019 - en-us v.16.0.17830.20138

C:\Program Files (x86)\Microsoft Office\Root\Office16

Autopsy v.4.21.0

C:\Program Files\Autopsy-4.21.0

AccessData FTK Imager v.4.3.0.18

C:\Users\MJOLNI~1\AppData\Local\Temp\{0693925F-95B9-4E99-9732-7C461AECC0CF}\AccessData_FTK_Imager_(x64).msi

Dokan Library 2.1.0.1000 (x64) v.2.1.0.1000

C:\Users\MjolinrTraining\Downloads\Dokan_x64.msi

SoftEther VPN Client v.4.43.9799

C:\Program Files\SoftEther VPN Client\vpnclient_x64.exe

VMware Tools v.12.4.0.23259341

C:\Program Files\VMware\VMware Tools\vmtoolsd.exe

Can you find consent?

I ran a keyword search for Consent and found a long list of consent. The consent that I believe we are looking for is found in /Windows/System32/Consent.exe

[illegible]

Using the “web History” time we can see that the user of this VM visited several time wasting and phishing websites as well as sites that contain possible malicious downloads. There were also sites and social media profiles visited pertaining to certain individuals.



The user of this VM also ran several google searches for the names of individuals. These names correspond the individuals described in the previous point.

The screenshot displays the Analityx A2.0 interface. The top navigation bar includes options like 'Case', 'View', 'Tools', 'Windows', and 'Help'. The main window is divided into several panes. On the left, there's a 'Data Sources' pane with a tree view showing various data sources. The central pane shows a table of search results for 'Consent.exe'. The table has columns for 'Source Name', 'S', 'C', 'D', 'Domain', 'Text', 'Program Name', 'Date Accessed', and 'Data Source'. The 'Web Downloads' tab is selected, showing a list of downloaded files with their paths, URLs, and domains. The bottom pane shows a 'Script: Latin - Basic' view.

Circling back to the sites identified as having potential malicious downloads, by using the “web downloads” tab we can see that the user did in fact download applications from these sites.

The screenshot displays the Analityx A2.0 interface. The top navigation bar includes options like 'Case', 'View', 'Tools', 'Windows', and 'Help'. The main window is divided into several panes. On the left, there's a 'Data Sources' pane with a tree view showing various data sources. The central pane shows a table of search results for 'web downloads'. The table has columns for 'Source Name', 'S', 'C', 'D', 'Paths', 'URL', 'Date Accessed', 'Domain', 'Username', 'Program Name', 'Data Source', and 'Comment'. The 'Web Downloads' tab is selected, showing a list of downloaded files with their paths, URLs, and domains. The bottom pane shows a 'Script: Latin - Basic' view.

[illegible]