

AMRITA VISHWA VIDYAPEETHAM

NAME:SOWMYA K

DATE:22.12.2024

ROLL NUMBER:CH.EN.EN.U4CYS22046

COURSE CODE:20CYS311

1. What is Hard Disk Forensics?

Hard disk forensics is the process of recovering, analyzing, and preserving data from a computer's hard drive for use as evidence in a legal investigation. It involves identifying, extracting, and documenting data, including deleted, hidden, or encrypted files.

2. What is an Image File?

An image file in digital forensics is a complete copy of a storage device's data, including all files, system areas, and unallocated space. It is used for analysis without altering the original data source.

3. What is Allocated and Unallocated Space?

- **Allocated Space:** Space on a storage device actively used to store data.
- **Unallocated Space:** Free space on a device not currently assigned to files, but it may contain remnants of deleted data.

4. What is Disk Cache and Disk Mirroring?

- **Disk Cache:** A portion of memory used to temporarily store frequently accessed data to improve read/write performance.
- **Disk Mirroring:** A data redundancy method where identical copies of data are maintained on two or more hard drives to ensure data availability.

5. What is a Forensic Image?

A forensic image is a bit-by-bit copy of a storage device that captures every byte of data, including deleted and hidden files, ensuring data integrity for forensic analysis.

6. What is the Hash Value of a Hard Disk?

The hash value of a hard disk is a unique cryptographic fingerprint (e.g., MD5 or SHA-256) of its contents, used to verify data integrity and ensure the evidence has not been tampered with.

7. What is Shadow Volume, Shadow Copy, and Swap Disk?

- **Shadow Volume:** A hidden copy of files stored by the operating system for recovery purposes.
- **Shadow Copy:** A backup feature that creates snapshots of files or volumes at a specific point in time.
- **Swap Disk:** A portion of a hard drive used as virtual memory to extend the RAM when it is full.

8. What Tools Can Perform Hard Disk Forensics?

Popular tools for hard disk forensics include:

- EnCase
- FTK (Forensic Toolkit)
- Autopsy/Sleuth Kit
- X-Ways Forensics
- ProDiscover
- Magnet AXIOM
- Caine

9. What is Exif Metadata?

Exif metadata is embedded in image files and contains details such as:

- Camera settings (e.g., aperture, ISO).
- Date and time of capture.
- GPS location.

It is crucial in forensic investigations to trace image origins or establish timelines.

10. What are Common Disk Image Formats?

- E01 (EnCase Evidence File)
- DD (Raw Disk Image)
- AFF (Advanced Forensic Format)
- ISO (CD/DVD Image)

11. What is Bit-by-Bit Copying?

Bit-by-bit copying creates an exact replica of a storage device by copying all sectors, including allocated, unallocated, and hidden areas, ensuring complete duplication of data for forensic analysis.

12. What is Cloning a Disk?

Cloning a disk involves creating an identical copy of a storage device, typically for backup or migration. Unlike forensic imaging, it may not capture deleted or hidden data.

13. What are the Latest Types of Storage Devices?

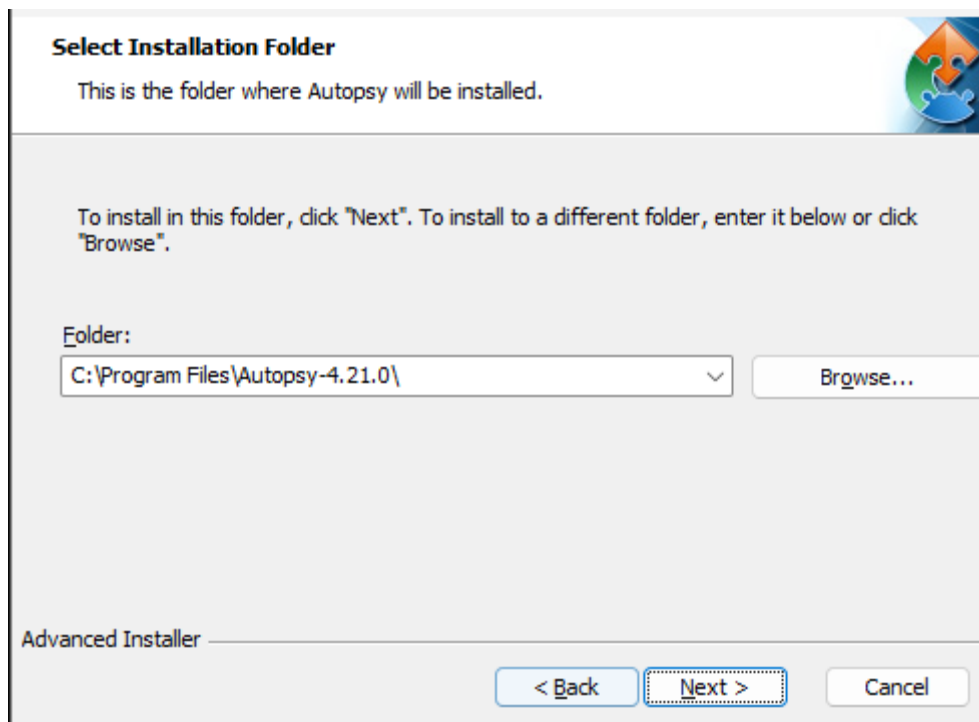
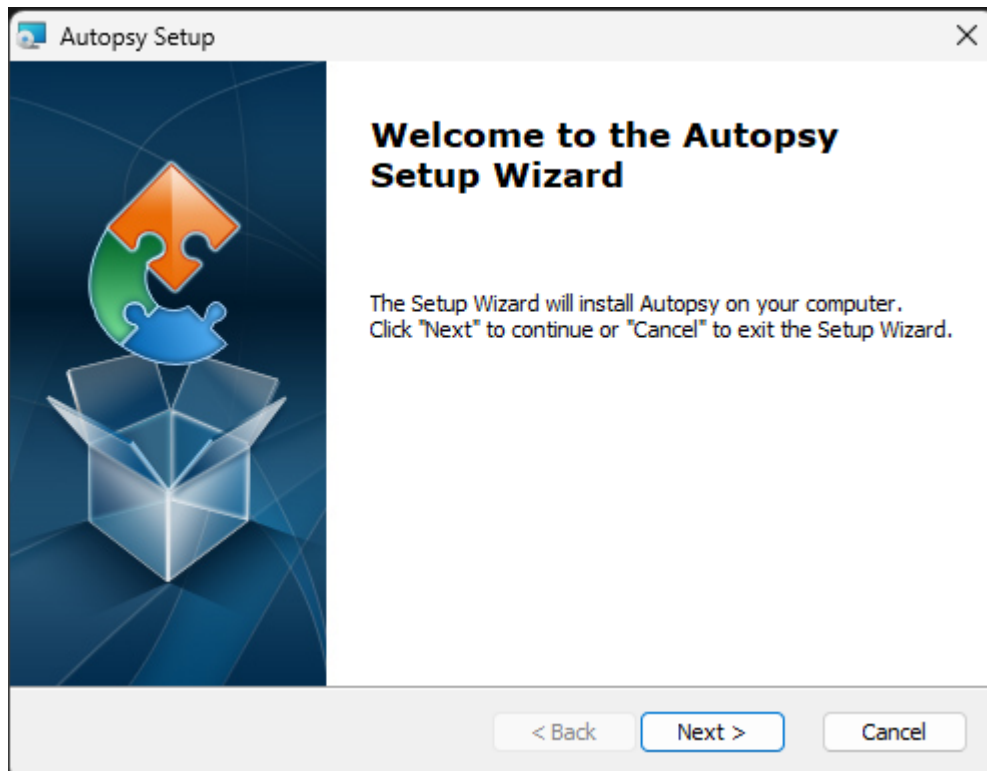
- Solid-State Drives (SSD)
- NVMe Drives
- Hybrid Drives (HDD + SSD)
- Cloud-Based Storage
- Flash Memory (e.g., USB drives, SD cards)
- Optane Memory

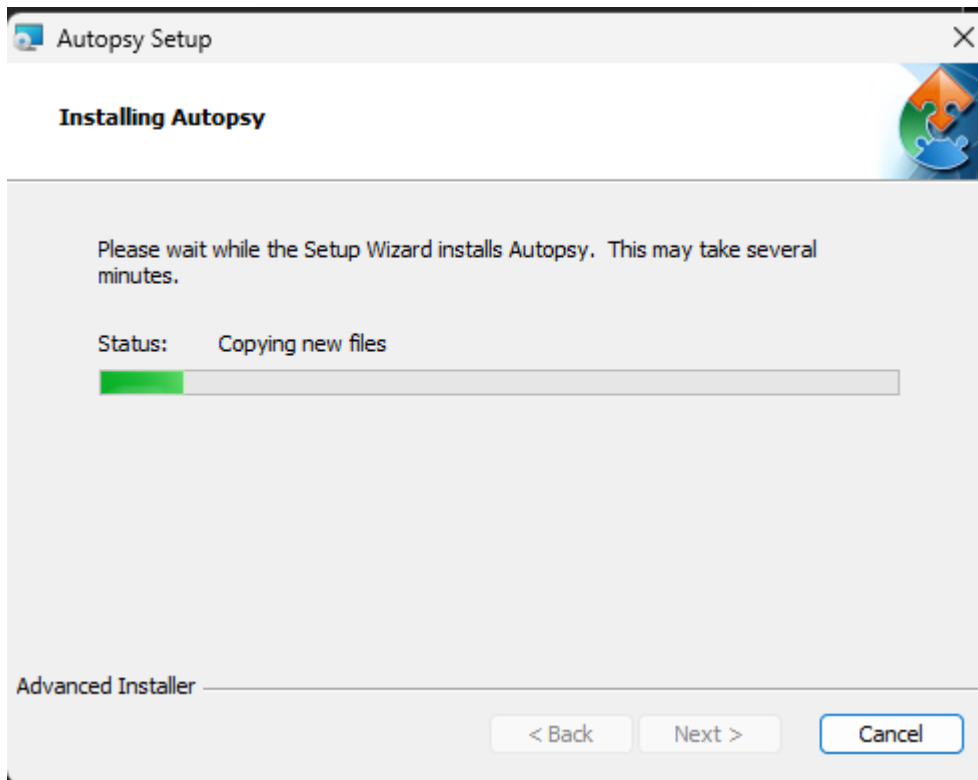
14. What is BitLocker Encryption?

BitLocker is a disk encryption feature in Windows that secures data by encrypting the entire drive, protecting it from unauthorized access in case of theft or loss. It requires a password or a recovery key to decrypt the data.

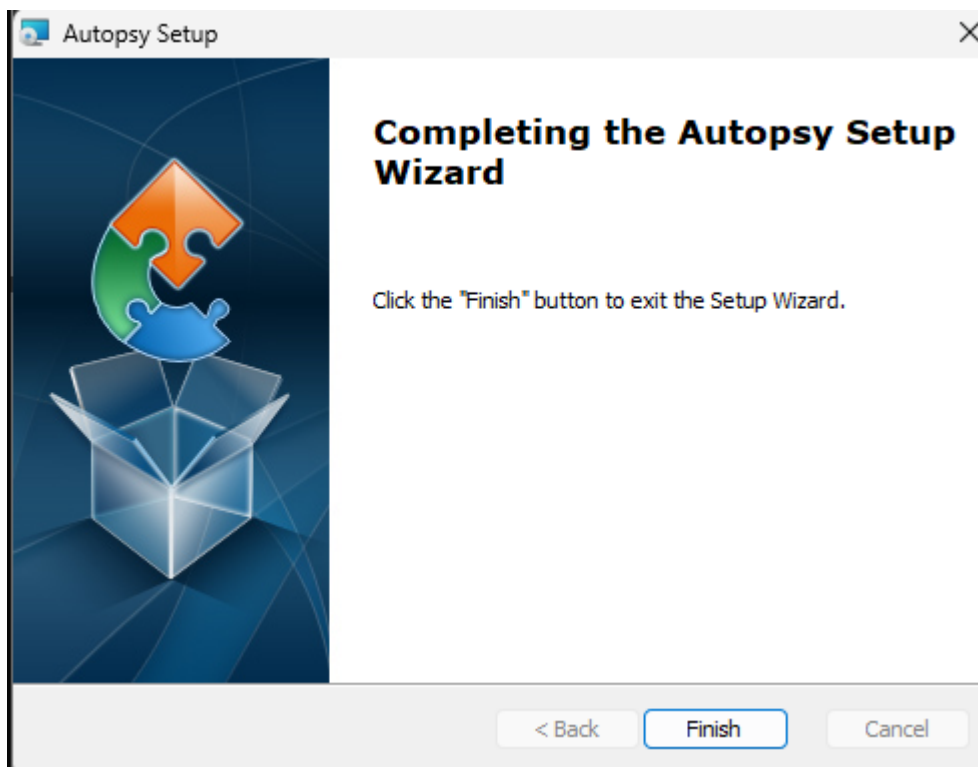
(ANALYSIS OF DATA SOURCE (LOCAL DISK) USING AUTOPSY)

1.DOWNLOAD AUTOPSY:





2.SETUP AUTOPSY



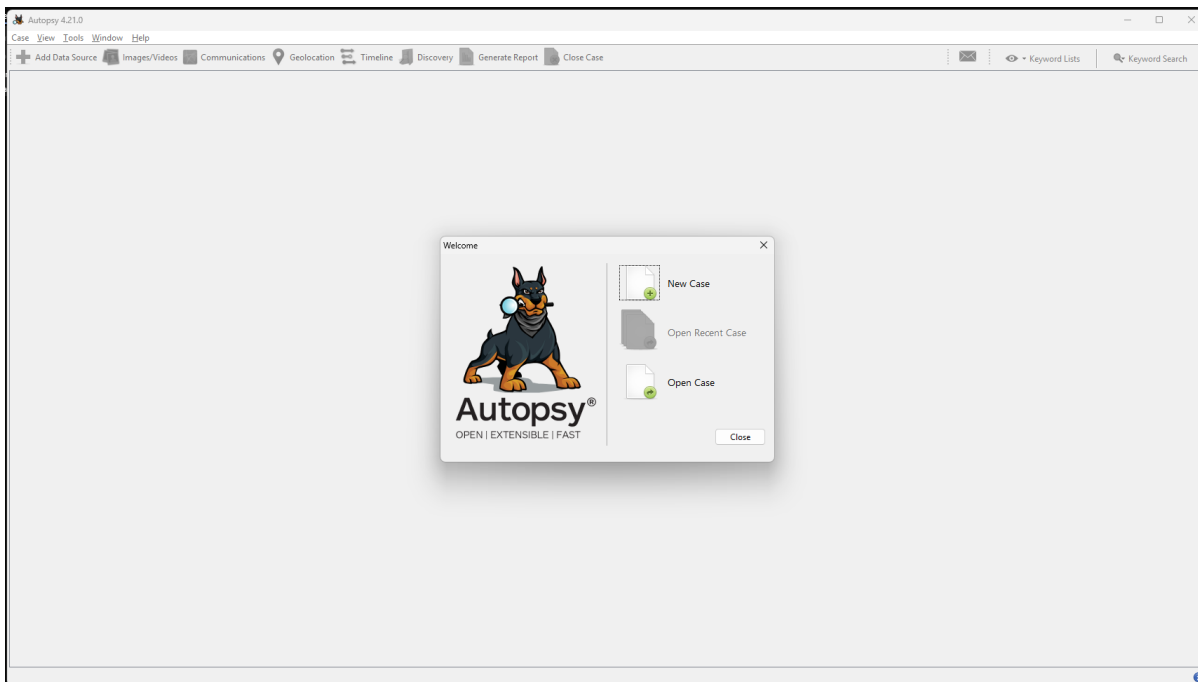



Autopsy®

OPEN | EXTENSIBLE | FAST

Reading module storage...

3.ADD THE DATA SOURCE:



 Add Data Source

Steps

1. **Select Host**

2. Select Data Source Type

3. Select Data Source

4. Configure Ingest

5. Add Data Source

Select Host

Hosts are used to organize data sources and other data.

☒ Generate new host name based on data source name

☐ Specify new host name

☐ Use existing host


< Back

Next >

Finish

Cancel

Help

 Add Data Source

Steps

1. Select Host


2. Select Data Source Type


3. Select Data Source


4. Configure Ingest


5. Add Data Source


Select Data Source Type


 Disk Image or VM File

 Local Disk

 Logical Files

 Unallocated Space Image File

 Autopsy Logical Imager Results

 XRY Text Export

< Back

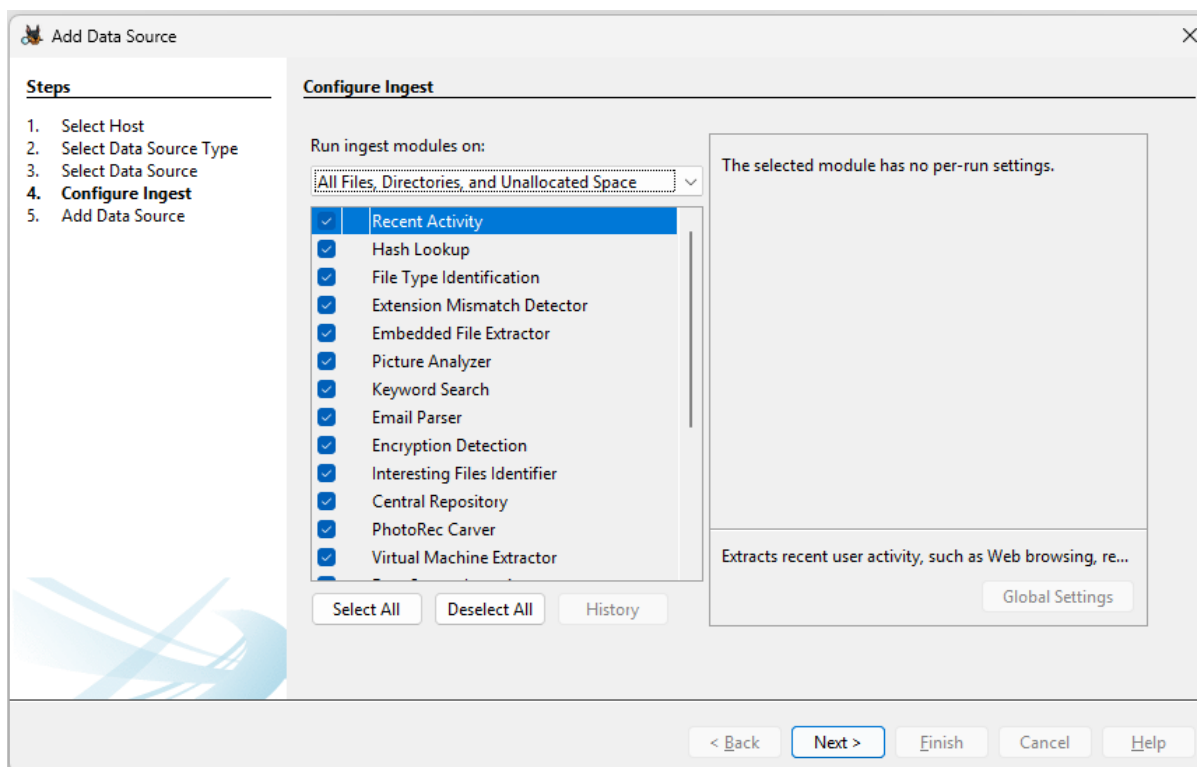
Next >

Finish

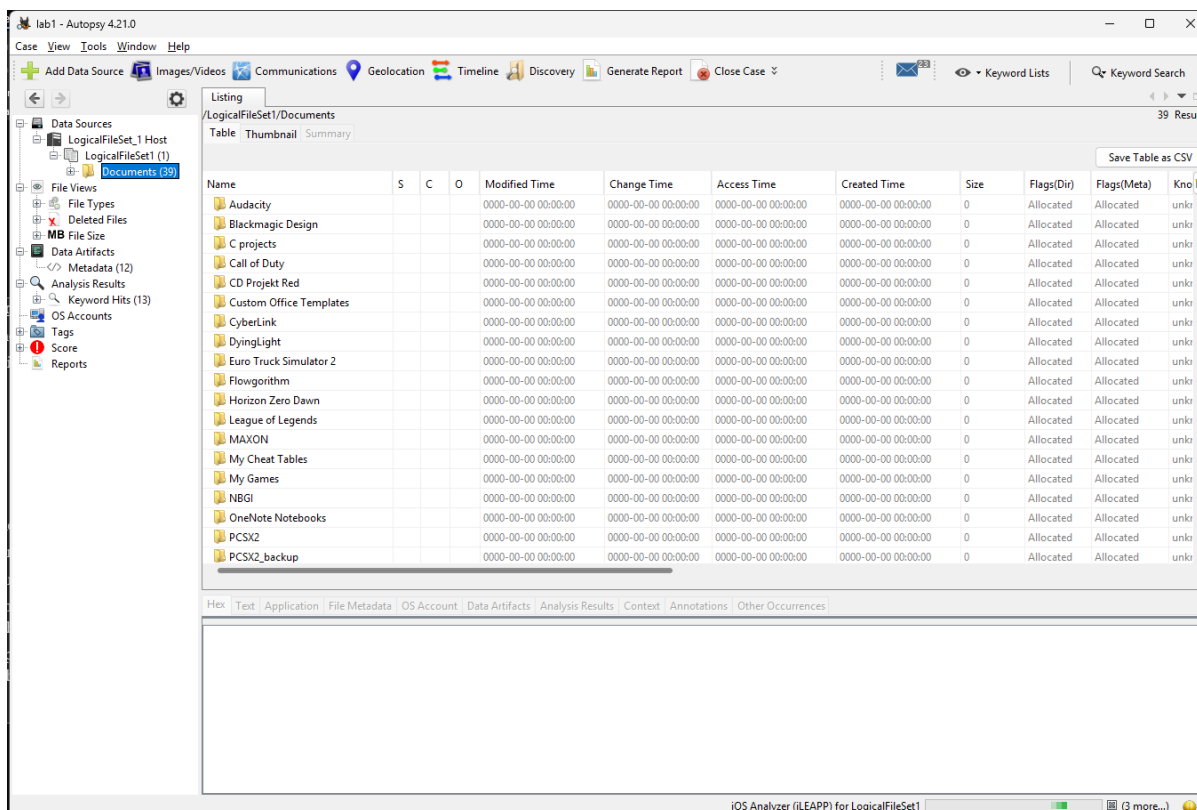
Cancel

Help

4.CONFIGURE INGEST MODULES



5.GET THROUGH THE DATA SOURCE



lab1 - Autopsy 4.21.0

Case View Tools Window Help

Add Data Source Images/Videos Communications Geolocation Timeline Discovery Generate Report Close Case

Listing

LogicalFileSet1/Documents

Table Thumbnail Summary

Save Table as CSV

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)	Known
visual studio zzzz				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown
Whatsapp				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown
WindowsPowerShell				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown
amd-ryzen-master.exe			0	2024-06-07 10:55:27 IST	0000-00-00 00:00:00	2024-12-22 10:37:21 IST	2024-06-07 10:55:14 IST	273609392	Allocated	Allocated	unknown
bkup.sl2			0	2024-09-06 14:05:27 IST	0000-00-00 00:00:00	2024-09-26 12:55:37 IST	2024-09-06 14:20:56 IST	11928528	Allocated	Allocated	unknown
Default.rdp			0	2024-08-08 14:00:44 IST	0000-00-00 00:00:00	2024-08-08 14:00:44 IST	2024-08-08 14:00:44 IST	0	Allocated	Allocated	unknown
desktop.ini			0	2024-12-16 18:31:39 IST	0000-00-00 00:00:00	2024-12-22 10:38:38 IST	2024-04-17 22:22:58 IST	402	Allocated	Allocated	unknown
DOC.pdf			0	2024-06-06 18:01:26 IST	0000-00-00 00:00:00	2024-09-19 20:24:51 IST	2024-06-06 18:01:25 IST	65474	Allocated	Allocated	unknown
hwmonitor_1.53.exe			0	2024-06-07 11:02:37 IST	0000-00-00 00:00:00	2024-12-22 10:37:21 IST	2024-06-07 11:02:37 IST	1538696	Allocated	Allocated	unknown
invoice 05.pdf			0	2024-06-06 17:46:43 IST	0000-00-00 00:00:00	2024-09-19 20:24:51 IST	2024-06-06 17:46:42 IST	62311	Allocated	Allocated	unknown
Message for I W Members.docx			0	2024-06-06 18:14:16 IST	0000-00-00 00:00:00	2024-09-19 20:24:51 IST	2024-06-06 18:14:15 IST	13329	Allocated	Allocated	unknown

Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences

Metadata

Displays tags and comments associated with the selected content.

Name: /LogicalFileSet1/Documents/DOC.pdf

Type: Local

MIME Type: application/pdf

Size: 65474

File Name Allocation: Allocated

Metadata Allocation: Allocated

Modified: 2024-06-06 18:01:26 IST

Accessed: 2024-09-19 20:24:51 IST

Created: 2024-06-06 18:01:25 IST

Changed: 0000-00-00 00:00:00

MD5: 1604d632a80a19a8777a74f6f20ff4c99e24eb63d4e319f9cbed487244d9b6d

SHA-256: 164dd632a80a19a8777a74f6f20ff4c99e24eb63d4e319f9cbed487244d9b6d

Hash Lookup Results: UNKNOWN

Internal ID: 167

Local Path: C:\Users\arjun\OneDrive\Documents\DOC.pdf

lab1 - Autopsy 4.21.0

Case View Tools Window Help

Add Data Source Images/Videos Communications Geolocation Timeline Discovery Generate Report Close Case

Listing

LogicalFileSet1/Documents

Table Thumbnail Summary

Save Table as CSV

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)	Flags(Meta)	Known
visual studio zzzz				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown
Whatsapp				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown
WindowsPowerShell				0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0000-00-00 00:00:00	0	Allocated	Allocated	unknown
amd-ryzen-master.exe			0	2024-06-07 10:55:27 IST	0000-00-00 00:00:00	2024-12-22 10:37:21 IST	2024-06-07 10:55:14 IST	273609392	Allocated	Allocated	unknown
bkup.sl2			0	2024-09-06 14:05:27 IST	0000-00-00 00:00:00	2024-09-26 12:55:37 IST	2024-09-06 14:20:56 IST	11928528	Allocated	Allocated	unknown
Default.rdp			0	2024-08-08 14:00:44 IST	0000-00-00 00:00:00	2024-08-08 14:00:44 IST	2024-08-08 14:00:44 IST	0	Allocated	Allocated	unknown
desktop.ini			0	2024-12-16 18:31:39 IST	0000-00-00 00:00:00	2024-12-22 10:38:38 IST	2024-04-17 22:22:58 IST	402	Allocated	Allocated	unknown
DOC.pdf			0	2024-06-06 18:01:26 IST	0000-00-00 00:00:00	2024-09-19 20:24:51 IST	2024-06-06 18:01:25 IST	65474	Allocated	Allocated	unknown
hwmonitor_1.53.exe			0	2024-06-07 11:02:37 IST	0000-00-00 00:00:00	2024-12-22 10:37:21 IST	2024-06-07 11:02:37 IST	1538696	Allocated	Allocated	unknown
invoice 05.pdf			0	2024-06-06 17:46:43 IST	0000-00-00 00:00:00	2024-09-19 20:24:51 IST	2024-06-06 17:46:42 IST	62311	Allocated	Allocated	unknown
Message for I W Members.docx			0	2024-06-06 18:14:16 IST	0000-00-00 00:00:00	2024-09-19 20:24:51 IST	2024-06-06 18:14:15 IST	13329	Allocated	Allocated	unknown

Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences

Page: 1 of 4 Page Go to Page: 1 Jump to Offset Launch in HxD

0x00000000: 25 50 44 46 2D 31 2E 37 0A 0A 34 20 30 20 6F 62 \$PDF-1.7..4 0 ob
0x00000010: 6A 0A 3C 3C 0A 2F 43 69 74 73 60 65 72 43 6F 6D j.<.<./BitsPerCom
0x00000020: 70 6F 6E 65 6E 74 20 38 0A 2F 43 6F 6C 6F 72 53 ponent 8./ColorS
0x00000030: 70 61 63 65 20 2F 44 65 76 69 63 65 52 47 42 0A pace /DeviceRGB,
0x00000040: 2F 46 69 6C 74 65 72 20 2F 44 43 54 44 65 63 6F /Filter /DCTDeco
0x00000050: 64 65 0A 2F 48 65 69 67 68 74 20 38 34 36 0A 2F de./Height 846./
0x00000060: 4C 65 6E 67 74 69 20 36 34 33 35 39 0A 2F 53 75 Length 64359./Su
0x00000070: 62 74 79 70 65 20 2F 49 6D 61 67 65 0A 2F 54 79 btype /Image./Ty
0x00000080: 70 65 20 2F 58 4F 62 6A 65 63 74 0A 2F 57 69 64 pe /XObject./Wid
0x00000090: 74 69 20 36 31 38 0A 3E 3E 0A 73 74 72 65 61 6D th 618./>.stream
0x000000a0: 0A FF D8 FF 80 00 10 4A 46 49 46 00 01 01 01 00JFIF.....
0x000000b0: 00 00 00 00 00 FF DB 00 43 00 03 02 02 03 02 02C.....
0x000000c0: 03 03 03 03 04 03 03 04 05 08 05 05 04 04 05 0A
0x000000d0: 07 07 06 08 0C 0A 0C 0C 0B 0A 0B 0B 0D 0E 12 10
0x000000e0: 0D 0E 11 0E 0B 0B 10 16 10 11 13 14 15 15 15 0C
0x000000f0: 0F 17 18 16 14 18 12 14 15 14 FF DB 00 43 01 03C.....
0x00000100: 04 04 05 04 05 09 06 05 09 14 0D 0B 0D 14 14 14
0x00000110: 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14
0x00000120: 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14
0x00000130: 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14
0x00000140: C0 00 11 08 03 4E 02 6A 03 01 22 00 02 11 01 03N.j.....

6.UNALLOCATED,DELETED AND EXTRACTED CONTENTS

1 - Autopsy 4.21.0

Case View Tools Window Help

Add Data Source

Images/Videos

Communications

Geolocation

Timeline

Discovery

Generate Report

Close Case

Keyword Lists

Keyword Search

10000 Results

Listing

File System

Table Thumbnail Summary

Page: 1 of 2 Pages: Go to Page: Save Table as CSV

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags(Dir)
Boot				2022-08-05 22:58:50 IST	0000-00-00 00:00:00	2022-08-05 00:00:00 IST	2022-08-05 23:04:52 IST	0	Unallocated
Microsoft					0000-00-00 00:00:00	2022-08-05 00:00:00 IST	2022-08-05 23:04:52 IST	0	Unallocated
bootmgr.efi.mui(9878ba63-d94e-418c-ae41-f780e6)				2024-09-07 13:03:02 IST	0000-00-00 00:00:00	2024-12-16 00:00:00 IST	2022-08-05 23:16:48 IST	82408	Unallocated
bootmgr.efi.mui				2022-10-23 20:57:26 IST	0000-00-00 00:00:00	2022-10-23 00:00:00 IST	2022-08-05 23:16:48 IST	82256	Unallocated
bootmgr.efi.mui(2415dfca-54c1-4102-827a-b4cbb)				2021-06-05 04:05:08 IST	0000-00-00 00:00:00	2022-10-23 00:00:00 IST	2022-08-05 23:16:48 IST	81224	Unallocated
bootmgr.efi.mui				2022-10-23 20:57:26 IST	0000-00-00 00:00:00	2022-10-23 00:00:00 IST	2022-08-05 23:16:48 IST	82280	Unallocated
bootmgr.efi.mui(a1262484-55b3-46d4-9b39-edcd)				2022-10-23 20:57:26 IST	0000-00-00 00:00:00	2022-10-23 00:00:00 IST	2022-08-05 23:16:48 IST	82256	Unallocated
bootmgr.efi.mui				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-11-15 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui(14696cd0-11a4-4777-b0e2-e9579)				2022-10-23 20:57:26 IST	0000-00-00 00:00:00	2022-10-23 00:00:00 IST	2022-08-05 23:16:48 IST	82280	Unallocated
bootmgr.efi.mui(bootmgr.efi.mui)				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-11-15 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui(a5553c78-8a7f-4aa9-bcf7-2b25c)				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-11-15 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-12-16 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui(486a41a7-693c-4150-9b74-19765)				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-11-15 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-12-16 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui(fe0e8f4-4c2e-4fb6-a83e-449cd)				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-12-16 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2023-01-15 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated
bootmgr.efi.mui(a284836e-0953-4275-96f7-a08988)				2022-10-24 13:14:04 IST	0000-00-00 00:00:00	2022-12-16 00:00:00 IST	2022-08-05 23:16:48 IST	82272	Unallocated

Hex Text Application File Metadata OS Account Data Artifacts Analysis Results Context Annotations Other Occurrences

Metadata

Name: /img_PhysicalDrive0/vol_vo14/EFI/Microsoft

Type: File System

MIME Type: null

Size: 0

File Name Allocation: Unallocated

Metadata Allocation: Unallocated

Modified: 2022-08-05 22:58:50 IST

Accessed: 2022-08-05 00:00:00 IST

Created: 2022-08-05 23:04:52 IST

Changed: 0000-00-00 00:00:00

Virtual Machine Extractor for D: (3 more...)

DISK ANALYSIS AND AUTOPSY USING TRYHACKME

Data Sources

HASAN2.E01

Views

File Types

Deleted Files

MB File Size

Results

Extracted Content

EXIF Metadata (21)

Encryption Suspected (7)

Extension Mismatch Detected (41)

Installed Programs (41)

Metadata (61)

Operating System Information (2)

Operating System User Account (13)

Recent Documents (133)

Run Programs (3148)

Shell Bags (250)

USB Device Attached (2)

User Content Suspected (21)

Web Bookmarks (43)

Web Categories (1)

Web Cookies (487)

img_HASAN2.E01

Table Thumbnail Summary

Types User Activity Analysis Recent Files Past Cases Geolocation Timeline Ingest History Container

Display Name: HASAN2.E01

Name: HASAN2.E01

Device ID: bc9efb0d-bb21-4d04-a08f-3c169ea57774

Time Zone: America/New_York

Acquisition Details

Description: untitled

Acquired Date: Mon Feb 8 12:40:23 2021

System Date: Mon Feb 8 12:40:23 2021

Acquiry Operating Systems: Win 201x

Acquiry Software Versions: AD14.5.0.3

Image Type: E01

Size: 65.43 GB (55433829376 bytes)

Unallocated Space: 45.65 GB (45653525664 bytes)

Sector Size: 512 bytes

MD5: 3f08c518adb3b5c1359849657a9b2079

SHA1: d5ae22ab301cb5804140efb0fab3946a8f3cf9f2

SHA256:

File Paths: C:\Users\Administrator\Desktop\Case Files\HASAN2.E01

What is the MD5 hash of the E01 image?

3f08c518adb3b5c1359849657a9b2079

✓ Correct Answer

Tryhackme - Autopsy 4.18.0

Case View Tools Window Help

+ Add Data Source Images/Videos Communications Geolocation Timeline Discovery Generate Report Close Case

Listing

Operating System Information

Table Thumbnail Summary

Source File	S	C	O	Name	Domain
SYSTEM				DESKTOP-0R59DJ3	
SOFTWARE					

Data Sources

- HASAN2.E01
- Views
- File Types
- Deleted Files
- MB File Size
- Results
- Extracted Content
 - EXIF Metadata (21)
 - Encryption Suspected (7)
 - Extension Mismatch Detected (41)
 - Installed Programs (41)
 - Metadata (61)
 - Operating System Information (2)
 - Operating System User Account (15)

What is the computer account name?

DESKTOP-0R59DJ3

✓ Correct Answer

Tryhackme - Autopsy 4.18.0

Case View Tools Window Help

+ Add Data Source Images/Videos Communications Geolocation Timeline Keyword Lists Keyword Search

Listing

Operating System User Account 15 Results

Table Thumbnail Summary

Save Table as CSV

Source File	S	C	O	User ID	Username	Date Created
SAM				S-1-5-21-3919888104-523186866-407859479-1005	keshav	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-1006	sivapriya	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-1007	sandhya	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-1008	sriini	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-1001	H4S4N	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-1002	joshwa	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-500	Administrator	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-1003	suba	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-501	Guest	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-1004	shreya	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-503	DefaultAccount	2021-02-0
SAM				S-1-5-21-3919888104-523186866-407859479-504	WDAGUtilityAccount	2021-02-0
SOFTWARE				S-1-5-18	systemprofile	

Hex Text Application File Metadata Context Results Annotations Other Occurrences

List all the user accounts. (alphabetical order)

H4S4N,joshwa,keshav,sandhya,shreya,sivapriya,sriini,suba

✓ Correct Answer

Listing

Operating System User Account

Table

Thumbnail

Summary

Source File	S	C	O	User ID	Username	Date Created	▼ Date Accessed	Count
SAM				S-1-5-21-391988104-523186866-407859479-1006	sivapriya	2021-02-06 05:39:55 EST	2021-02-07 12:05:37 EST	10
SAM				S-1-5-21-391988104-523186866-407859479-1001	H4S4N	2021-02-06 18:48:16 EST	2021-02-07 12:05:11 EST	24
SAM				S-1-5-21-391988104-523186866-407859479-1004	shreya	2021-02-06 05:38:48 EST	2021-02-07 11:46:52 EST	13
SAM				S-1-5-21-391988104-523186866-407859479-1003	suba	2021-02-06 05:38:22 EST	2021-02-07 11:46:01 EST	2
SAM				S-1-5-21-391988104-523186866-407859479-1008	srini	2021-02-06 05:41:10 EST	2021-02-07 11:45:42 EST	2
SAM				S-1-5-21-391988104-523186866-407859479-1007	sandhya	2021-02-06 05:40:42 EST	2021-02-07 11:45:11 EST	5
SAM				S-1-5-21-391988104-523186866-407859479-1005	keshav	2021-02-06 05:39:20 EST	2021-02-07 11:45:00 EST	5
SAM				S-1-5-21-391988104-523186866-407859479-1002	joshwa	2021-02-06 05:38:00 EST	2021-02-07 11:44:49 EST	5

Who was the last user to log into the computer?

sivapriya

✓ Correct Answer

Tryhackme - Autopsy 4.18.0

Case View Tools Window Help

Add Data Source
 Images/Videos
 Communications
 Geolocation
 Timeline
 Keyword Lists
 Keyword Search

Listing

/img_HASAN2.E01/vol_vol3/Program Files (x86)/Look@LAN

18 Results

Table Thumbnail Summary

Save Table as CSV

Name	S	C	O	Modified Time	Change Time	Access Time
[current folder]				2021-02-07 03:12:59 EST	2021-02-07 03:12:59 EST	2021-02-07 12:05:37 EST
[parent folder]				2021-02-07 02:49:11 EST	2021-02-07 02:49:11 EST	2021-02-07 12:05:11 EST
Report				2021-02-07 03:12:52 EST	2021-02-07 03:12:52 EST	2021-02-07 03:12:52 EST
sounds				2021-02-07 03:12:53 EST	2021-02-07 03:12:53 EST	2021-02-07 03:12:53 EST
CLAManual.chm			0	2004-02-17 07:01:50 EST	2021-02-07 03:12:59 EST	2006-01-15 09:00:00 EST
bootkit.dat			0	2021-02-07 03:14:10 EST	2021-02-07 03:14:10 EST	2021-02-07 03:14:10 EST

Hex Text Application File Metadata Context Results Annotations Other Occurrences

Strings Indexed Text Translation

Page: 1 of 1 Page Matches on page: - of - Match

100% Reset

Text Source: File Text

```
[Config]
ConfigFile=C:\Program Files (x86)\Look@LAN\irunin.dat
LanguageFile=C:\Program Files (x86)\Look@LAN\irunin.lng
ImageFile=C:\Program Files (x86)\Look@LAN\irunin.bmp
LangID=9
IsSelective=0
InstallType=0
[Variables]
%LANHOST%=DESKTOP-0R59DJ3
%LANDOMAIN%=DESKTOP-0R59DJ3
%LANUSER%=H4S4N
%LANIP%=192.168.130.216
%LANNIC%=0800272cc4b9
%ISWIN95%=FALSE
%ISWIN98%=FALSE
```

What was the IP address of the computer?

192.168.130.216

✓ Correct Answer

What was the MAC address of the computer? (XX-XX-XX-XX-XX-XX)

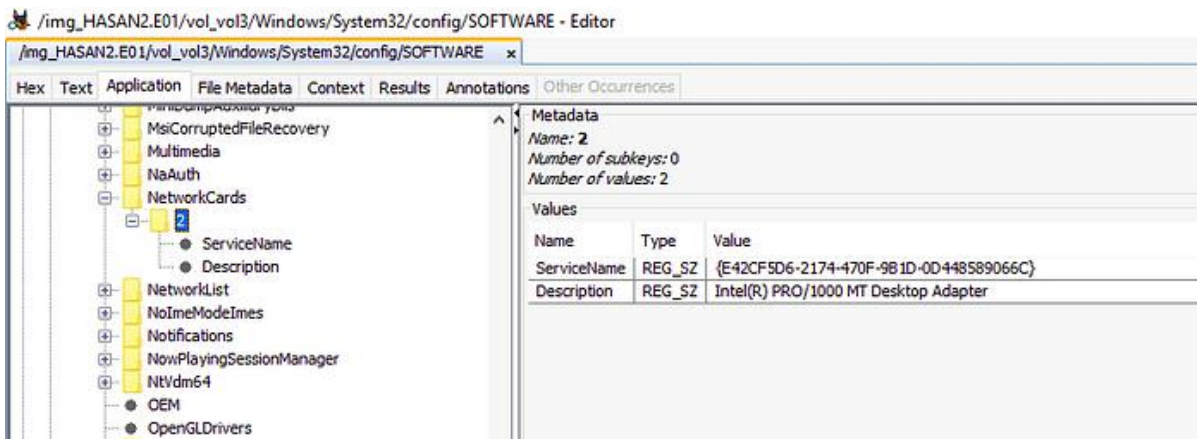
08-00-27-2c-c4-b9

✓ Correct Answer

What is the name of the network monitoring tool?

Look@LAN

✓ Correct Answer



What is the name of the network card on this computer?

Intel(R) PRO/1000 MT Desktop Adapter

✓ Correct Answer

What is the name of the network card on this computer?

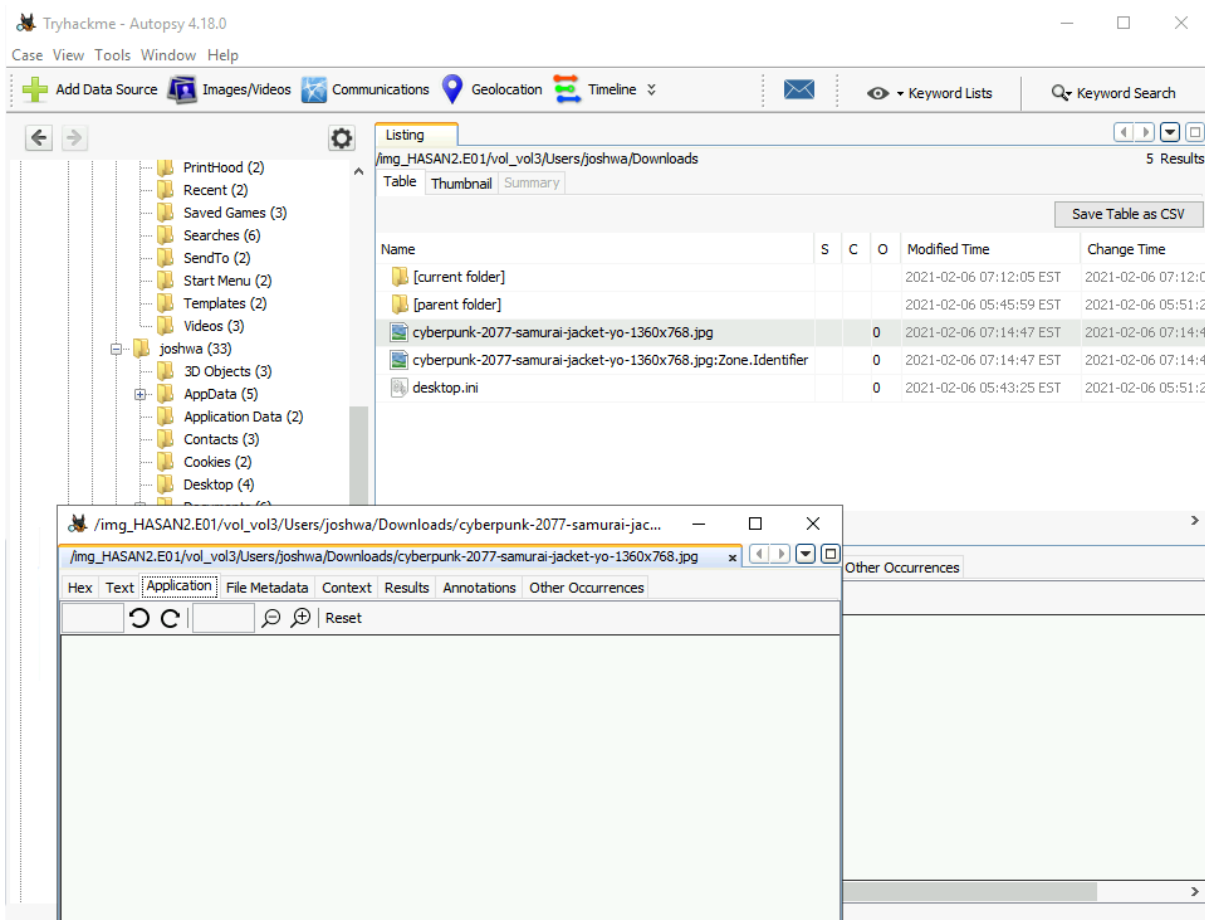
Intel(R) PRO/1000 MT Desktop Adapter

✓ Correct Answer

A user bookmarked a Google Maps location. What are the coordinates of the location?

12°52'23.0"N 80°13'25.0"E

✓ Correct Answer



A user has his full name printed on his desktop wallpaper. What is the user's full name?

Anto Joshua

✓ Correct Answer

Tryhackme - Autopsy 4.18.0

Case View Tools Window Help

The screenshot shows the Autopsy 4.18.0 interface. The left pane displays a file tree with the following structure:

- AppData (5)
 - Local (17)
 - LocalLow (4)
 - Roaming (5)
 - Adobe (2)
 - Microsoft (12)
 - Credentials (2)
 - Crypto (4)
 - Internet Explorer (4)
 - MMC (2)
 - Network (3)
 - Protect (4)
 - Spelling (3)
 - SystemCertificates (1)
 - Vault (2)
 - Windows (13)
 - AccountPictures
 - CloudStore (2)
 - Libraries (9)
 - Network Shortcuts
 - PowerShell (3)
 - PSReadLine
 - Printer Shortcuts
 - Recent (26)
 - SendTo (9)
 - Start Menu (4)
 - Templates (2)
 - Themes (5)

- Mozilla (5)
- Application Data (2)
- Contacts (3)
- Cookies (2)
- Desktop (3)
- Documents (5)
- Downloads (5)
- Favorites (5)
- Links (5)
- Local Settings (2)
- Music (3)
- My Documents (2)
- NetHood (2)
- OneDrive (3)
- Pictures (5)

The right pane shows a listing of files in the path `Amg_HASAN2.E01\vol_03\Users\shreya\AppData\Roaming\Microsoft\Windows\PowerShell\PSReadLine`. The file `ConsoleHost_history.txt` is selected. The main pane displays the contents of this file:

```
QII
cd .\Desktop\
exitcls
Add-Content .\shreya.txt 'flag{HarleyQuinnForQueen}'
Get-Content .\shreya.txt
Add-Content .\shreya.txt 'flag{HarleyQuinnForQueen}'
Get-Content .\shreya.txt
Set-Content .\shreya.txt 'flag{i_changed_it}'
exit
```

A user had a file on her desktop. It had a flag but she changed the flag using PowerShell. What was the first flag?

flag{HarleyQuinnForQueen}

✓ Correct Answer

Tryhackme - Autopsy 4.18.0

Case View Tools Window Help

The screenshot shows the Autopsy 4.18.0 interface. The left pane displays a file tree with the following structure:

- AppData (3)
 - Application Data (2)
 - Contacts (3)
 - Cookies (2)
 - Desktop (3)
 - Documents (6)
 - Downloads (5)
 - Favorites (5)
 - Links (5)
 - Local Settings (2)
 - Music (3)
 - My Documents (2)
 - NetHood (2)
 - OneDrive (3)
 - Pictures (5)
 - PrintHood (2)
 - Recent (2)
 - Saved Games (3)
 - Searches (6)
 - SendTo (2)
 - Start Menu (2)
 - Templates (2)
 - Videos (3)
- svchost (34)
- svcs (23)
- Subs (13)
- Windows (104)
 - addons (3)
 - appcompat (3)
 - appcsh (13)
 - AppReadiness (2)
 - assembly (6)
 - blastin (4)
 - Boot (5)
 - Branding (4)
 - CtrlFlow (2)
 - Containers (3)
 - Cursors (236)
 - debug (3)
 - diagnostics (5)

The right pane shows a listing of files in the path `Amg_HASAN2.E01\vol_03\Users\shreya\Desktop`. The file `exploit.ps1` is selected. The main pane displays the contents of this file:

```
if([System.Security.Principal.WindowsIdentity]::GetCurrent()).groups -
) {
    #Payload goes here
    #It'll run as Administrator
    New-Item "C:\Users\H4S4N\Desktop\hacked.txt"
    Add-Content C:\Users\H4S4N\Desktop\hacked.txt 'Flag{I-hacked-you}'
    ##### https://youtu.be/C9GFmfFjhYI
```

The same user found an exploit to escalate privileges on the computer. What was the message to the device owner?

flag{I-hacked-you}

✓ Correct Answer

The same user found an exploit to escalate privileges on the computer. What was the message to the device owner?

flag{I-hacked-you}

✓ Correct Answer

Tryhackme - Autopsy 4.18.0
Case View Tools Window Help

Add Data Source Images/Videos Communications Geolocation Timeline Discovery Generate Report Close Case

Listing
/img_HASAN2.E01/vol_03/ProgramData/Microsoft/Windows Defender/Scans/History/Service/DetectionHistory/02

Name	S	C	O	Modified Time	Change Time	Access Time
[current folder]				2021-02-07 02:48:21 EST	2021-02-07 02:48:21 EST	2021-02-07 12:10:57 EST
[parent folder]				2021-02-06 11:19:43 EST	2021-02-07 02:29:18 EST	2021-02-07 12:10:57 EST
2B18887D-894C-4E51-934B-654F69FAE7E2			0	2021-02-07 11:05:20 EST	2021-02-07 11:05:20 EST	2021-02-07 12:10:57 EST
7F334C0D-CED8-4268-8096-CE083CD29441			0	2021-02-07 11:05:20 EST	2021-02-07 11:05:20 EST	2021-02-07 12:10:57 EST
8363AFD9-AF2E-453A-882D-766E1C57A88A			0	2021-02-07 02:49:01 EST	2021-02-07 02:49:01 EST	2021-02-07 12:10:57 EST

Hex Text Application File Metadata Context Results Annotations Other Occurrences

Strings Indexed Text Translation

Page: 1 of 1 Page Matches on page: - of - Match 150% Reset

Magic.Version:1.2
HackTool:Win32/LaZagne
Magic.Version:1.2
file
C:\Users\H4S4N\Downloads\lazagne.exe
ThreatTrackingSha256

2 hack tools focused on passwords were found in the system. What are the names of these tools? (alphabetical order)

Lazagne,Mimikatz

✓ Correct Answer

🔍 Hint

Tryhackme - Autopsy 4.18.0

Case View Tools Window Help

+ Add Data Source Images/Videos Communications Geolocation Timeline Discovery Generate Report Close Case

Listing File Search Results 1 File Search Results 2

Filename Search Results:

Name	S	C	O	Modified Time	Change Time	Access Time	Created Time	Size	Flags
kiwi_passwords.yar-link			0	2021-02-06 10:05:17 EST	2021-02-06 10:05:17 EST	2021-02-06 10:05:17 EST	2021-02-06 10:05:17 EST	836	Allocate
kiwi_passwords.yar-link-slack				2021-02-06 10:05:17 EST	2021-02-06 10:05:17 EST	2021-02-06 10:05:17 EST	2021-02-06 10:05:17 EST	3260	Allocate
kiwi_passwords.yar			0	2020-09-16 21:04:34 EDT	0000-00-00 00:00:00	2020-09-16 21:04:34 EDT	2020-03-21 13:20:37 EDT	2834	Allocate

Hex Text Application File Metadata Context Results Annotations Other Occurrences

Strings Indexed Text Translation

Page: 1 of 1 Page Matches on page: - of - Match 200% Reset

```

/* Benjamin DELPY `gentilkiwi`
   https://blog.gentilkiwi.com
   benjamin@gentilkiwi.com
   Licence : https://creativecommons.org/licenses/by/4.0/
*/
rule mimikatz
{
    meta:
        description      = "mimikatz"
        author            = "Benjamin DELPY (gentilkiwi)"
        tool_author       = "Benjamin DELPY (gentilkiwi)"

```

There is a YARA file on the computer. Inspect the file. What is the name of the author?

Benjamin DELPY (gentilkiwi)

✓ Correct Answer

Tryhackme - Autopsy 4.18.0

Case View Tools Window Help

+ Add Data Source Images/Videos Communications Geolocation Timeline Keyword Lists Keyword Search

Listing Keyword search 1 - zerologon

Keyword search 23 Results

Name	Keyword Preview
V0100005.log	ds/2.2.0%2020200918%«20zerologon«%20encrypted.zip..
mimikatz.exe	patchpostzerologon«zerologon«packagesask a dc t
ntuser.dat.LOG2	hell2.2.0 20200918 «zerologon« encrypted.zip2.2.0
0	-fix/2.2.0 20200918 «zerologon« encrypted.zip", "t
0	ing/2.2.0 20200918 «zerologon« encrypted.zip)ufeOfscan
WebCacheV01.dat	ds/2.2.0%2020200918%«20zerologon«%20encrypted.zip..
mimikatz.exe	rrentpostzerologon«zerologon«packagesask a dc t
2.2.0 20200918 Zerologon encrypted.link	2.2.0 20200918 «zerologon« encrypted.in
Recent Documents Artifact	oads\2.2.0 20200918 «zerologon« encrypted.zippath

Hex Text Application File Metadata Context Results Annotations Other Occurrences

Strings Indexed Text Translation

Page: 1 of 1 Page Matches on page: 1 of 4 Match 100% Reset

Text Source: Search Results

```

[2.2.0 20200918 zerologon encrypted.link, /C:\
FRGV
Usersd
OvHFR
Users
@shell132.dll,-21813
sandhya@
sandhya
FRER
DOWNLO~1
UFREr.

```


One of the users wanted to exploit a domain controller with an MS-NRPC based exploit. What is the filename of the archive that you found? (include the spaces in your answer)

2.2.0 20200918 Zerologon encrypted.zip

✓ Correct Answer