Cyber Law and Forensics (CS402)

Practical Exam (26-Apr-2023)

U19CS012

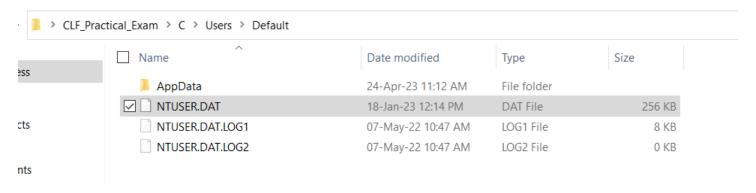
- A.) Answer the Following Questions from the Given Evidence Files:
- (1) Identify the commands that were typed in RUN dialogue box.

HKCU(ntuser.dat)\SOFTWARE\Microsoft\Windows\CurrentVersion\Explorer

-> \RunMRU Shows MRU (Most Recent Used) run command

1. Default - Nothing Found

(C:\Users\Admin\Desktop\CLF_Practical_Exam\C\Users\Default)



2. HP - Found

Tool Used:

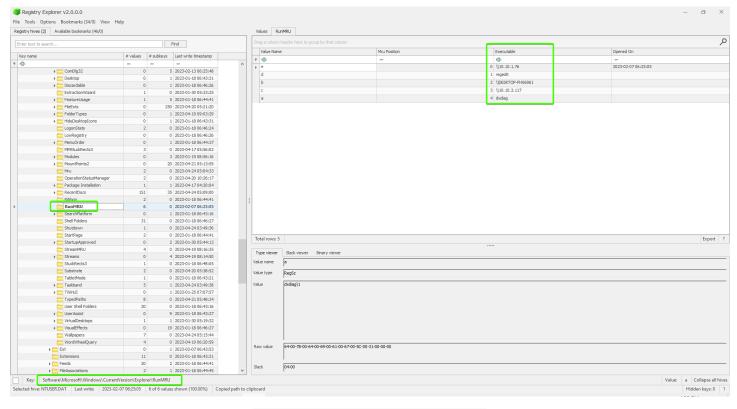
Registry Explorer by Eric Zimmerman

File Used:

NTUSER.DAT

Location:

C:\Users\Admin\Desktop\CLF_Practical_Exam\C\Users\HP\NTUSER.DAT



	Executable						
	R B C						
)	\\10.10.1.76						
1	regedit						
2	\DESKTOP-FH06961						
3	\\10.10.3.117						
4	dxdiag						

Path

 $Software \verb|\Microsoft| Windows \verb|\CurrentVersion| Explorer \verb|\RunMRU|$

Final Answer:

	Executable						
	R B C						
)	\\10.10.1.76						
1	regedit						
2	\DESKTOP-FH06961						
3	\\10.10.3.117						
1	dxdiag						

(2) When the log_tempering.csv was last opened?

Tool Used:

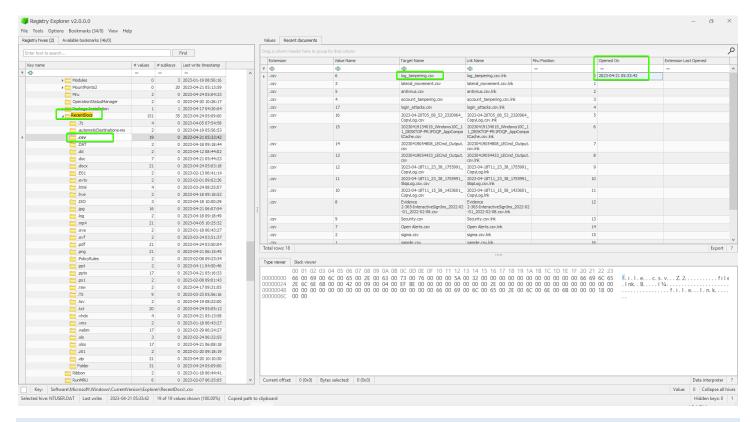
Registry Explorer by Eric Zimmerman

File Used:

NTUSER.DAT

Location:

 ${\it C: \tt Users \tt Admin \tt Desktop \tt \clf_Practical_Exam \tt \clusers \tt \clusers$



Path

System (HKLM) \setminus Software \setminus Microsoft \setminus Windows \setminus Current Version \setminus RecentDocs

Final Answer:

= D 2023-04-21 05:33:42

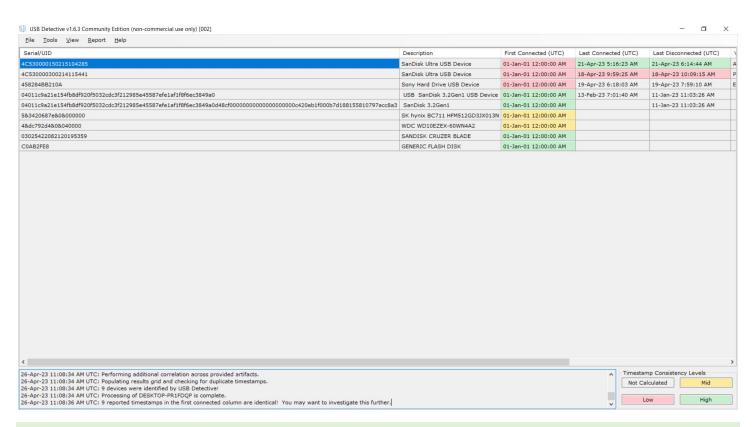
(3) Identify USB devices attached to the system.

Tool Used:

USB Detective

File Used:

- 1. SYSTEM Hive
 - ($C:\Users\Admin\Desktop\CLF_Practical_Exam\C\Windows\System32\config)$
- 2. SOFTWARE Hive
 - ($C:\Users\Admin\Desktop\CLF_Practical_Exam\C\Windows\System32\config)$
- 3. NTUSER.DAT Hive
 - (C:\Users\Admin\Desktop\CLF_Practical_Exam\C\Users\HP)
- 4. Setupapi Log
 - (C:\Users\Admin\Desktop\CLF_Practical_Exam\C\Windows\INF)
- 5. Amcache Hive
 - (C:\Users\Admin\Desktop\CLF_Practical_Exam\C\Windows\AppCompat\Programs)



Final Answer:

	Description
	SanDisk Ultra USB Device
	SanDisk Ultra USB Device
	Sony Hard Drive USB Device
	USB SanDisk 3.2Gen1 USB Device
3	SanDisk 3.2Gen1
	SK hynix BC711 HFM512GD3JX013N
	WDC WD10EZEX-60WN4A2
	SANDISK CRUZER BLADE
	GENERIC FLASH DISK

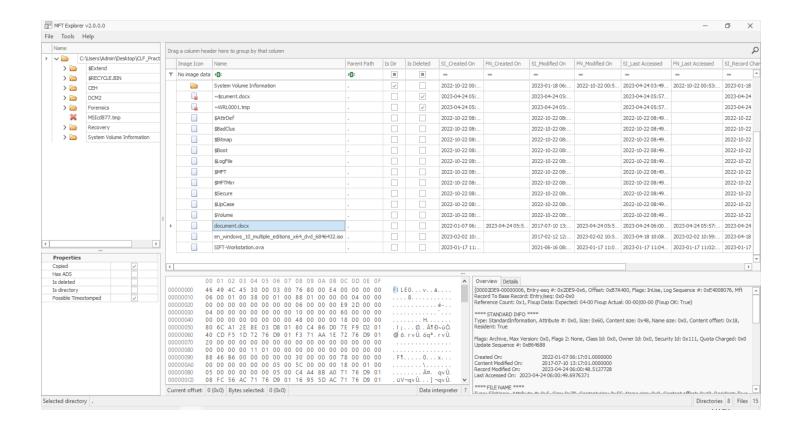
(4) Identify the file having manipulated time stamp.

Tool Used:

MFT Explorer

File Used:

MFT File



	Parent Path	Is Dir	Is Deleted	SI_Created On	FN_Created On	SI_Modified On	FN_Modified On	SI_Last Accessed	FN_Last Accessed	SI_Record Changed	FN_Record Changed	Timestomped	Copied
	RBC			=	=	=	=	=	=	=	=		
		✓		2022-10-22 00:		2023-01-18 06:	2022-10-22 00:5	2023-04-24 03:49	2022-10-22 00:53:	2023-01-18 06:42:5	2022-10-22 00:53:38		
			✓	2023-04-24 05:		2023-04-24 05:		2023-04-24 05:57		2023-04-24 05:57:2			
			✓	2023-04-24 05:		2023-04-24 05:		2023-04-24 05:57		2023-04-24 05:57:3	2023-04-24 05:57:37		
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-10-22 08:		2022-10-22 08:		2022-10-22 08:49		2022-10-22 08:49:4			
				2022-01-07 06:	2023-04-24 05:5	2017-07-10 13:	2023-04-24 05:5	2023-04-24 06:00	2023-04-24 05:57:	2023-04-24 06:00:4	2023-04-24 05:57:37	✓	✓
432.iso				2023-02-02 10:		2017-02-12 12:	2023-02-02 10:5	2023-04-18 10:08	2023-02-02 10:59:	2023-04-18 09:58:3	2023-02-02 10:59:03		~
				2023-01-17 11:		2021-06-16 08:	2023-01-17 11:0	2023-01-17 11:04	2023-01-17 11:02:	2023-01-17 11:03:0	2023-01-17 11:02:22		~

Final Answer:

(5) Following is the email header. Analyse the header and identify whether it is legitimate or not. If not, from where it was sent.

The Given Email is Not Legitimate / Fake.

```
Mon, 02 May 2022 03:08:51 -0700 (PDT)

Received-SPF. softfail (google.com: domain of transitioning tajvindersingh81@gmail.com does not designate 101.99.94.116 as permitted sender) client-ip=101.99.94.116;
```

Authentication Results: mx.google.com;

spf=softfail (google.com: domain of transitioning tajvindersingh81@gmail.com does not designate 101.99.94.116 as permitted sender) smtp.mailfrom=tajvindersingh81@gmail.com;

```
dmarc=fail (p=NONE sp=QUARANTINE dis=NONE) header.from=gmail.com
Received: by emket.cz (Postfix, from userid 33) id 3AE2C18C532; Mon,
2 May 2022 12:08:25 +0200 (CEST)
```

- ✓ Email Evidence is in Email itself (Header)!
- ✓ Tracing -> Examination of an Email Header to determine its point of origin

Original Message

Message ID	<t2fgj9qc3wejj9vgtbiwcq@notifications.google.com></t2fgj9qc3wejj9vgtbiwcq@notifications.google.com>
Created at:	Wed, Apr 19, 2023 at 10:18 AM (Delivered after 0 seconds)
From:	"Ami B Mehta TA2 SVNIT (Classroom)" <no-reply@classroom.google.com></no-reply@classroom.google.com>
То:	u19cs012@coed.svnit.ac.in
Subject:	New assignment: "Assignment 6"
SPF:	PASS with IP 209.85.220.69 Learn more
DKIM:	'PASS' with domain google.com Learn more
DMARC:	'PASS' Learn more

Download Original

Ideally, It should pass all SPF, DKIM & DMARC.

Received: from emkei.cz (emkei.cz. [101.99.94.116])

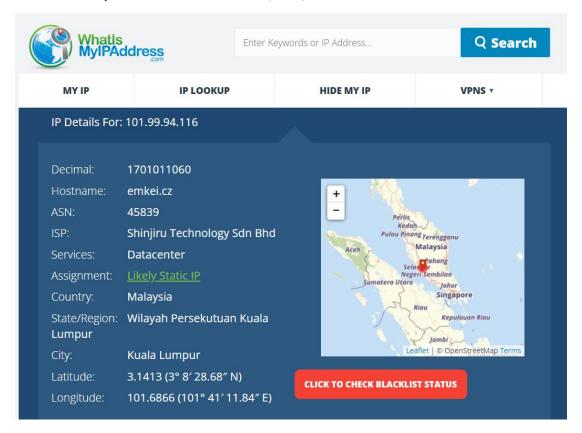
by mx.google.com with ESMTPS id gj22-

20020a170907741600b006f38e90d86fsi11059076ejc.256.2022.05.02.03.08.51

for <thakarakash@gmail.com>

(version=TLS1_3 cipher=TLS_AES_256_GCM_SHA384 bits=256/256);

Mon, 02 May 2022 03:08:51 -0700 (PDT)



Sent Location:

Country: Malaysia

State/Region: Wilayah Persekutuan Kuala Lumpur

City: Kuala Lumpur

Latitude:3.1413 (3° 8′ 28.68″ N)

Longitude:101.6866 (101° 41′ 11.84″ E)

SUBMITTED BY:

U19C5012

BHAGYA VINOD RANA