

# LAB Manual

## PART A

(PART A : TO BE REFERRED BY STUDENTS)

### Experiment No. 4

#### A.1 Aim:

- (A) To study AnyRun/Hybrid/Akamai or any online sandbox tool
- (B) To carry out malware analysis using AnyRun /Hybrid or any online sandbox tool

#### A.2 Prerequisite:

Basics of malicious softwares, viruses, Trojan.

#### A.3 Outcome:

**After successful completion of this experiment students will be able to**  
Appreciate the importance of malware analysis

#### A.4 Theory:

**Sandbox :** In the world of cybersecurity, a sandbox environment is an isolated virtual machine in which potentially unsafe software code can execute without affecting network resources or local applications. Cybersecurity researchers use sandboxes to run suspicious code from unknown attachments and URLs and observe its behavior.

**Malware analysis** plays an essential role in avoiding and understanding cyber attacks. When incident response teams are brought into an incident involving malware, the team will typically gather and analyze one or more samples in order to better understand the attacker's capabilities and to help guide their investigation. As organizations deal with an increasing number of attacks and breaches, analysts are always looking for ways to triage and understand samples faster and more efficiently.

Any online sandbox tool can be explored.

<https://any.run/cybersecurity-blog/category/malware-analysis/>  
[app.any.run/docs/#What-can-I-use-ANYRUN-for](https://any.run/docs/#What-can-I-use-ANYRUN-for)

Example : <https://www.youtube.com/watch?v=e0vzBHEAzYc>

<https://www.hybrid-analysis.com/>  
<https://learn.akamai.com/en-us/webhelp/enterprise-threat-protector/enterprise-threat-protector/GUID-FB14F4B8-045F-4C1F-8E10-B02E653510C0.html>

## PART B

(PART B : TO BE COMPLETED BY STUDENTS)

*(Students must submit the soft copy as per following segments within two hours of the practical. The soft copy must be uploaded on the Blackboard or emailed to the concerned lab in charge faculties at the end of the practical in case the there is no Black board access available)*

Roll. No.	Name:
Class	Batch:
Date of Experiment:	Date of Submission:
Grade:	

### B.1 Introduction about the suspicious files presenting for analyze by student:

1. Refer your experiment no. 1 suspicious file and analyze it on sandbox environment.

Or

2. Any kind of malware/Trojan/virus file and analyze it on sandbox environment.

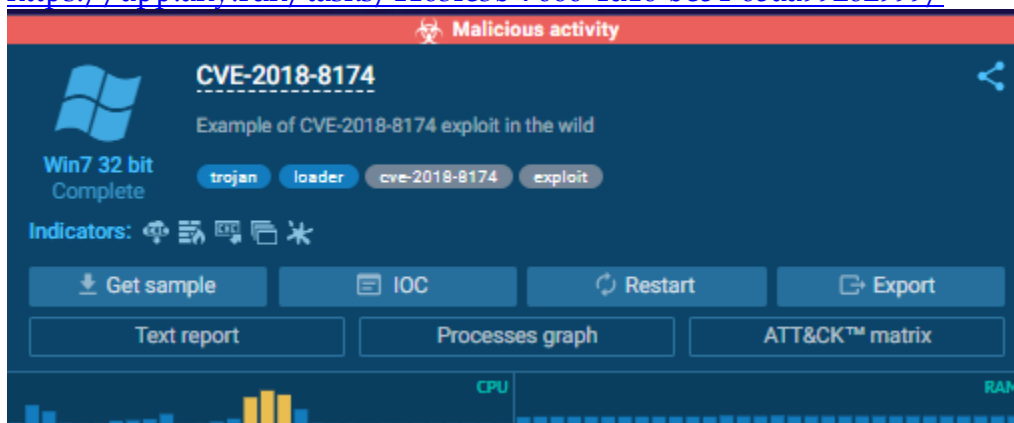
### B.2 Input and Output:

*(Paste your program input and output in following format, If there is error then paste the specific error in the output part. In case of error with due permission of the faculty extension can be given to submit the error free code with output in due course of time. Students will be graded accordingly.)*

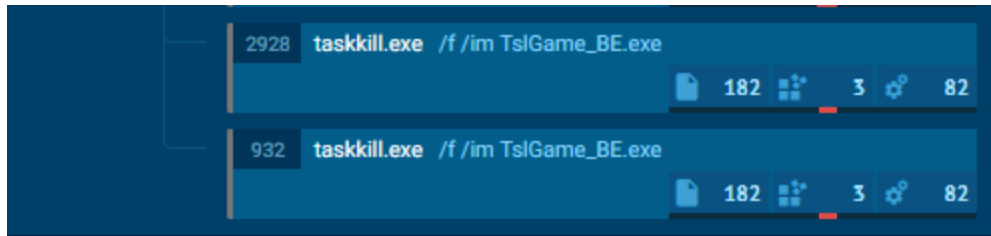
#### Input:

Any of existing case.

<https://app.any.run/tasks/1163fe3b-7060-4d16-be54-05aa99202999/>



Processes		Filter by PID or name	<input checked="" type="checkbox"/> Only important
3472	ieexplore.exe	C:\Users\admin\Desktop\CVE_2018_8174.html	1k 175 74
3904	ieexplore.exe	SCODEF:3472 CREDAT:79873	1k 153 98
3008	svchost.exe	PE	427 37 96
2968	puasy.exe	PE	698 68 47
1920	taskkill.exe	/f /im Steam.exe	182 3 82
3424	taskkill.exe	/f /im Steam.exe	182 3 82
3744	taskkill.exe	/f /im SteamService.exe	182 4 82
2280	taskkill.exe	/f /im SteamService.exe	182 3 82
2776	taskkill.exe	/f /im steamwebhelper.exe	182 4 82
2068	taskkill.exe	/f /im steamwebhelper.exe	182 3 82
3536	taskkill.exe	/f /im Client.exe	182 3 82
1400	taskkill.exe	/f /im Client.exe	182 3 82
3420	taskkill.exe	/f /im TslGame.exe	182 3 82
4068	taskkill.exe	/f /im TslGame.exe	182 3 82



**Output:**

Output screenshots

HTTP Requests		3	Connections		3	DNS Requests		2	Threats	8	Filter by message	PCAP
Timeshift	Class		PID	Process name		Message						
6864 ms	A Network Trojan was detected		3904	iexplore.exe		ET INFO Executable Download from dotted-quad Host						
6864 ms	A Network Trojan was detected		3904	iexplore.exe		ET TROJAN Single char EXE direct download likely trojan (multiple families)						
7022 ms	Misc activity		3904	iexplore.exe		ET INFO Packed Executable Download						
9963 ms	Potential Corporate Privacy Violation		3008	svchost.exe		ET POLICY PE EXE or DLL Windows file download HTTP						
9963 ms	Misc activity		3008	svchost.exe		ET INFO EXE - Served Inline HTTP						
30189 ms	Potential Corporate Privacy Violation		3904	iexplore.exe		ET POLICY PE EXE or DLL Windows file download HTTP						
30189 ms	A Network Trojan was detected		3904	iexplore.exe		ET CURRENT_EVENTS Likely Malicious wininet UA Downloading EXE						
30189 ms	Potentially Bad Traffic		3904	iexplore.exe		ET INFO SUSPICIOUS Dotted Quad Host MZ Response						

### B.3 Observations and learning:

*(Students are expected to comment on the output obtained with clear observations and learning for each task/ sub part assigned)*

Hence, We were able to run the file containing Trojan Virus and was detect on ANY RUN Application.



## B.4 Conclusion:

*(Students must write the conclusion as per the attainment of individual outcome listed above and learning/observation noted in section B.3)*

Hence we were able to perform the lab successfully with the detection of Trojan Virus on a HTML File with ASCII Text.

## **B.5 Questions of Curiosity**

*(To be answered by student based on the practical performed and learning/observations)*

Q1: What is malware Analysis? And how it is performed?