HACKERU



Digital Forensics & Incident Response

CB110



# Digital Forensics & Incident Response

## Outline

The 5-day Digital Forensics & Incident Response course introduces participants to DFIR concepts and transfers goal-oriented use techniques. Participants will learn how to investigate an incident, how to gather supportive forensic data, and how to handle it.



### Target Audience

This course is designed for learners who already have hands-on technical experience.

#### Primarily

- IT Teams
- SOC Teams
- Forensics Teams
- Penetration Testers



### Prerequisites

Before attending this course, participants must have:

- Hands-on experience with Linux and Windows systems
- A solid understanding of networking infrastructure



### Objectives

Upon course completion, participants will be able to:

- I Investigate Security Events
- I Analyze Network Traffic
- Recover Lost Data
- Recover Traces and Actions Made on PCs



# Introduction to DFIR

- I Introduction to DFIR
- DF vs IR vs TH
- I Incident Response planning
- I Targeted artifacts
- DFIR use-cases
- DFIR Toolset
- SANS & NIST

# Incident Response - Preparation

- Defining assets & values
- CIA
- Risk management
- Roles & Responsibilities
- 4 & 6 stages of IR
- Creating IR Plan
- DRP & BCP
- GRC
- ATT&CK
- I Compliances ISO, GDPR, HIPPA, PCI-DSS

## 1 Incident Response - Response

- I SOC Operation & Lifecycle
- I Identification & Scoping
- Containment
- I Intelligence gathering
- Eradication
- Chain of custody

#### 2 **Module 04** Data Acquisition

- Dead System Analysis
- Live System Analysis
- Drive Cloning
- I Image Mounting
- Memory Dumping
- Evidence Documentation

#### 2 **Module 05** Live Forensics

- Artifacts on a Windows computer
- Browser History
- USB History
- DNS Cache
- Prefetch
- MRU
- Nirsoft

# <sup>Day</sup> 3 Windows Forensics

- Windows DF Specifics
- NTFS
- ADS & MFT
- File Carving
- Registry Forensics
- Forensics using powershell

#### 3 Module 07 Memory Analysis

- Memory structure
- Memory analysis tools
- I Volatility Breakdown & Usage
- Process exploration
- I DLL inspection
- Acquiring memory artifacts

## 4 Linux Forensics

- Linux Filesystems
- Network configuration
- Login information
- Bash history
- I Identifying Persistence
- Logfile Analysis

# A File Upload

- Windows EventLog
- PowerShell logs
- I Timeline analysis
- DF Timeline
- Log2timeline

## 5 Threat Hunting – consider moving after Malware

- I Threat Hunting
- I Threat intelligence
- Collecting IoCs
- Malware characteristics
- from DF to TH
- Common Hiding Mechanisms

## 5 Network Forensics

- I Traffic interception & Network Evidence
- Reverse Proxy
- Wireshark
- DF using Wireshark
- I Common Protocol Analysis
- Zeek NSM

#### Day 5 DFIR Simulation

DF lab & Recap

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Participants will learn how to investigate an incident, how to gather supportive forensic data, and how to handle it."

# The HackerU Advantage

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