#### **Ducara Info Solutions (P) Ltd.**



# C | USBFX

Certified USB Forensics Expert

www.ducarainfo.com

### WHY C | USBFX?

Earn expertise skills in USB Forensics

 C|USBFX will cover USB in detail with an emphasis on understanding USB Mass Storage devices (also known as flash drives or thumb drives).

By the end of this course students will know how to sniff USB traffic using open source tools, be able to write-block USB mass storage devices using software and microcontroller-based hardware, be able to impersonate other USB devices, and understand how to make forensic duplicates of USB mass storage devices.

 Along the way students will also learn how to use microcontrollers and Udev rules.







# What is the Objective?

Outcome Of this Course

 Learner will develop an understanding of the scientific principles of investigation and reconstruction, including evidence collection and preservation.

> Learner will receive intensive hands-on training in forensic laboratory methodologies with respect to the examination and analysis of evidence.

> > Learner will develop written communication skills for presentation of their findings in accordance with established professional guidelines.

 Learner will develop an understanding of the importance of professionalism and ethical behavior in the forensic science community.



## **Target** Audience

Who earns C|USBFX?

- People who would like to enter in digital forensics services workspace.
- Professionals who would like to learn latest forensics solutions.
- Professionals who would like to help organizations to resolve & tackle hacking incidents.

Professionals or organizations who have been a victim of digital crime.

Security professionals who would like to take their skills to next level.

Technologies companies looking to have in-house digital forensics expertise.



Duration: 24Hrs

#### **Course** Outline

Topics Covered in Course













Creating a forensic images



Using udev rules



USB Basics

- USB Hardware
- USB Versions
- Connection Process
- USB Advantages & Disadvantages

USB Evolution

USB Capabilities

USB Implementers Forum







**USB** Endpoints

- Interupt
- Bulk
- Isochronous
- Control

## Module 2

**USB** Device classes

- Communications and CDC Control
- HID
- Mass storage
- MIDI Class
- Others Classes







**USB** Descriptors

- **Device Descriptors**
- **Interface Descriptors**
- **Configuration Descriptors**
- **Endpoint Descriptors**
- **String Descriptors**

#### Module 4

**USB Protocol** 

- **USB Packet Fields**
- Types of USB packets
- **Transactions**
- Types of USB Transfer





Mass Storage Basics

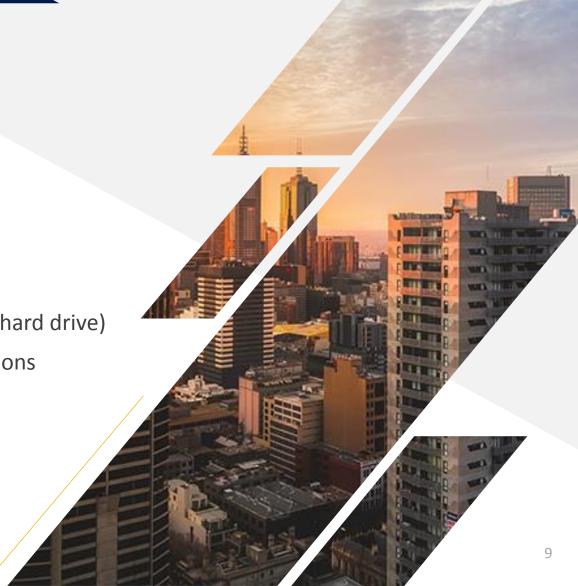
- Benefits of mass storage
- Selecting a media type
- Hard drive
- Flash memory



Presentation (SCSI hard drive)

NAND flash limitations

Communication





Creating a forensic images

Disk Imaging – USB Forensics

Disk Image Format

Evidence Information

Evidence Analysis

Deleted Files & Folders Recovery

FTDI Vincullum II microcontroller

Simple compact duplicator

More user-friendly duplicator

Adding an LCD screen





USB Write blocking

- Write Blockers
- Software write blocker
- Hardware write blocker
- USB Impersonation







## **Any** Query?

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The Technology is changing every day and we at Ducara are committed to demonstrating values. Embracing a digital transformation strategy which drive returns on IT security investment.