

## Advance MAC troubleshooting

**Duration:** 3 Days (8 Hrs/Day)

**Prerequisites:** Basic knowledge of macOS

**Course Objective:** Embark on a journey to master Advanced Mac Troubleshooting. Explore topics like Ports, Diagnostics, Target Disk Mode, Boot Process, Console, Disk Utility, Terminal, User Data, Applications, Single User Mode, Services, and File Systems. Simplifying intricate tech issues, this course equips you with the skills to diagnose and resolve complex Mac challenges effectively.

**Operating System:** Latest version of macOS

**Lab Requirement:** Bring Your Own Device (BYOD)

### Section A - Hardware

#### Module 1 - Ports

USB-C

USB types

Thunderbolt

Compatibility, Devices

Port power consumption

**Lab:** How to search for KBAs (Knowledge Based Articles) for troubleshooting related to ports on apple support website

#### Module 2 - Boot Process (UEFI)

Clover

Bootcamp

Fusion

Partitions

**Lab:** How to manage partitions before booting into macOS

**Lab:** How to use Bootcamp

**Lab:** How to check for info on various boot methods available for macOS

### **Module 3 - Boot Process (Diagnostics)**

Verbose boot

Target disk mode

Recovery boot

Test/Diagnose mode

Other boot options

**Lab:** How to boot into recovery mode

**Lab:** How to boot into target disk mode

### **Module 4 - Boot Process (Target disk mode)**

Access mac media on a non-bootable mac

**Lab:** How to access mac media on a non-bootable mac

### **Module 5 - Diagnostic tools (Console)**

Categories

Read logs

Search logs

What information is available

Export logs

**Lab:** How to read logs

**Lab:** How to search logs

**Lab:** How to export logs

### **Module 6 - Diagnostic tools (Disk utility)**

Partitions

Permission repair

File format compatibility

External drives

**Lab:** How to manage partitions using disk utility

**Lab:** How to perform permission repair

**Lab:** How to format an external drive in different file formats

**Lab:** How to safely remove an external drive

### **Module 7 - Diagnostic tools (Terminal)**

F5CK

TOP



Hidden files

Screenshots format, turning shadow on/off, Default location, Default name

Custom login message

Caffeinate

Other useful commands

**Lab:** How to use FSCK command

**Lab:** How to use TOP command

**Lab:** How to view hidden files

**Lab:** How to modify shadow on/off, Default location, Default name for screenshots

## **Section B - Software**

### **Module 8 - User Data**

Locations

Permissions

What to avoid deleting

UserID

FileVault

Time machine and other backup tools

**Lab:** How to turn locations on/off

**Lab:** How to modify permission for files and folders

**Lab:** How to manage UserID

**Lab:** How to turn fileVault on/off

### **Module 9 - Applications**

Locations

PList locations

Troubleshooting applications

Installing applications

Uninstalling software

**Lab:** How to view application content

**Lab:** How to view PList files

**Lab:** How to troubleshoot unresponsive or frozen applications

**Lab:** How to install applications

**Lab:** How to uninstall applications

### **Module 10 - Single User Mode**

When to use



How to access

What to do

**Lab:** How to access single user mode

## **Module 11 - Services**

What services are critical

Security management using fileVault, Gatekeeper and keychain access (Local, iCloud and new keychains)

**Lab:** How to use fileVault

**Lab:** When to expect gatekeeping prompts

**Lab:** How to manage Keychain from all the sources

## **Module 12 - File Systems**

Native

Supported

Compatibility limitations

**Lab:** Testing native file systems

**Lab:** Testing supported file systems

**Lab:** checking which file system is compatible