**Module 4: Troubleshooting and Helpdesk Topic: Troubleshoot security**

* Assignment level Basic:

1. What is troubleshooting?

* Troubleshooting is a systematic approach to solving a problem. The goal of troubleshooting is to determine why something does not work as expected and explain how to resolve the problem. The first step in the troubleshooting process is to describe the problem completely.

1. what is the need of troubleshooting security?

* Troubleshooting is needed to identify the symptoms. Determining the most likely cause is a process of elimination—eliminating potential causes of a problem. Finally, troubleshooting requires confirmation that the solution restores the product or process to its working state.
* Assignment level Intermediate:

1. Do a practical to change the password.

* Done

1. Do a practical to change the user account password.

* Done
* Assignment level advance:

1. How do you troubleshoot a computer?

* Tech Tips to Troubleshoot a Computer
* What's Wrong? Determine the who, what, and when of the issue you're experiencing.
* Consult Google for Problem
* Reboot the Computer with default
* Check Connections of Drivers and Configs
* Look for Program Updates was available or not
* Close Background Tasks going are as per work or not
* Clean Up Your Hard Drive.
* Run an Antivirus Program.

1. How to troubleshoot common computer problems?

* The troubleshooting process steps are as follows:
* Identify the problem.
* Establish a theory of probable cause.
* Test the theory to determine the cause.
* Establish a plan of action to resolve the problem and implement the solution.
* Verify full system functionality and, if applicable, implement preventive measures.

1. Your computer turns on, but still doesn’t work?

* If you hear your computer starting but don't see anything on your monitor, it could be an issue with your display. Make sure your monitor is plugged in, receiving power, and turned on. Then check that the cord connecting your PC and monitor is firmly attached, not damaged, and plugged into the correct input.

1. You get the blue screen of death?

* Here is how to do that:
* Right-click This PC.
* Go to Properties.
* On the left-hand side, click Advanced System Settings.
* Under Startup and Recovery, click Settings.
* Now, under System Failure, untick the checkbox that says Automatically restart.
* Click Ok to save and continue.

**Topic: OS Troubleshooting**

* Assignment level Basic:

1. What are the basic of troubleshooting?

* Tips for Troubleshooting Software
* Free up RAM by closing other open programs.
* Restart the software.
* Shut down and restart your computer.
* Use the Internet to find help.
* Undo any recent hardware or software changes.
* Uninstall the software, then reinstall it.
* Look for software patches.
* Scan for viruses and malware.

1. Write down the steps of os troubleshooting.

* Prepare.
* Make damage control plan.
* Get a complete and accurate symptom description.
* Reproduce the symptom.
* Do the appropriate corrective maintenance.
* Narrow it down to the root cause.
* Repair or replace the defective component.
* Test.
* Assignments level Advance:

1. Do a practical to repair OS.

* Done

1. Do a practical to repair boot file.

* Done

1. DO a practical to repair bootmgr.

* Done
* Topic: Recovery Assignment level Basic:

1. What is recovery?

* Data recovery is the process of restoring data that has been lost, accidentally deleted, corrupted or made inaccessible. In enterprise IT, data recovery typically refers to the restoration of data to a desktop, laptop, server or external storage system from a backup.

1. Why do we need recovery?

* The purpose of the backup is to create a copy of data that can be recovered in the event of a primary data failure. Primary data failures can be the result of hardware or software failure, data corruption, or a human-caused event, such as a malicious attack (virus or malware), or accidental deletion of data.
* Assignment level Intermediate:

1. list out the tools for recovery.

* Some of the tools are.
* FonePaw Data Recovery.
* Stellar data recovery.
* Disk Drill.
* Tenorshare 4DDiG Data Recovery.
* TestDisk.
* Ultimate Boot CD.
* UndeleteMyFiles Pro.
* Glary Undelete.

1. DO a practical to recover deleted file.

* Done

1. Do a practical to recover the formatted file?

* Done

1. Do practical to recover data from the os Corrupted file.

* Done

**Topic: Hard Drive troubleshooting**

* Assignment level Basic:

1. What is Hard troubleshooting?

* If you cannot access the hard disk drive, and its configuration settings are correct, you must troubleshoot the hardware components associated with the hard disk drive. These components include the drive, its signal cable, and the Hard Disk Controller (HDC) on the system board.

1. Why do we need Hard drive troubleshooting.

* To solve those Problems that occur when you have just installed a hard drive are almost always a simple matter of a bad or incorrectly connected cable, incorrect jumper settings, or some similar trivial problem. If a newly installed drive isn't recognized by the system, turn off the system.
* Assignment level Intermediate:

1. Do a practical to troubleshoot the digging sound.

* Done

1. Do a practical to change the sata cable in harddrive.

* Done

**Topic: Laptop, Printer, Video card Troubleshooting**

* Assignments level Baic

1. What is the basic troubleshooting for printer?

* Troubleshooting offline printer problems in Windows
* Check to make sure the printer is turned on and connected to the same Wi-Fi network as your device.
* Unplug and restart your printer.
* Set your printer as the default printer.
* Clear the print queue.
* Reset the service that manages the printing queue.

1. What are the basic troubleshooting for laptop?

* Here we have given some simple solutions to five common laptop issues.
* Overheating. Overheating can rob your laptop performance and often causes system crashes and freezing.
* Battery Dying Quickly.
* Bad Keyboard.
* System Crash.
* Viruses or Malware.
* Assignments level Intermediate:

1. Do a practical to disassemble the laptop and change the corrupted ram.

* Done

1. Do a practical to change the cartridge of the printer.

* Done

1. Do a practical to change the processor fan.

* Done

1. Do a practical to check the laptop which is not starting up

* Done