**Comptia A+ Assignment**

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**Module 4**

1, What is troubleshooting?

Ans Troubleshooting refers to the systematic process of identifying, diagnosing, and resolving problems or issues that arise in a system, device, software, or network. It is a critical skill in various technical fields, including IT, engineering, electronics, and software development.

2, Do a practical to change the administrator account forge password.

Steps to Change Administrator Account Password on Windows

Access User Accounts Settings:

Log in to the computer using the current administrator account credentials.

Open Control Panel:

Click on the Start menu and open the Control Panel.

Navigate to User Accounts:

In the Control Panel, click on "User Accounts" or "User Accounts and Family Safety" (depending on your Control Panel view).

Change Your Password:

Click on "Change your Windows password" or "Manage another account" if the option is available.

Select the Administrator Account:

Locate the administrator account for which you want to change the password and click on it.

Change Password:

Choose the option to change the password.

Enter Current Password:

You may need to enter the current password for verification purposes.

Set New Password:

Enter a new password. Make sure it is strong and memorable.

Confirm New Password:

Re-enter the new password to confirm.

Save Changes:

Click on "Change password" or "Save changes" to apply the new password to the administrator account.

Log Out and Log In:

Log out of the current session and log back in using the new password to ensure it works correctly.

3, How do you troubleshoot a computer with no display on screen?

Ans · Check Connections and Power:

· Ensure that the monitor is properly connected to both the computer and a power source.

Verify that the computer itself is receiving power and turned on.

· Inspect Monitor and Cables:

· Test the monitor with another computer or device to confirm if the monitor is functioning properly.

Check for any loose or damaged cables (VGA, DVI, HDMI, DisplayPort) connecting the monitor to the computer.

· Restart the Computer:

· Sometimes a simple restart can resolve temporary display issues caused by software glitches.

· Check for Display Output Selection:

· On some computers, especially laptops, there are keyboard shortcuts (e.g., Fn + F4, Fn + F8) to switch between display modes. Try these to ensure the correct display output is selected.

· Inspect for Hardware Issues:

· If you recently installed new hardware (e.g., graphics card, RAM), ensure they are properly seated and compatible with your system.

Reseat the graphics card if applicable, ensuring it is securely inserted into the motherboard slot.

· Test with Different Monitor and Cable:

· If possible, connect a different monitor and cable to your computer to rule out issues with the original monitor or cable.

· Listen for System Beeps:

· Some motherboards emit beep codes to indicate hardware issues. Refer to your motherboard manual for beep code meanings.

· Check BIOS Settings:

· If you suspect a BIOS issue, try resetting the BIOS settings to default. This can often be done by removing the CMOS battery momentarily or using a jumper on the motherboard.

4, You get the blue screen of death?

Ans **Causes**:

* **Hardware Issues**: Faulty hardware components such as RAM, hard drive, or motherboard.
* **Driver Problems**: Incompatible or outdated device drivers.
* **Software Issues**: Corrupted system files, malware infections, or incompatible applications.
* **Overheating**: Excessive heat affecting system stability.
* **Power Supply Issues**: Insufficient power or power fluctuations

Steps to Troubleshoot the Blue Screen of Death

· Note Error Code:

· Take note of the error code displayed on the BSoD screen. This code can provide clues about the nature of the problem.

· Restart the Computer:

· Allow the computer to restart. Sometimes, the issue may resolve itself after a reboot.

· Check for Recently Installed Hardware or Software:

· If you recently installed new hardware or software, uninstall or remove it to see if the BSoD persists.

· Update Device Drivers:

· Update device drivers, especially graphics, chipset, and network drivers, to ensure compatibility and stability.

· Run System Diagnostics:

· Use built-in Windows tools like Event Viewer to review error logs and identify specific events leading up to the BSoD.

5, Do a practical to repair OS.

Ans Practical Steps to Repair Operating System (Windows)

Backup Important Data:

Before proceeding with any repair actions, ensure you have backups of important files and data to prevent data loss.

Startup Repair:

Boot from Installation Media: Insert the Windows installation USB or DVD and boot from it. You may need to change the boot order in BIOS settings.

Access Repair Options: Choose the language and keyboard layout, then click on "Repair your computer" or "Troubleshoot" options.

Startup Repair: Select "Startup Repair" and follow the on-screen instructions. This tool attempts to fix startup issues automatically.

System Restore:

Access Repair Options: From the same "Repair your computer" menu, select "System Restore".

Choose Restore Point: Select a restore point before the issue started and follow the prompts to restore the system to that point.

Check Disk for Errors:

Command Prompt: In the "Repair your computer" menu, choose "Command Prompt".

Run CHKDSK: Type chkdsk C: /f /r and press Enter. Replace C: with the drive letter of your Windows installation.

Fix Errors: CHKDSK scans for and fixes file system errors. Allow it to complete the process.

System File Checker (SFC):

Command Prompt: In the same Command Prompt window, type sfc /scannow and press Enter.

Repair System Files: SFC scans and repairs corrupted or missing system files. Wait for it to complete (it may take some time).

· Reinstall Windows (Last Resort):

· Backup: Ensure all data is backed up before proceeding.

Install Windows: Use the Windows installation media to reinstall Windows completely.

6,  Do a practical to repair boot file .

Practical Steps to Repair Boot Files

* Using Windows Installation Media:

Prepare Windows Installation Media:

* Create a bootable Windows installation USB or DVD. You can use the Media Creation Tool from Microsoft's website to create this.

Boot from Installation Media:

* Insert the Windows installation USB or DVD into your computer.
* Restart your computer and enter the BIOS setup (usually by pressing Del, F2, or Esc key during startup).
* Change the boot order to prioritize booting from the USB or DVD.

Access Repair Options:

* When prompted, choose your language, time, and keyboard preferences.
* Click on "Repair your computer" at the bottom left corner of the screen.
* In the "Choose an option" screen, select "Troubleshoot".

Repair the Boot Files:

* Startup Repair:
* Select "Startup Repair". This tool attempts to automatically fix problems that prevent Windows from booting properly.
* Follow the on-screen instructions. Windows will attempt to diagnose and repair boot problems.
* Command Prompt:
* If Startup Repair doesn't resolve the issue, go back to "Troubleshoot" > "Advanced options".

Repair Master Boot Record (MBR):

* In the Command Prompt window, type the following commands one by one and press Enter after each:
* bootrec /fixmbr
* bootrec /fixboot

Rebuild Boot Configuration Data (BCD):

* Still in the Command Prompt, type:
* bootrec /rebuildbcd
* Follow the on-screen prompts to add Windows installations to the boot list. Type Y to confirm.
* Restart Your Computer:
* After executing the commands successfully, type exit in the Command Prompt and press Enter.
* Remove the Windows installation media and restart your computer.
* Verify Boot:
* Windows should now attempt to boot normally. Verify if the issue with the boot files has been resolved.

7, DO a practical to recover deleted file

Ans;

**Check Recycle Bin**:

* 1. Open the Recycle Bin on your desktop.
  2. Locate the deleted files. If found, right-click on the file and choose "Restore" to recover it to its original location.

**Restore Previous Versions (File History)**:

**For Windows 10/11**:

* + 1. Right-click on the folder that contained the deleted file.
    2. Select "Restore previous versions". This feature relies on File History bing enabled.

#### Using Third-Party Data Recovery Software:

**Download and Install Recovery Software**:

* 1. Use reputable data recovery software like Recuva, EaseUS Data Recovery Wizard, or Stellar Data Recovery. Download and install it on your computer.

**Run the Recovery Software**:

* 1. Launch the data recovery software.
  2. Select the drive or location where the deleted file was originally located.

**Scan for Deleted Files**:

* 1. Start a scan to search for deleted files. The scan may take some time depending on the size of the drive and the amount of data.

**Preview and Recover Files**:

* 1. After the scan completes, the software will display a list of recoverable files.
  2. Preview the files if possible to ensure they are intact.
  3. Select the files you want to recover and choose a safe location to restore them (not the same drive where the files were originally located).

**Complete the Recovery**:

* 1. Follow the prompts to complete the file recovery process.
  2. Check the recovered files in the destination folder to ensure they are usable.

8, Do a practical to recover the formatted file

Ans; **Download and Install Recuva**:

* Visit the Piriform Recuva website (https://www.ccleaner.com/recuva) and download the free version of Recuva.
* Install Recuva on your computer following the on-screen instructions.

· **Launch Recuva**:

* After installation, launch Recuva. You may need administrative privileges to run the software.

· **Select File Type and Location**:

* In Recuva, choose the type of files you want to recover (e.g., Documents, Pictures, All Files).
* Select the location where the formatted drive or partition was located (e.g., Local Disk (C:), External Drive).

· **Scan for Deleted Files**:

* Click on the "Scan" button to start scanning for deleted files on the selected drive or partition.
* Recuva will perform a quick scan first. If it doesn’t find your files, you can perform a deep scan by clicking on "Deep Scan" for a more thorough search.

· **Review Scan Results**:

* Once the scan is complete, Recuva will display a list of recoverable files.
* Use the filtering and sorting options to locate specific files or browse through the list to find the files you want to recover.

· **Preview and Recover Files**:

* Select the files you want to recover by checking the box next to each file.
* You can preview files (if supported by Recuva) by right-clicking on them and selecting "Preview".
* Click on the "Recover" button.

· **Choose Recovery Location**:

* Recuva will prompt you to choose a destination where recovered files will be saved. **Do not save recovered files to the same drive/partition from which they were recovered** to avoid overwriting.

· **Complete Recovery**:

* After choosing the recovery location, click "OK" to start recovering the selected files.
* Wait for Recuva to complete the recovery process. The time taken depends on the size and number of files being recovered.

· **Verify Recovered Files**:

* Navigate to the destination folder you chose in step 7.
* Check the recovered files to ensure they are intact and usable.

9, Do practical to recover data from the os Corrupted file ?

### Ans Practical Steps to Recover Data from a Corrupted OS File

#### Using Ubuntu Live USB (as an Example):

**Prepare Ubuntu Live USB**:

* 1. Download the Ubuntu ISO file from the official Ubuntu website ([https://ubuntu.com/download](https://ubuntu.com/download" \t "_new)).
  2. Create a bootable USB drive using software like Rufus ([https://rufus.ie/](https://rufus.ie/" \t "_new)) or balenaEtcher (https://www.balena.io/etcher/).

**Boot from Ubuntu Live USB**:

* 1. Insert the Ubuntu Live USB into your computer.
  2. Restart your computer and access the BIOS/UEFI setup (usually by pressing Del, F2, or Esc key during startup).
  3. Change the boot order to prioritize booting from the USB drive

**Access the File System**:

* 1. Once Ubuntu Live USB boots into the Ubuntu desktop environment, you can access the Windows file system (usually located under "Devices" in the file manager).

**Locate and Copy Files**:

* 1. Navigate to the drive or partition where your Windows operating system is installed (typically under /media or /mnt).
  2. Locate the folders containing your important data files (Documents, Pictures, Videos, etc.).

**Copy Files to External Storage**:

* 1. Connect an external USB drive or another storage device to the computer.
  2. Copy the files you want to recover from the corrupted OS file to the external storage device

**Eject External Storage**:

* 1. Safely eject the external storage device to ensure data integrity.

**Shutdown and Remove Ubuntu Live USB**:

* 1. Shutdown the computer and remove the Ubuntu Live USB drive.

10, What is the basic troubleshooting for printer?

Ans: **Check Printer Connections**:

* Ensure the printer is properly connected to power and turned on.
* Verify connections between the printer and the computer (USB, Ethernet, or wireless).

· **Check Printer Status Lights**:

* Look for any error indicators or status lights on the printer. Refer to the printer manual for their meanings and troubleshooting steps.

· **Restart Printer**:

* Turn off the printer, wait for a few seconds, and then turn it back on. This can often resolve temporary issues.

· **Check Paper and Ink/Toner**:

* Make sure there is enough paper in the paper tray.
* Check ink or toner levels. Replace cartridges if they are low or empty.

· **Print a Test Page**:

* Use the printer’s control panel or printer software on your computer to print a test page. This helps verify if the printer is able to communicate with the computer.

· **Check Print Queue**:

* Open the print queue on your computer (Control Panel > Devices and Printers or Settings > Devices > Printers & scanners).
* Cancel any stuck print jobs or clear the print queue if necessary.

· **Update Printer Drivers**:

* Outdated or corrupted printer drivers can cause issues. Visit the printer manufacturer’s website to download and install the latest drivers for your printer model.

· **Restart Computer**:

* Sometimes, restarting the computer can resolve communication issues between the computer and the printer.