



Computer Troubleshooting

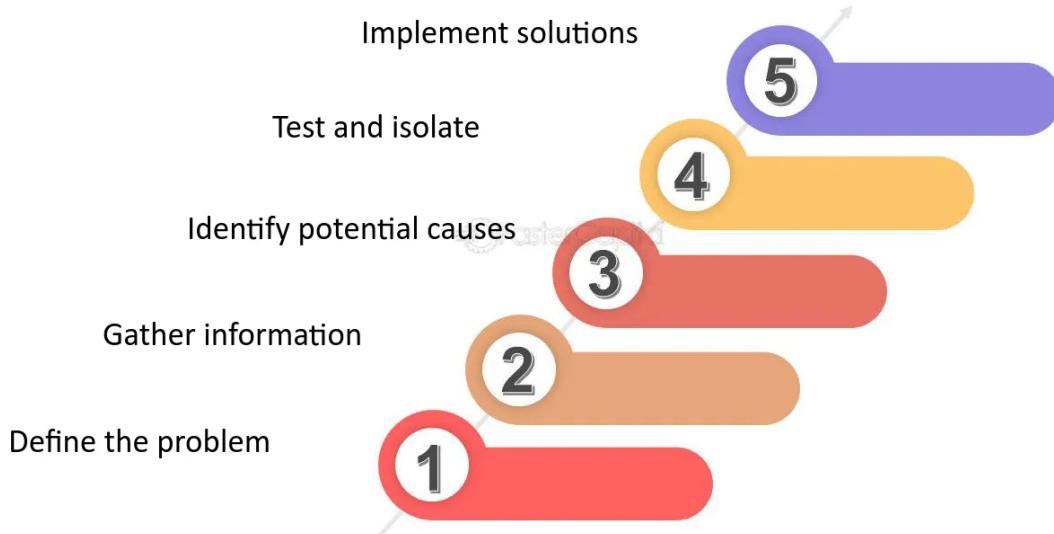
1. What Is Troubleshooting?

Troubleshooting is the process of identifying, analysing, and solving problems that occur in a computer system.

Why Troubleshooting Is Important

- Keeps systems working properly
- Saves time and cost
- Prevents data loss
- Improves user productivity

Step-by-Step Troubleshooting Process



2. Common Hardware Problems

Hardware problems are related to physical components of the computer.

2.1 Computer Does Not Turn On



Possible Causes:

- Power cable not connected
- Faulty power supply
- Battery drained (laptop)

Solutions:

- Check power cable and socket
- Replace or charge battery
- Test with another power supply

2.2 No Display on Screen

Possible Causes:

- Monitor not powered
- Loose display cable
- Graphics card issue

Solutions:

- Check monitor power
- Reconnect display cables
- Restart the computer

2.3 Keyboard or Mouse Not Working

Possible Causes:

- Loose connection
- Driver issues
- Hardware damage

Solutions:

- Reconnect device
- Try another USB port
- Replace the device

2.4 Overheating

Possible Causes:

- Dust inside system
- Faulty cooling fan
- Poor ventilation

Solutions:

- Clean the system
- Ensure proper airflow
- Use cooling pads (laptops)

3. Common Software Problems



Software problems relate to operating systems and applications.

3.1 Computer Is Slow

Possible Causes:

- Too many running programs
- Low memory (RAM)
- Virus or malware

Solutions:

- Close unnecessary programs
- Restart the system
- Scan for malware

3.2 Software Not Responding

Possible Causes:

- Program crash
- Incompatible software
- Insufficient system resources

Solutions:

- End task using Task Manager
- Reinstall the software
- Update the program

3.3 Operating System Errors

Possible Causes:

- Corrupted system files
- Improper shutdown
- Driver issues

Solutions:

- Restart system
- Run system repair tools
- Update drivers

4. Basic Troubleshooting Techniques

4.1 Identify the Problem



- Ask the user what happened
- Observe error messages
- Identify when the problem started

4.2 Check Simple Issues First

- Power connection
- Cables
- Restart the computer

4.3 Isolate the Cause

- Hardware or software?
- Test one component at a time

4.4 Apply a Solution

- Fix or replace faulty components
- Update or reinstall software

4.5 Test the System

- Verify that the problem is resolved
- Ensure system works normally

5. Basic Troubleshooting Tools

5.1 Software Tools

- Task Manager
- Antivirus software
- Disk Cleanup
- System Restore

5.2 Hardware Tools

- Screwdrivers
- Multimeter
- Replacement cables



- USB boot devices

6. Safety Tips During Troubleshooting

- Turn off power before opening hardware
- Avoid touching internal components without grounding
- Backup data before major fixes