

Computer Operations & Cybersecurity

The Computer Clinic: Grade 7 Technician Training

An illustration of a laptop and a smartphone. The laptop is open, showing its keyboard and screen. The smartphone is lying next to it, showing its back with a camera lens. A green, circular seal with a scalloped edge is overlaid on the laptop screen. Inside the seal, the text 'Welcome to the Clinic' is written in a bold, black, sans-serif font.

**Welcome
to the
Clinic**

Mastering Hardware, Operating Systems,
Software, and Digital Safety.

Diagnostic Activity: Can My Device Run It?



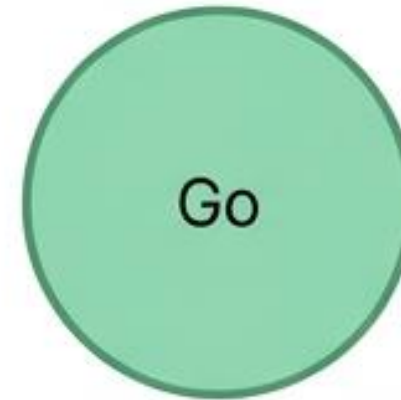
App Request 1:
Heavy Video Editor
(4K rendering)



App Request 2:
3D Educational
Game

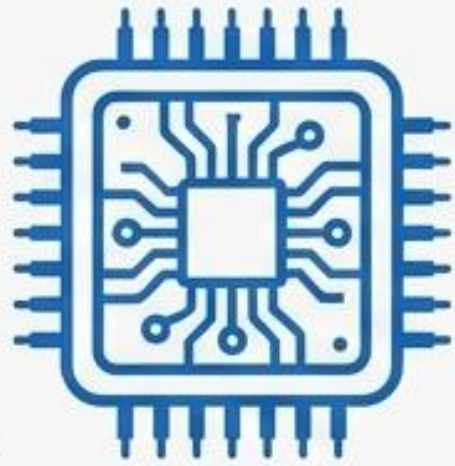


App Request 3:
Basic Programming
Application



Prompt: Before we click Install, what do we need to check?

Your 3-Day Training Schedule



Day 1: Hardware Specifications

The Physical Engine
(CPU, RAM, Storage,
Ports)



Day 2: Operating Systems

The Master Translator
(Windows, macOS,
Android, iOS)



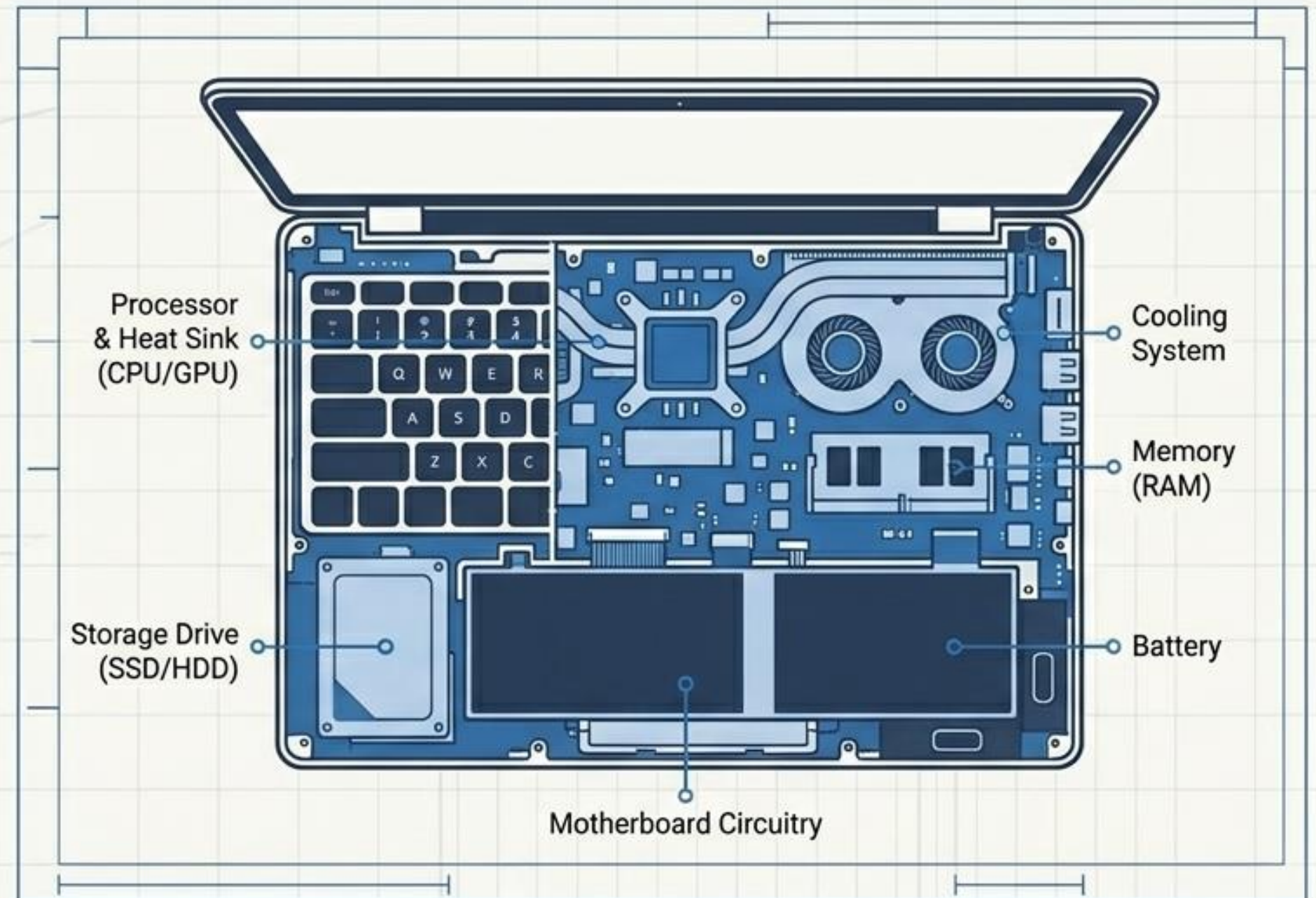
Day 3: Software & Safety

The Toolkit & Shield
(System, Utility, Apps,
and Safe Installation)

Day 1: The Hardware Detective

Concept: Hardware is the physical body of the computer—anything you can touch, see, or plug in.

Objective: Identify the core components that determine a device's speed, memory, and visual power.



The Core Engine: Internal Components



CPU (Central Processing Unit)

The Brain. Processes instructions and determines overall speed (measured in GHz).



RAM (Random Access Memory)

The Workbench. Temporary space used while apps are actively running. More RAM = juggling more apps without lagging.



Storage (HDD & SSD)

The Vault. Permanent saving for files, applications, and the operating system.

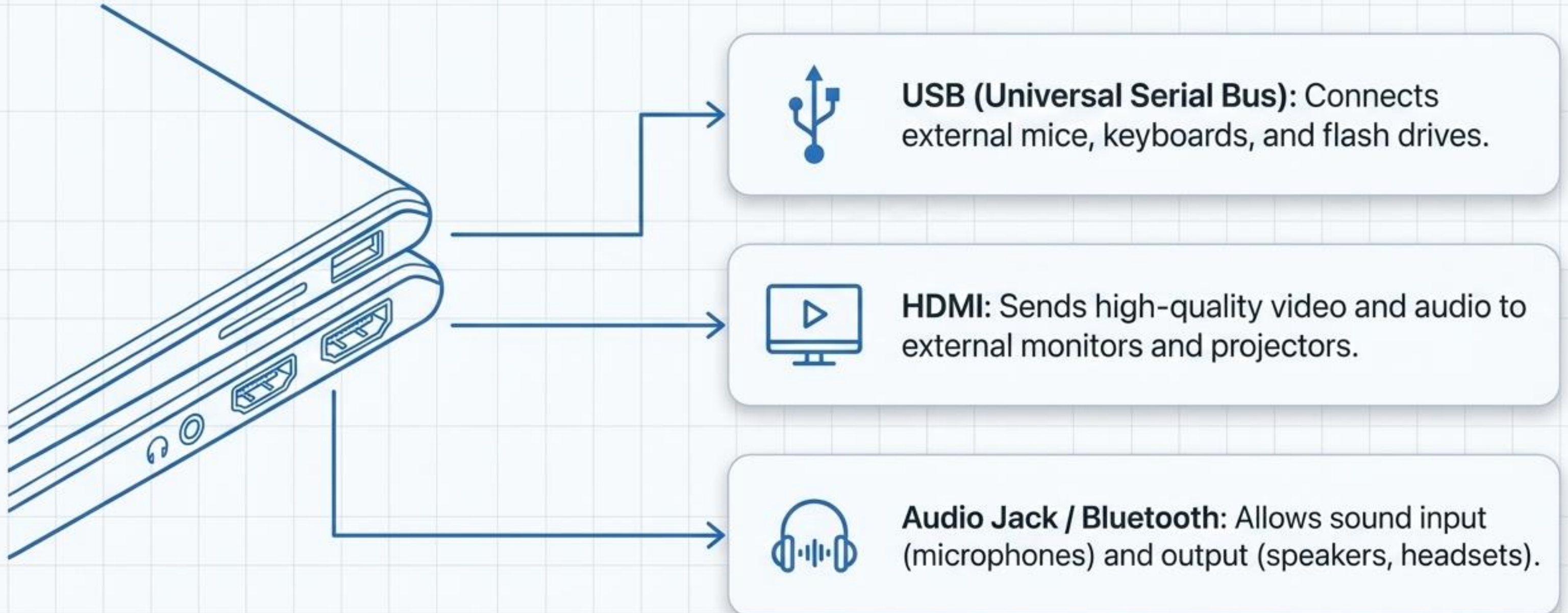


GPU (Graphics Processing Unit)

The Artist. Handles graphical operations, displaying images, videos, and complex complex games.

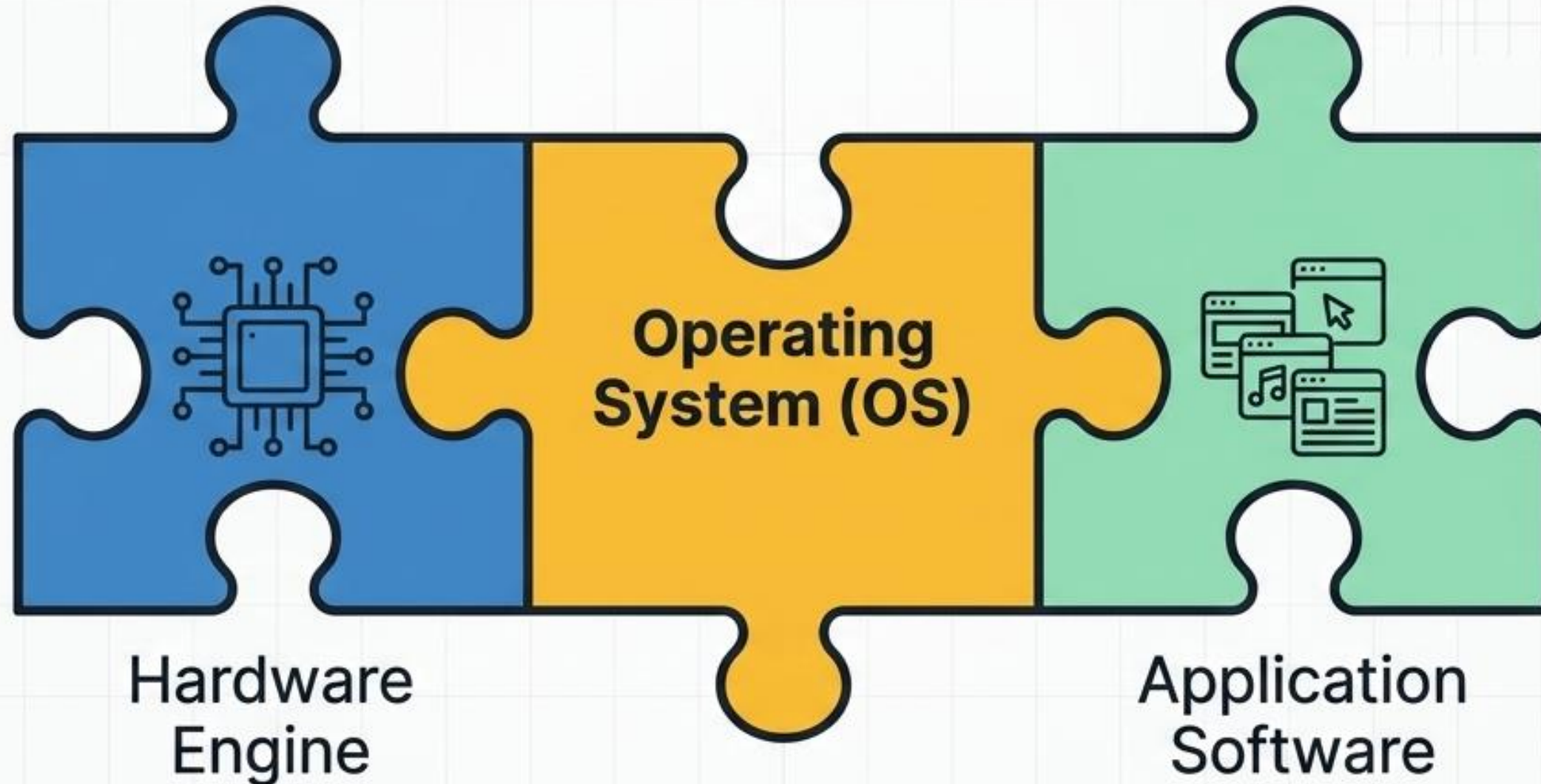
Making Connections: Audio & Ports

Concept: How the internal engine communicates with external peripheral devices.



Day 2: The OS Matchmaker

Concept: The Operating System is the Boss. It manages the hardware resources so your applications can communicate with the computer and run smoothly.



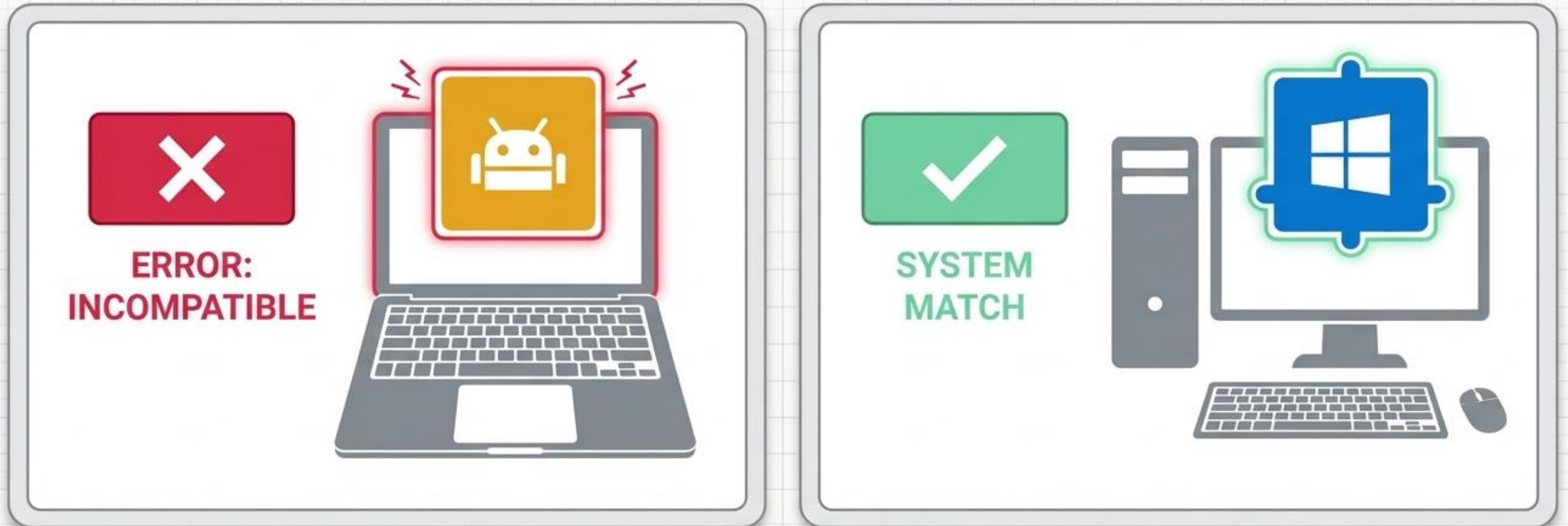
Operating System Compatibility Matrix

OS Name		Primary Devices	Best Suited For...
	Windows	PCs & Laptops	General use, office work, and extensive gaming.
	macOS	Apple Laptops/Desktops	Creative design, photo/video editing, Apple ecosystem.
	Linux	Custom PCs & Servers	Advanced programming, high stability, customization.
	Android	Various Phones & Tablets	Mobile communication, high flexibility across brands.
	iOS	Apple iPhones	Smooth mobile experience, high security, exclusive Apple apps.

The Rule of Compatibility

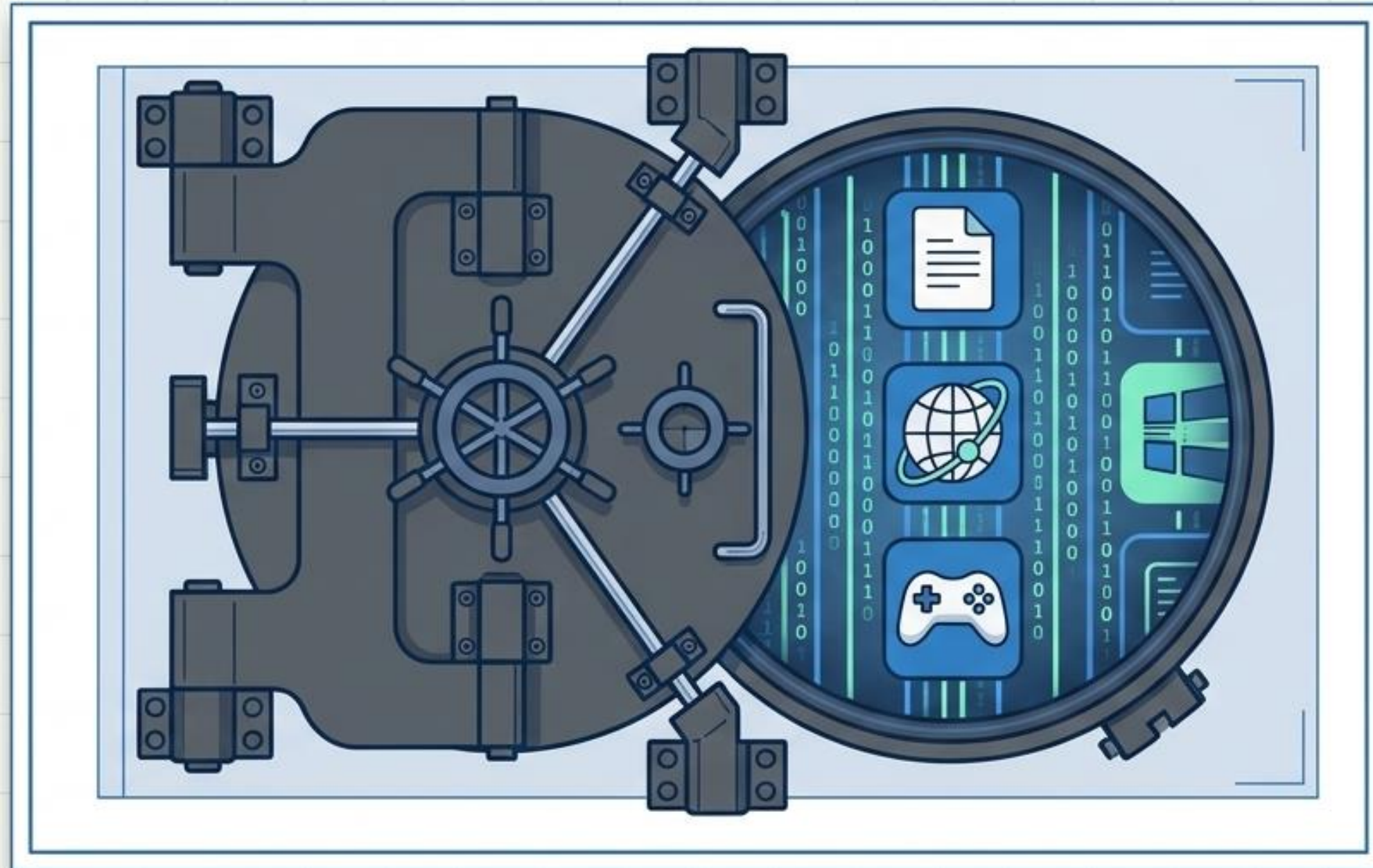
Rule: Always match the OS, the hardware specifications, and the software requirements.

Warning: A mobile app won't run on a desktop PC, and a Mac app won't install on Windows without specialized tools.

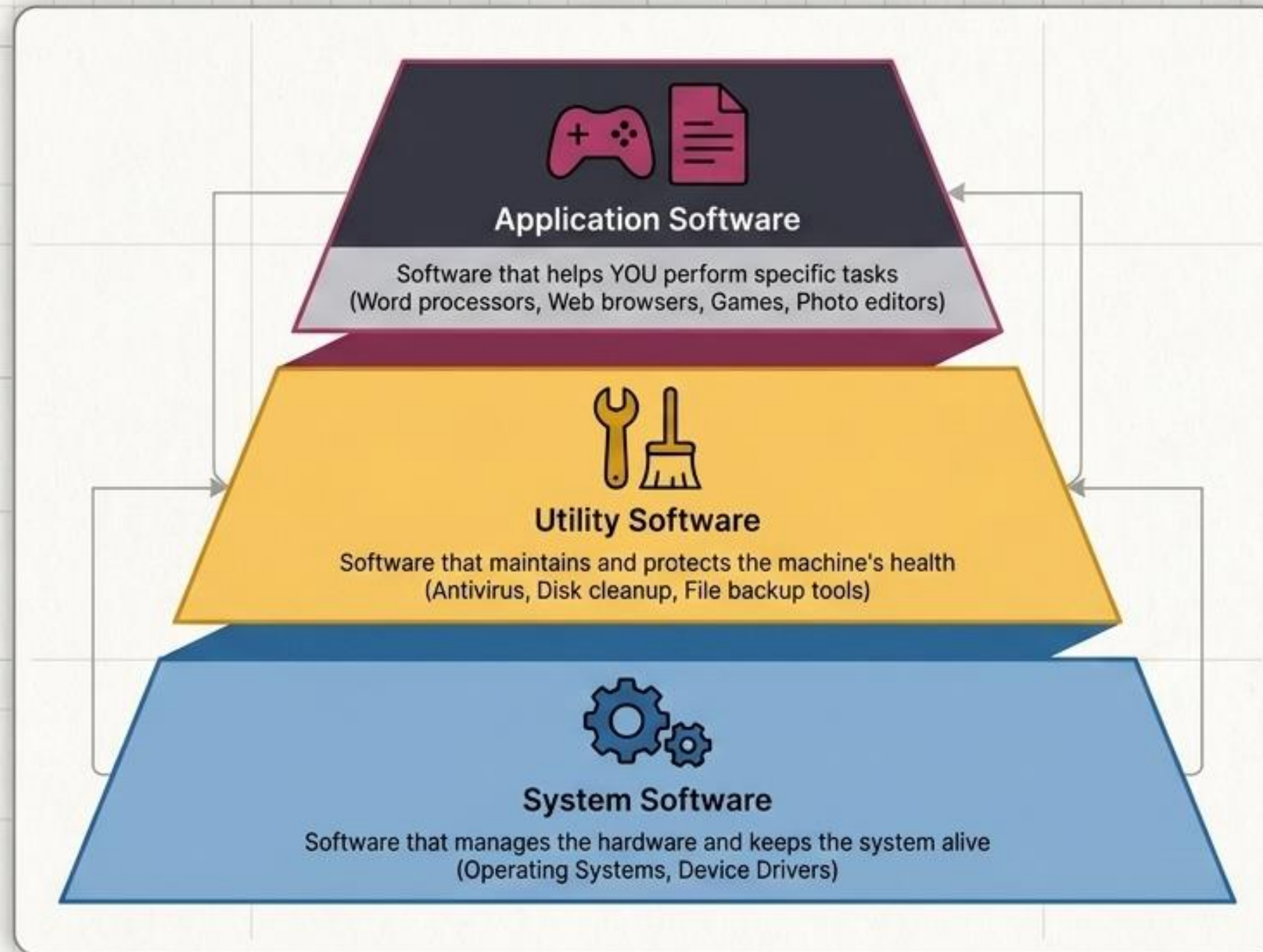


Day 3: Software & Cybersecurity

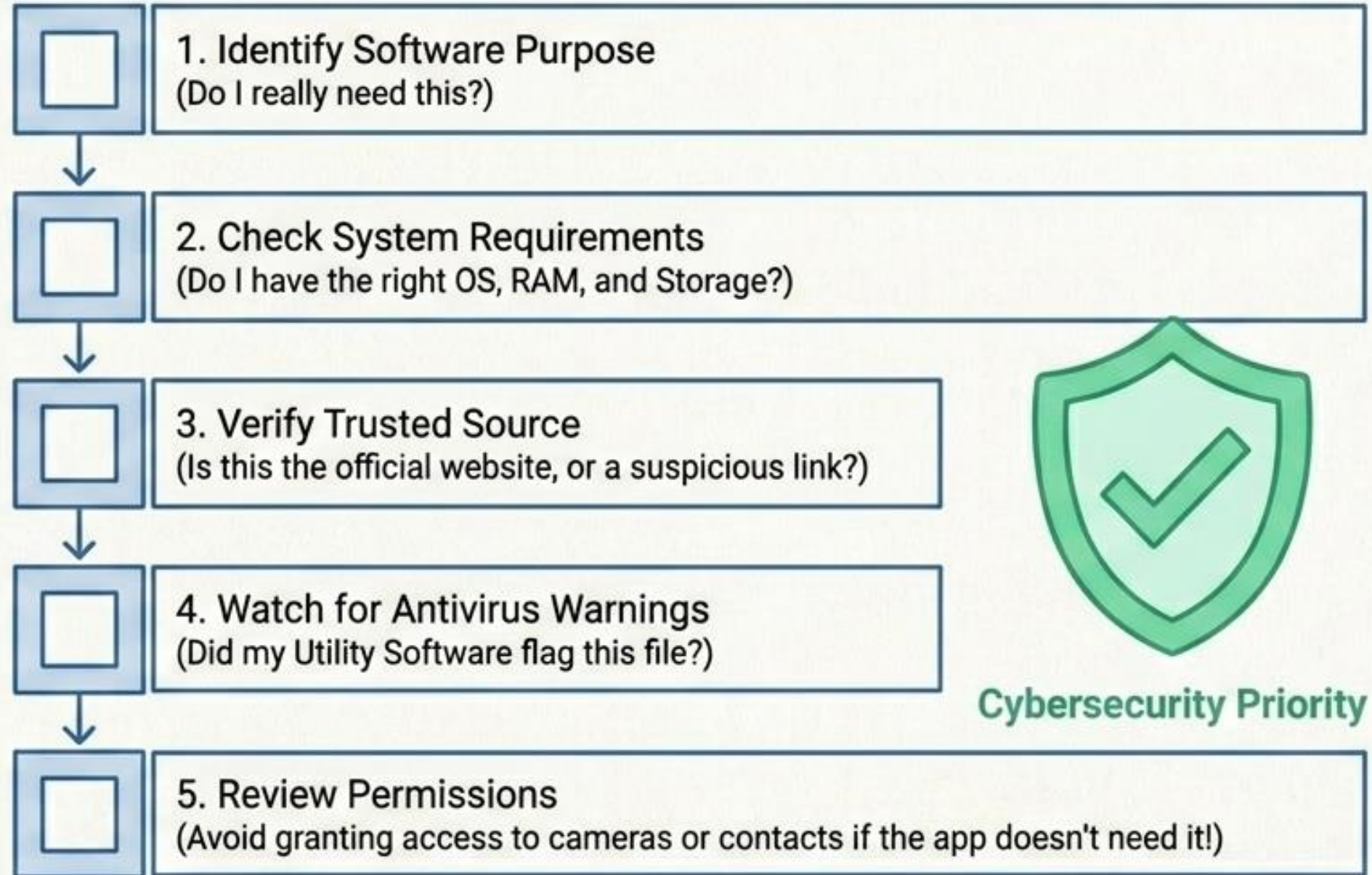
Concept: The hardware is ready. The OS is matched. Now it's time to add software—but we must do it safely.



The Software Family Tree



The Safe Installation Checklist



Integrative Task: Mission Briefing



Role: You are now the Lead Technicians of the Computer Clinic.

The Client: A Grade 7 student needs a computer setup for school projects, simple programming, web browsing, and safe online use.

The Mission: Build their perfect setup.

The Client Case File: Recommendation Report



- ☐ **Hardware Specs:** Recommend the ideal CPU, RAM, and Storage capacity.
- ☐ **OS Match:** Choose the most suitable Operating System and explain why.
- ☐ **Software Setup:** List at least one example of System, Utility, and Application software they will need.
- ☐ **Security Protocol:** Provide 1 major Safe Installation/Cybersecurity reminder for the client.



Takeaway: You are now equipped to **diagnose hardware** limits, match operating systems, and protect devices through **safe software** installation.

Sign-off: Keep your systems **updated**, and stay secure.