

# Lesson 1: Understanding Computers - Case Study

## Case Study: Maria's Home Computer Setup

Maria recently started working from home as a freelance graphic designer. She realized that her home computer setup is crucial to her productivity. She has a laptop, a printer, and a small external hard drive. Maria wants to understand how her computer works so she can organize her work files better.

### Scenario:

1. **Hardware:** Maria's laptop has a CPU, 8GB RAM, and a 512GB SSD. She uses the keyboard and mouse to navigate, and her monitor is a 15-inch laptop screen. She also connects an external monitor for dual display when working on large design projects.
2. **Software:** Maria uses design applications like Adobe Photoshop and Illustrator, along with a web browser to communicate with clients. She recently installed antivirus software to protect her work files.
3. **File Management:** Maria often struggles to find her design files because they are scattered in different folders on her SSD and external hard drive. She also wants to keep client invoices separate for tax purposes.

### Questions:

1. Identify the hardware components in Maria's setup and explain the role of each.
2. List the software Maria uses and describe how each helps her in her work.
3. Suggest a simple folder structure Maria could use to organize her files efficiently.
4. How does understanding hardware and software help Maria work more effectively?
5. If Maria wanted to upgrade her system, which hardware component would most improve performance and why?