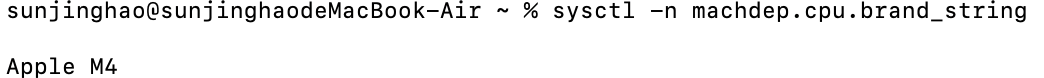
1. **Check if your processor supports Intel/AMD virtualization technology. Enable Intel virtualization technology in BIOS if possible.**



## **2. Why is the cloud successful? Give three pros and three cons.**

**Fundamental reasons:** Cloud computing is successful because it provides scalable, cost-efficient, and easily accessible computing resources over the Internet.

**Pros:**

* Cost Efficiency – Pay only for what you use, reducing infrastructure costs.
* Scalability – Easily scale resources up or down depending on demand.
* Accessibility – Access data and applications anytime, anywhere.

**Cons:**

* Security Risks – Data stored online can be vulnerable to breaches.
* Downtime – Service interruptions can occur due to outages.
* Limited Control – Users rely on the cloud provider for maintenance and updates.

## **3. What is the primary function of a hypervisor in virtualization?**

The primary function of a **hypervisor** is to create and manage virtual machines by allocating hardware resources (CPU, memory, storage) from the host system to each VM. It allows multiple operating systems to run on a single physical machine simultaneously.

## **4. What is a virtual machine (VM)?**

A **virtual machine** is a software-based emulation of a physical computer that runs its own operating system and applications, isolated from the host system and other VMs.

## **5. What are the benefits of using virtual machines?**

* Isolation – Each VM runs independently, improving security and stability.
* Resource Efficiency – Multiple VMs share the same physical resources.
* Portability – VMs can be easily moved or copied across systems.
* Testing and Development – Safe environments for testing software without affecting the host system.
* Disaster Recovery – Quick backup and restoration of entire systems.

## **6. List five use cases of virtual machines.**

* Software testing and development environments.
* Running multiple operating systems on one physical computer.
* Server consolidation in data centers.
* Cloud computing and virtual desktops.
* Training and educational simulations.

## **7. In virtualization, what is the guest operating system?**

The operating system installed on a virtual machine.

## **8. What does virtual machine isolation mean?**

Virtual machines run independently and are isolated from each other and the host system.