Nao Endo C00253544@setu.ie

Lab 1:

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

**2. The cloud is almost everywhere in our lives now. What do you think are the fundamental reasons behind its success? Name three pros and three cons of cloud.**

Pros: Flexibility (Access data from anywhere), Scalability (Elasticity), Pay as you use

Cons: Security (Let the vendor all the control of the service), always need internet, difficult migration

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

Virtual machines can be created and managed with the help of hypervisors, which separate a computer's software from its hardware.

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

A virtual machine is a computational resource that runs programs and deploys apps using software rather than a physical computer.

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

Cost reduction (No expenses on hardware)

Increase efficiency of work/tasks

Disaster recovery

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

1. Try a different OS

2. Run old software

3. Develop applications for multiple platforms

4. Clone your system

5. connect with multiple computers

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

b) The operating system installed on a virtual machine

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

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

**9. What is the benefit of virtual machine portability?**

c) It allows virtual machines to be moved between different physical machines with compatible hypervisors.

**10. What is the purpose of cloning a virtual machine?**

It lets you build several virtual machines or templates that are derived from the initial one.