Virtualization Lab Prerequisites

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The practical part of the virtualization Lab will see us manipulating virtual disk images and installing Virtual Machines on LibVirt on an Ubuntu Desktop host. For this, we will need to either run some Linux distro directly on our latop, or create a relatively beefy Linux machine which is capable of running other Virtual Machines in it.

If you're having trouble with any setup steps, please contact Cloudbase so we can arrange for help with the setup **before** the Lab starts.

1 Host Requirements.

Considering we'll be needing a beefy Linux machine to run VMs on, we'll need to set up a proper virtualization solution on the host. (aka your laptops)

- any Linux with Desktop!:
  - Feel free to use your laptop's Linux installation directly, no further setup needed!
- Windows:
  - VirtualBox: free and usable virtualization solution.
  - Hyper-V: free and built into Windows (might need explicit enabling though), but a bit more obtuse to use.
- macOS:
  - Ask Cloudbase for a host.

2 Virtualization requirements on the host.

Make sure you enable virtualization from the BIOS menu of your laptop. Just google "¡your laptop model¿ enable virtualization".

If you plan on using your own Linux laptop, you should be all set, just please make sure you have ~20GB of disk available to you, and ideally pre-download to you, and ideally pre-download the Ubuntu 22.04 Server ISOs in advance. (we'll be creating Ubuntu Server VMs)

If you're using some virtualization solution, you migh need to additionally enable nested virtualization on the Ubuntu VM you'll need to make.

This depends on the platform itself:

- VirtualBox: you'll need to go to the VM's processor settings and enable nested VT-x/AMDv-V.
- Hyper-V: you'll need to run some PowerShell commands on the VM after you create it see here.

3 The Virtual Machine which will run our Virtual Machines.

We'll be needing single Ubuntu 22.04 Desktop (**not server!**) Vm with the following setup:

- OS choice: **must** be Ubuntu **Desktop** 22.04:
  - [preferred] ISOs: just boot a VM with the install ISO attached and run the installer normally.
- VM specs:

- 4+ vCPU cores
- 4+GB RAM
- One Network Interface attached to the default network with Internet access.

TIP: once you have set up the VM, power it off nicely and create a snapshot ("checkpoint" in Hyper-V) for them so you can always revert to it later.