

Virtual home lab setup

It is much faster, more convenient, and cost effective in setting up a free virtual IT lab from scratch on my computer using open-source software.

Index

- ❖ Virtualization Overview
- ❖ Free Virtualization Software
- ❖ Downloading and Installing VirtualBox
- ❖ Creating a Virtual Network
- ❖ Creating a Virtual Machine
- ❖ Downloading Your operating systems ISO(s)
- ❖ Installing an OS on Your Lab VMs
- ❖ Conclusion

Virtualization Overview

So what is virtualization anyway? Basically, the IT term virtualization refers to the practice of emulating (or simulating) a computer. You can use a Virtual Machine to run a computer as an application on your host computer.

On the image below - the top computer would be the host computer. The three computers below the host are referred to as guest virtual machines.



Free Virtualization Software

With so many different virtualization software options available, it can be really confusing to know which one is the "best" and which one you should use. Let's address this now.

There is no "best" virtualization software. There are simply different options and the ones you should consider will depend on your host operating system.

In this setup I will be using Oracle VM VirtualBox because it is compatible with both Windows and Linux, but you can use any one of your choice. The steps will nearly be identical to other virtualization software.

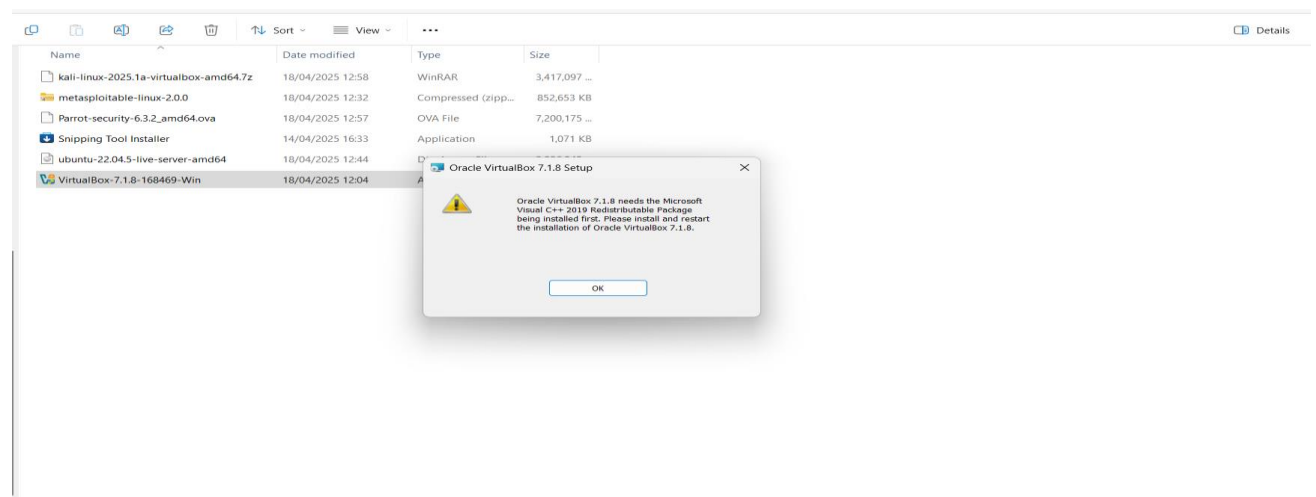
Downloading and Installing VirtualBox

Downloaded Oracle VM VirtualBox for my computer through

<https://download.virtualbox.org/virtualbox/7.1.8/VirtualBox-7.1.8-168469-Win.exe>

After the download complete, I launched the installation and I encountered a warning message that says 'Oracle VM VirtualBox 7.1.8 needs the Microsoft Visual C++ 2019 Redistributable Package being installed first'.

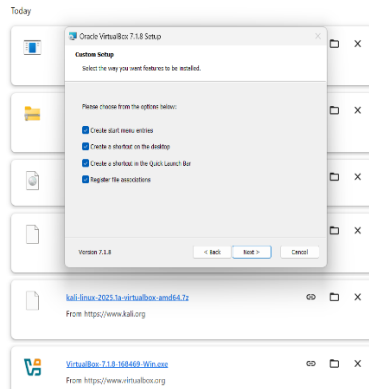
The link is down below



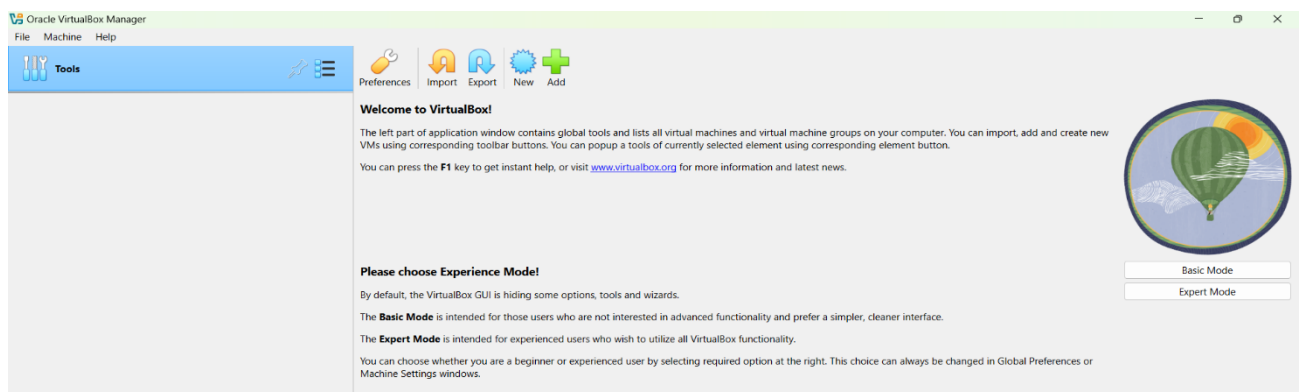
<https://download.visualstudio.microsoft.com/download/pr/285b28c7-3cf9-47fb->

[9be801cf5323a8df/8F9FB1B3CFE6E5092CF1225ECD6659DAB7CE50B8BF935CB79BFED1F3C895240/VC_redist.x64.exe](https://www.virtualbox.org/wiki/Downloads#VirtualBox_7.1.8_64-bit)

Then I proceed with the installation of Oracle VM VirtualBox.



Click next and finish on next screen, then allow time for installation process to complete and launch.



Creating a Virtual Machine

Now that we know what type of virtual network we want to use, it's time to create a VM (Virtual Machine). We can do this by clicking the New button within the VirtualBox Manager. This will launch the new VM window. Go ahead and click the Expert Mode button which allows you to create a VM while navigating through less pages.