



Lab Setup

Install VMware Workstation

1. To save time, an instructor should have given you the following installer files and VM images for the lab:

```
* Ubuntu16.04Server_GNS3_VMwareNotActivated.ova  
  
* VMware-Fusion-11.0.2-10952296.dmg (for Mac OS/X)  
  
* VMware-workstation-full-15.0.2-10952284.exe (for Windows)  
  
* VMware-Workstation-Full-15.0.2-10952284.x86_64.bundle (for Linux)  
  
* Install VMware workstation on windows 10.mp4 (video on how to install VMware workstation)  
  
* workstation-pro-15-user-guide.pdf (VMware's user guide for Windows and Linux )  
  
* fusion-11-user-guide.pdf (VMware's user guide for macOS)
```

2. Install the VMware workstation (use the relevant installer file for your host Operating System).

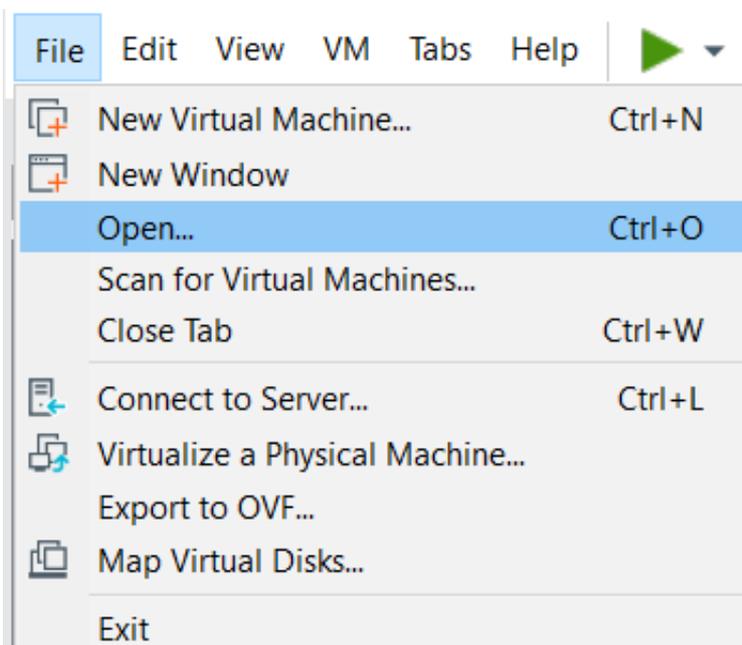
NOTE: Activation of VMware workstation may be needed. Enter the license key if you have one, otherwise select the second option (Trial version) and click on OK.



Import OVA (Windows OS)

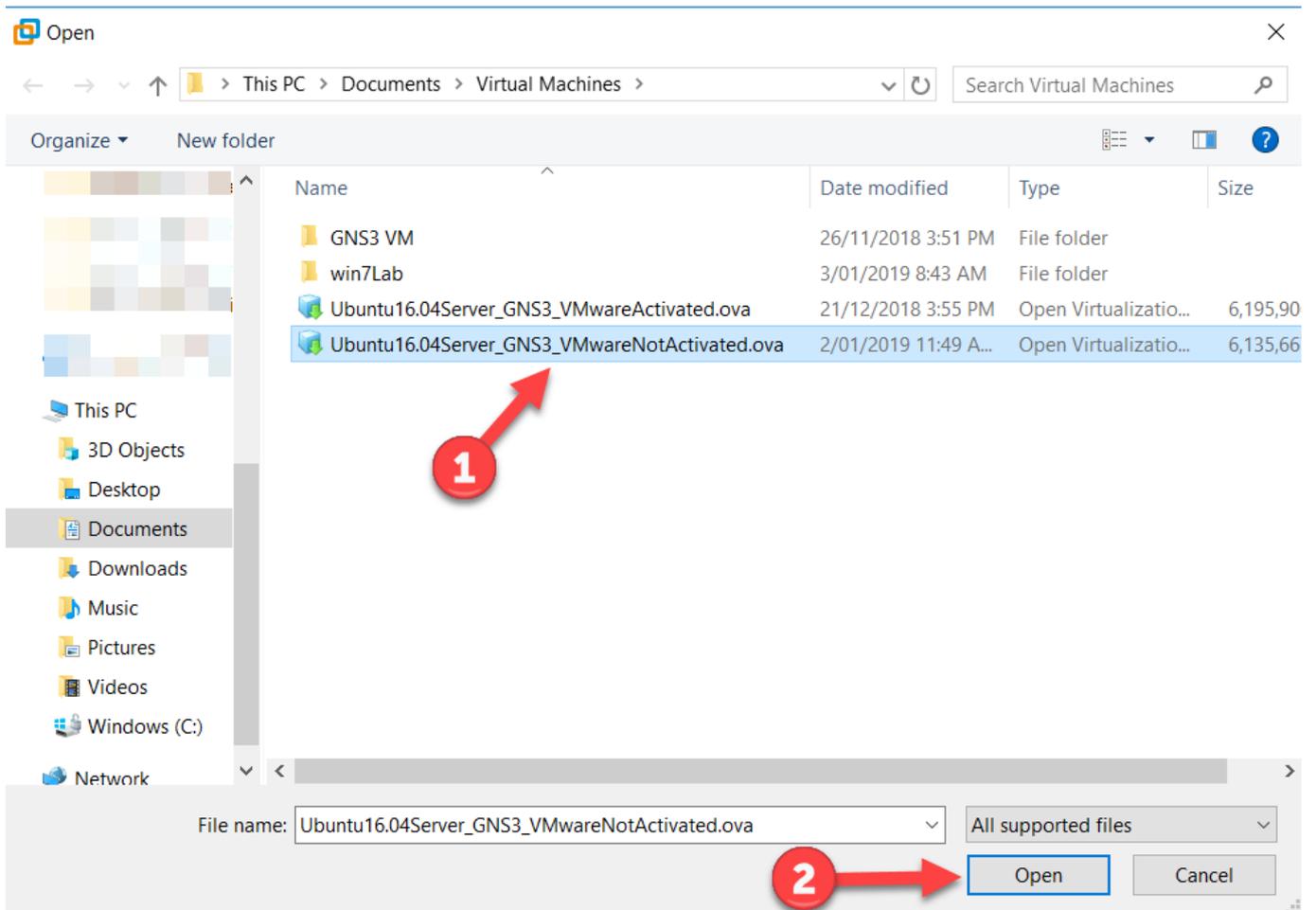
NOTE: For Linux users, refer to the video given by the instructor, and for Mac OS/X users, refer to the [fusion-11-user-guide.pdf](#)

1. To import the `Ubuntu16.04Server_GNS3_VMwareNotActivated.ova` file. Open VMware workstation click on **File** and **Open**.

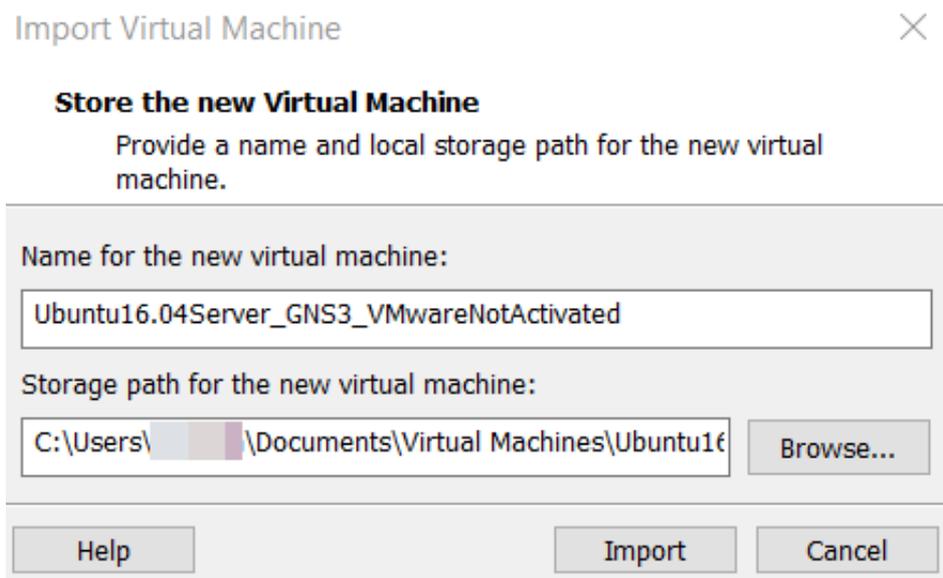


NOTE: The virtual machine (VM) will expand to 14.1GB in size, so your laptop should have approx. 25GB free hard drive space.

2. Locate the `Ubuntu16.04ServerGNS3VMwareNotActivated.ova` file and click on it to select it. Click on open.

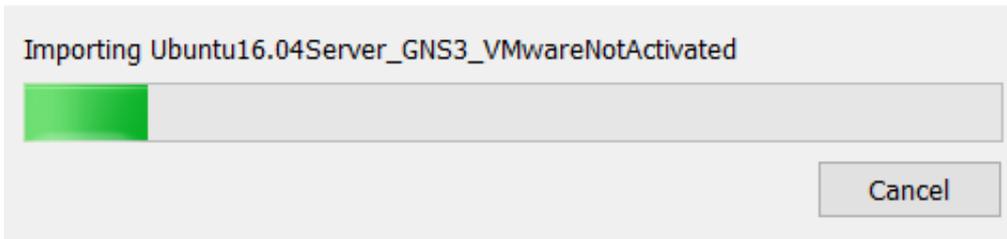


3. The import wizard will appear. Leave it as default settings and click on Import.



4. Wait for the import to finish.

VMware Workstation

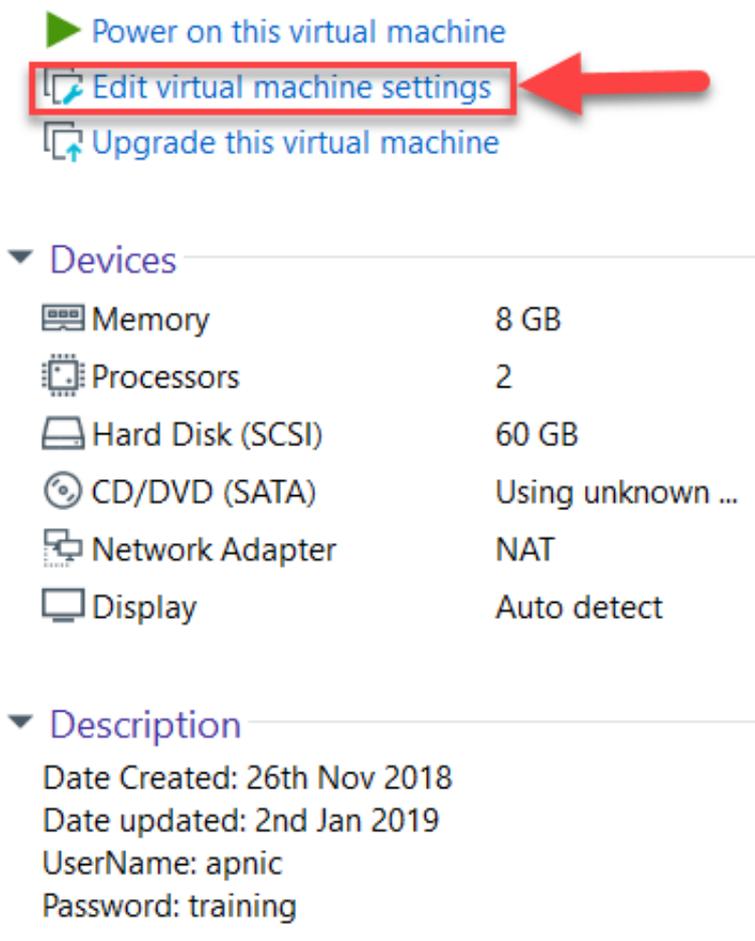


5. Check the Virtual Machine settings. Click on `Edit virtual machine settings` to adjust settings. The default settings are:

- Memory = 8GB of RAM
- Processors = 2

NOTE: if your laptop has 8GB of RAM or less, you will need to reduce the Memory settings.

Ubuntu16.04Server_GNS3_VMwareNotActivated



[Power on this virtual machine](#)

[Edit virtual machine settings](#)

[Upgrade this virtual machine](#)

▼ **Devices**

 Memory	8 GB
 Processors	2
 Hard Disk (SCSI)	60 GB
 CD/DVD (SATA)	Using unknown ...
 Network Adapter	NAT
 Display	Auto detect

▼ **Description**

Date Created: 26th Nov 2018
Date updated: 2nd Jan 2019
UserName: apnic
Password: training

Activate VMware and Scan for Virtual Machines

1. Power on the Virtual Machine (VM). Click on `Power on this virtual machine`.

Ubuntu16.04Server_GNS3_VMwareNotActivated

▶ Power on this virtual machine

🔗 Edit virtual machine settings

🔗 Upgrade this virtual machine

▼ Devices

🖥️ Memory	8 GB
🧠 Processors	2
💾 Hard Disk (SCSI)	60 GB
📀 CD/DVD (SATA)	Using unknown ...
🌐 Network Adapter	NAT
🖥️ Display	Auto detect

▼ Description

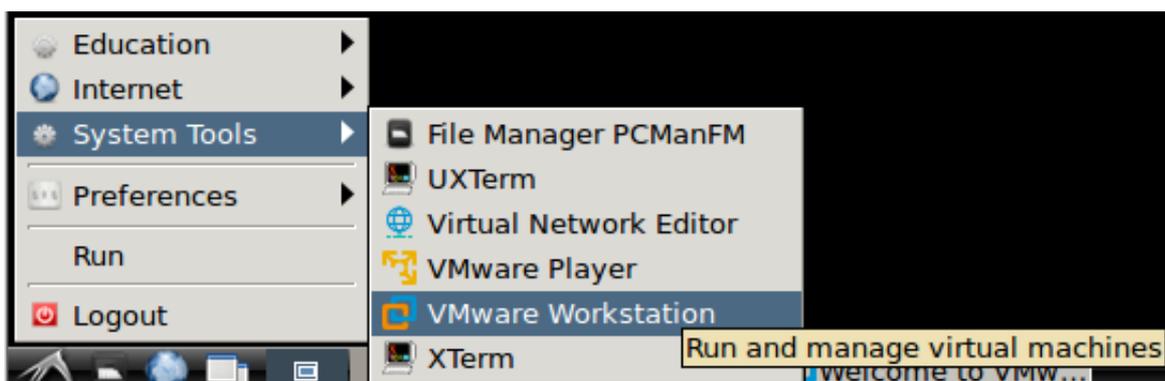
Date Created: 26th Nov 2018

Date updated: 2nd Jan 2019

UserName: apnic

Password: training

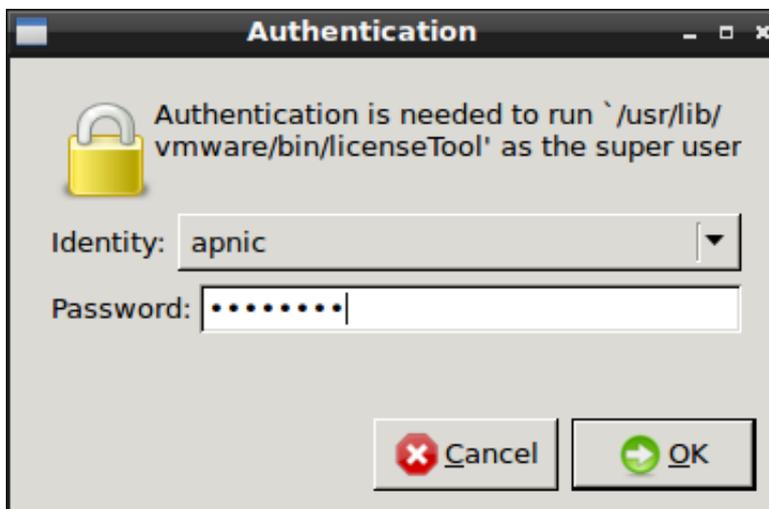
2. Once the VM has started. Open VMware workstation



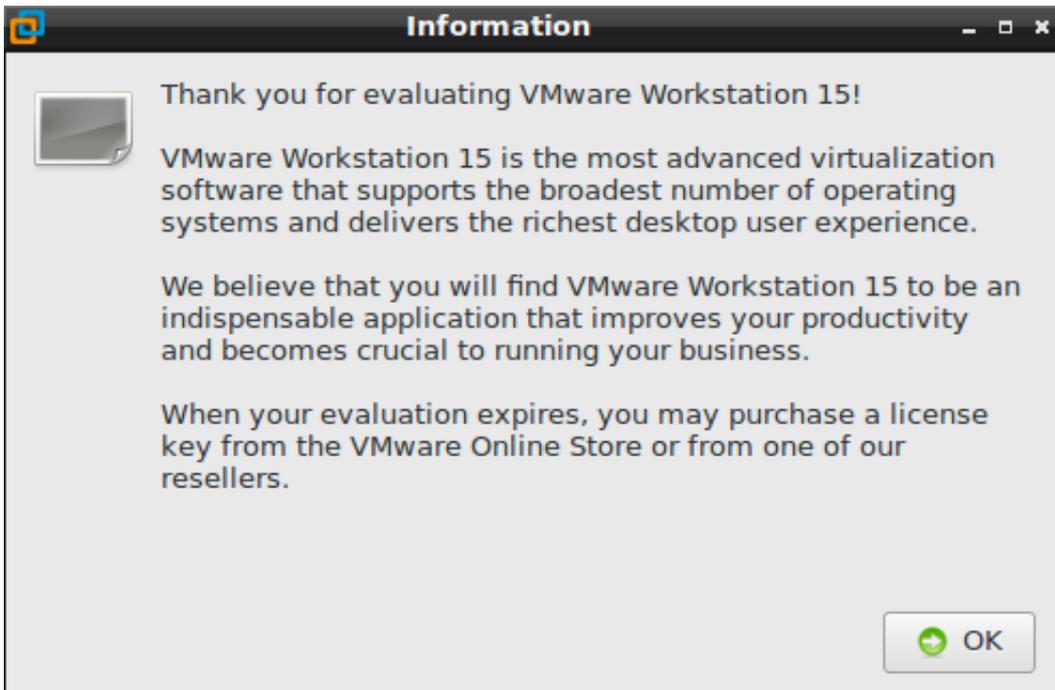
3. Activate VMware workstation. Enter the license key if you have one, otherwise select the second option and click on OK.



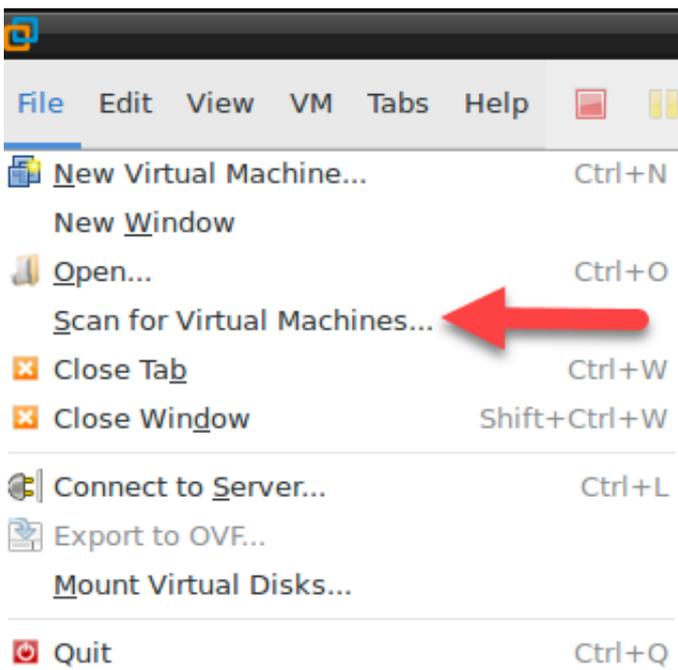
4. VMware will need to escalate privileges to activate. For the password type in `training`



5. Click on OK to finish the activation



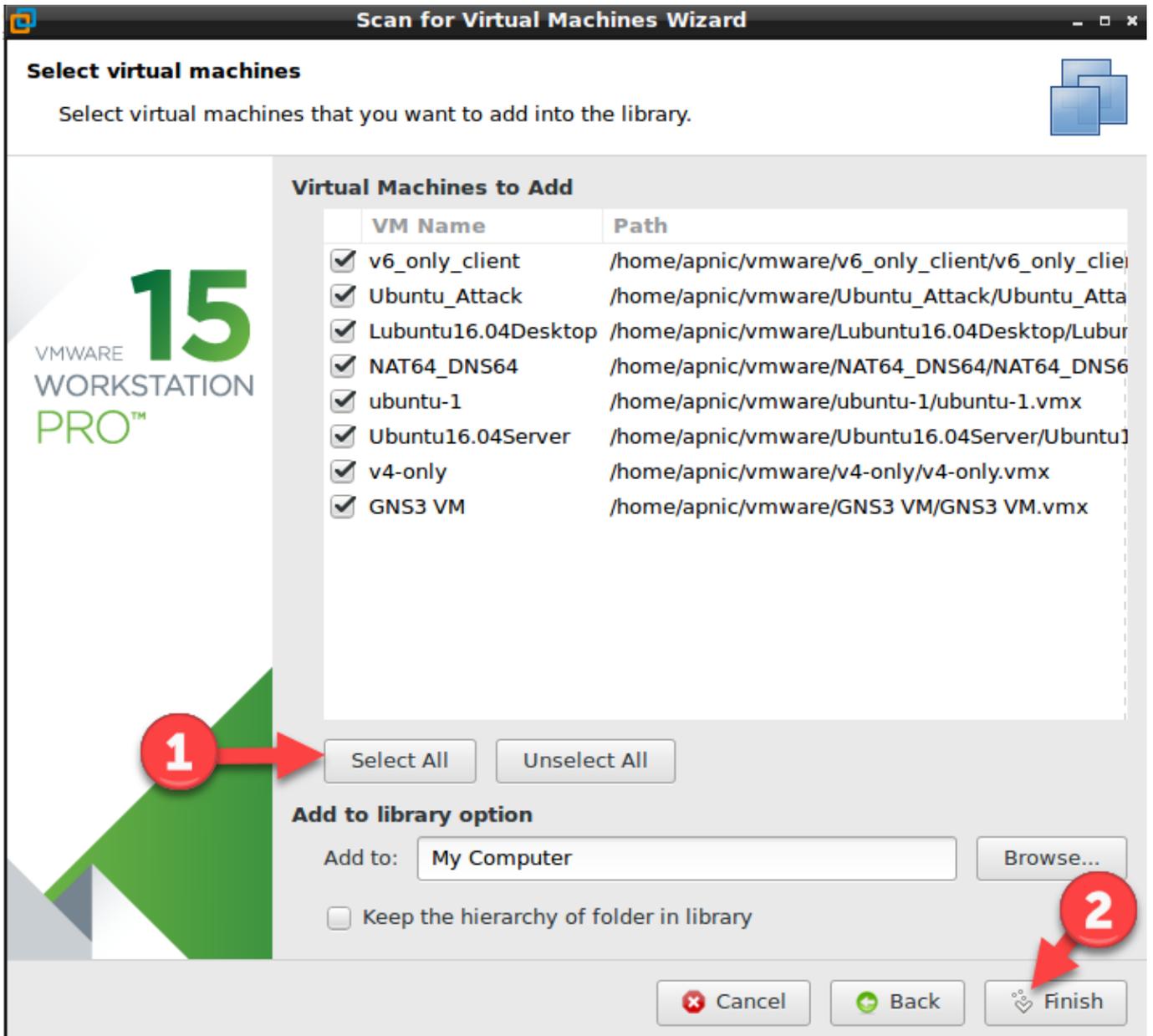
6. Once VMware workstation is started. There should be a list of VM's in the left side panel. **IF NOT**, Click on **File** , then **Scan** for Virtual Machines



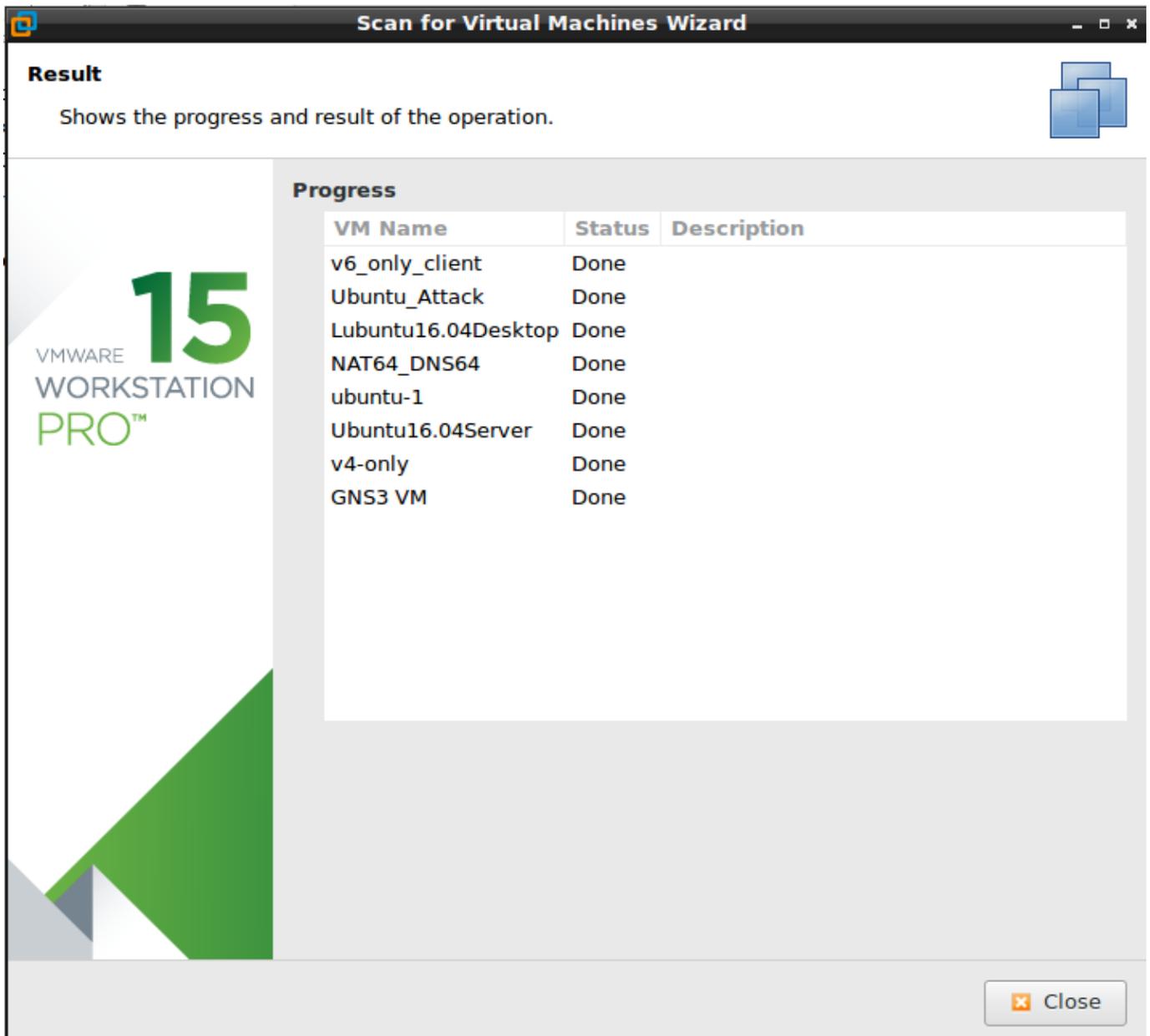
7. The Scan for Virtual Machines wizard will appear. Leave the default path and click on Next



8. Click on Select All button | Click on Finish



9. Click on close

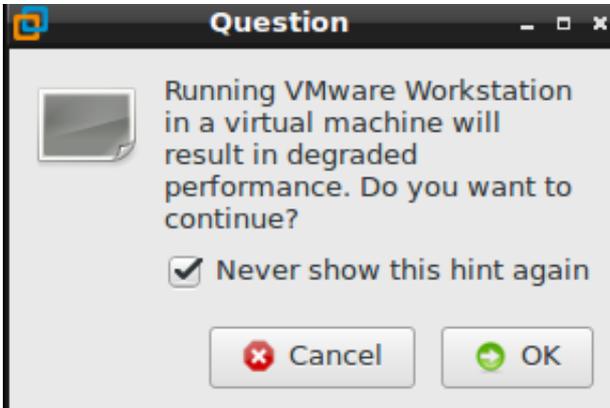


Start Virtual Machines

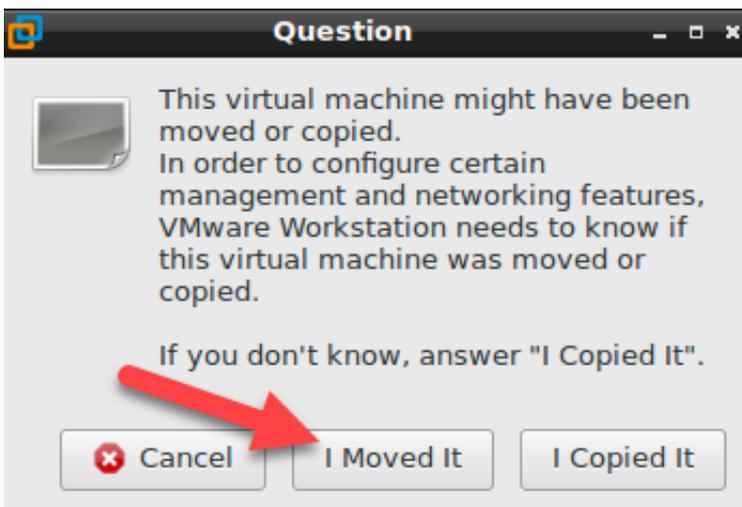
1. Before starting the labs, confirm the VMs are working correctly. The VMs to check are:
 - ubuntu-1
 - Ubuntu_Attack
 - v4-only
 - v6onlyclient
 - NAT64_DNS64
2. When the VMs are started for the first time, various dialog boxes with warnings or extra information may appear. These will need to be accepted or ignored to continue. These dialog boxes will slow down the GNS3 projects when starting the VMs. In the lab environment we want to set these to never display again.

NOTE: The nested virtual environment has been tested and the messages did not happen. However if any messages appear review the steps below.

1. Start up `ubuntu-1` . A dialog box will appear, informing you about running vmware in a virtual machine will degrade performance. Click on Never show and then click on OK.



2. If a dialog box appears asking about whether the VM was moved or copied. Click on I moved it.



3. If a dialog box appears asking about the serial port. Click on OK.



4. Ignore any of the warnings about 3D support and hardware graphics.

No 3D support is available from the host.



The 3D features of the virtual machine will be disabled.

Hardware graphics acceleration is not available.



As a result, this virtual machine may experience very low graphics performance. Follow the instructions provided by your graphics card vendor or Linux distribution in order to update your computer's OpenGL drivers.

Hardware graphics acceleration is not available.



As a result, this virtual machine may experience very low graphics performance. Follow the instructions provided by your graphics card vendor or Linux distribution in order to update your computer's OpenGL drivers.