Virtual Machine, errors, and installation

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Outline

- Basics of Virtual Machines.
- Installation Prerequisites.
- Errors and glitches.
- VBox Installation

What is Virtual Machine

A virtual machine (VM) is a software program or operating system that not only exhibits the behavior of a separate computer but is also capable of performing tasks such as running applications and programs like a separate computer. It is backed by physical resources of a host.

Terminology

Host OS: Running on physical computer.

Guest OS: Running inside host OS in emulated environment.

Virtual Machine: Set of files that make up a guest OS.

Guest Additions: Special software package installed inside VM to improve performance of the guest OS and to add extra features.

Why we need VM

- To use/try different/multiple OS.
- To run old/unsupported application in old operating system.
- To test new software as a user and developer.

Installation Prerequisites

or

cause of common errors

Prerequisites

- Virtualization should be enabled in BIOS.
- At least 10 GB of free space.
- Lots of memory (8 GB or more recommended).
- Hyper-V disable (for windows-10 user only if Vbox is very slow).

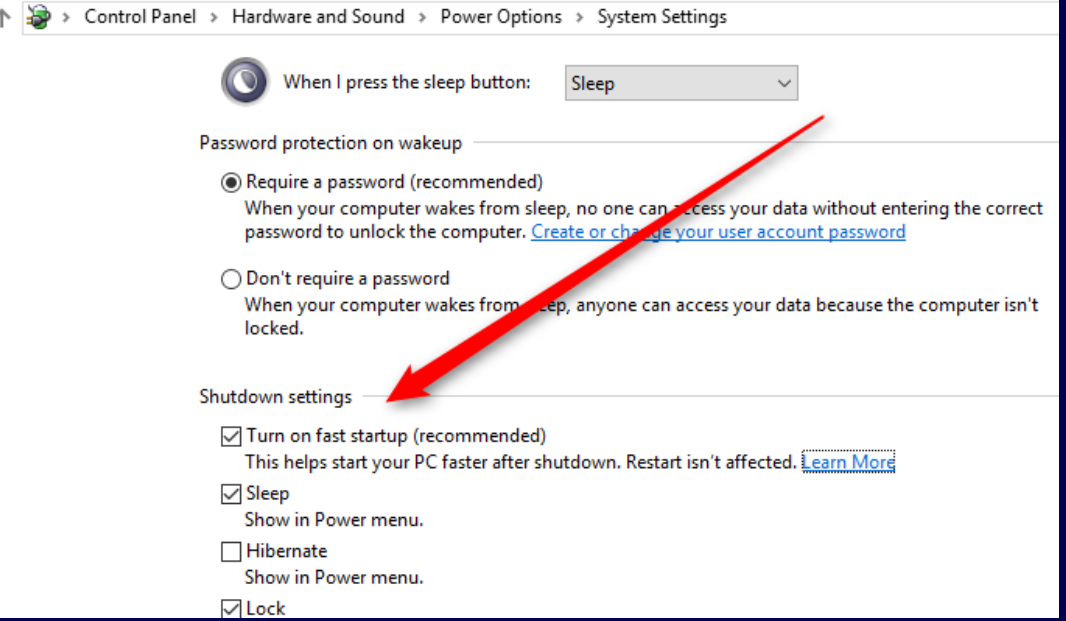
How to enable virtualization

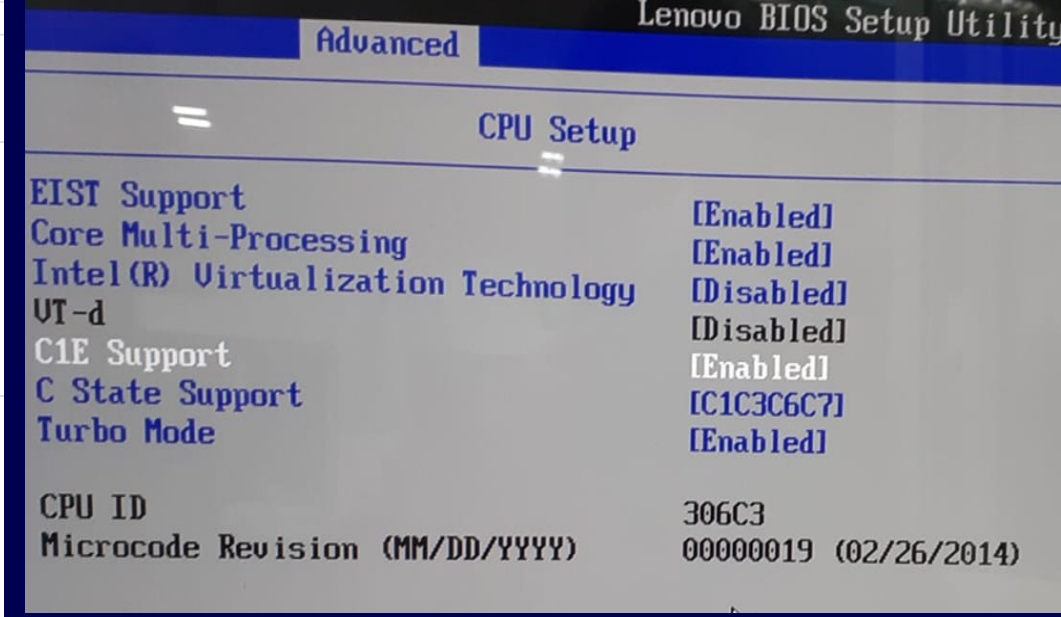
Windows Users

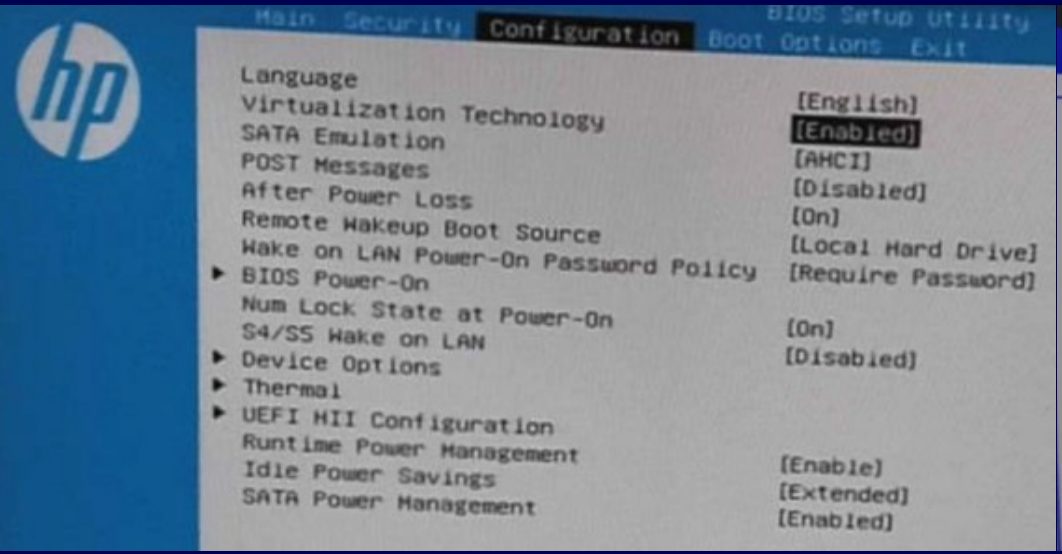
- Disable fastboot from power option.
- Reboot your OS.
- Press the BIOS Key [F2/F10/F12]
- Enable the Virtualization

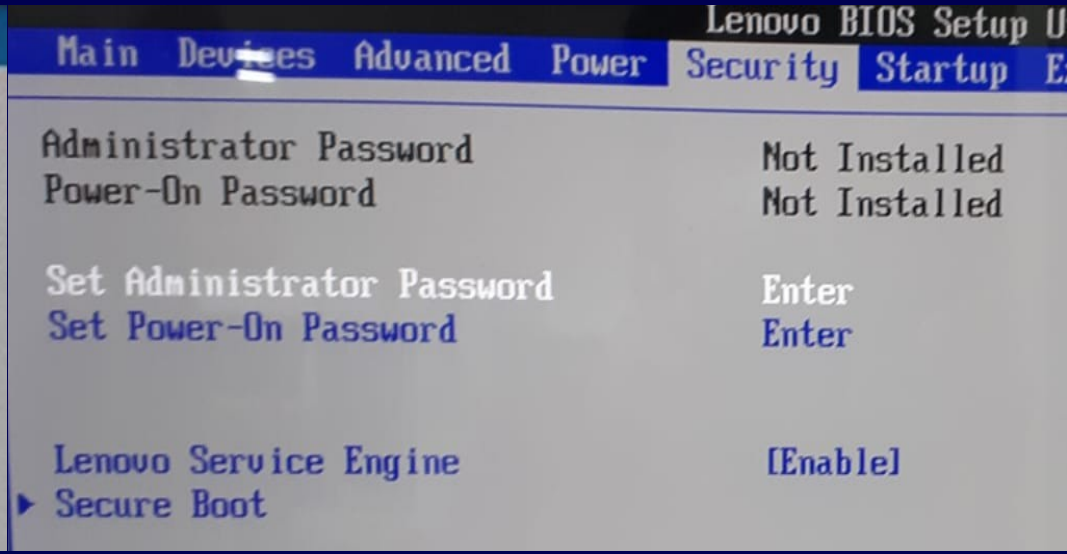
Linux Users

- Reboot your OS.
- Press the BIOS Key [F2/F10/F12]
- Enable the Virtualization


Control Panel › Hardware and Sound › Power Options › System Settings
When I press the sleep button:
Sleep
Password protection on wakeup
Require a password (recommended)
When your computer wakes from sleep, no one can access your data without entering the correct password to unlock the computer. Create or change your user account password
Don't require a password
When your computer wakes from sleep, anyone can access your data because the computer isn't locked.
Shutdown settings
Turn on fast startup (recommended)
This helps start your PC faster after shutdown. Restart isn't affected. Learn More
Sleep
Show in Power menu.
Hibernate
Show in Power menu.
Lock


Lenovo BIOS Setup Utility
Advanced
CPU Setup
EIST Support [Enabled]
Core Multi-Processing [Enabled]
Intel(R) Virtualization Technology [Disabled]
VT-d [Disabled]
C1E Support [Enabled]
C State Support [C1C3C6C7]
Turbo Mode [Enabled]
CPU ID 306C3
Microcode Revision (MM/DD/YYYY) 00000019 (02/26/2014)

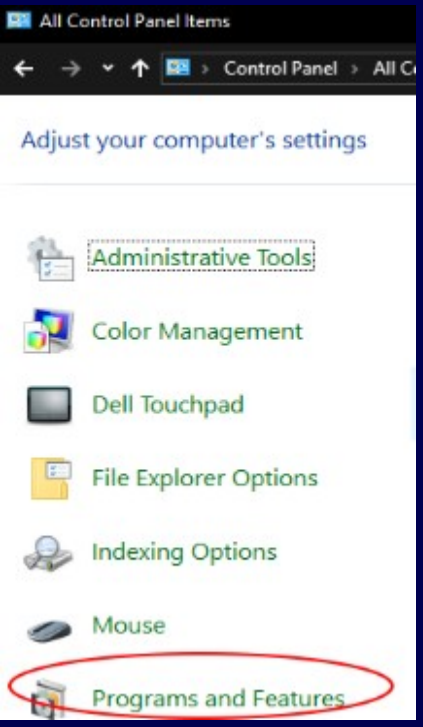

Main Security Configuration Boot Options Exit
BIOS Setup Utility
Language [English]
Virtualization Technology [Enabled]
SATA Emulation [AHCI]
POST Messages [Disabled]
After Power Loss [On]
Remote Wakeup Boot Source [Local Hard Drive]
Wake on LAN Power-On Password Policy [Require Password]
BIOS Power-On
Num Lock State at Power-On [On]
S4/S5 Wake on LAN [Disabled]
Device Options
Thermal
UEFI HII Configuration
Runtime Power Management [Enable]
Idle Power Savings [Extended]
SATA Power Management [Enabled]

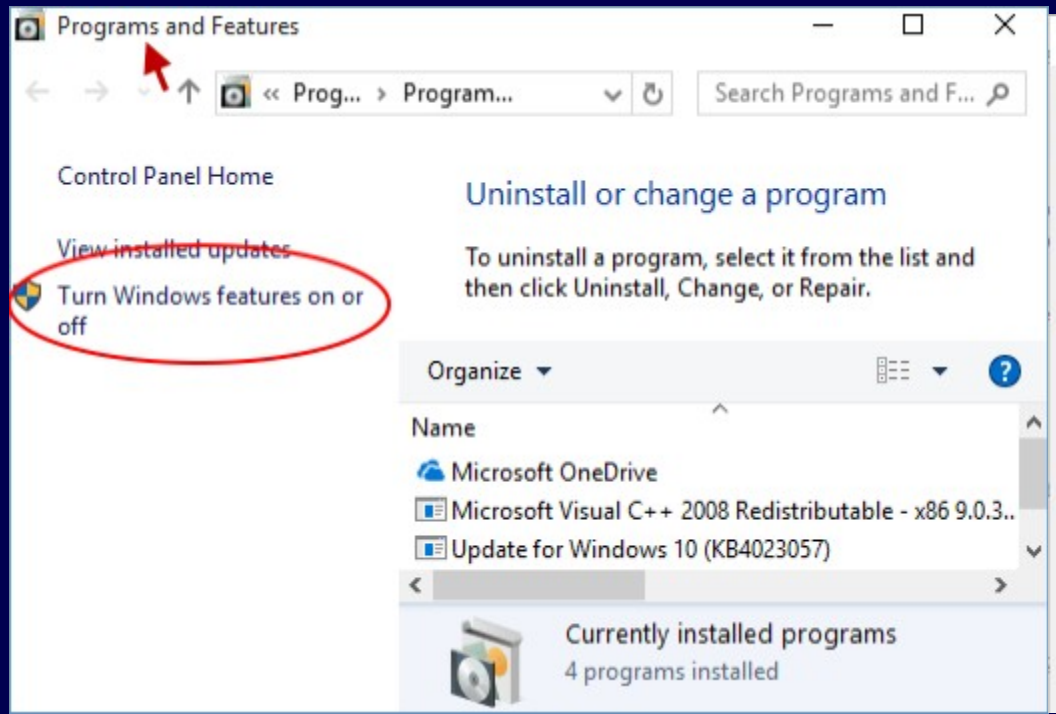

Lenovo BIOS Setup U
Main Devices Advanced Power Security Startup E
Administrator Password Not Installed
Power-On Password Not Installed
Set Administrator Password Enter
Set Power-On Password Enter
Lenovo Service Engine [Enable]
Secure Boot

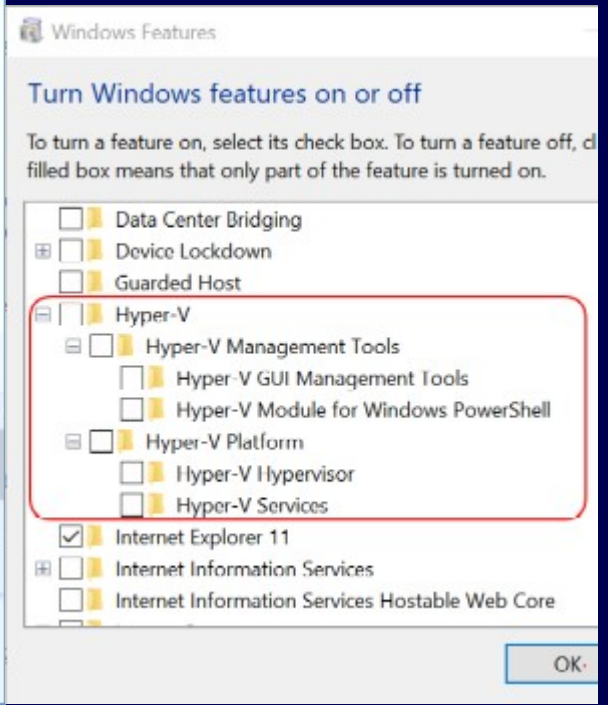
How to disable Hyper-V (Optional)

- Control Panel → select “Programs and Features” → select “Turn Windows features on or off”. → expand Hyper-V → expand “Hyper-V Platform”, and then clear the Hyper-V Hypervisor check box.

- Open cmd as admin and type ---> bcdedit /set hypervisorlaunchtype off

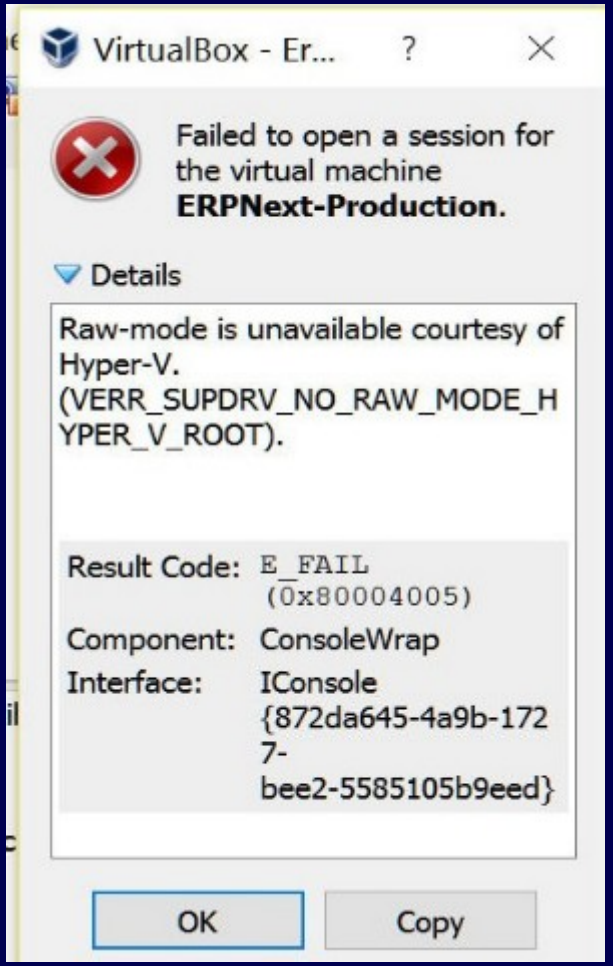


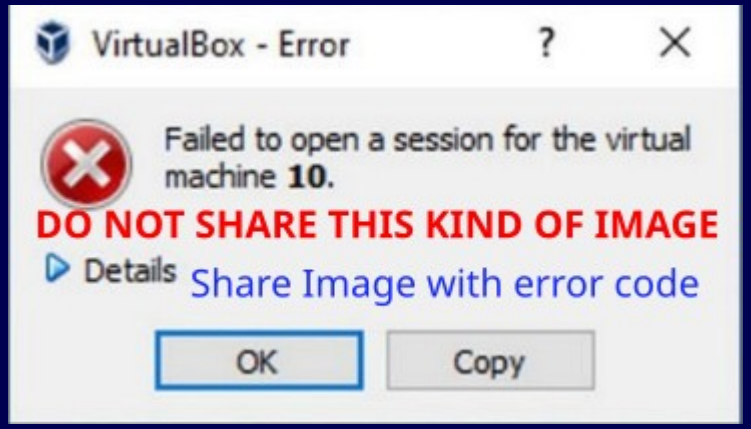


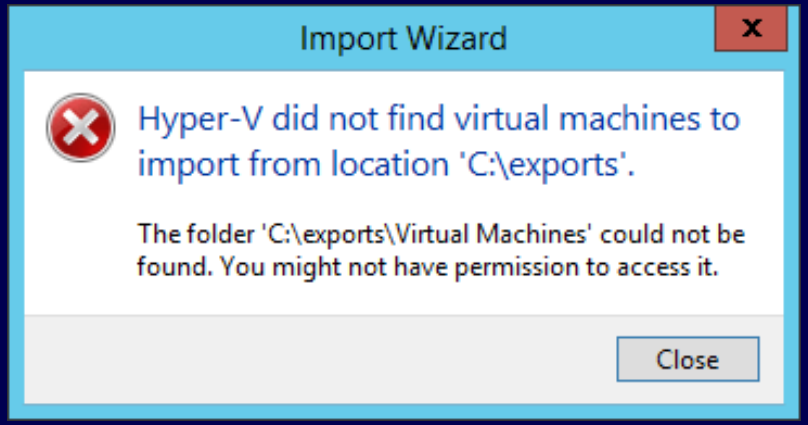


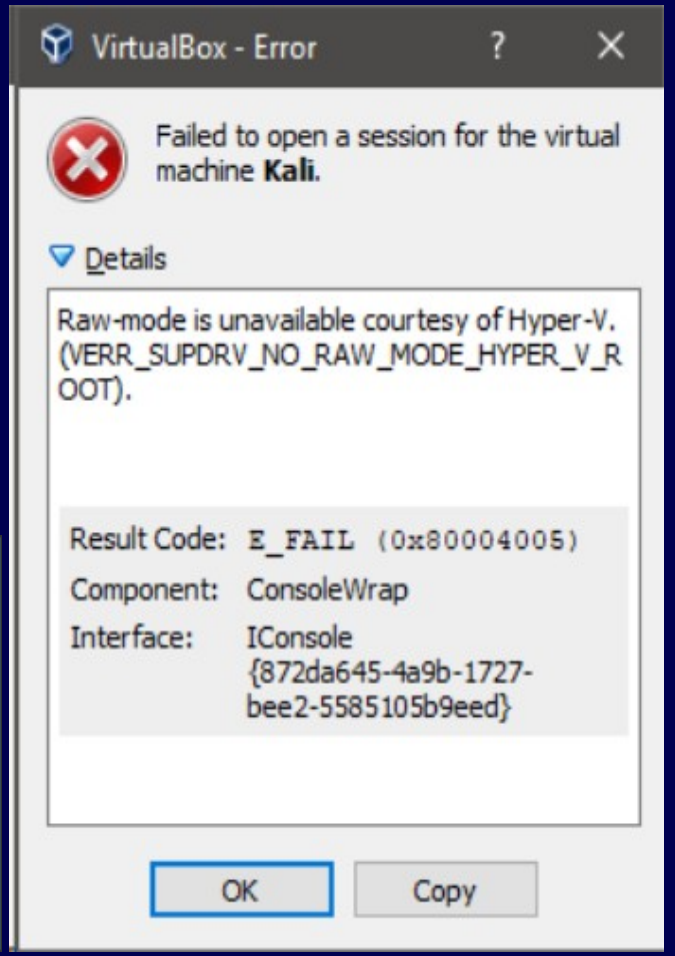
Errors and Glitches

Errors due to enabled Hyper-V

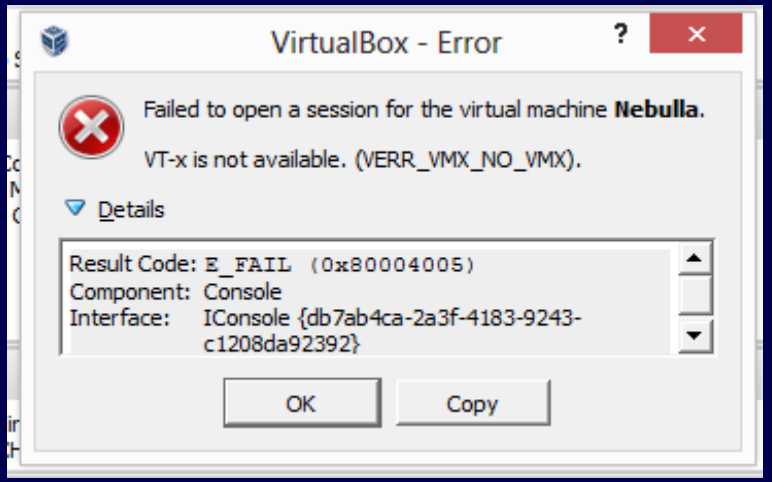


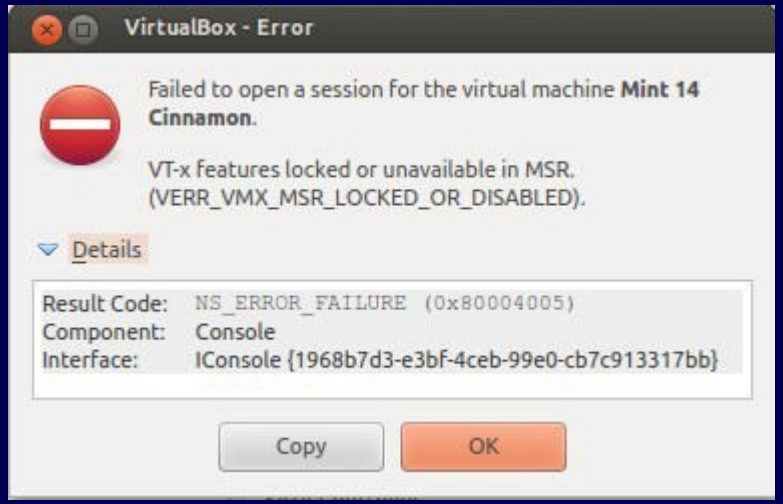


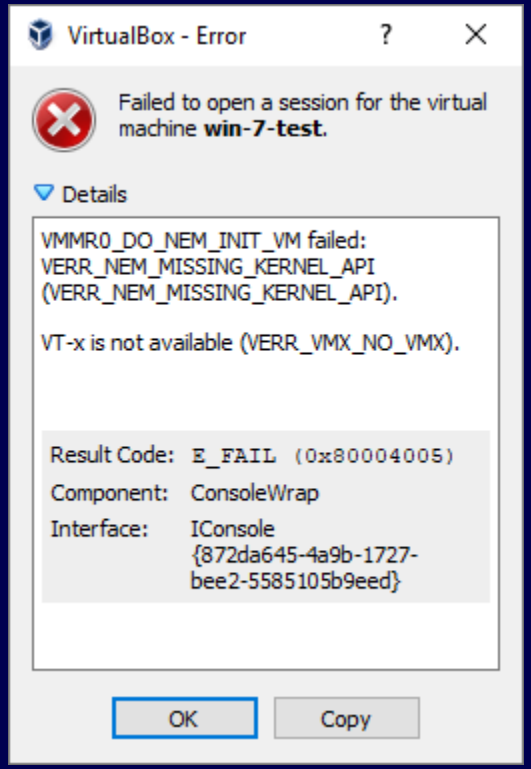




Errors due to disabled virtualization

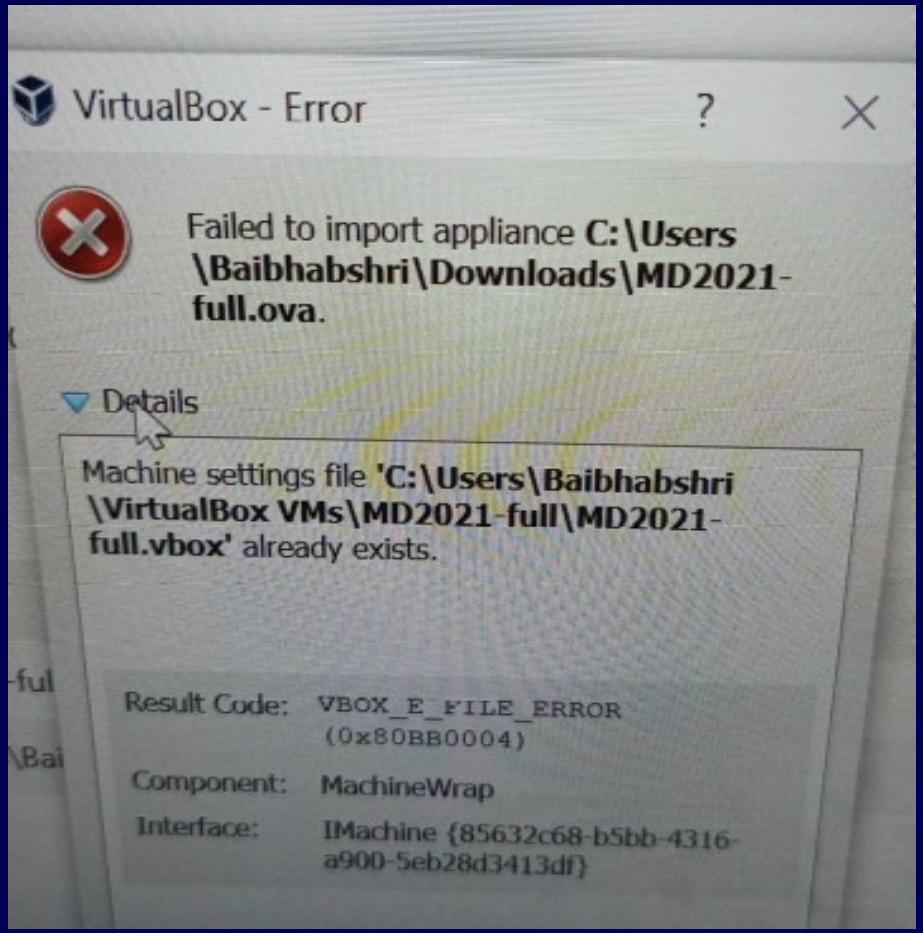


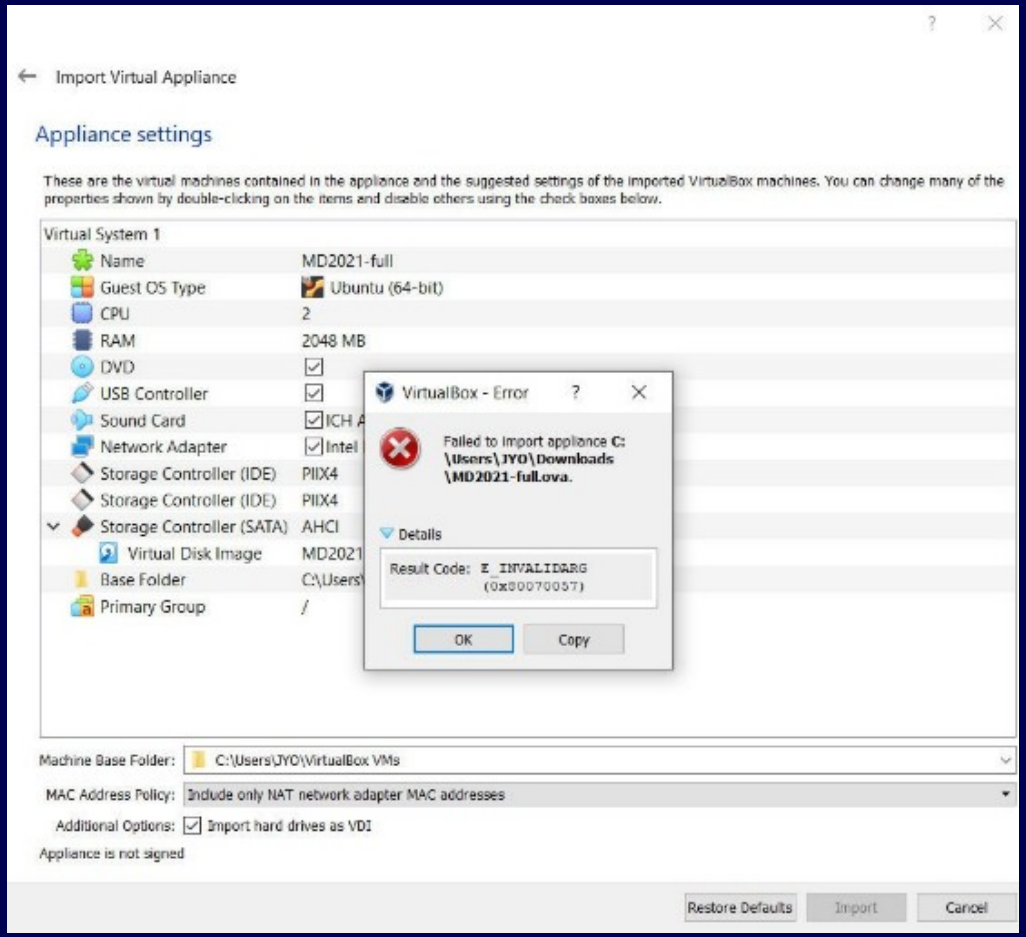


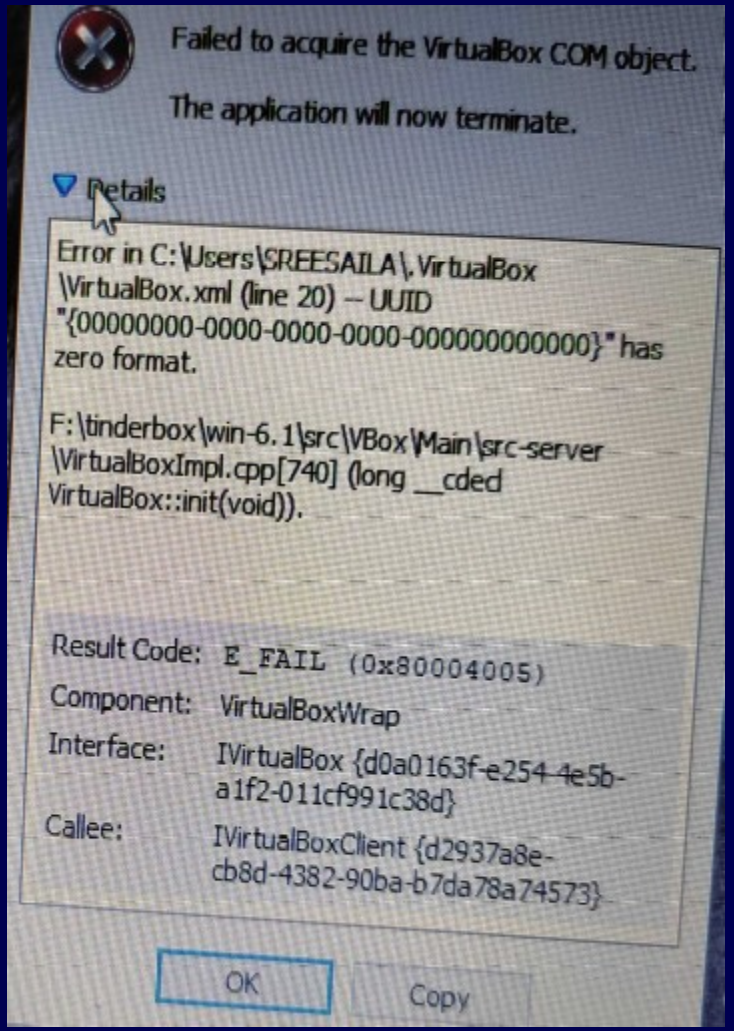


Erros due to duplicate file.

It generally occurs when you import ova file 2nd time

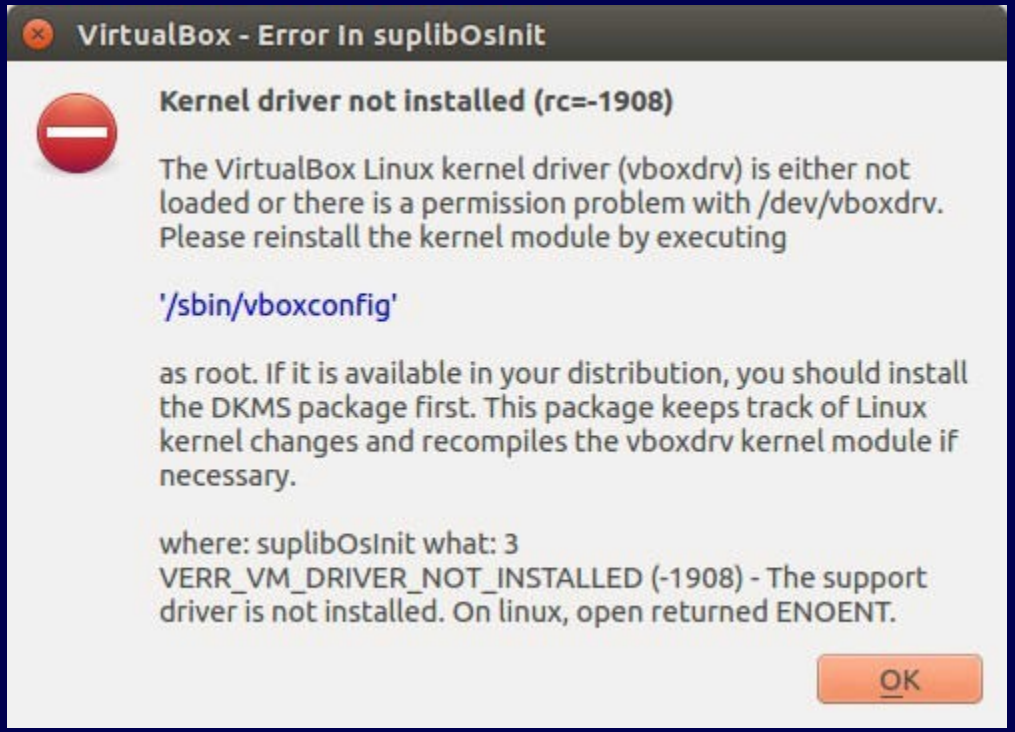





Failed to acquire the VirtualBox COM object.
The application will now terminate.
Details
Error in C:\Users\SREESAILA\.VirtualBox\VirtualBox.xml (line 20) – UUID "{00000000-0000-0000-0000-000000000000}" has zero format.
F:\tinderbox\win-6.1\src\VBox\Main\src-server\VirtualBoxImpl.cpp[740] (long __cdecl VirtualBox::init(void)).
Result Code: E_FAIL (0x80004005)
Component: VirtualBoxWrap
Interface: IVirtualBox {d0a0163f-e254-4e5b-a1f2-011cf991c38d}
Callee: IVirtualBoxClient {d2937a8e-cb8d-4382-90ba-b7da78a74573}
OK
Copy

VirtualBox - Critical Error
Failed to create the VirtualBoxClient COM object.
The application will now terminate.
Details
Copy
OK

Errors on Linux



Execute the following commands

```
sudo /usr/lib/virtualbox/vboxdrv.sh setup
sudo modprobe -a vboxdrv
sudo apt update
sudo apt upgrade
sudo apt install -f
```

How to improve the host and guest OS performance?

- Make sure your Drive-C has enough space. (Windows only)
- If you have only 4GB RAM then you should avoid running applications inside your HOST OS.
- Go to power option and choose performance mode.

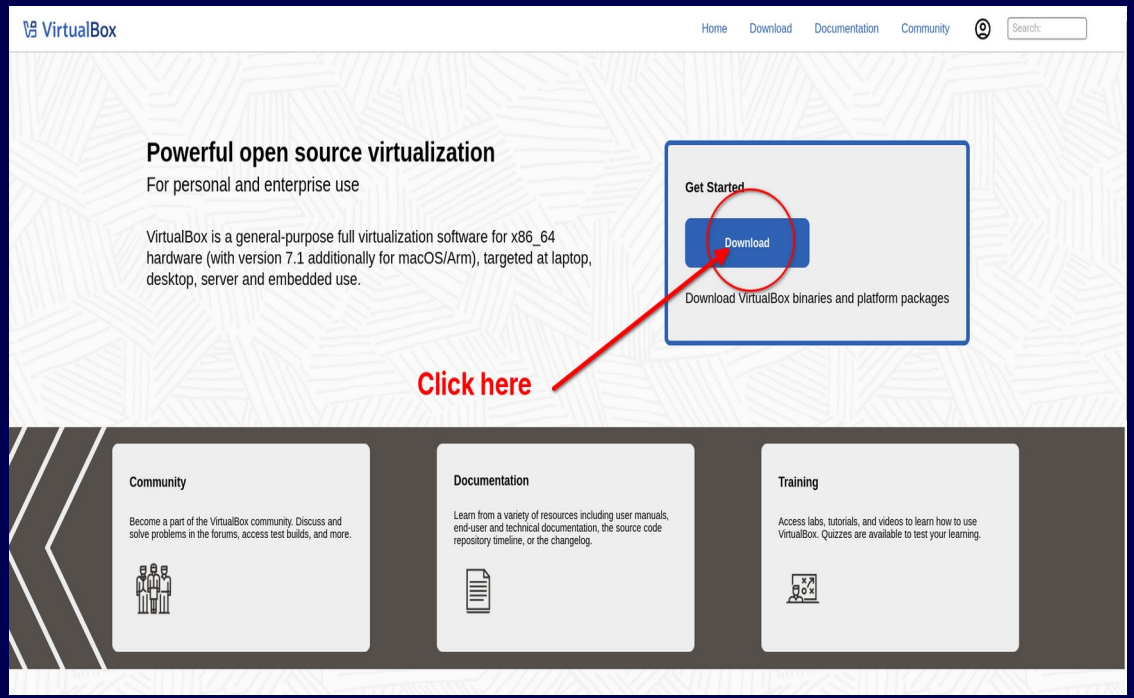
Guest Additions will solve following issues

- Screen size of guest OS.
- Shared folder(to share files b/w host and guest OS).
- Share Clipboard
- Performance.

How to Import qe2025.ova

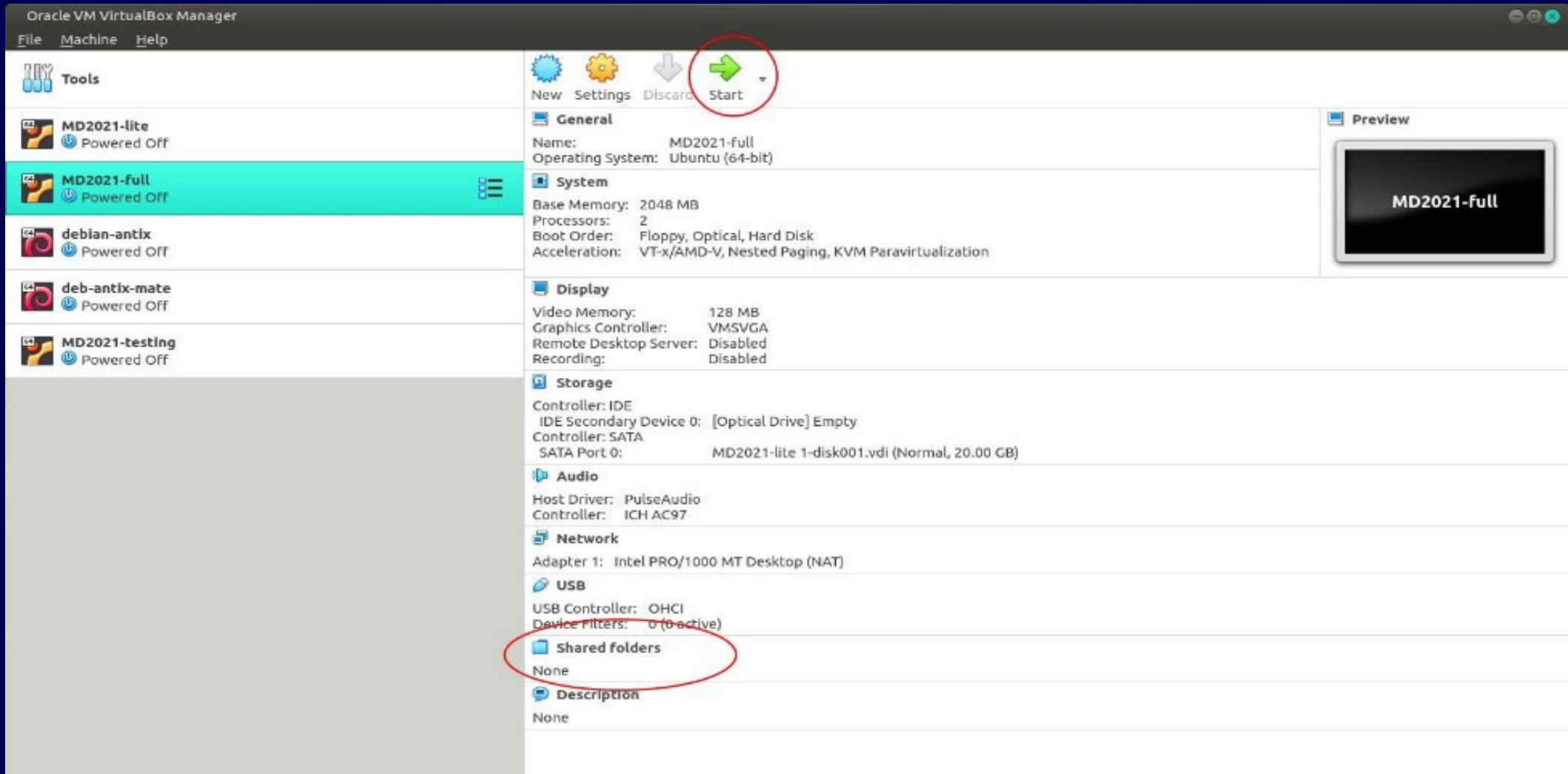
1. Download Oracle Virtual Box
2. Download qe2025.ova file : tiny.cc/qe2025

Download and Install the VirtualBox



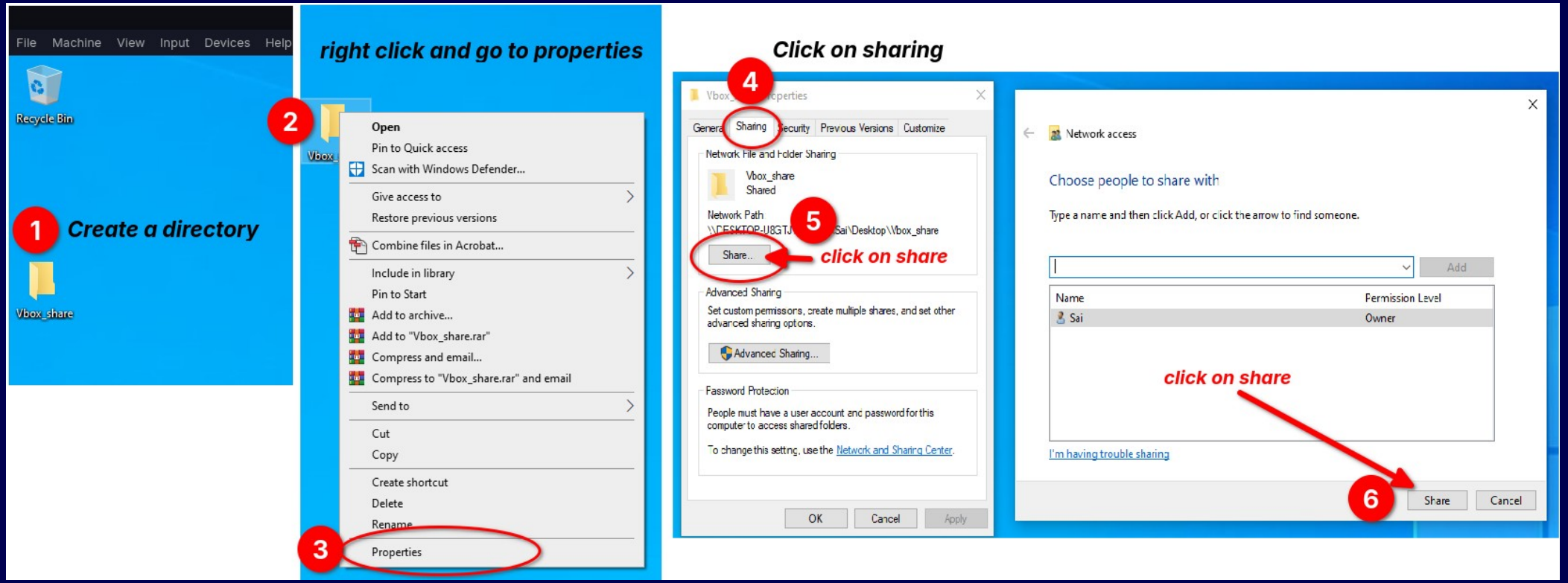
Import qe2025.ova file

Shared Folder



Linux : Create a directory and share the path in VBox

Windows: Create a folder --> Sharing permisstion ---> give path in Vbox.



Thanks