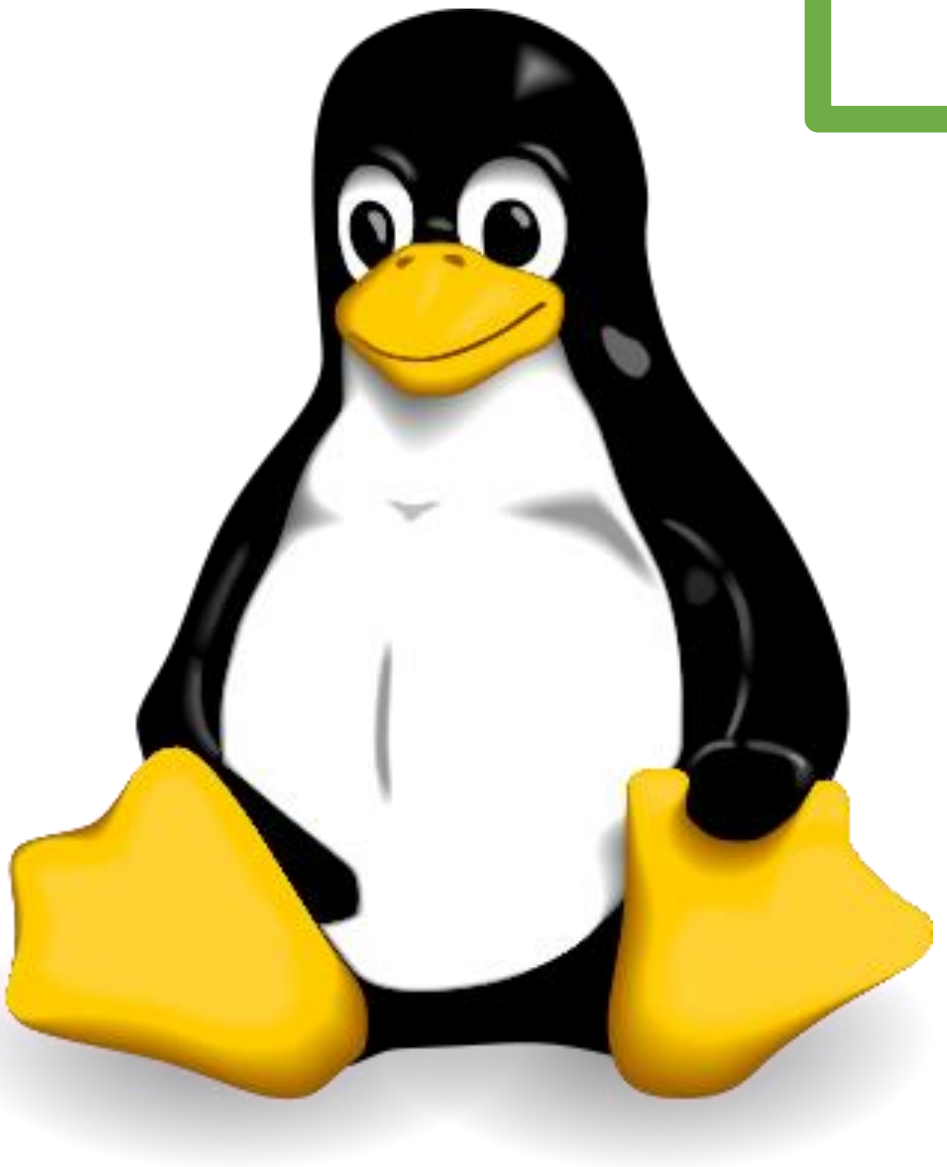
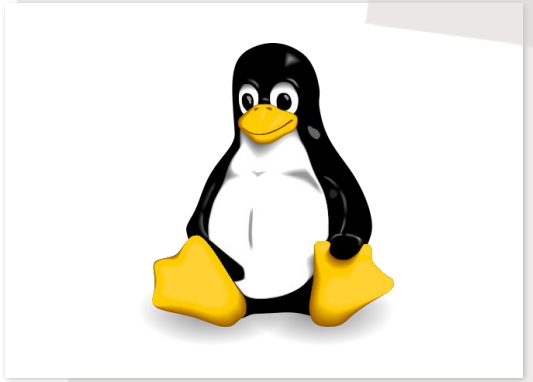
Introduction to Linux



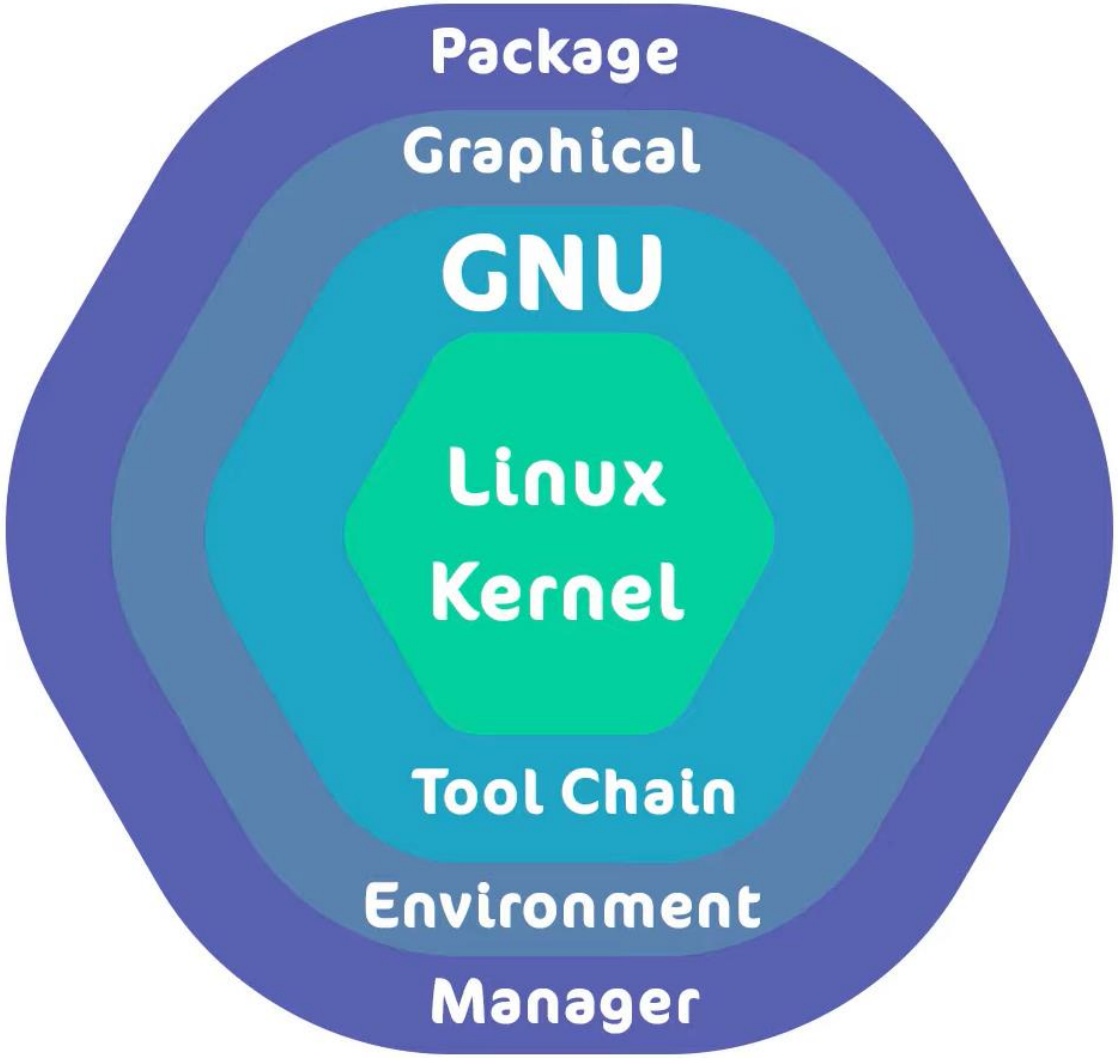
Operating System

- OS is the interface between hardware and user
- All computers need an OS
- OSes are used to run applications and control hardware
- Popular OSes include Windows, Linux, Mac OSX



What is Linux?

- Developed in 1991 by a University of Finland student **Linus Torvalds**.
- Basically a kernel, it was combined with the various software and compilers from GNU Project to form an OS, called **GNU/Linux**
- Linux is a full-fledged OS available in the form of various **Linux Distributions**
- **RedHat**, **Fedora**, **SuSE**, **Ubuntu**, **Debian** are examples of Linux distros
- Linux is supported by big names as IBM, Google, Sun, Novell, Oracle, HP, Dell, and many more



10 RESONS WHY LINUX

1st Linux is Open
2nd Linux is Multi-user
3rd Linux is "Free"
4th Linux is Reliable
5th Linux is Backwards-Compatible
6th Linux is Network-friendly
7th Linux is stable
8th Linux is virus free
9th Linux really fast
10th Linux has awesome graphics

Why Linux

Free
Open-source
Secure
Distributions
Fast Performance

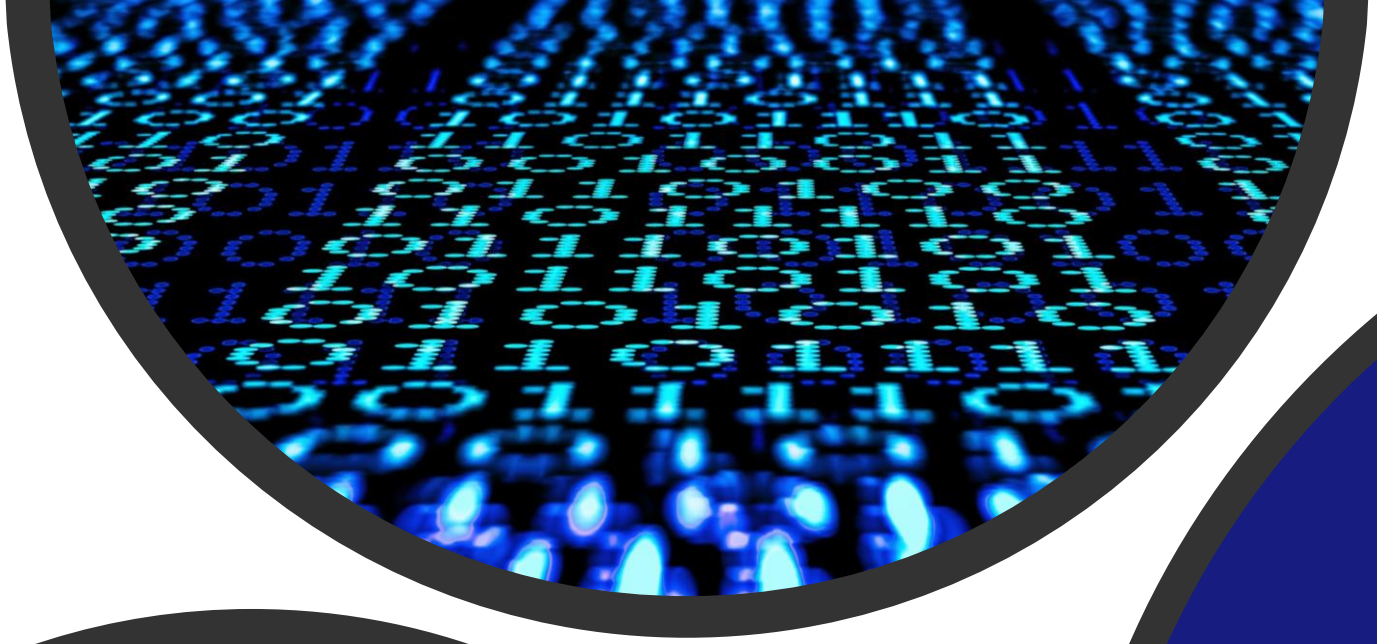
Viruses
Malwares
Slow-downs
Crashes
Costly repairs

Linux User Interface

- Can be controlled through command-line (CLI) or Graphical User Interface (GUI)
- GUI run through Desktop Environments (DE)
- The GUI interface is easy-to-use and much like that of Windows and Mac OSX

Linux on the Desktop

- Linux is desktop computer ready
- Large number of distros targeted at Desktop users are available
- Linux desktop distros come with many commonly used pre-installed softwares
- The modern Linux interface is user-friendly and makes the interaction with computer easy



Linux(ubuntu)

To install Linux Ubuntu on windows

1. Download Virtual box & ubuntu Iso file

https://www.virtualbox.org/wiki/Downloads

https://ubuntu.com/#download

VirtualBox

search...
Login Preferences

Download VirtualBox

Here you will find links to VirtualBox binaries and its source code.

About
Screenshots
Downloads
Documentation
End-user docs
Technical docs
Contribute
Community

VirtualBox binaries

By downloading, you agree to the terms and conditions of the respective license.

If you're looking for the latest VirtualBox 6.0 packages, see VirtualBox 6.0 builds. Please also use version 6.0 if you need to run VMs with software virtualization, as this has been discontinued in 6.1. Version 6.0 will remain supported until July 2020.

If you're looking for the latest VirtualBox 5.2 packages, see VirtualBox 5.2 builds. Please also use version 5.2 if you still need support for 32-bit hosts, as this has been discontinued in 6.0. Version 5.2 will remain supported until July 2020.

VirtualBox 6.1.32 platform packages

- Windows hosts
- OS
- Linux distributions
- Solaris hosts
- Solaris 11 IPS hosts

The binaries are released under the terms of the GPL version 2.

See the changelog for what has changed.

You might want to compare the checksums to verify the integrity of downloaded packages. *The SHA256 checksums should be favored as the MD5 algorithm must be treated as insecure!*

- SHA256 checksums, MD5 checksums

Note: After upgrading VirtualBox it is recommended to upgrade the guest additions as well.

VirtualBox 6.1.32 Oracle VM VirtualBox Extension Pack

- All supported platforms

Support for USB 2.0 and USB 3.0 devices, VirtualBox RDP, disk encryption, NVMe and PXE boot for Intel cards. See this chapter from the User Manual for an introduction to this Extension Pack. The Extension Pack binaries are released under the VirtualBox Personal Use and Evaluation License (PUEL). *Please install the same version extension pack as your installed version of VirtualBox.*

VirtualBox 6.1.32 Software Developer Kit (SDK)

Ubuntu Desktop ›

Download Ubuntu desktop and replace your current operating system whether it's Windows or Mac OS, run[illegible]tu alongside it.

20.04 LTS | 21.10

Ubuntu Server ›

The most popular server Linux in the cloud and data centre, you can rely on Ubuntu Server and its five years of guaranteed free upgrades.

Get Ubuntu Server

Mac and Windows
ARM
IBM Power
s390x

Ubuntu for IoT ›

Are you a developer who wants to try snappy Ubuntu Core or classic Ubuntu on an IoT board?

Raspberry Pi
Intel IoT platforms
Intel NUC
KVM
Qualcomm Dragonboard 410c
Intel IEI TANK 870
Xilinx Evaluation kits & SOMs

Ubuntu Cloud ›

Use Ubuntu optimised and certified server images on most major clouds.

Get started on Amazon AWS, Microsoft Azure, Google Cloud Platform and more…

Download cloud images for local development and testing

TUTORIALS

If you are already running Ubuntu - you can upgrade with the Software Updater

Burn a DVD on Ubuntu, macOS, or Windows. Create a bootable USB stick on Ubuntu, macOS, or Windows

Installation guides for Ubuntu Desktop and Ubuntu Server

READ THE DOCS

Read the official docs for Ubuntu Desktop, Ubuntu Server, and Ubuntu Core

UBUNTU APPLIANCES

An Ubuntu Appliance is an official system image which blends a single application with Ubuntu Core. Certified to run on Raspberry Pi and

OTHER WAYS TO DOWNLOAD

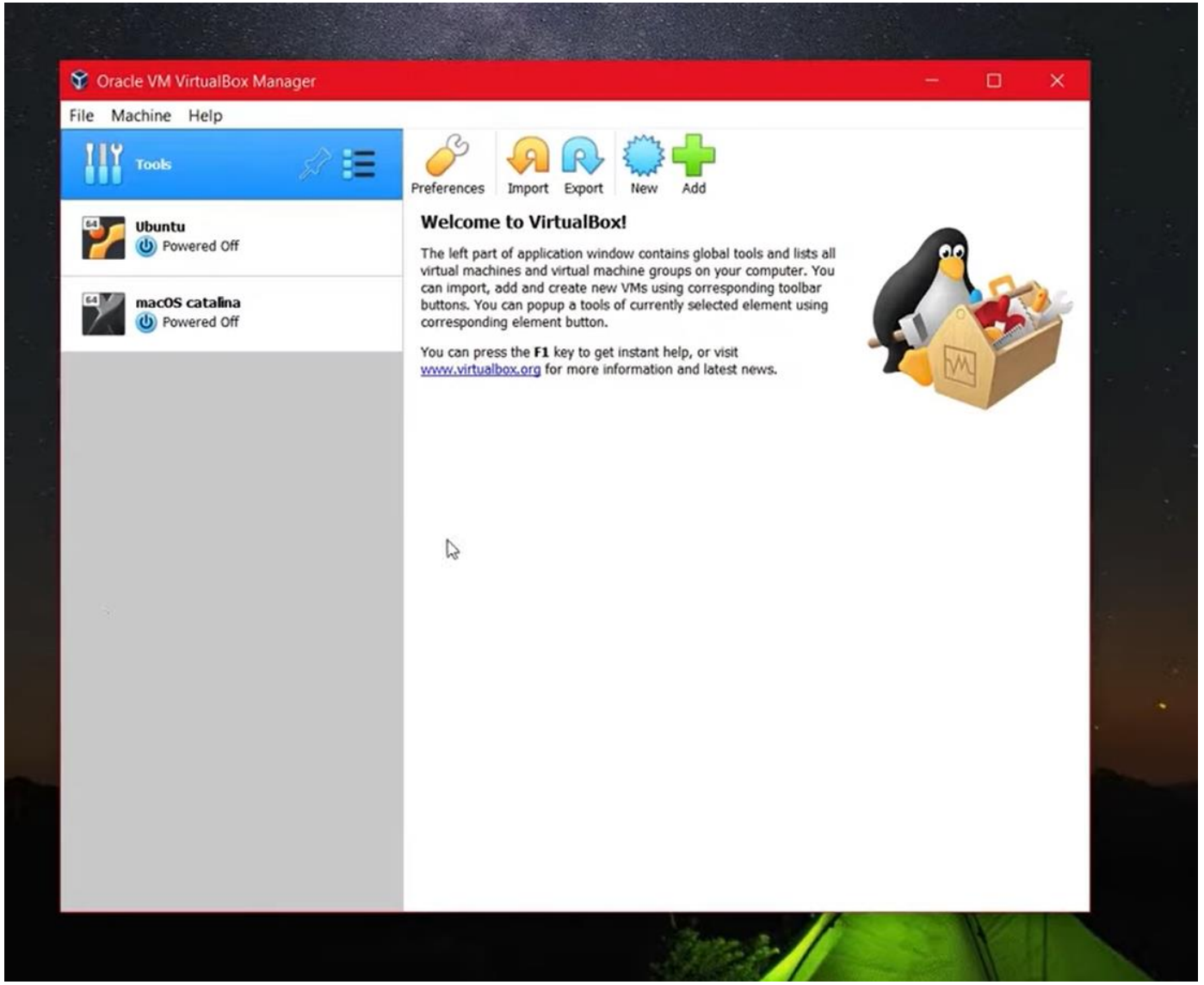
Ubuntu is available via BitTorrents and via a minimal network installer that allows you to customise what is installed, such as additional languages. You can also find older releases.

UBUNTU FLAVOURS

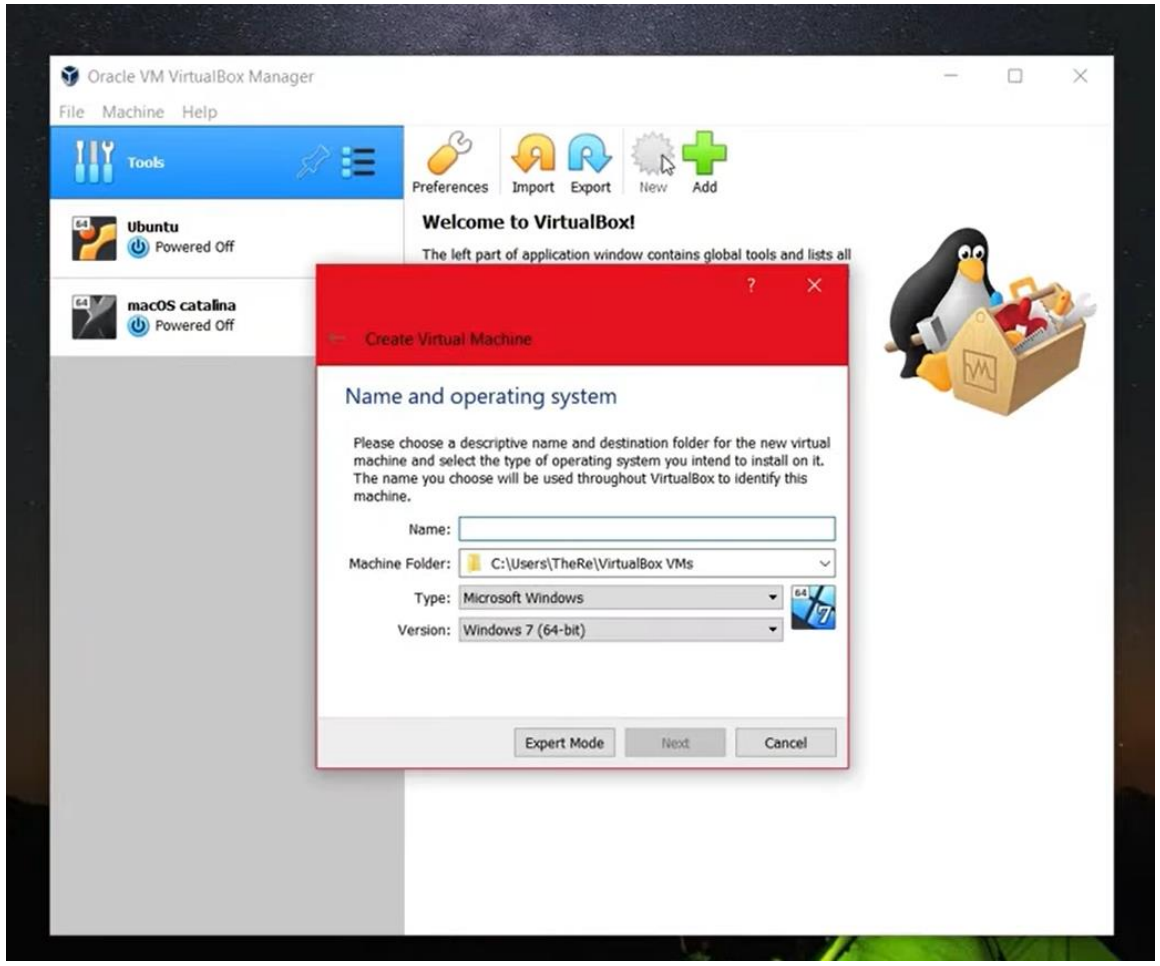
Find new ways to experience Ubuntu, each with their own choice of default applications and settings.

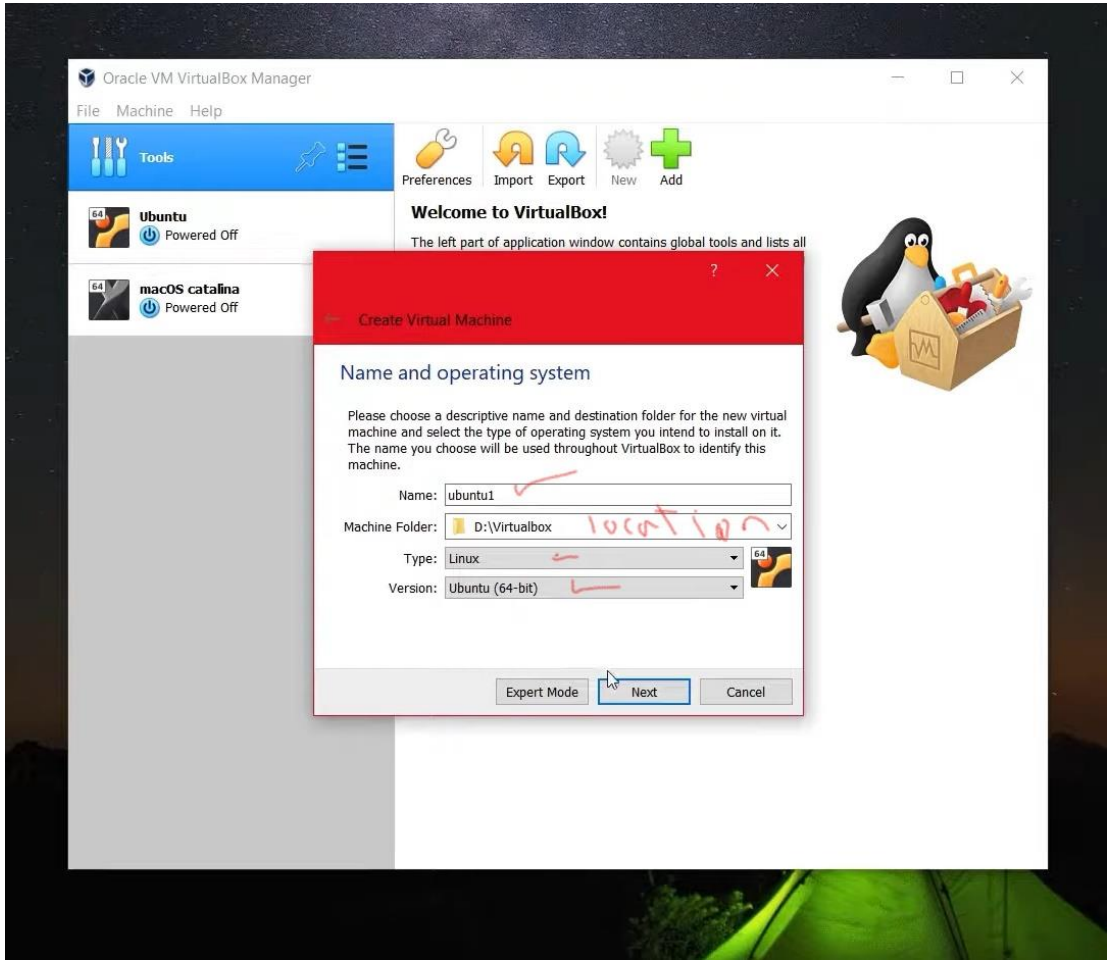
Kubuntu
Lubuntu
Ubuntu Budgie
Ubuntu Kylin
Ubuntu MATE
Ubuntu Studio
Xubuntu

2. Install virtual box and open it

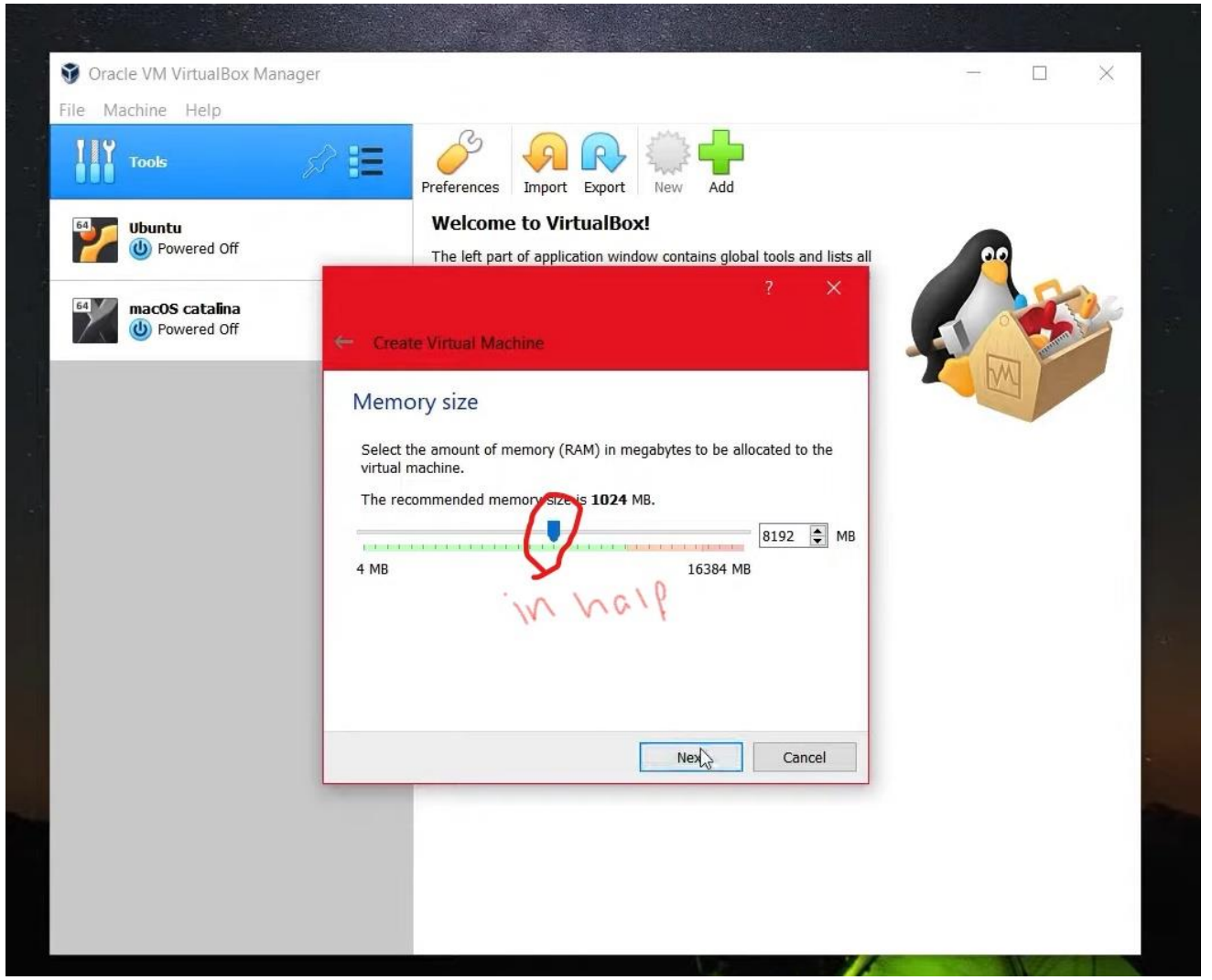


3. Click new and add the info

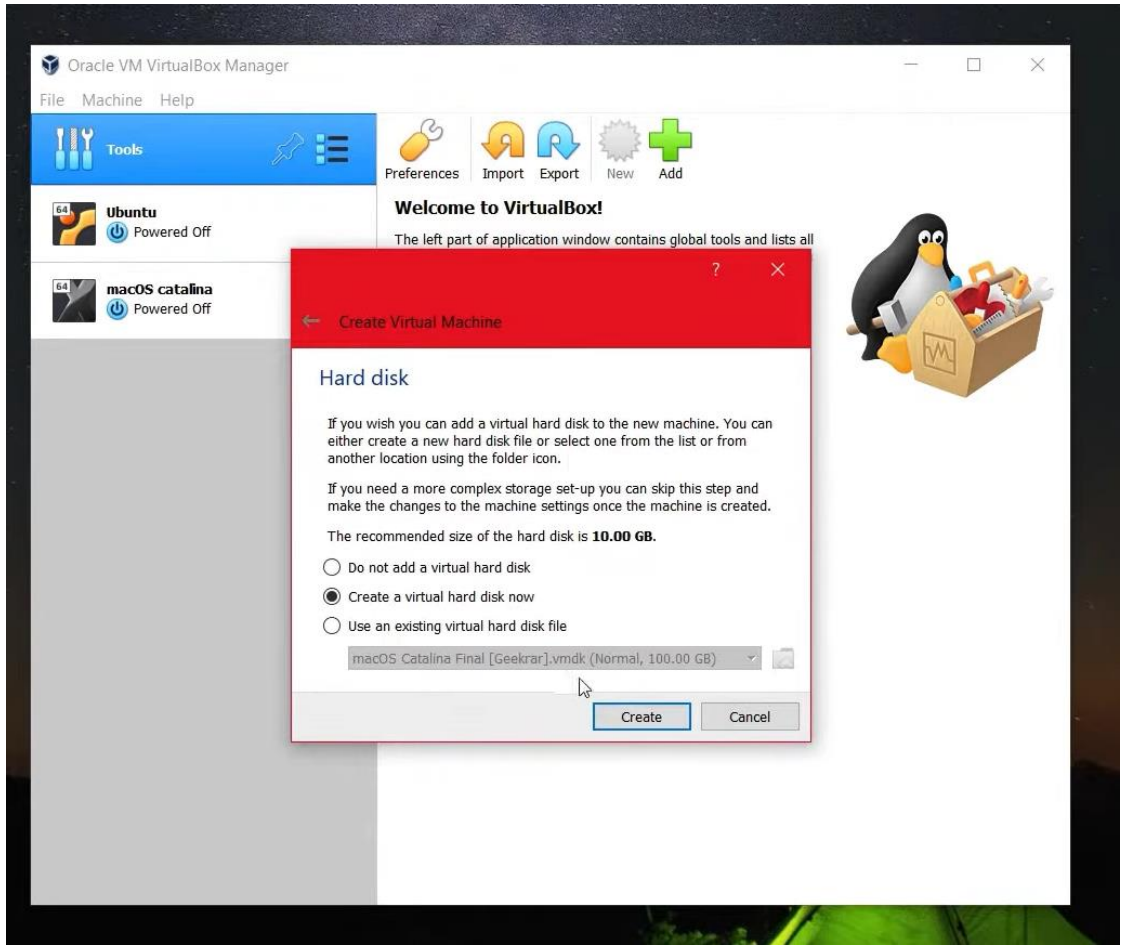




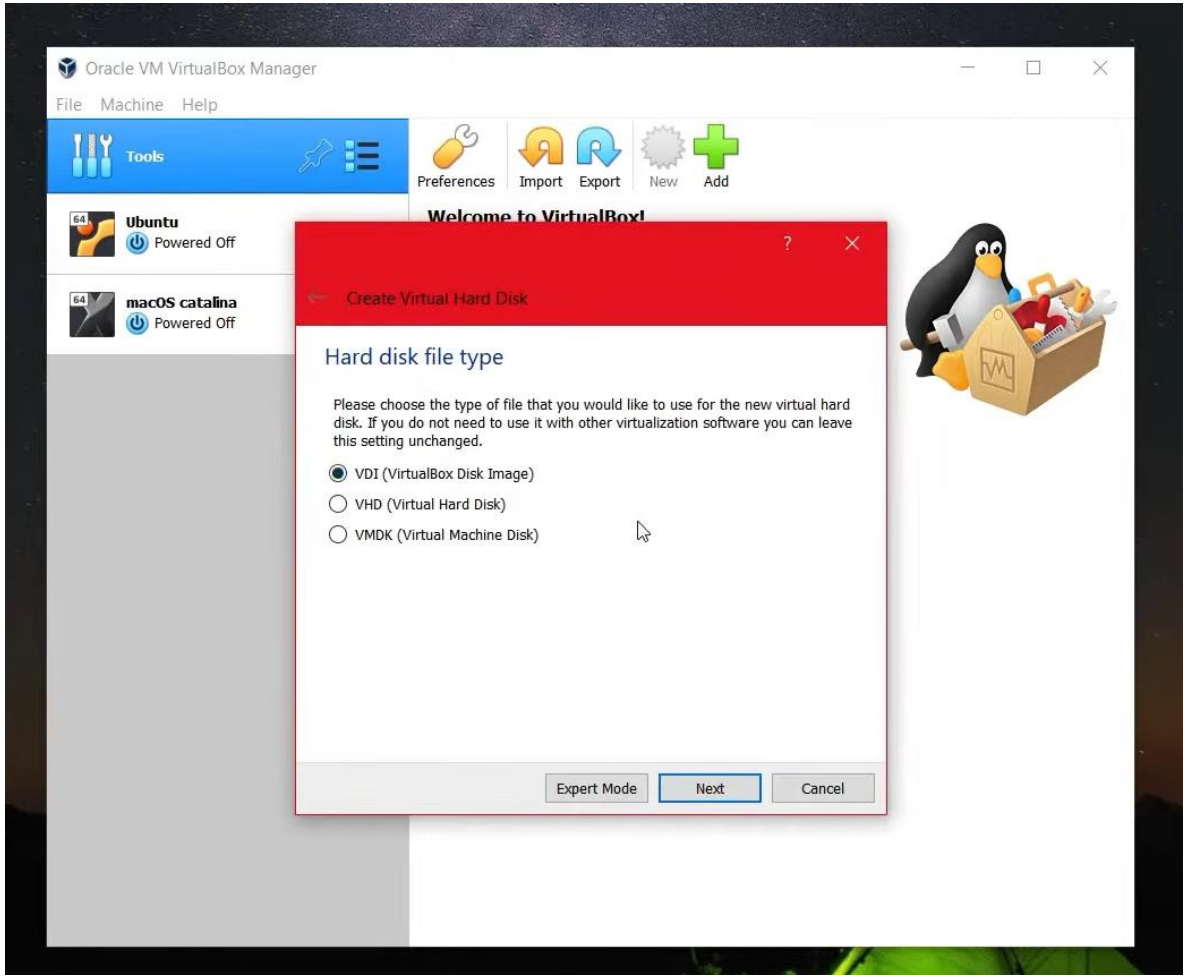
4. Make some configuration



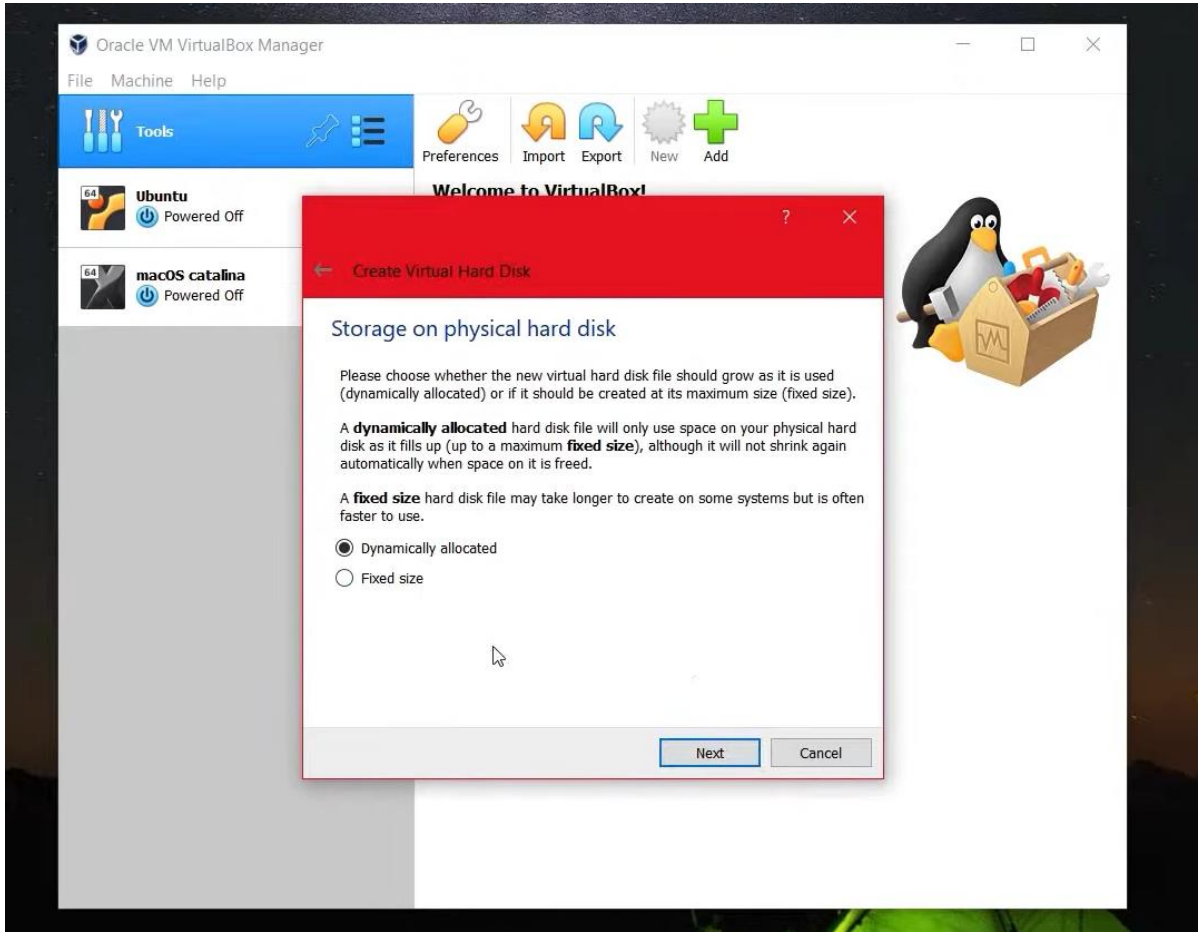
4.1. Hard Disk



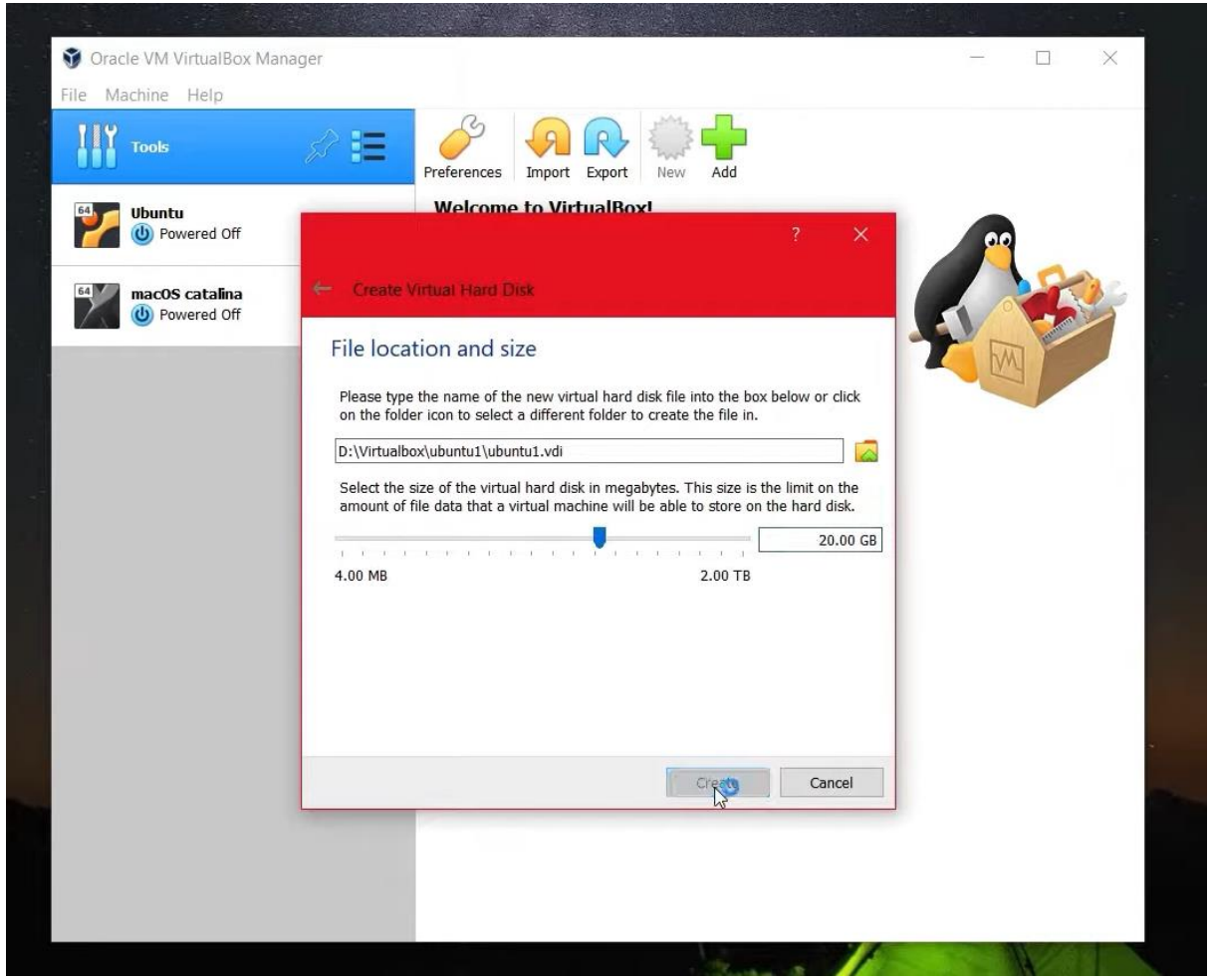
4.2. Hard Disk type



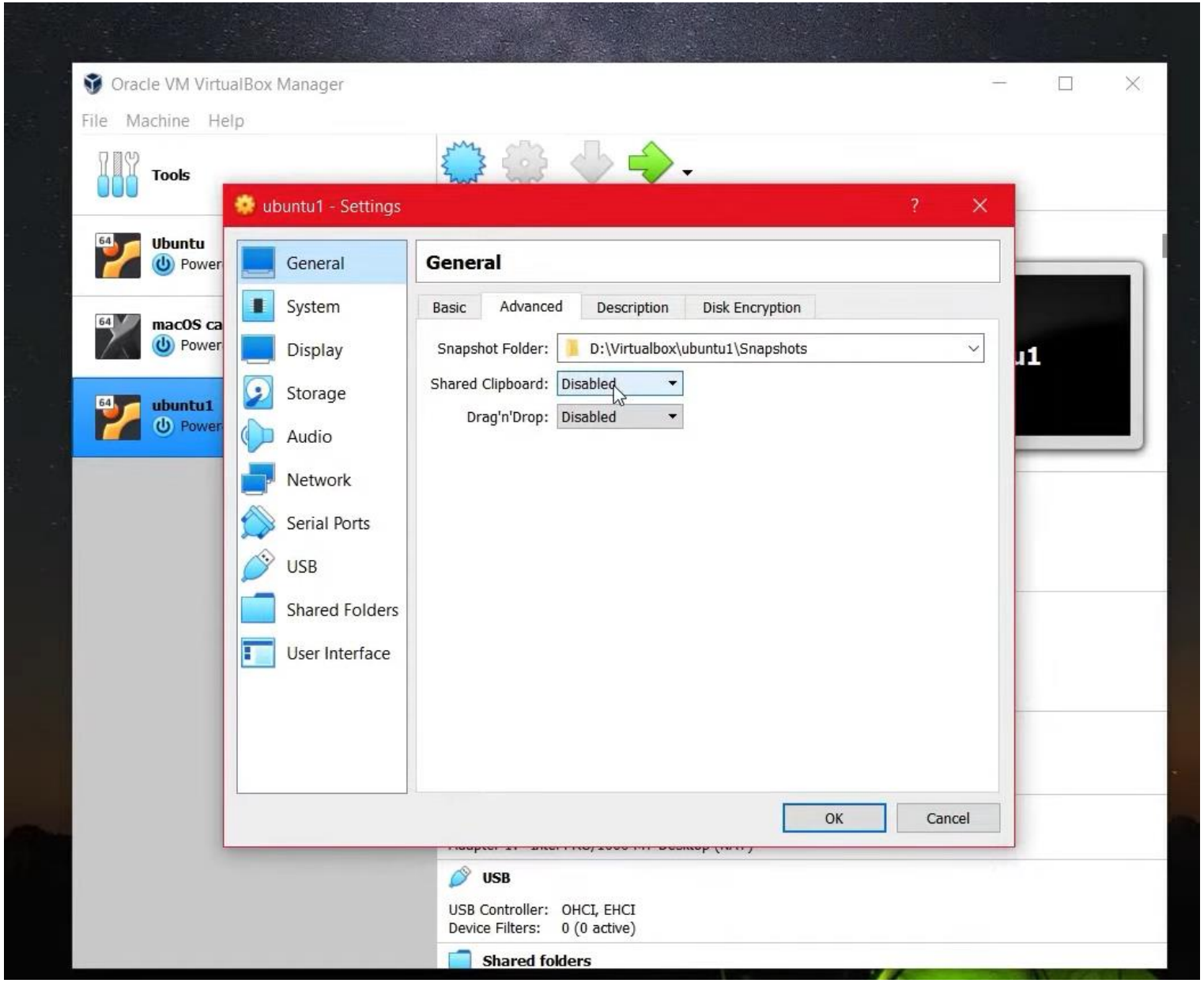
4.3. storage on physical hard disk



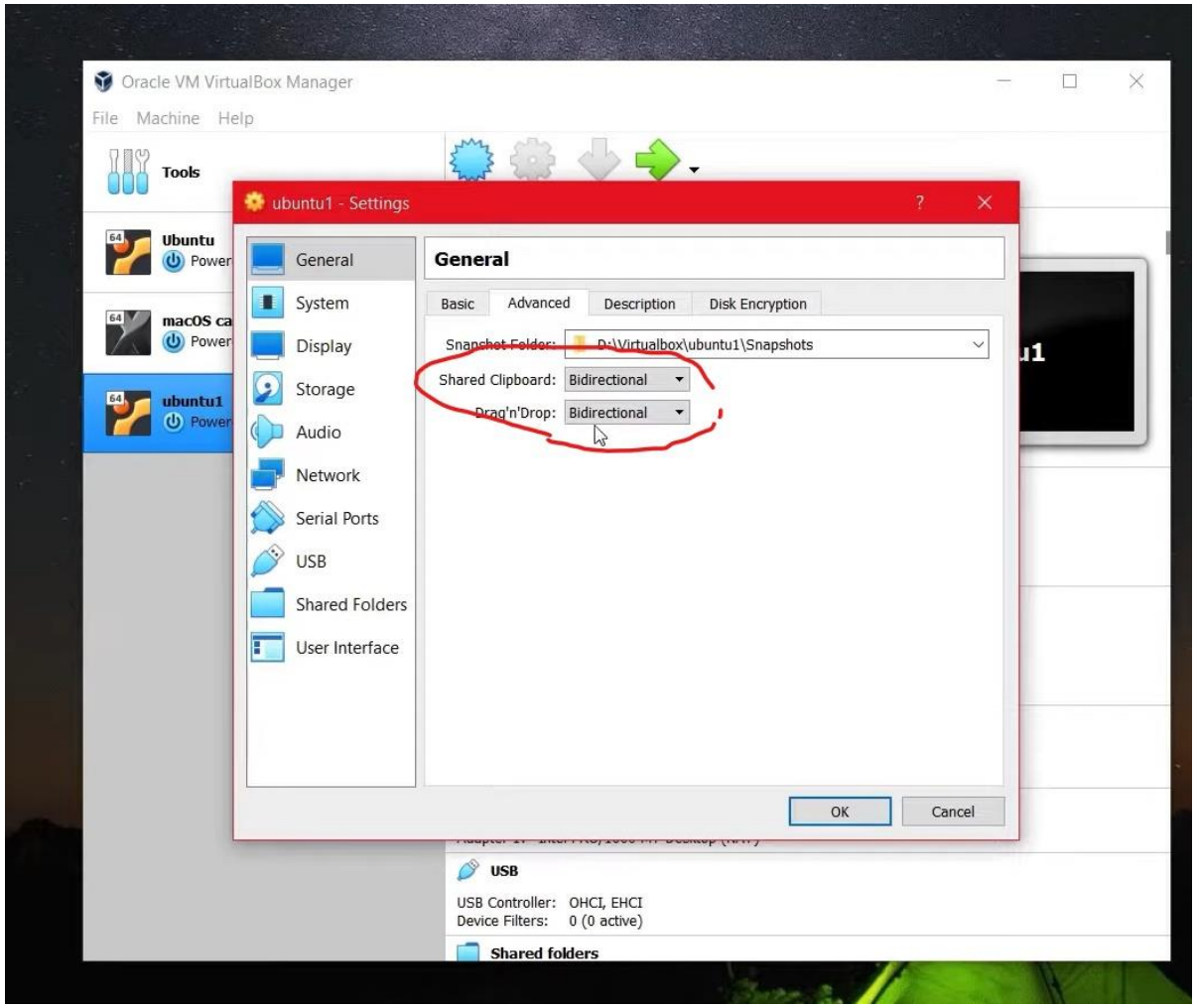
4.4. file location and size



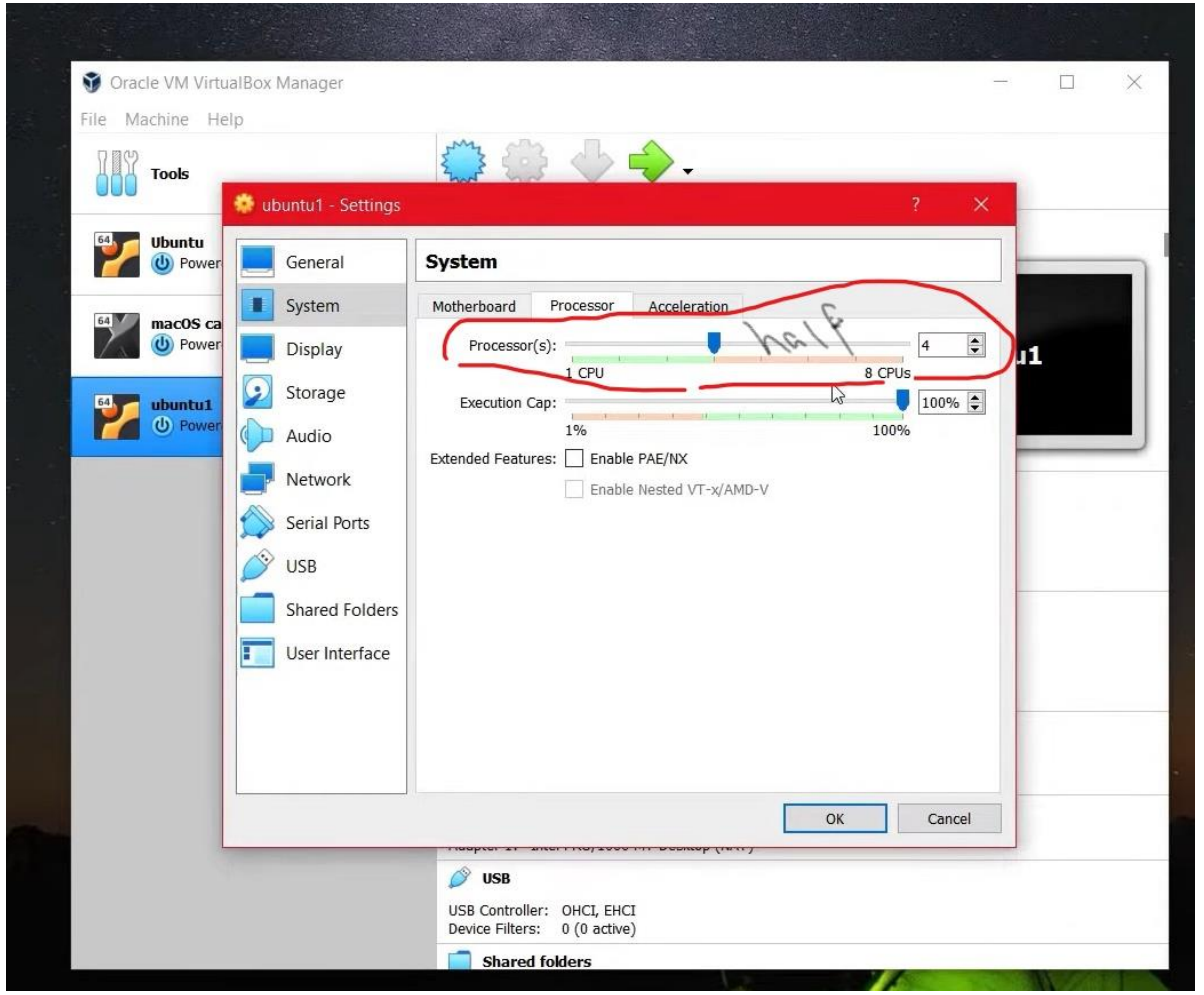
5. Go to setting



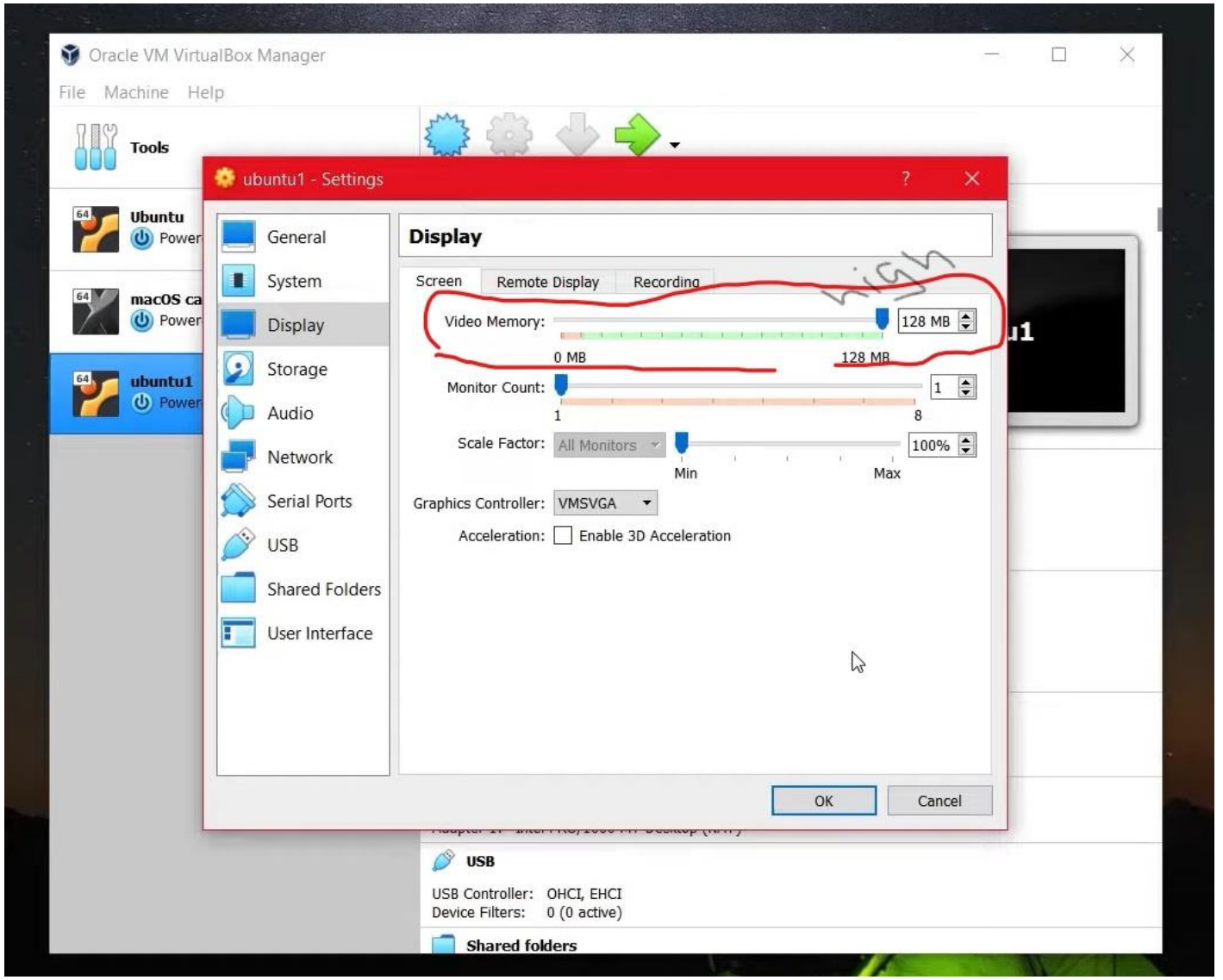
5.1. general -> advanced -> shared clipboard & drag drop



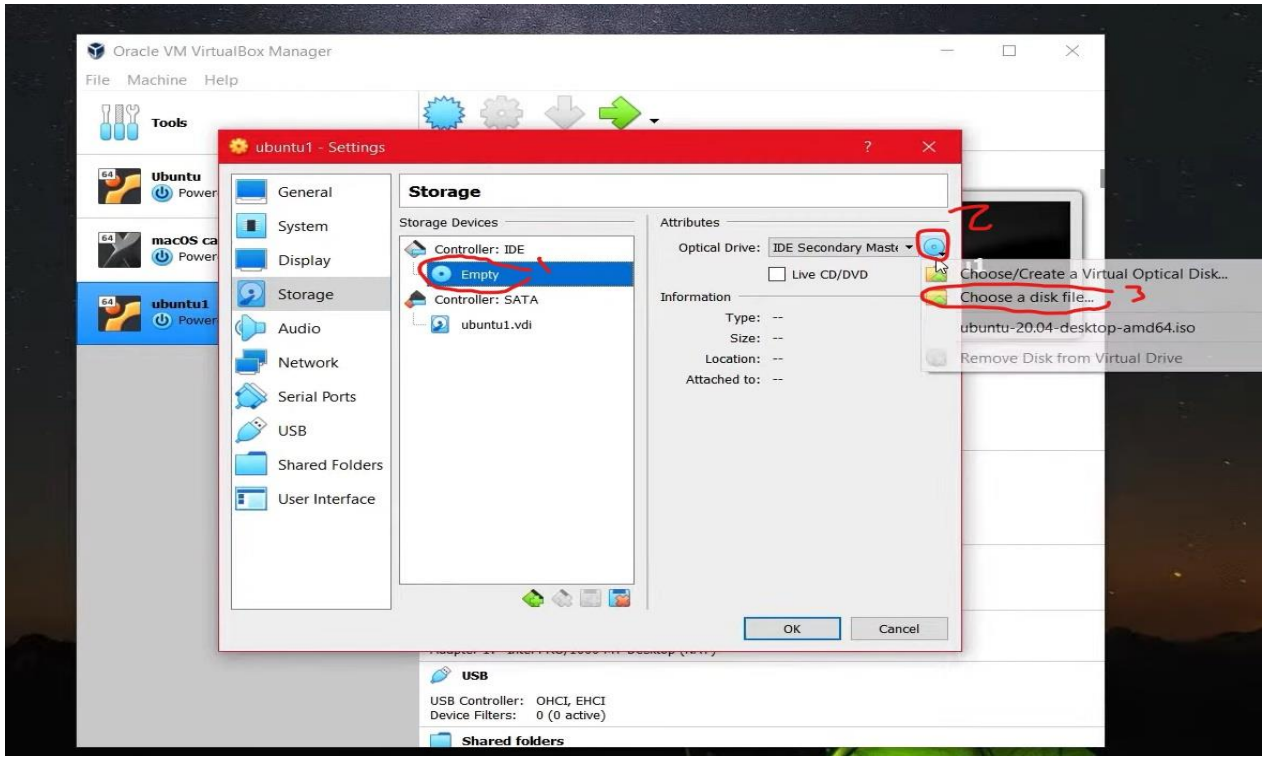
5.2. system -> processor -> processors



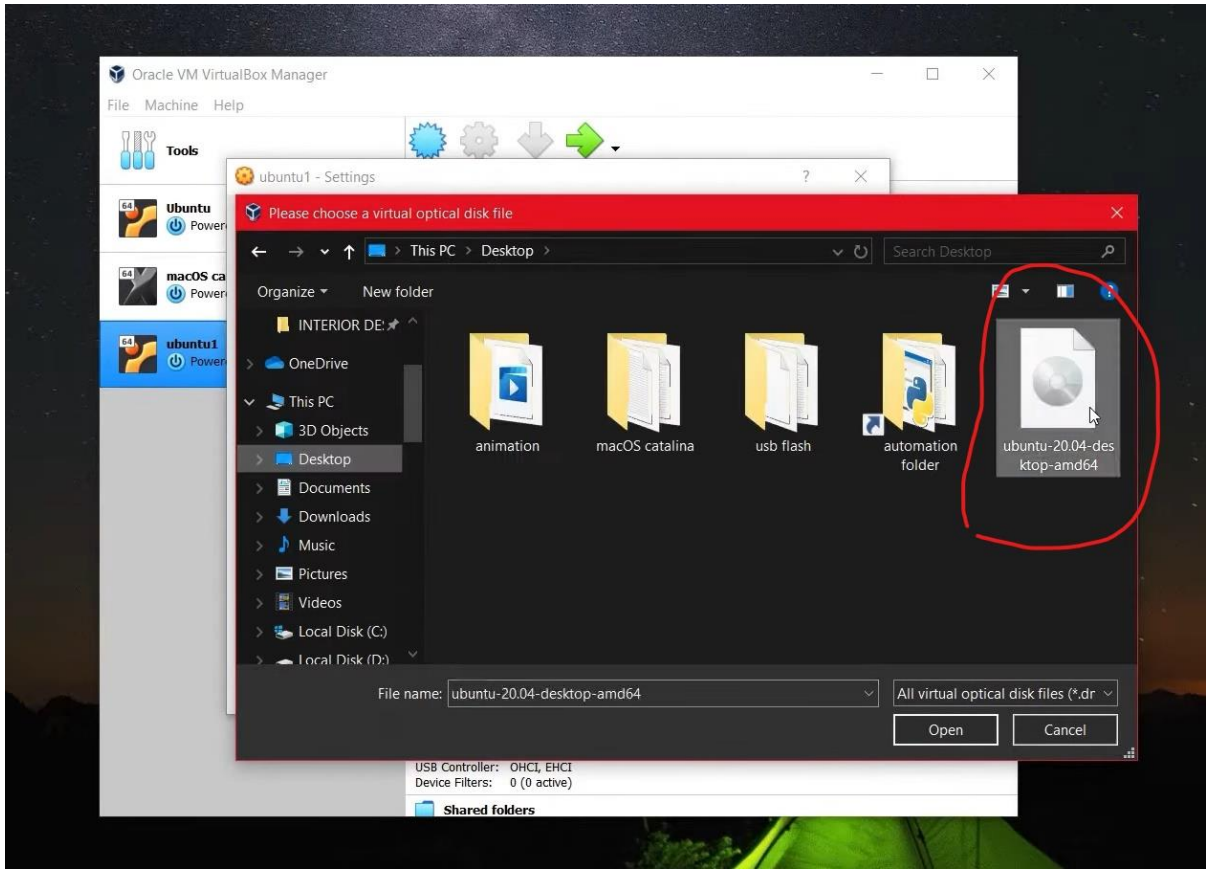
5.3. Display -> screen-> video memory



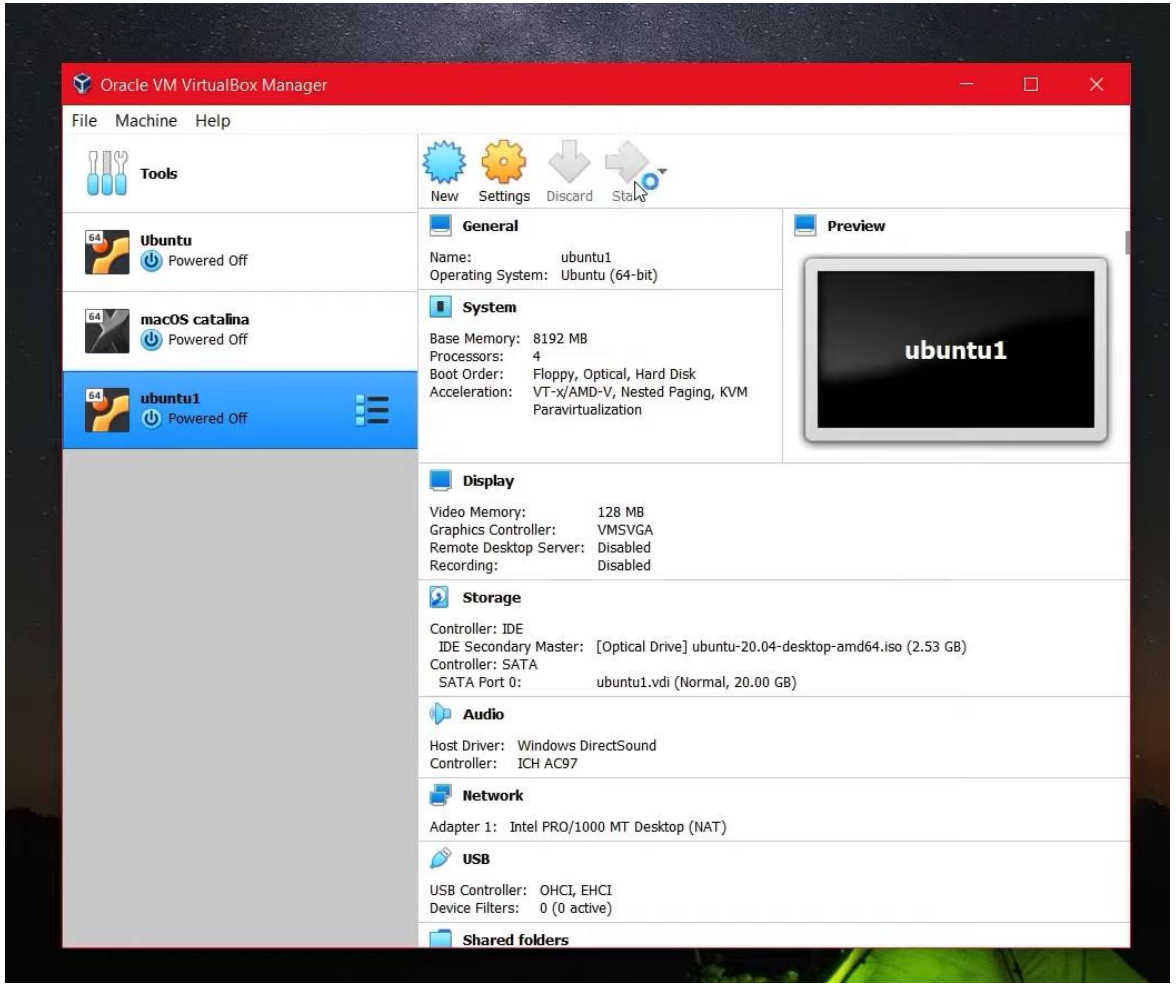
5.4. Storage -> controller: IDE (Empty) -> optical drive -> choose disk file



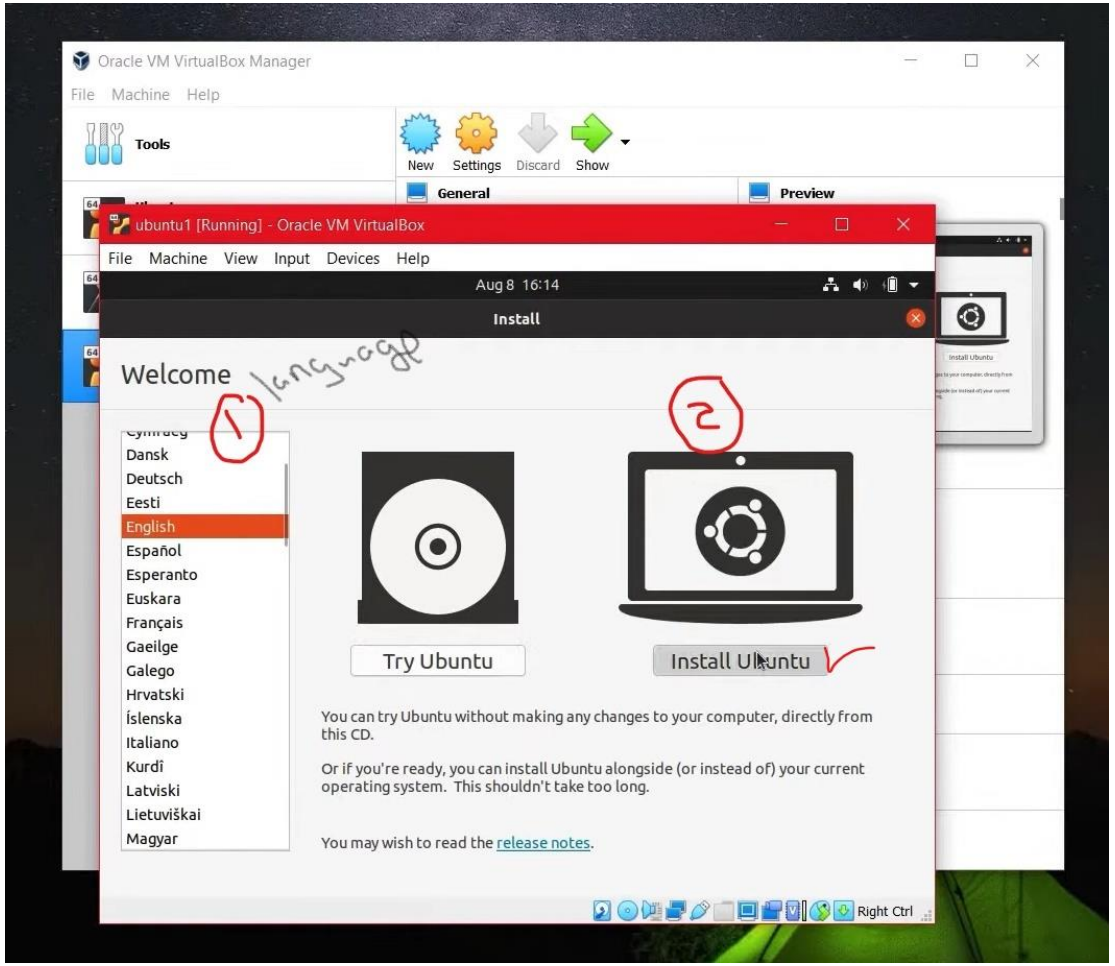
5.5. choose ubuntu iso file



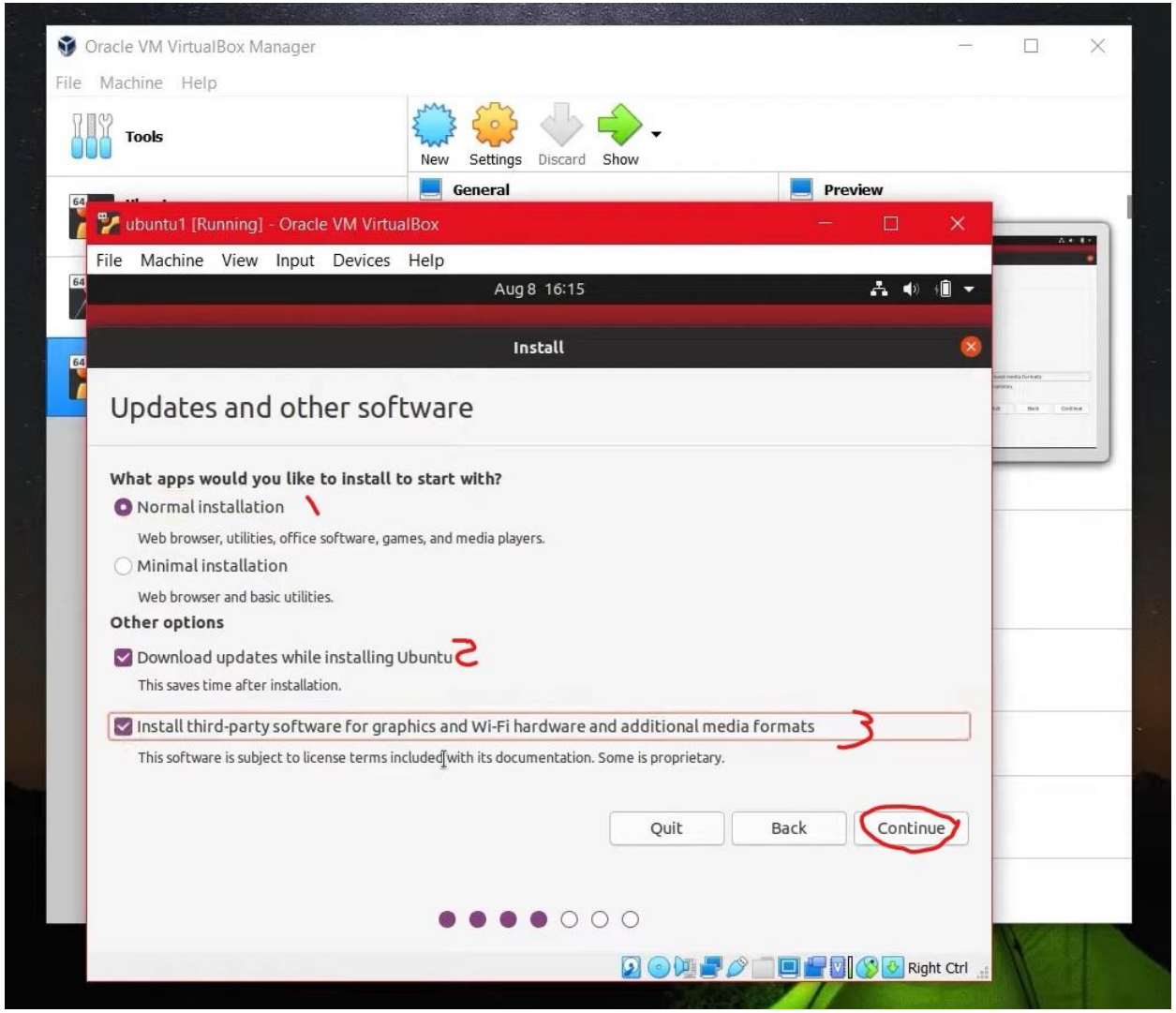
6. Start ubuntu operating system from virtual box



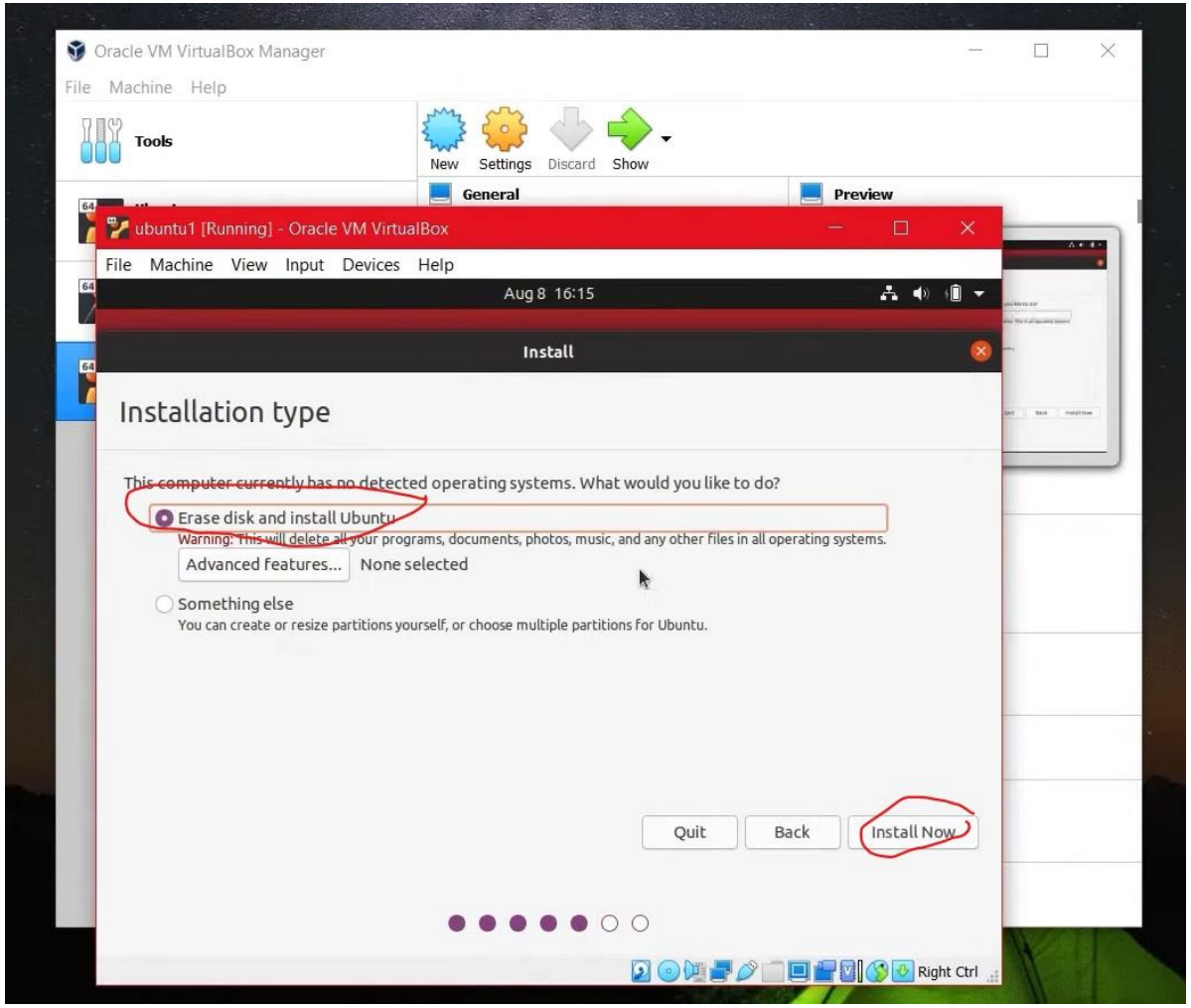
7. Select language and start installation



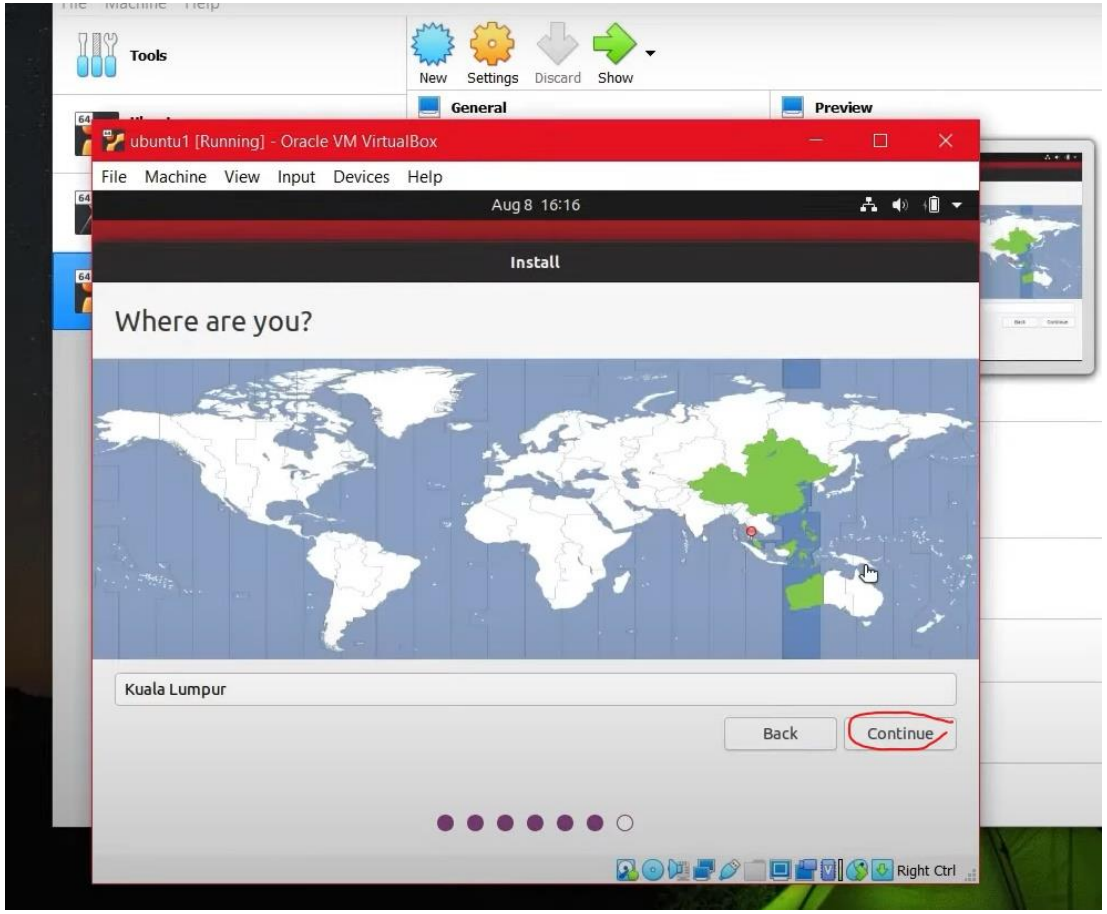
7.1. update and other software



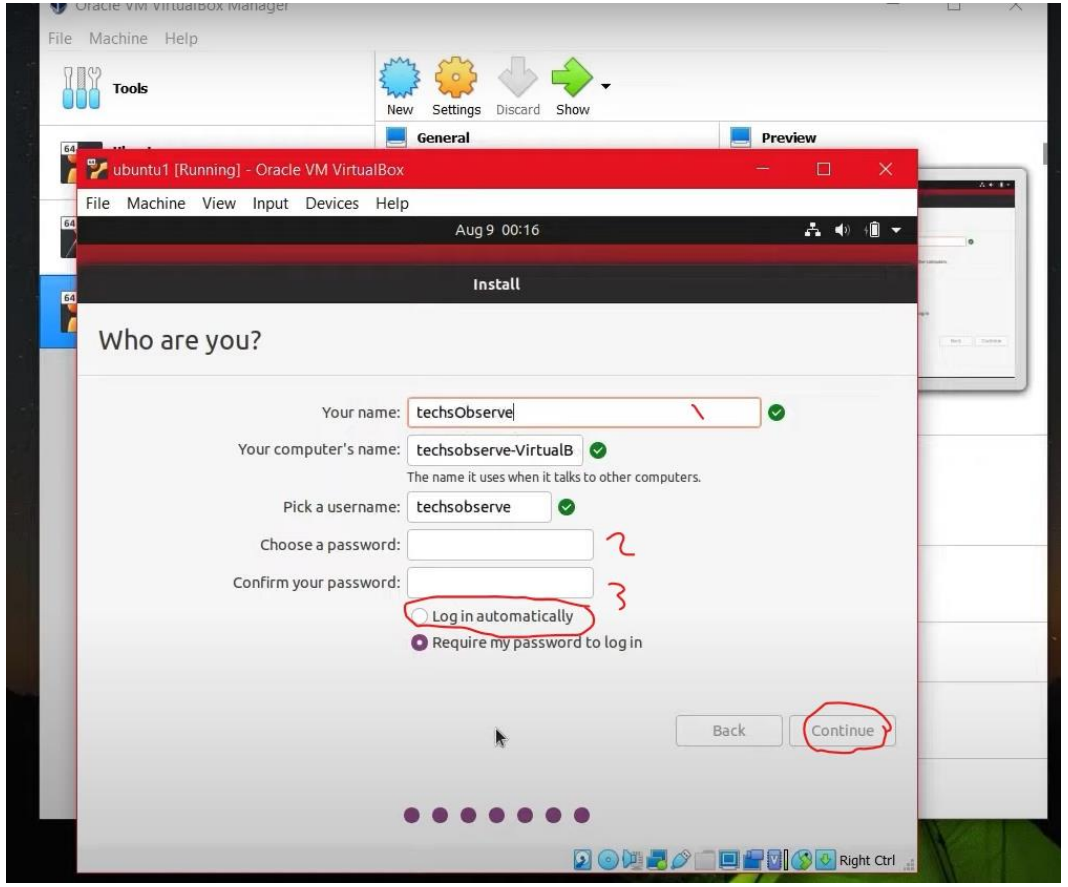
7.2. installation type



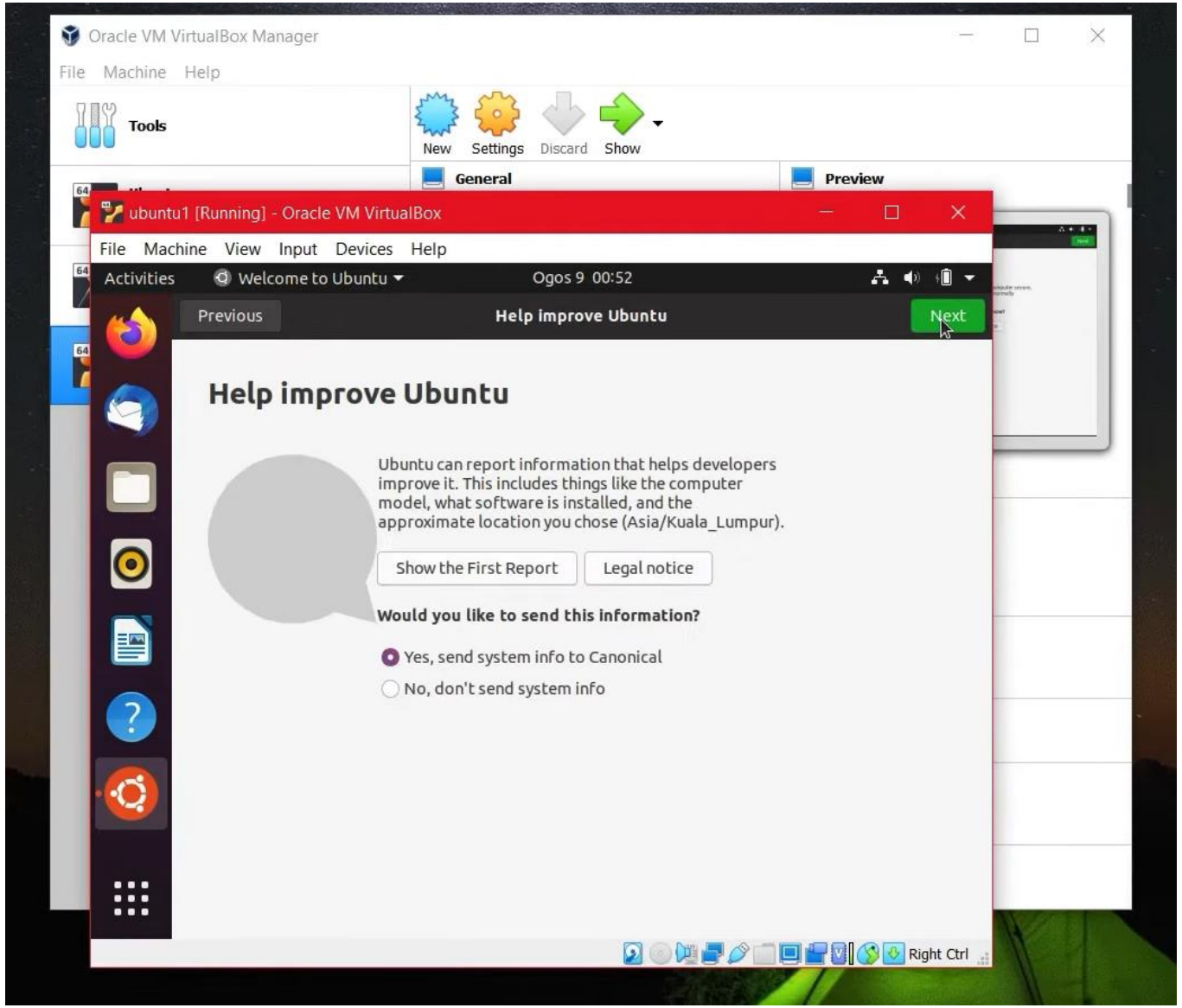
7.3. select region



7.4. enter personal data

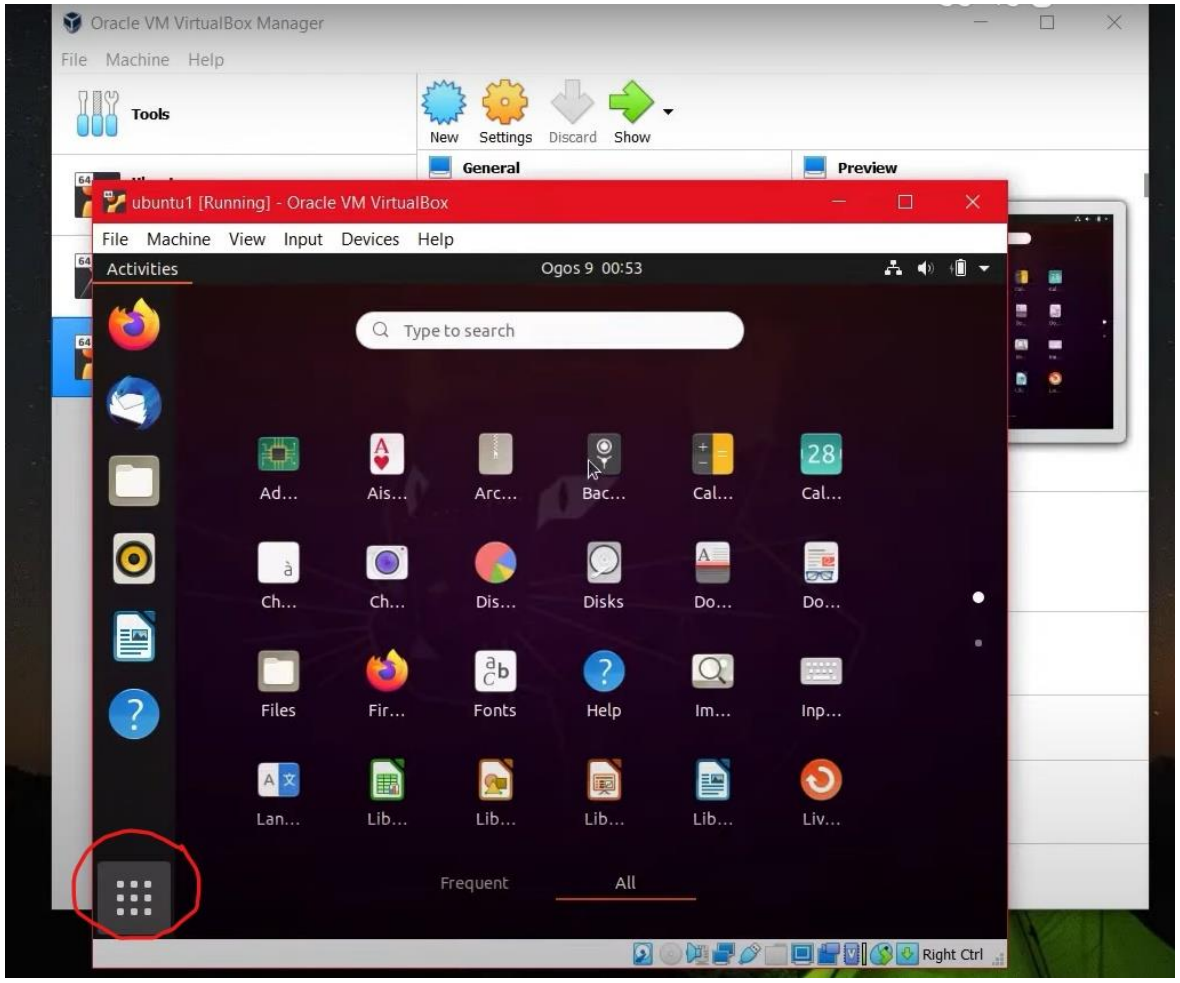


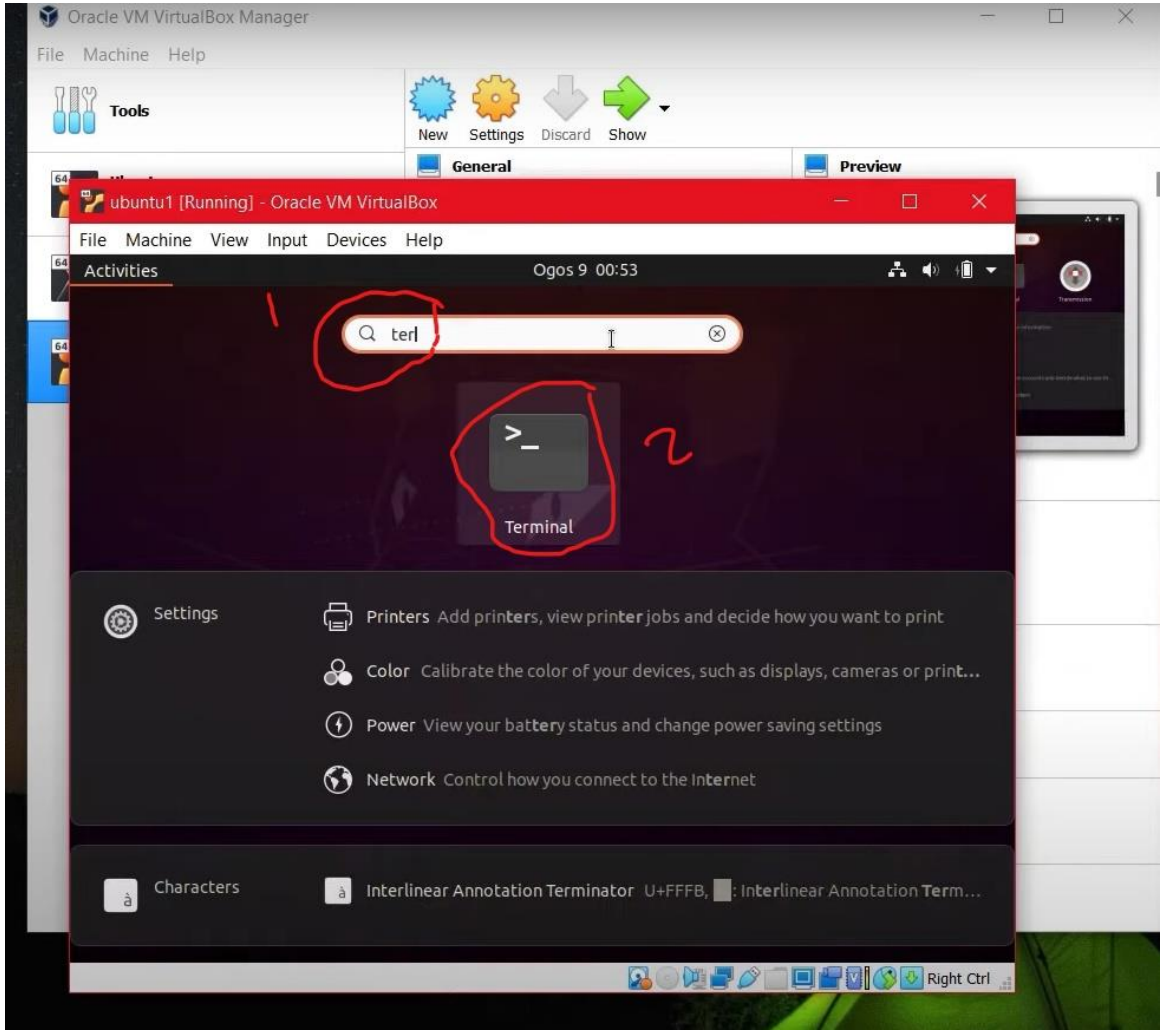
8. Installation finished click skip and next in everything



To apply full screen view

1. Open app and search of terminal

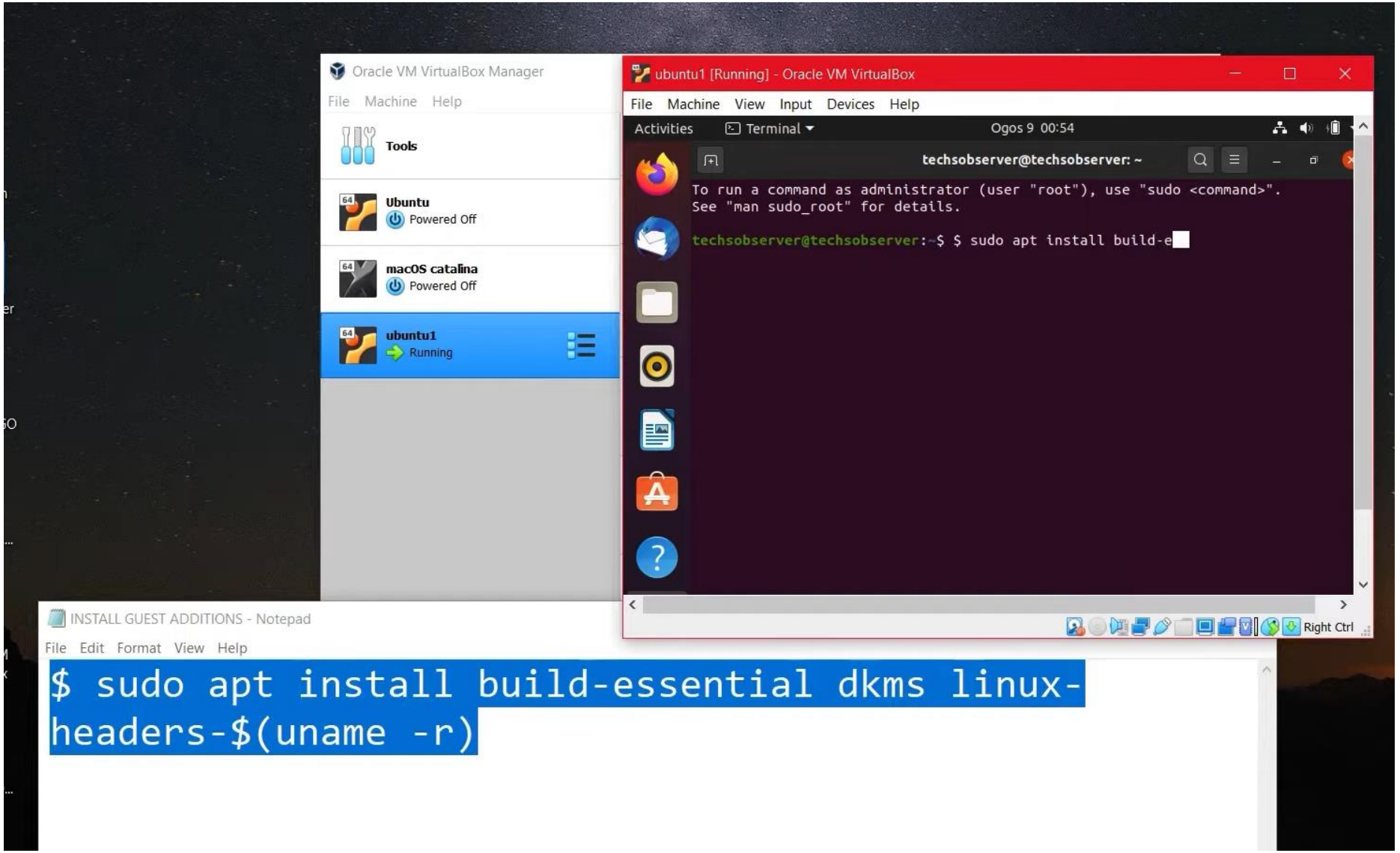




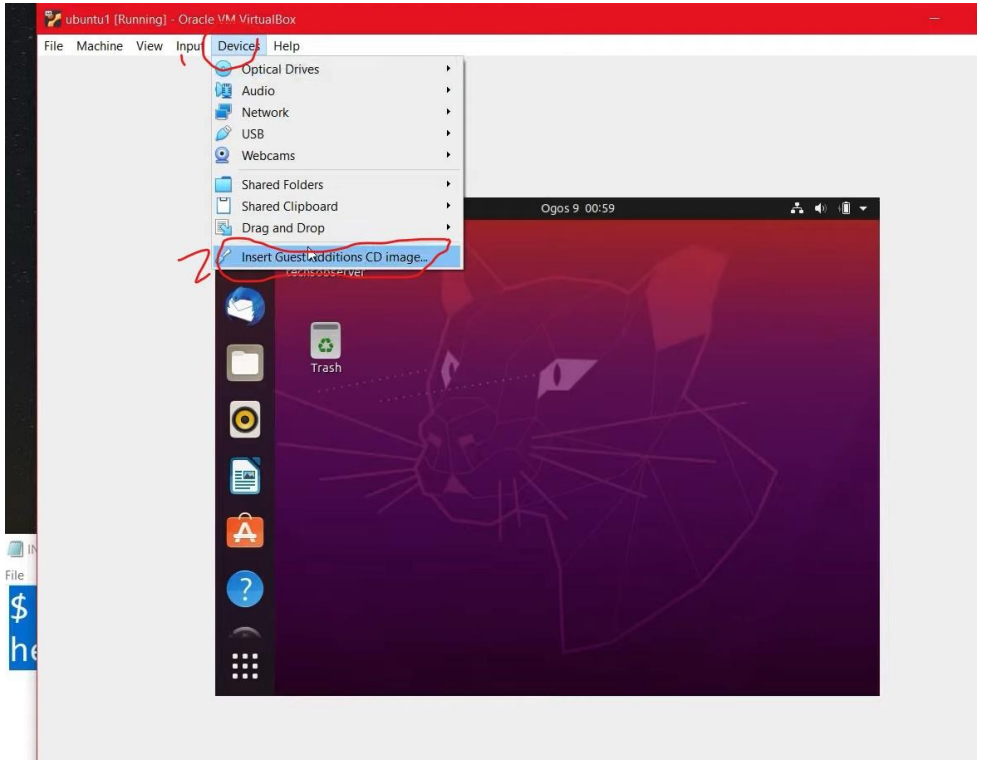
2. In terminal write this command

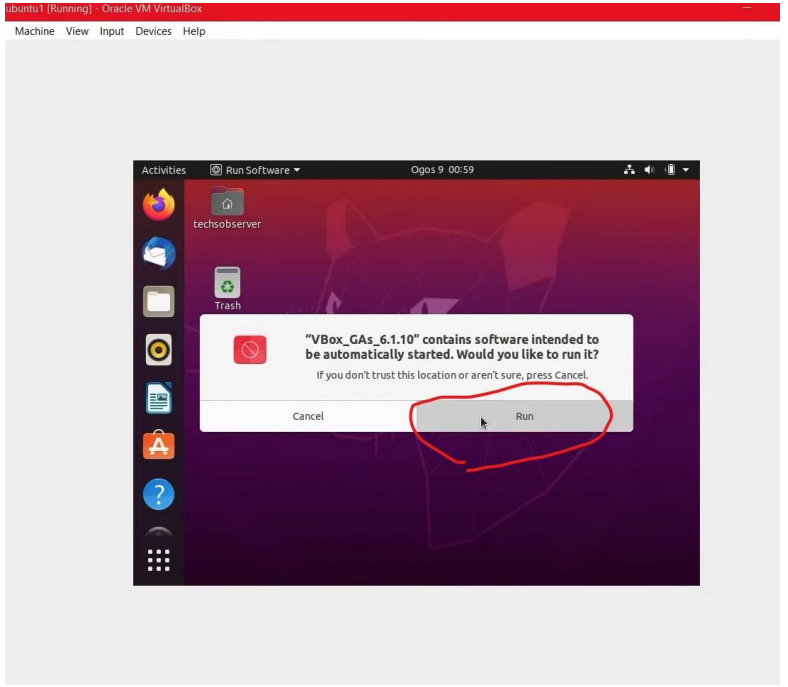
sudo apt install build-essential dkms linux-headers-$(uname -r)

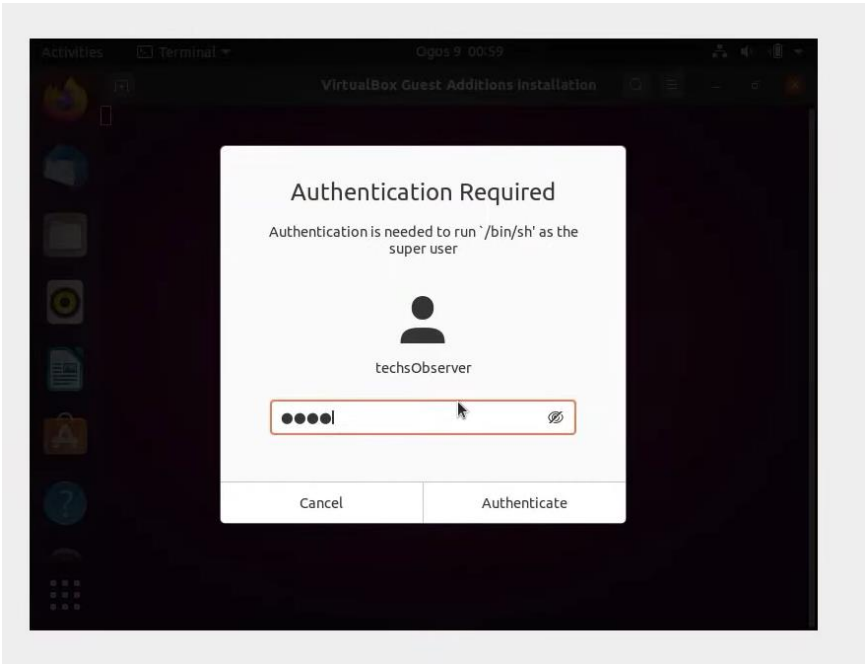
then continue with instruction



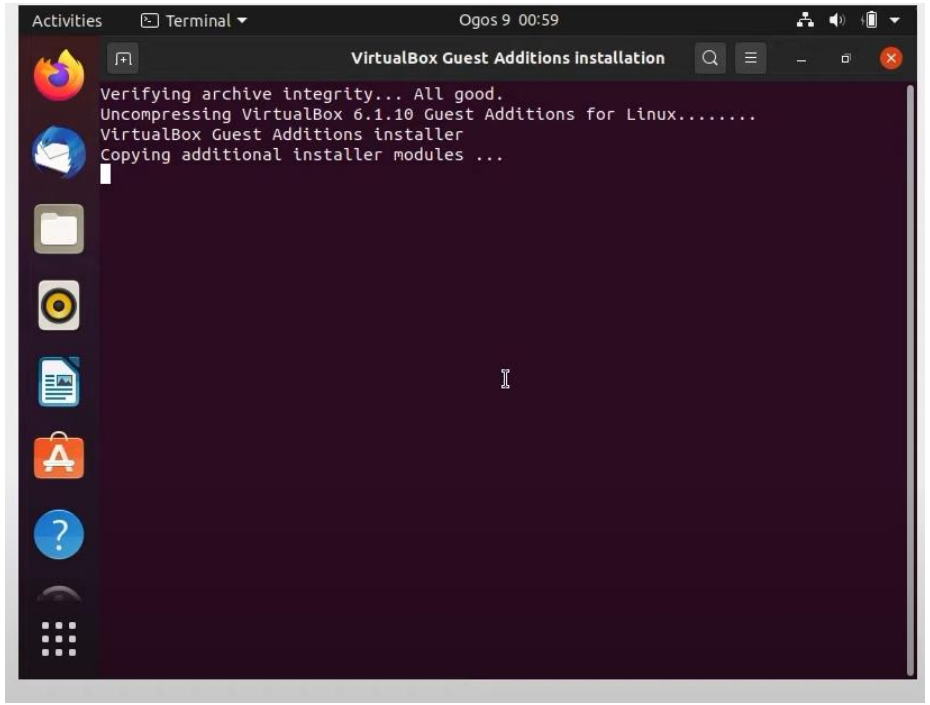
3. Insert guest additional CD image

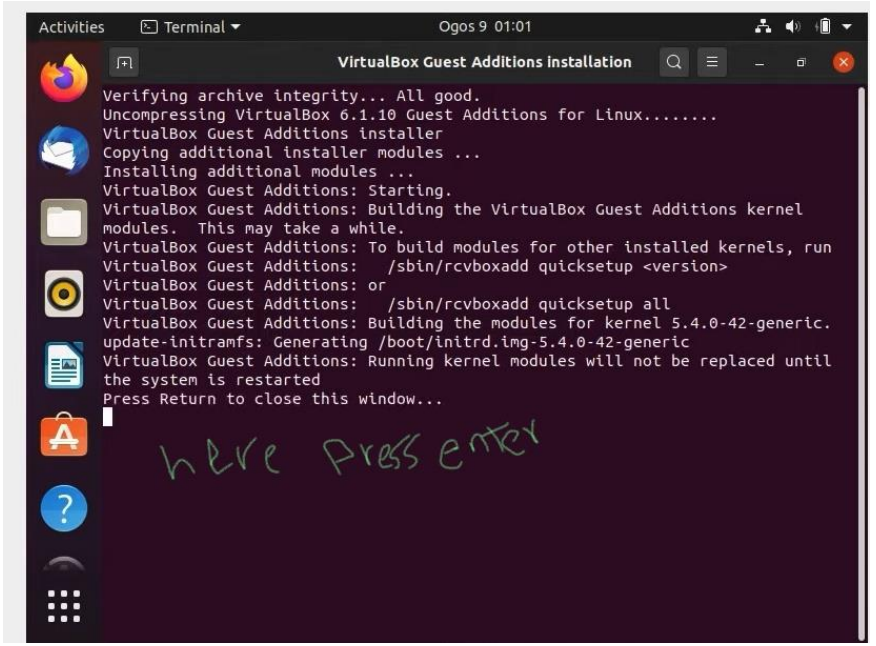






4. Let it install and after it finish click enter then power off the system and start it again





Thank You!