ORACLE VIRTUALBOX

INSTALLATION, SETUP, AND UBUNTU

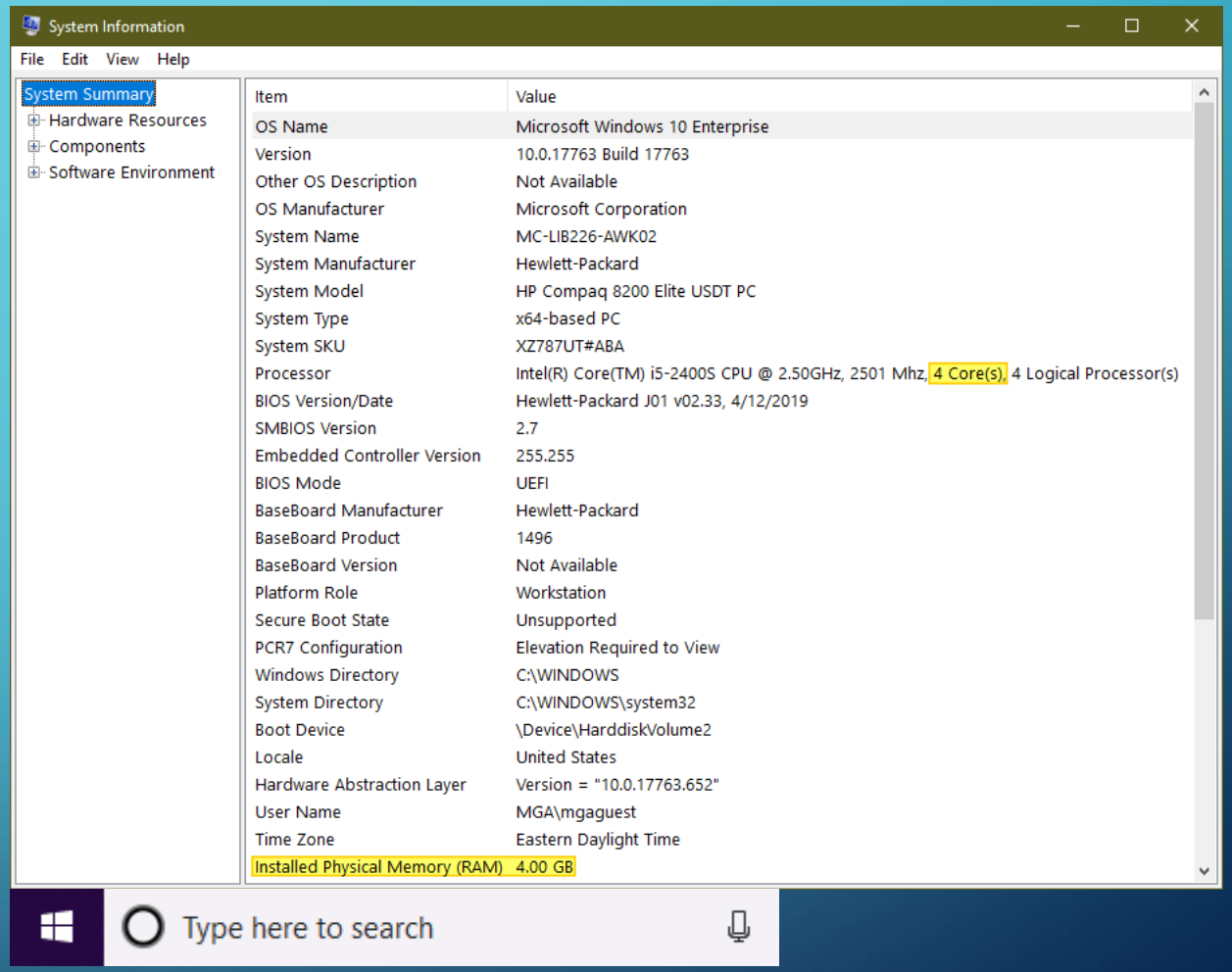
INTRODUCTION

- VirtualBox is a hardware virtualization program.
- Create virtual computers aka virtual machines.
- Prototyping, sandboxing, testing.
- The computer that VirtualBox is installed on is called the “host”, and each virtual machine is called a “guest”.

PREREQUISITES

Since virtual machines share resources with the host computer, we need to know what resources we have available on our host.

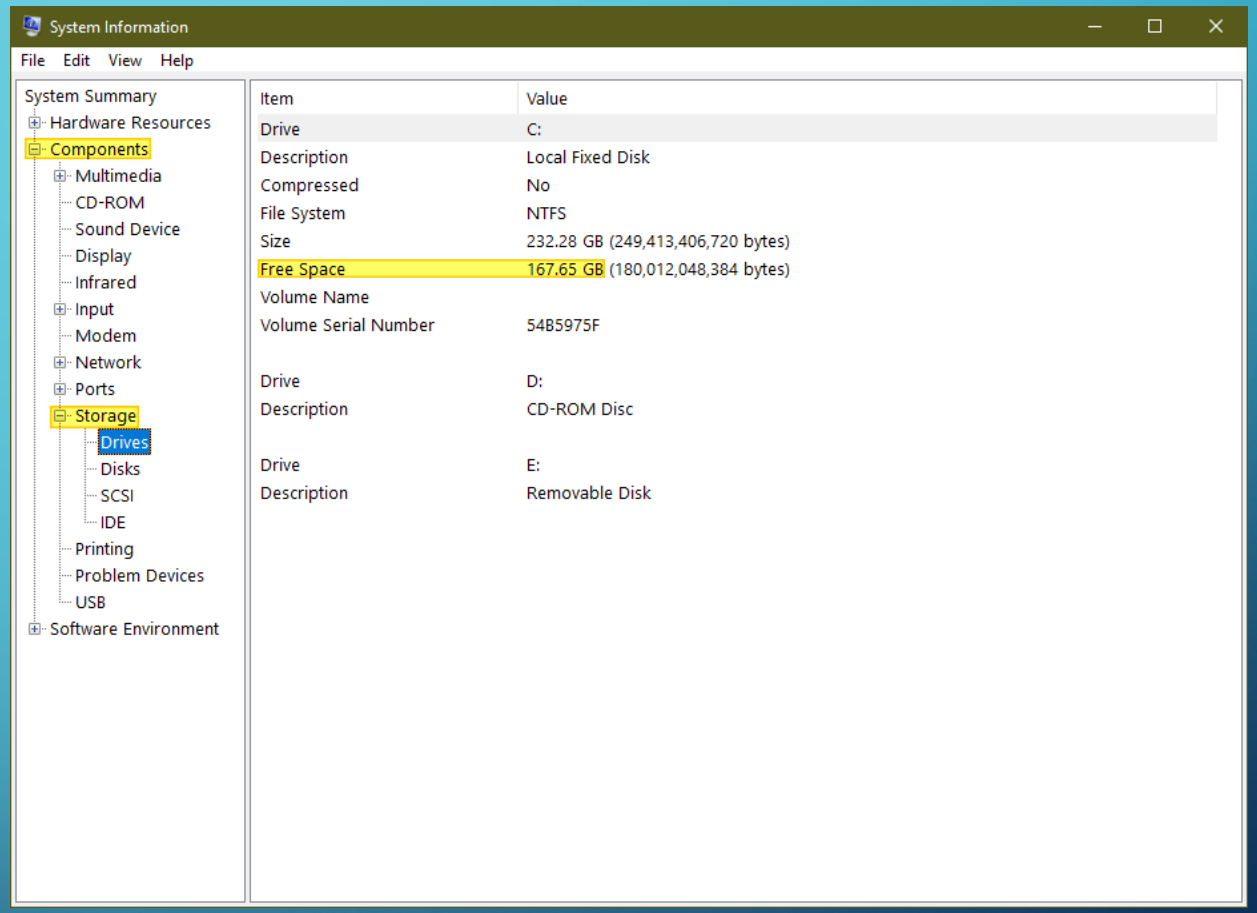
- Click “Type here to search”.
- Search for “System Information”.
- Note the number of processor cores and the amount of RAM installed in your host.



PREREQUISITES

- Expand “Components”.
- Expand “Storage”.
- Select “Drives”.
- Note the amount of free space available on your host.

Every computer is different, so how we will need to balance these resources between our host and guest systems will differ.



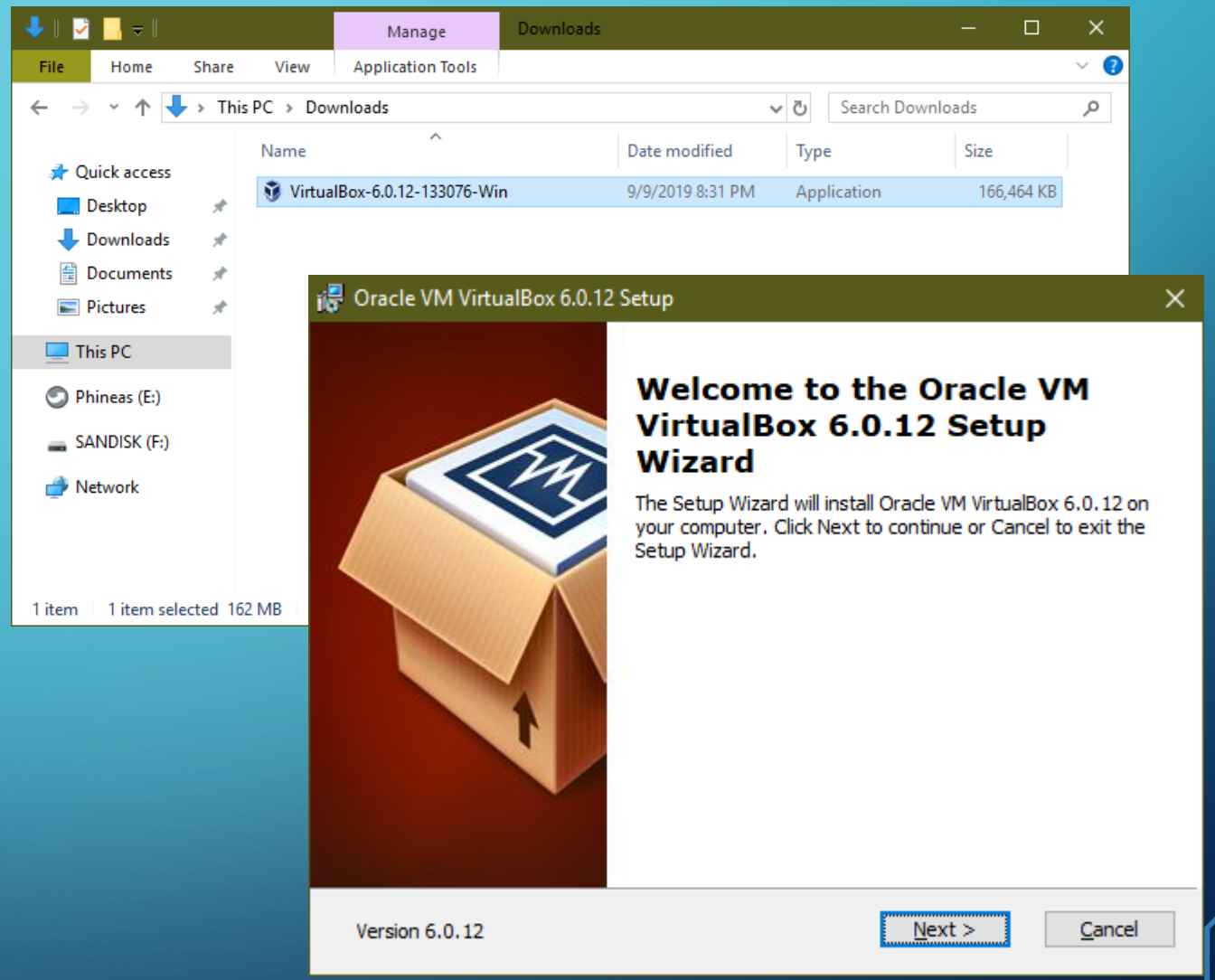
DOWNLOADING VIRTUALBOX

- VISIT VIRTUALBOX.ORG
- CLICK THE DOWNLOAD LINK.

- SELECT THE CORRECT PACKAGE FOR YOUR HOST.

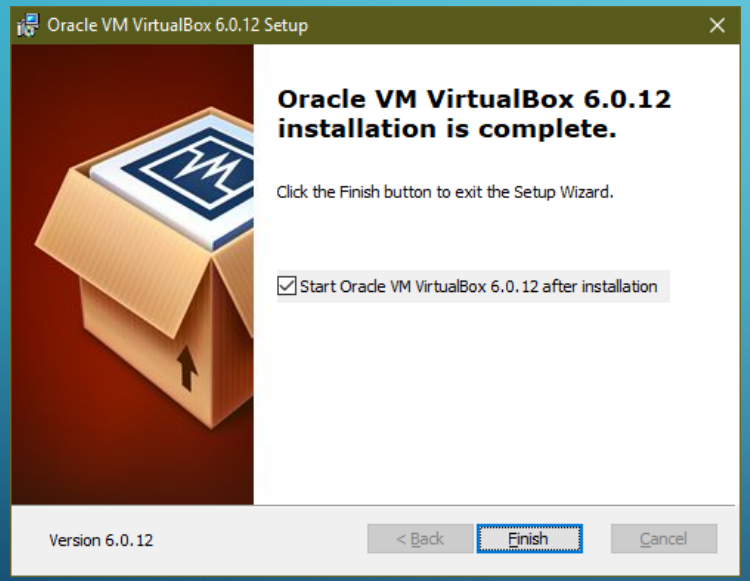
INSTALLING VIRTUALBOX

- Browse to where you downloaded VirtualBox and run the installer.
- All default options will be fine. Simply follow the prompts.

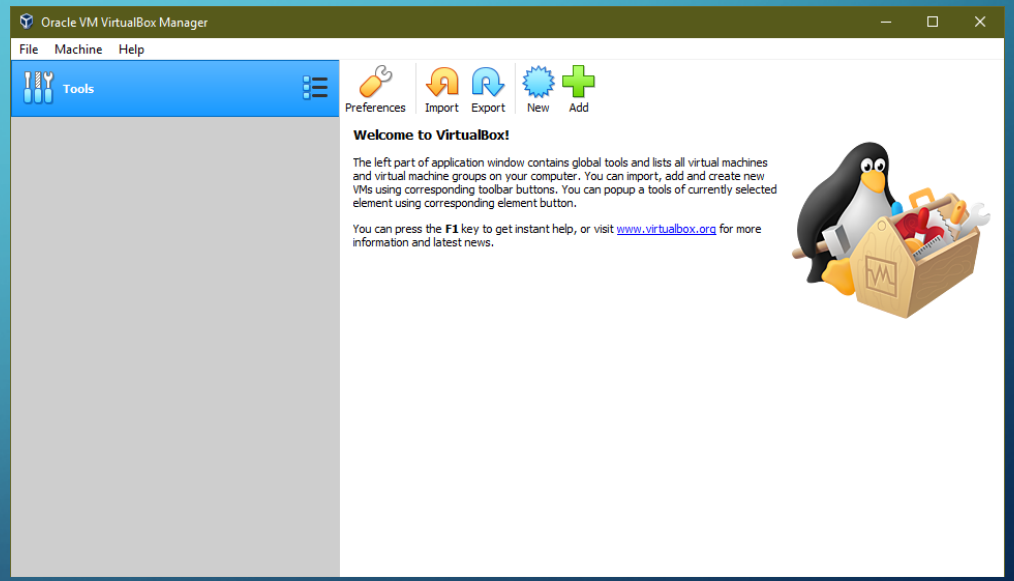


INSTALLING VIRTUALBOX

- CLICK “FINISH”.



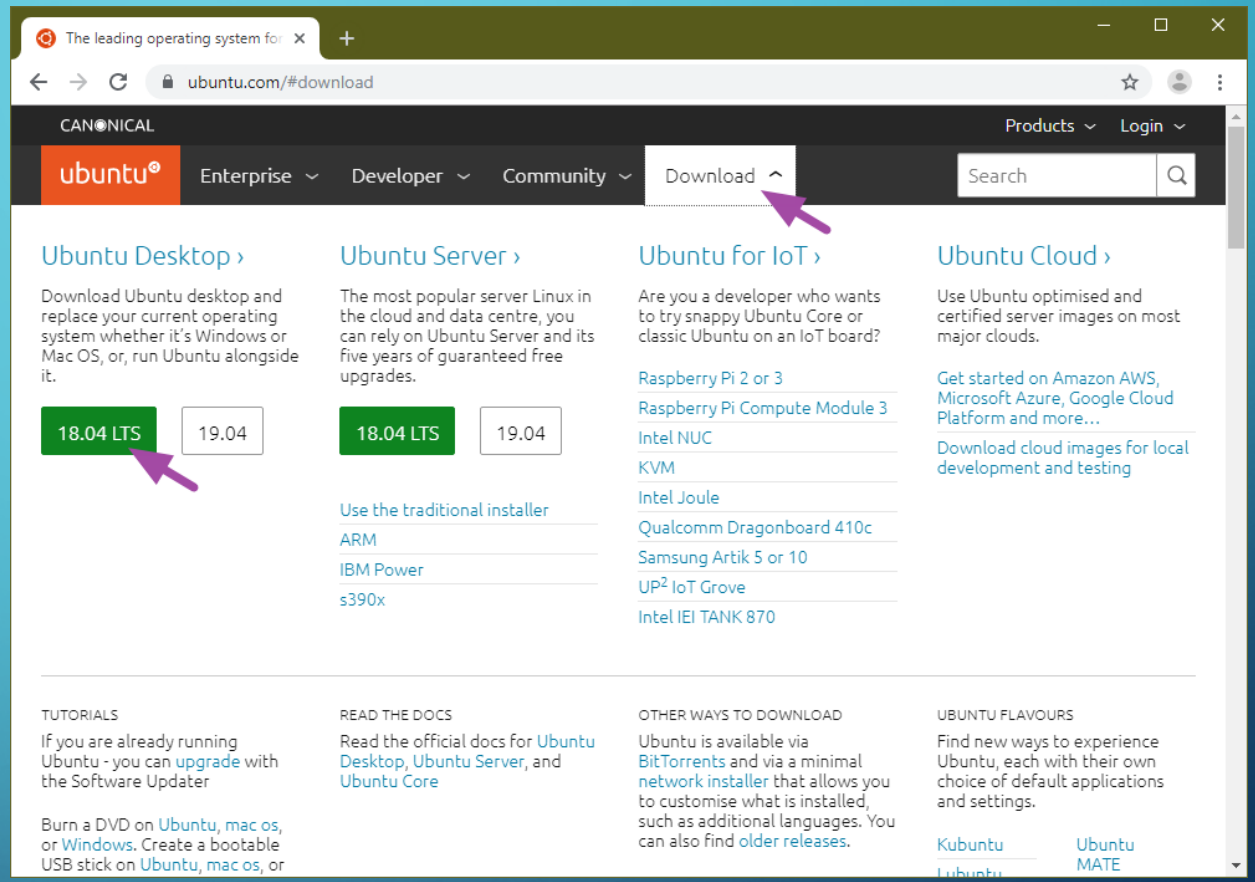
- VIRTUALBOX INSTALLED!



SETTING THINGS UP

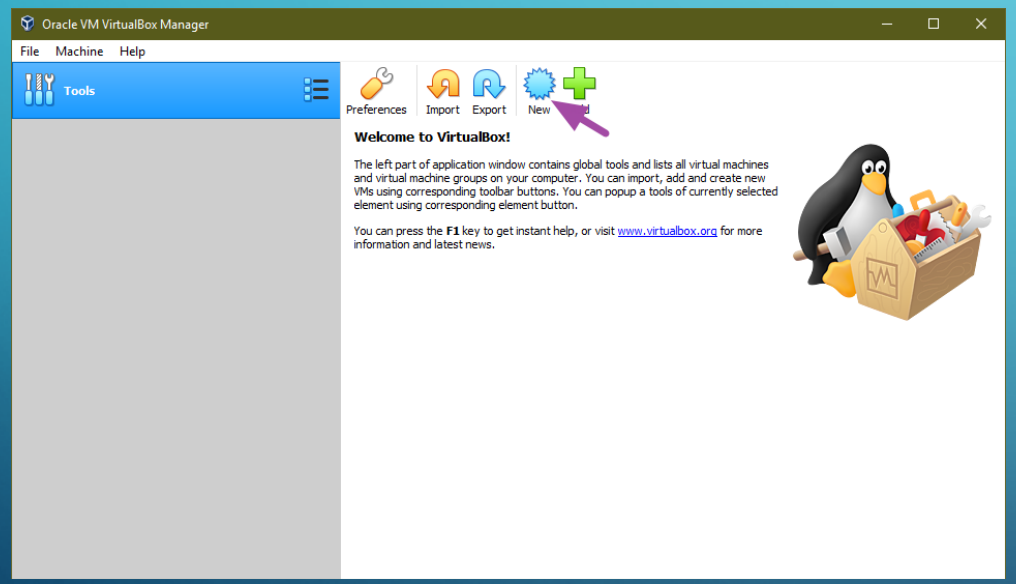
Before we build our first virtual machine, we need to download an operating system to install as our “guest”.

- Visit Ubuntu.com
- Click “Download”.
- Select the current Ubuntu Desktop “LTS” release.
  - LTS releases focus on stability rather than cutting edge features.

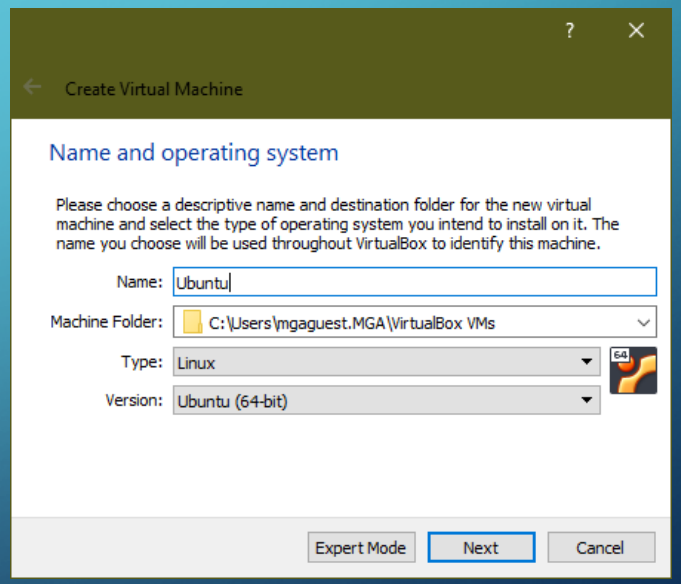


SETTING THINGS UP

- IN VIRTUALBOX, CLICK “NEW”.

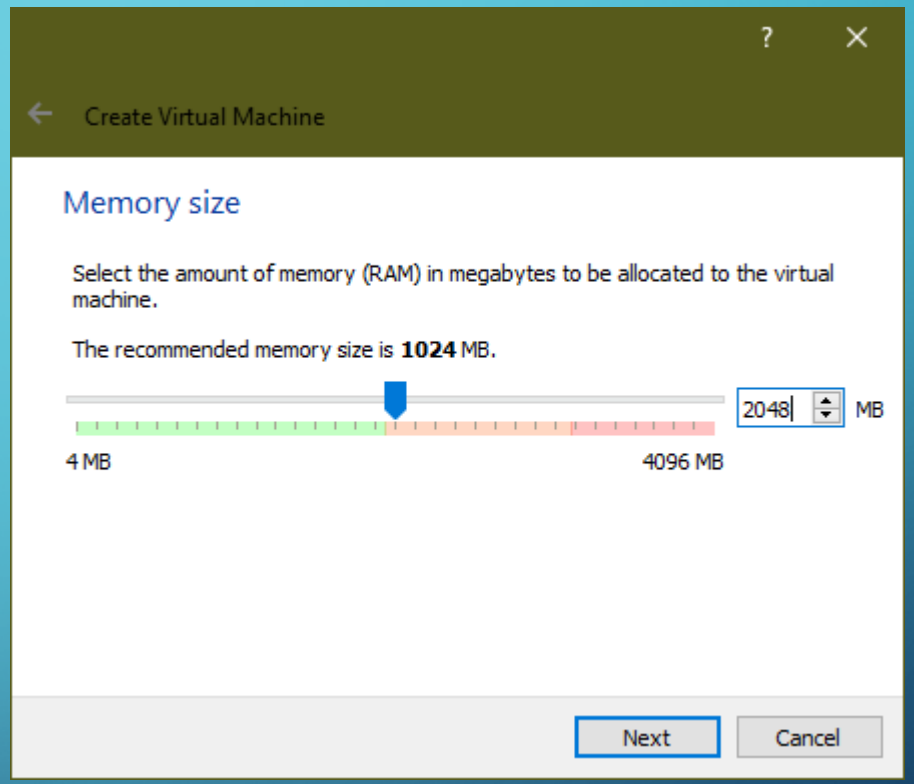


- NAME THE VIRTUAL MACHINE.



SETTING THINGS UP

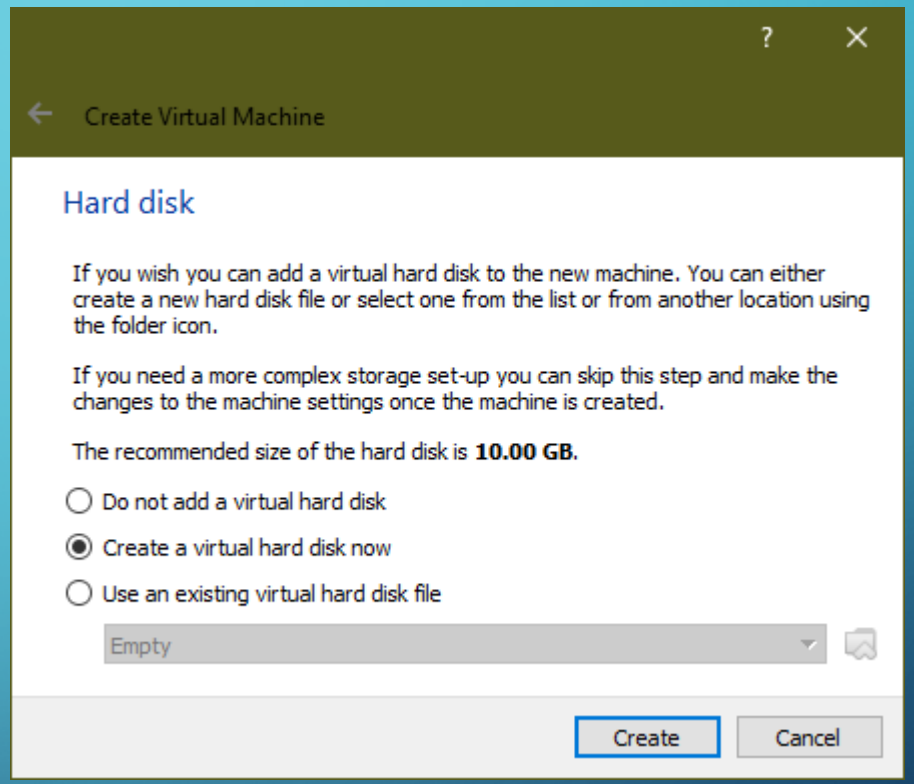
Here's where we will need the system resources information that we looked up earlier. Each virtual machine functions like a separate computer in and of itself and will need to share RAM with the host. As a general rule, the host's RAM should never drop below about 2GB (2048MB). Since each computer has different resources to work with, it's a balancing act. We have 4GB of RAM to work with in this system, so I've selected to share 2GB with the guest, which leaves 2GB for the host.



SETTING THINGS UP

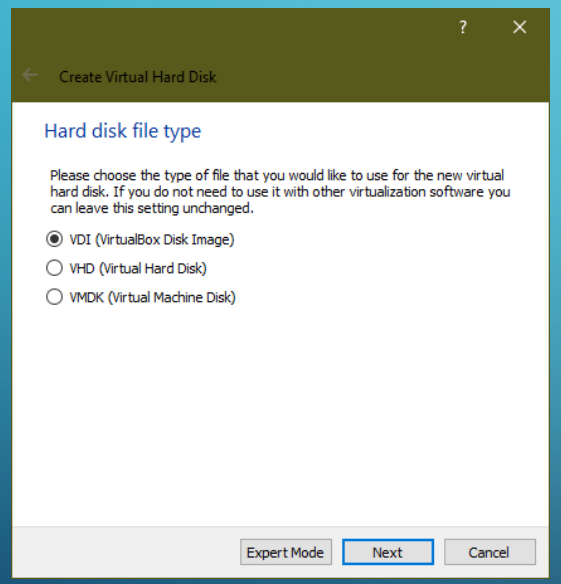
Every computer needs a disk drive to contain its operating system. Virtual machines are no exception, so over the next few steps, we will be creating a virtual hard disk for the guest operating system to reside one.

- Click “Create”.

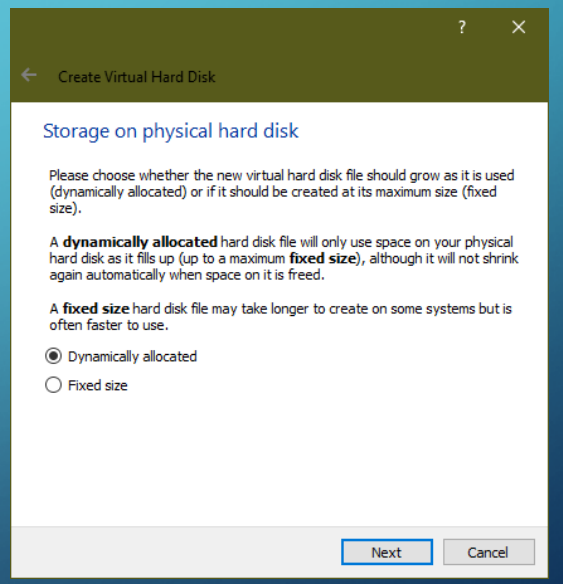


SETTING THINGS UP

- SELECT “VDI (VIRTUALBOX DISK IMAGE)”.



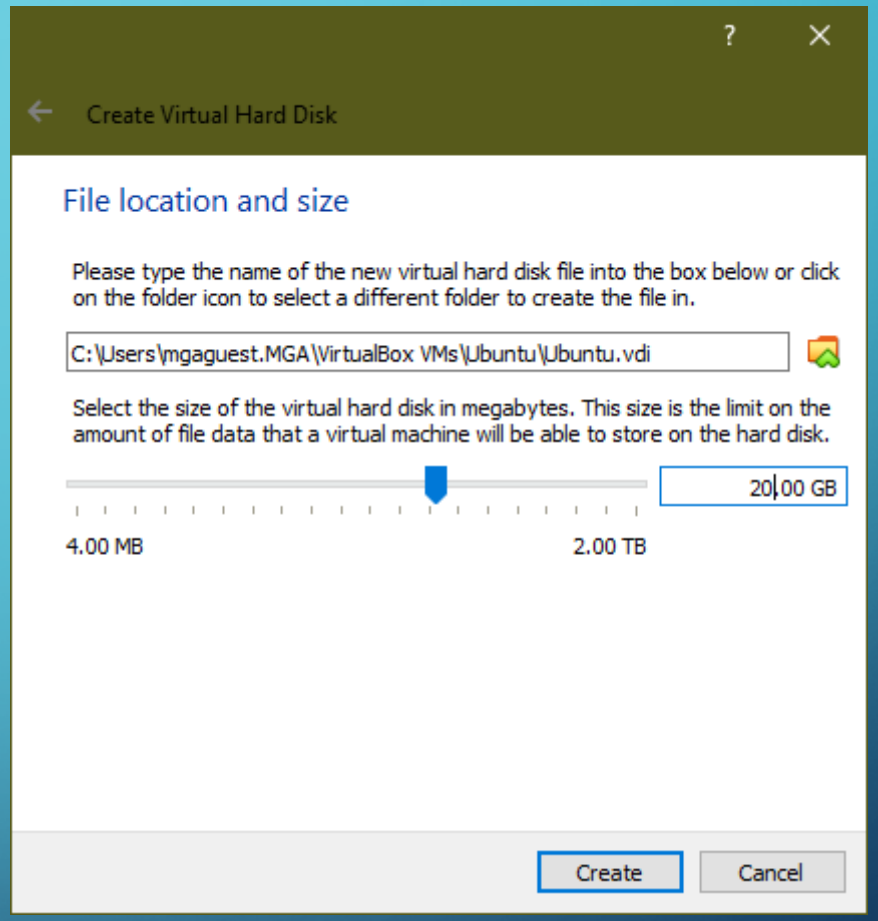
- SELECT “DYNAMICALLY ALLOCATED”.



SETTING THINGS UP

Again we will need the system resources information that we gathered earlier before deciding how much of our host's hard drive to share with our virtual machine. VirtualBox suggests 10GB for Ubuntu, but Ubuntu will be much happier if we have enough free space to give it 20GB or more. Since we have over 160GB available in this system, we'll give Ubuntu a 20GB virtual hard disk.

* Note that since this virtual hard disk is dynamically allocated, it will only take as much space as it needs up to a maximum of 20GB.

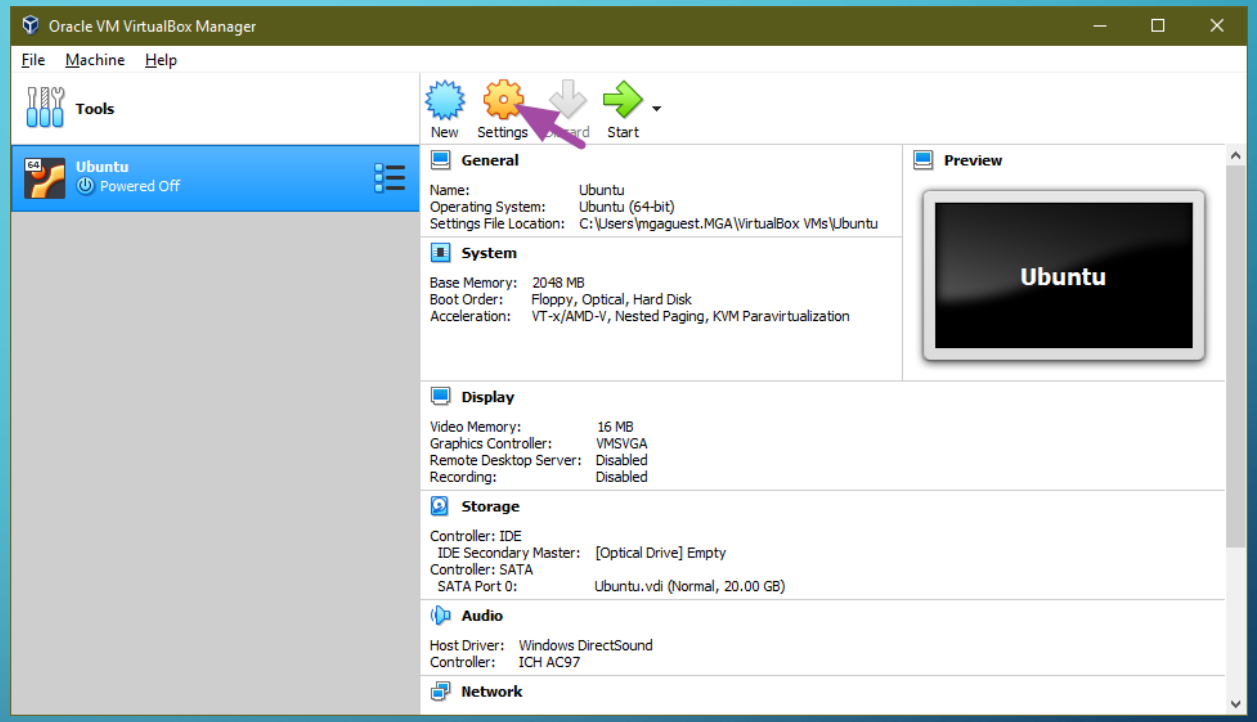


SETTING THINGS UP

Our virtual machine is almost ready to go.

We just have a couple of settings to tweak.

- Click “Settings”

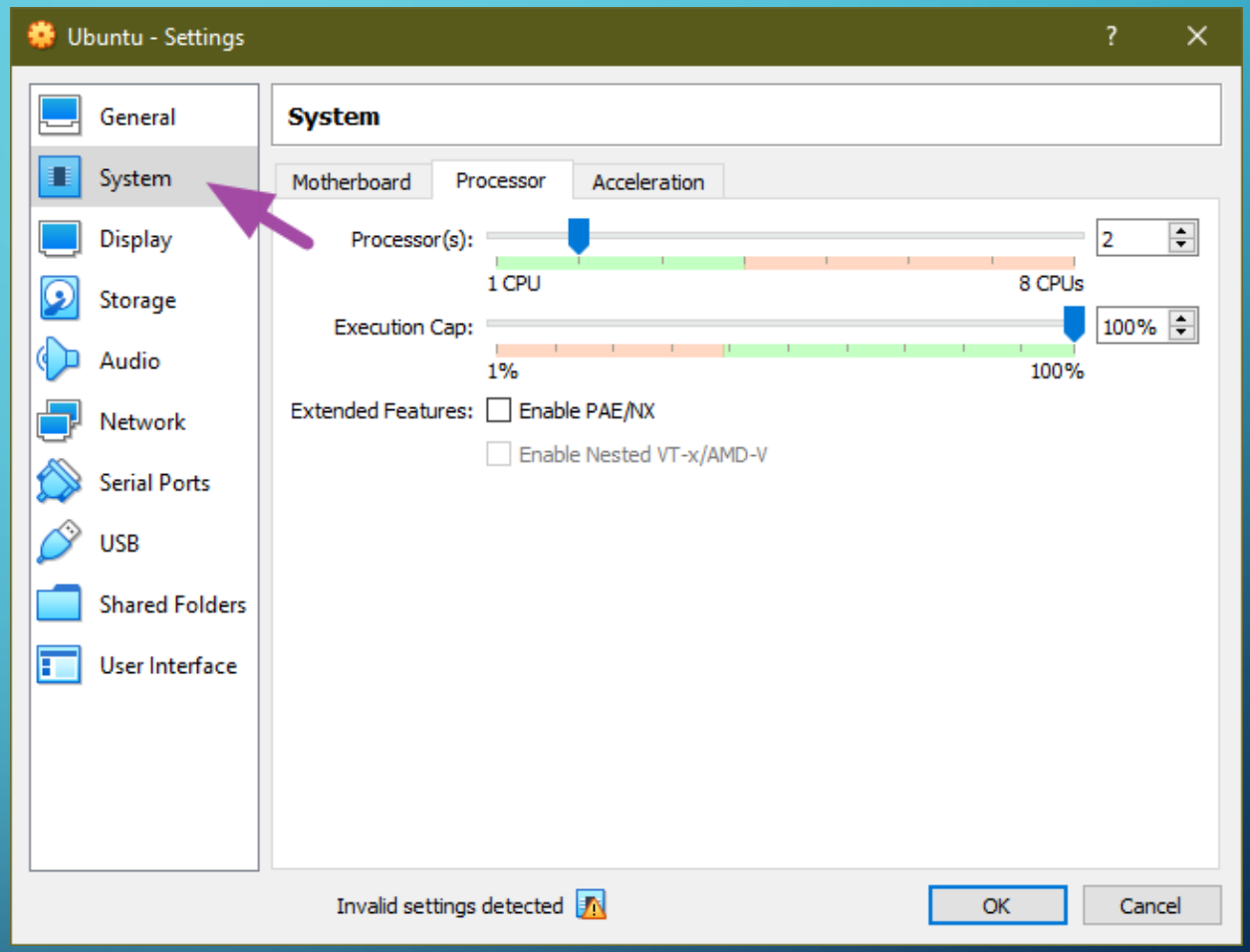


SETTING THINGS UP

- Select “System”.
- Select the “Processor” tab.

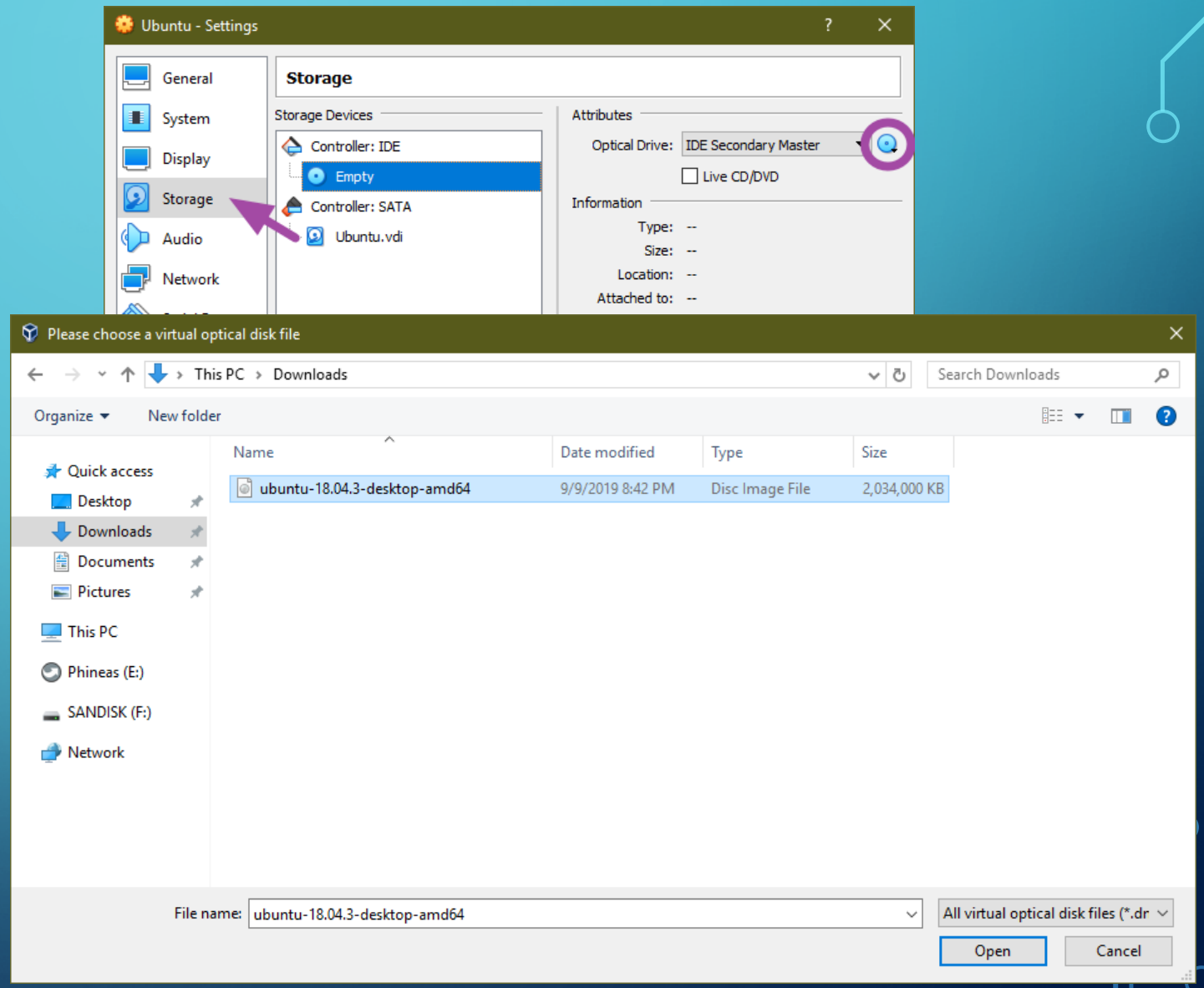
If your host computer has more than two processor cores, it may be a good idea to share more than one core with your virtual machine. Since our host system has four cores available, we’ll share two of those cores with our guest system.

* As a general rule, try not to leave your host with only one core if you can avoid doing so.



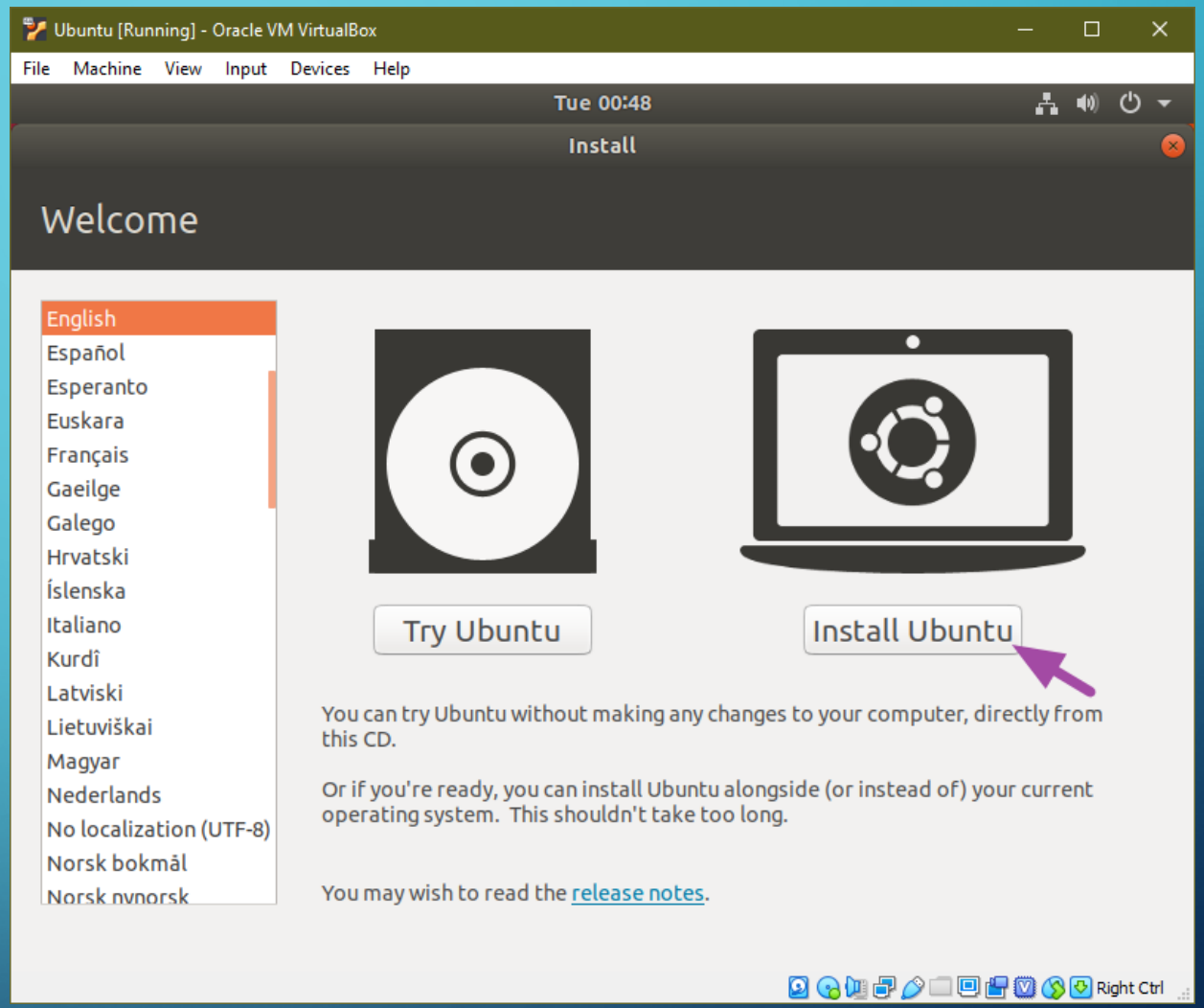
SETTING THINGS UP

- Select “Storage”.
- Select the “Empty” CD drive.
- Click the CD icon to the right of “Optical Drive”.
- Click “Choose Virtual Optical Disk File”.
- Browse to and select the Ubuntu disk image that you downloaded earlier.
- Click “Open”.
- Click “OK”.
- Click “Start” to boot your virtual machine.



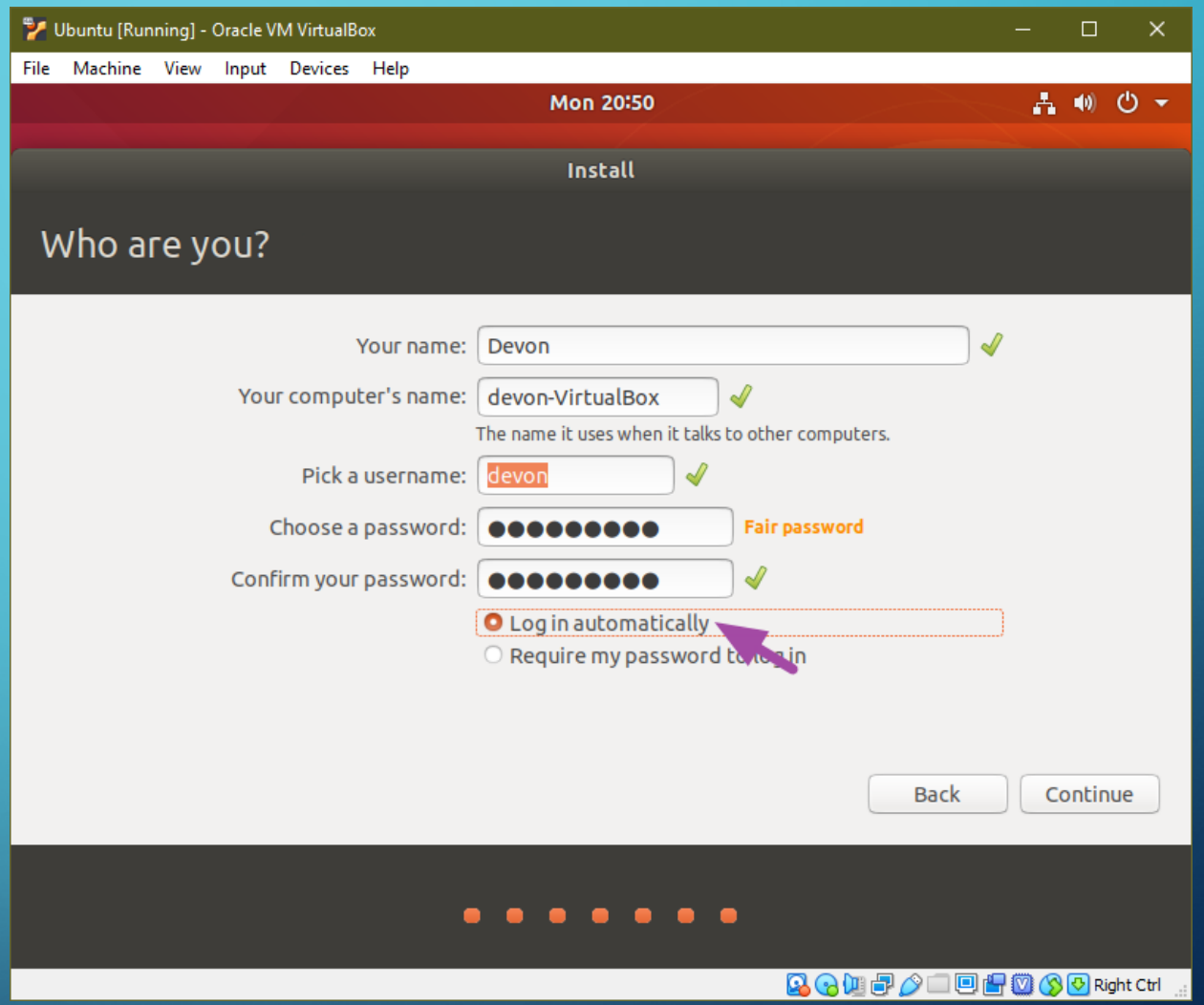
INSTALLING UBUNTU

- Once the Ubuntu installer boots, click “Install Ubuntu”.
- Simply follow the prompts to install.
- Since this is a new installation and will be used for class assignments only, all of the defaults will be fine with one possible exception…



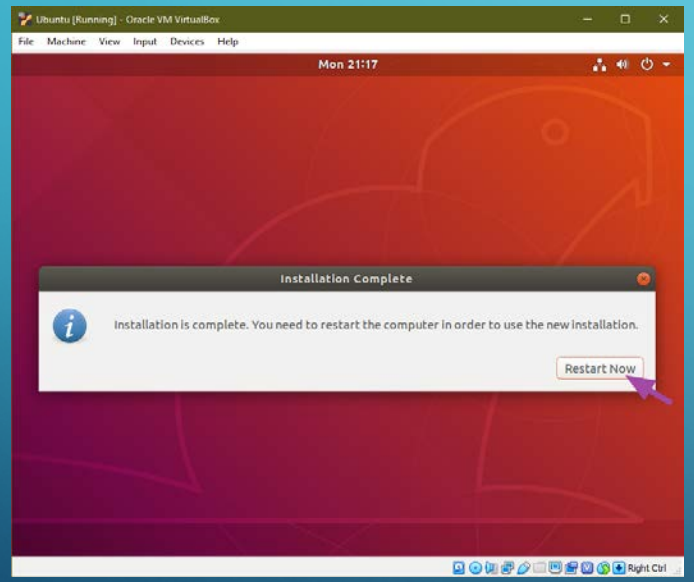
INSTALLING UBUNTU

The one change you may wish to make from the default options is to have Ubuntu “Log in automatically”. This will let you get into your virtual machine and jump into your assignments more quickly.

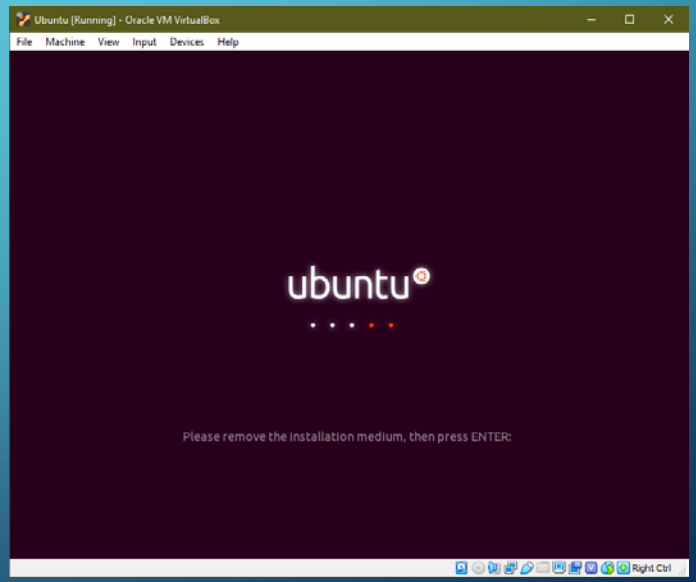


INSTALLING UBUNTU

- CLICK “RESTART NOW”.



- SIMPLY PRESS “ENTER”.



UBUNTU INSTALLED!

Congratulations! You've installed and set up VirtualBox, created your first virtual machine, and installed Ubuntu inside that virtual machine! Feel free to explore the many activities that are included with Ubuntu.