Windows Pro VBox

1. Each assignment has a goal. What is the assignment and how will you find the solution?

> The goal for this assignment is to install and document the installation of a Microsoft Windows 10 Pro virtual image via VirtualBox from within a Windows 10 host system. Screenshots will provide the documentation and result of a working virtual environment. Procedure notes will be recorded above each image.

2. Demonstration of the steps taken with screenshots (snipping tool) from your computer. Many students who understand the material often go for a screenshot of the final result. You need to show the steps you took as you took them.

Starting within VirtualBox: Name, Location of machine files, type of OS and version are defined.
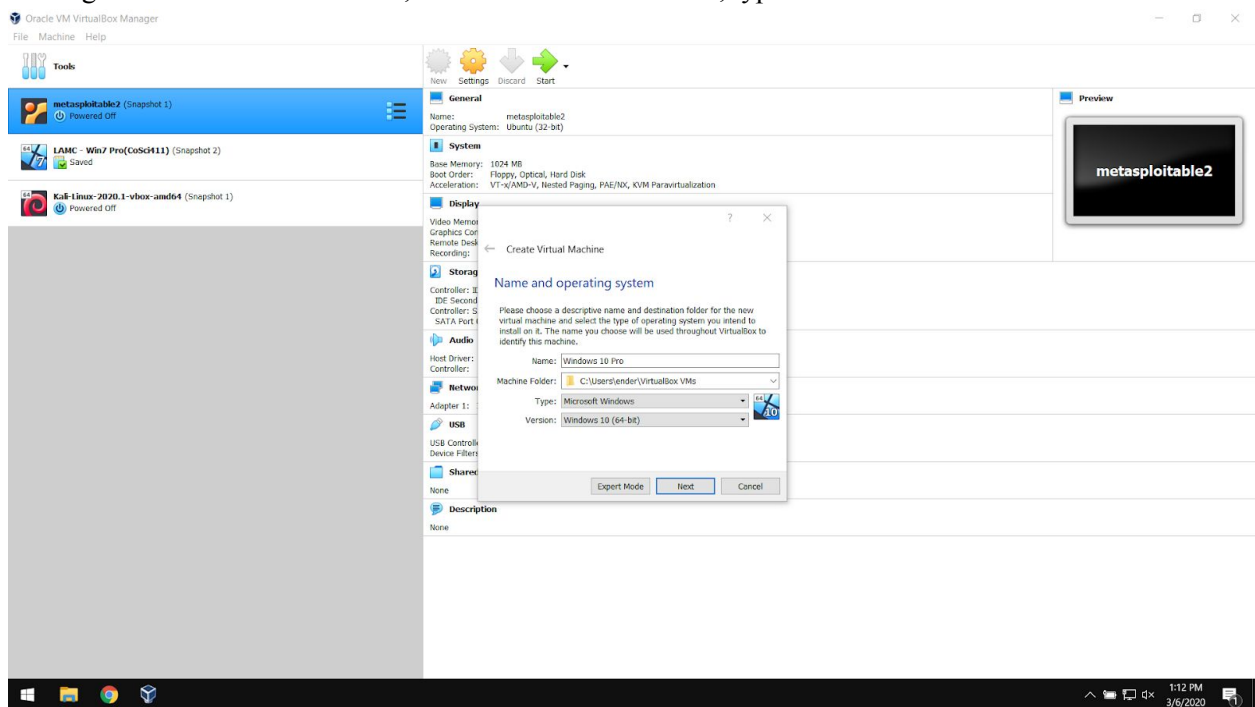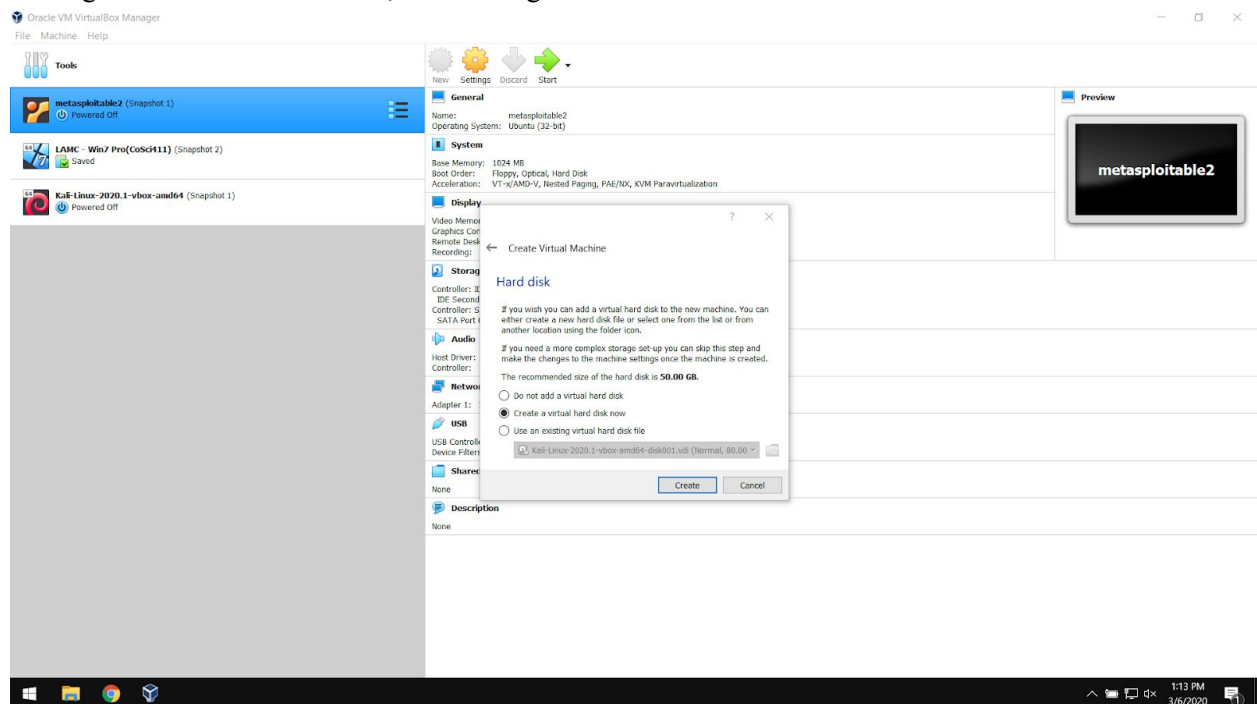

Name and Operating system settings

Ram size is specified for the Windows 10 Pro to boot in. This value can be changed later.
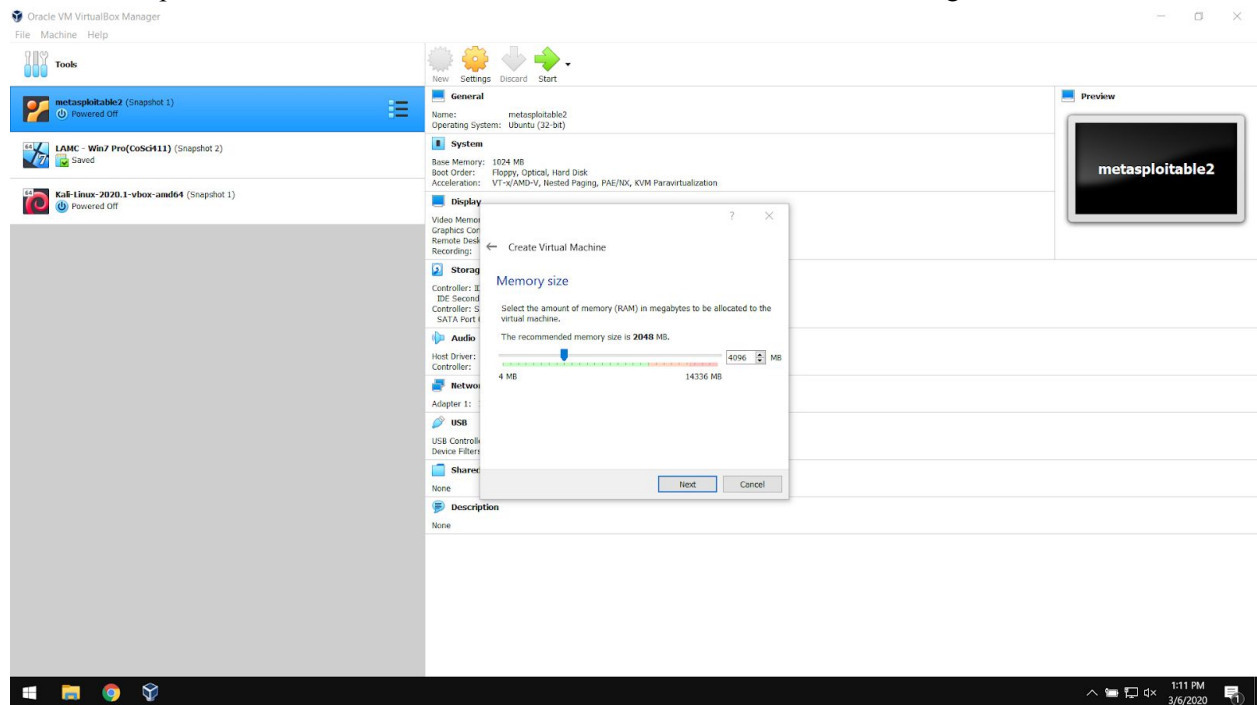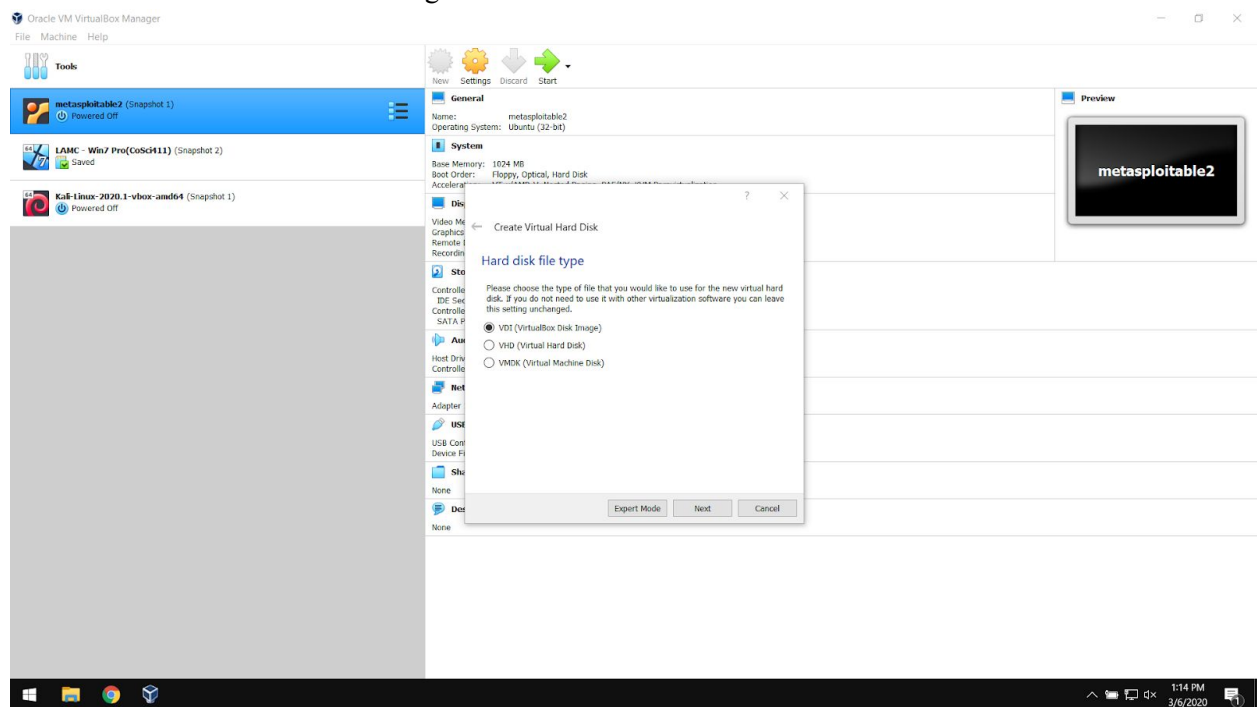

Memory size specified

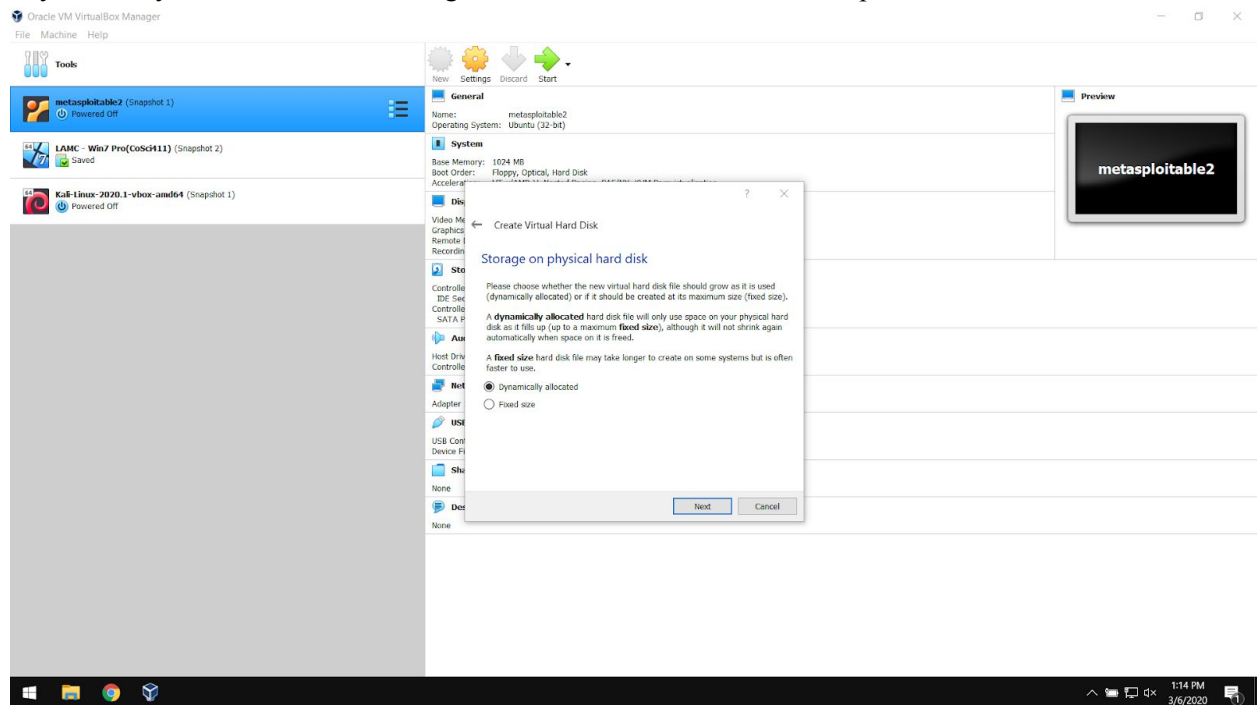Making a hard disk from scratch, so choosing "Create a Virtual hard disk now".

Create hard disk

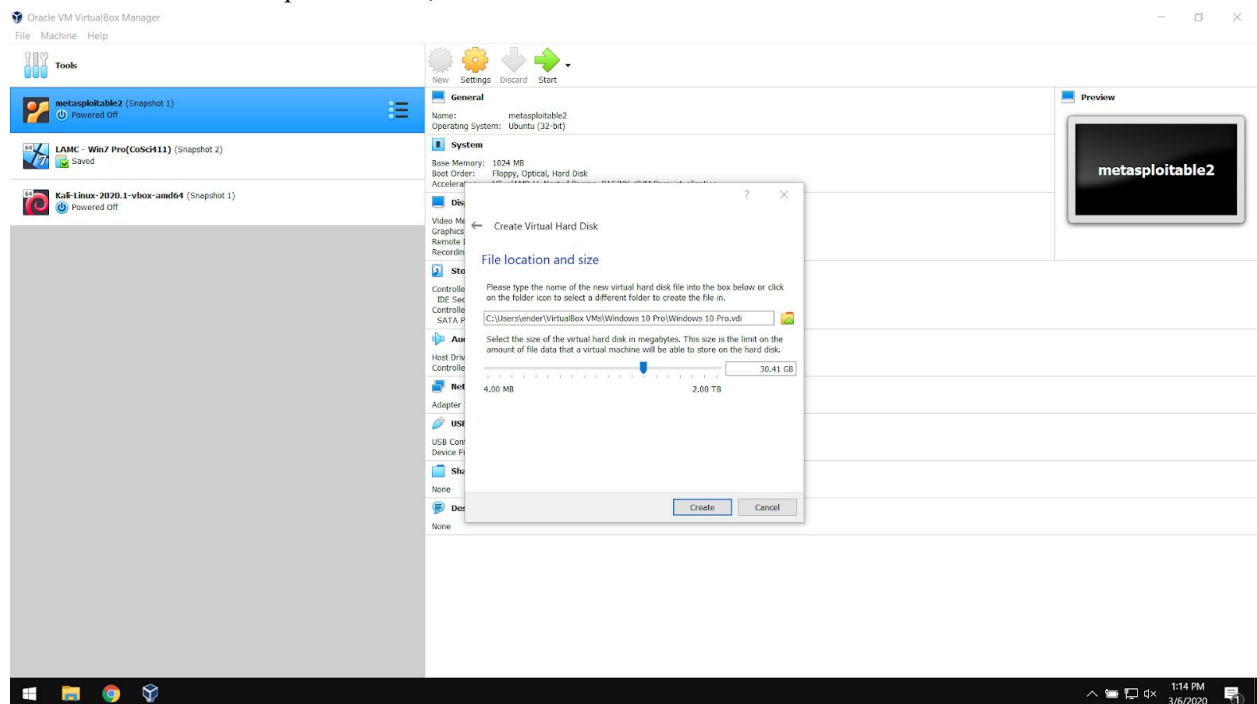Vituralbox will handle our disk image details.

Hard disk file type

"Dynamically allocated" allows storage allocation to reflect actual disk space use. Not fixed.
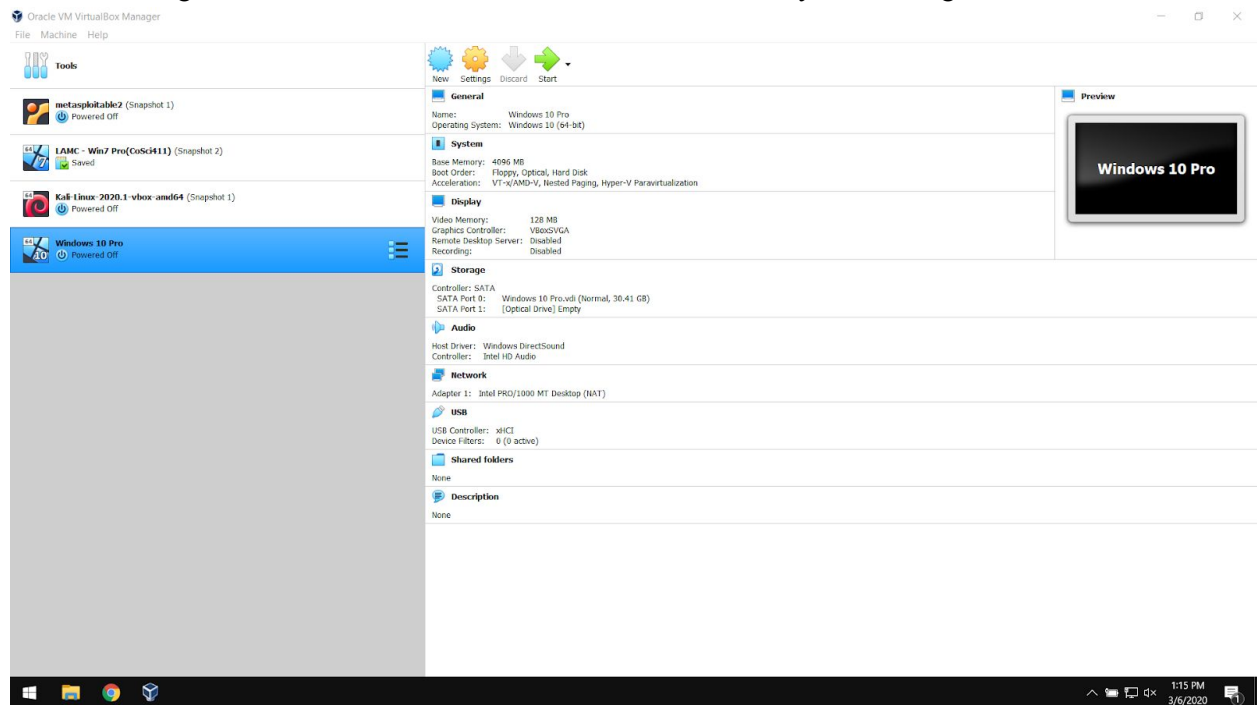

How Storage will be handled

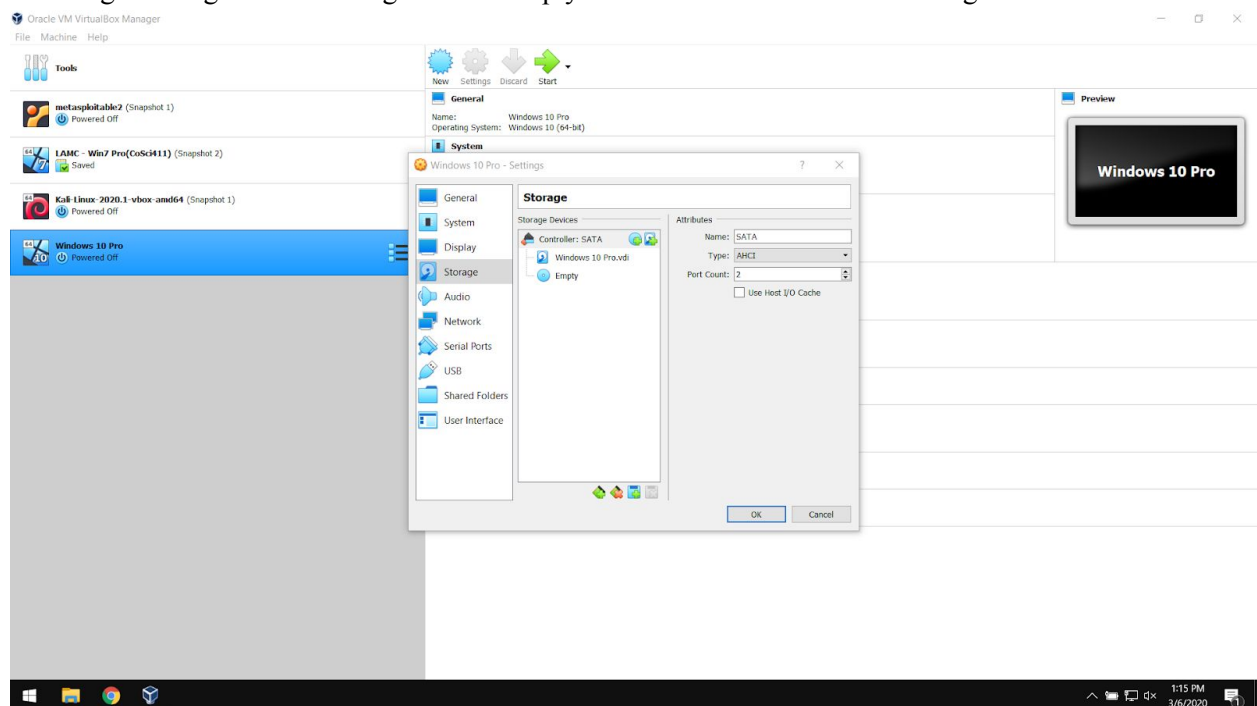The size of the disk is up to the user, here I choose 30.4 GiB.

File location and size

Back at the original window in Virtualbox, Windows 10 Pro is ready for an image file.
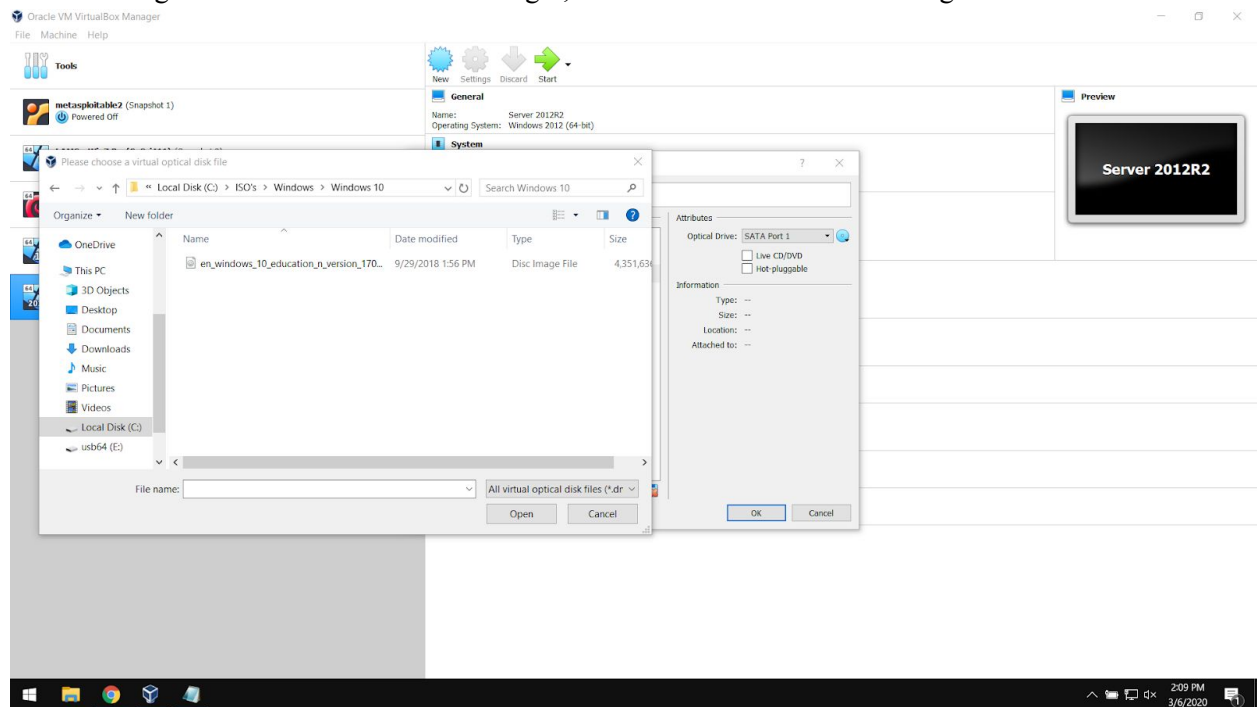

Initial Virtualbox setup for Windows 10 Pro

Selecting "Settings" then "Storage" then "Empty" allows me to load a virtual image of Windows.
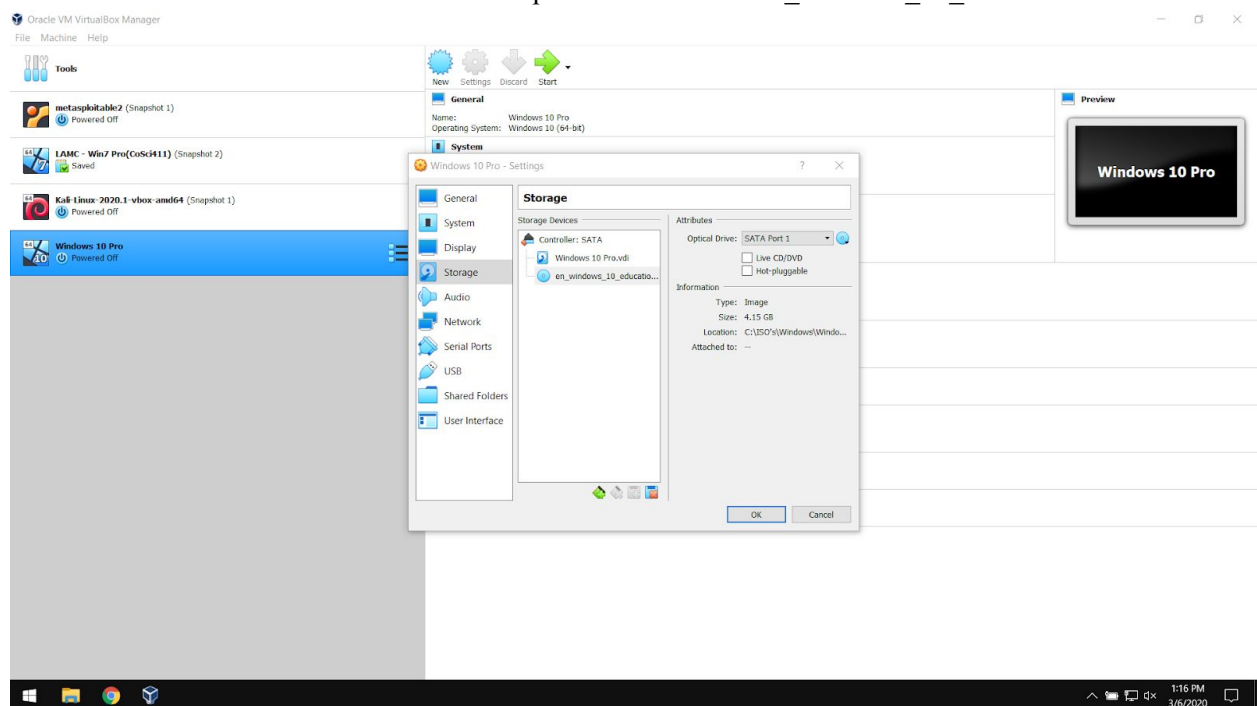

Virtual Storage medium selection

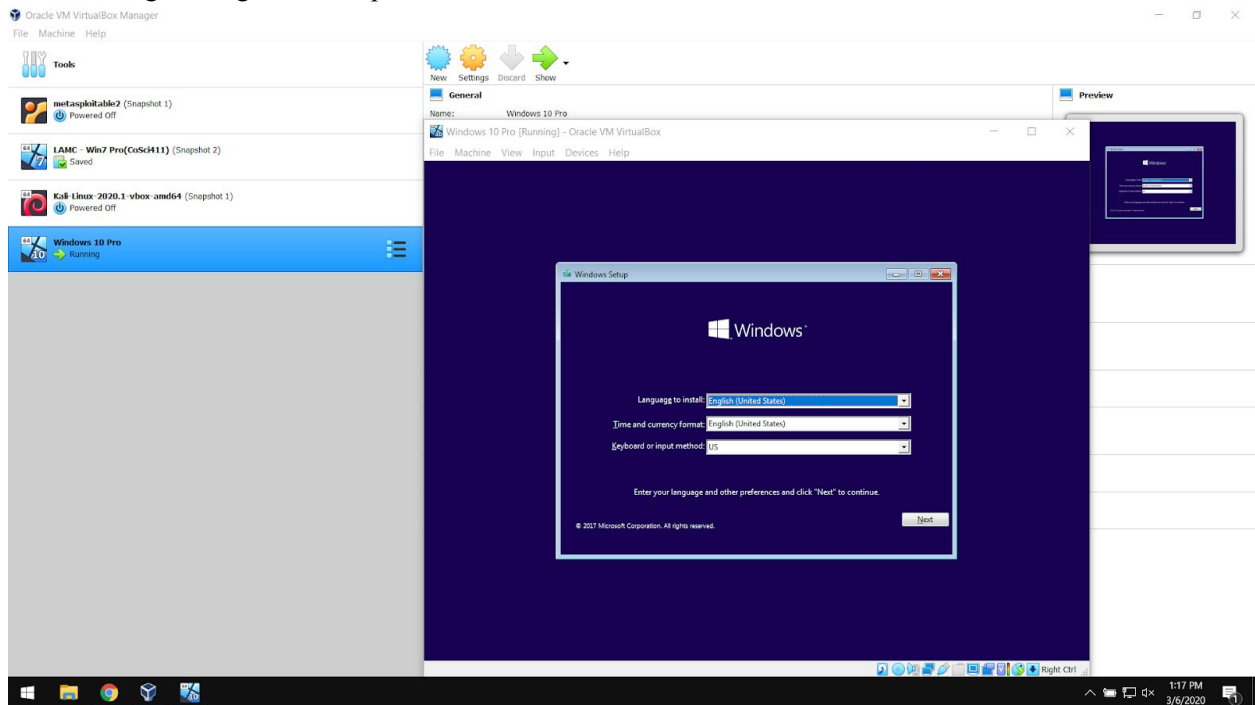After clicking on the CD/DVD icon to the right, I selected the Windows 10 image.

Location of Windows 10 Pro image

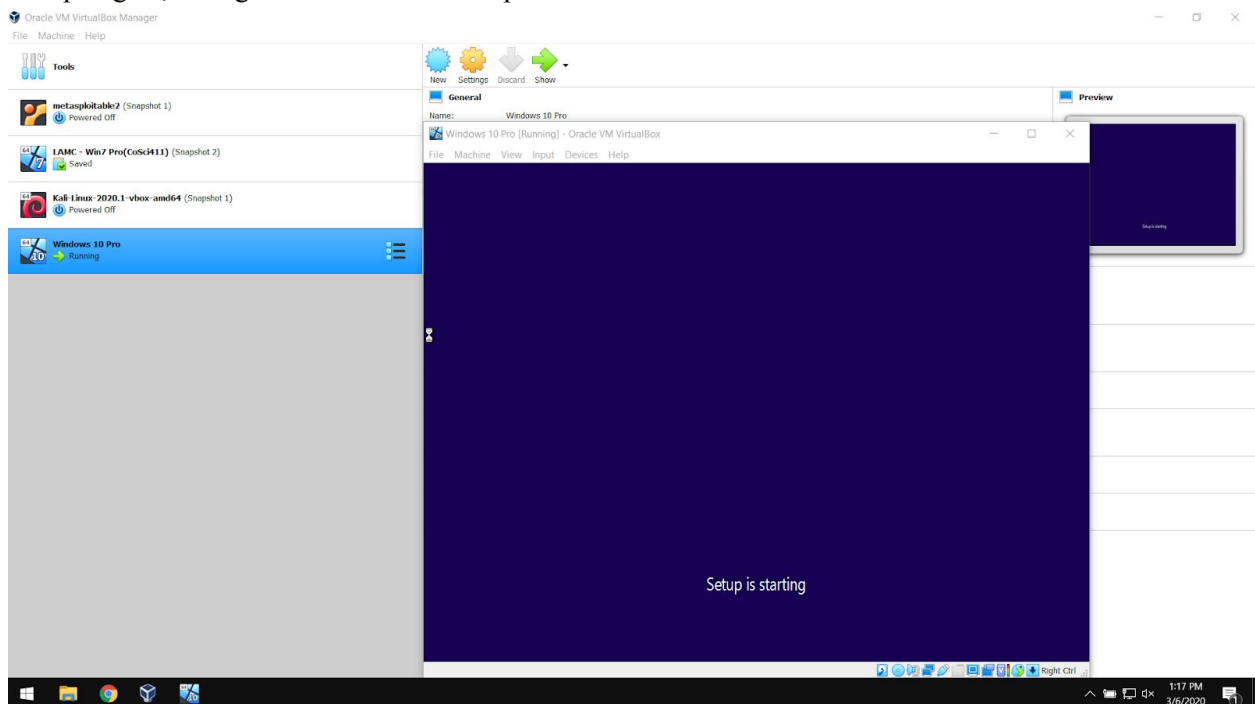Loaded the virtual medium onto the virtual optical drive. Note "en_windows_10_educatio...".

Windows 10 Pro virtually loaded into Controller SATA optical drive SATA Port 1

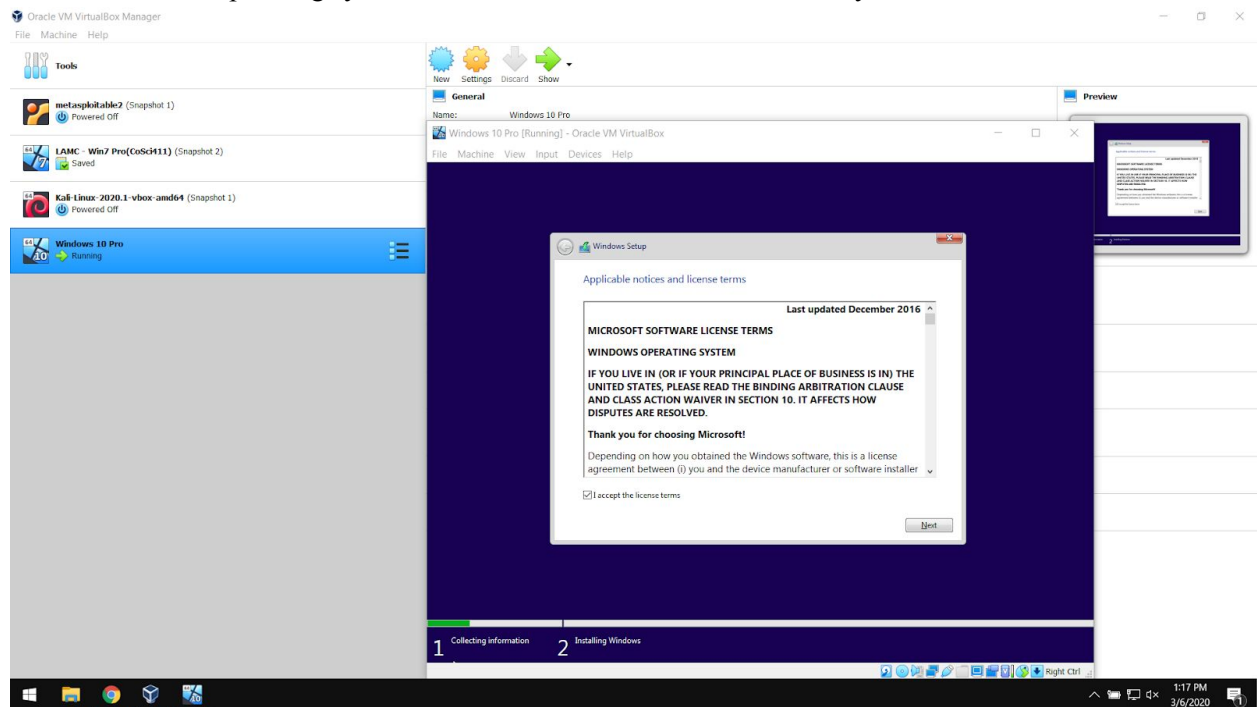Initial settings to begin the setup of Windows 10 Pro.

Langage, time, and keyboard settings

Set up begins, taking three minutes to complete.
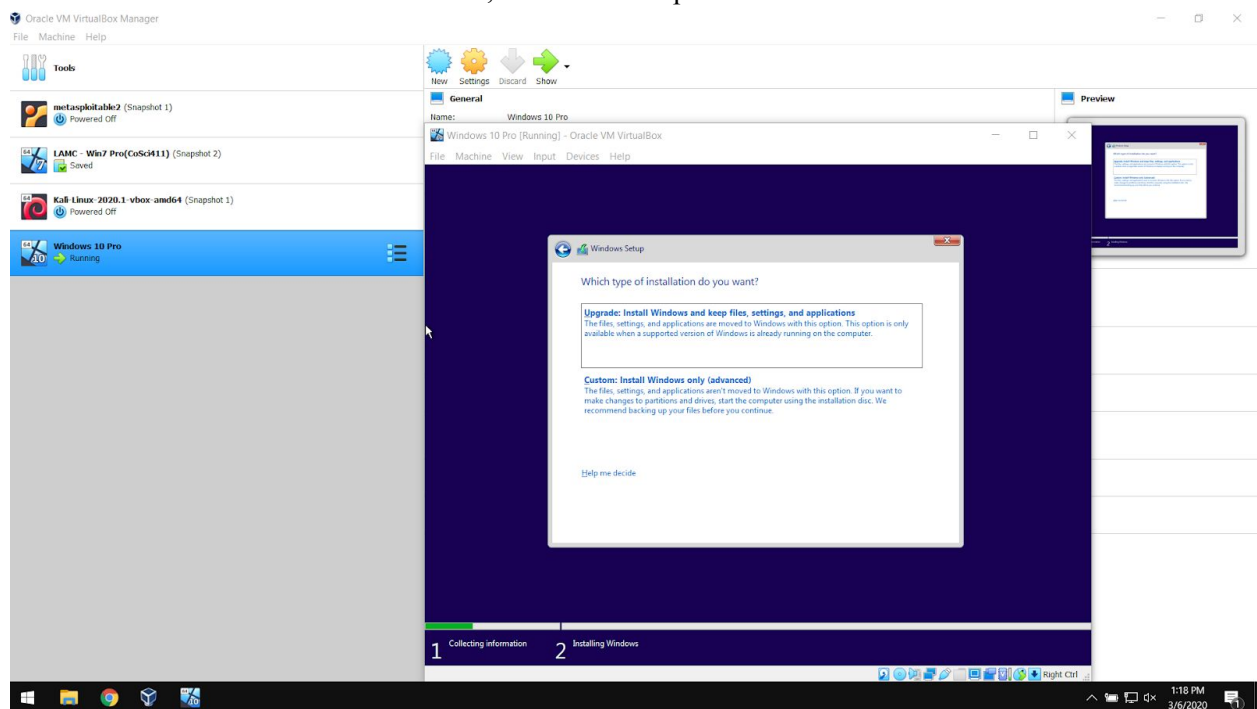

Setup screen

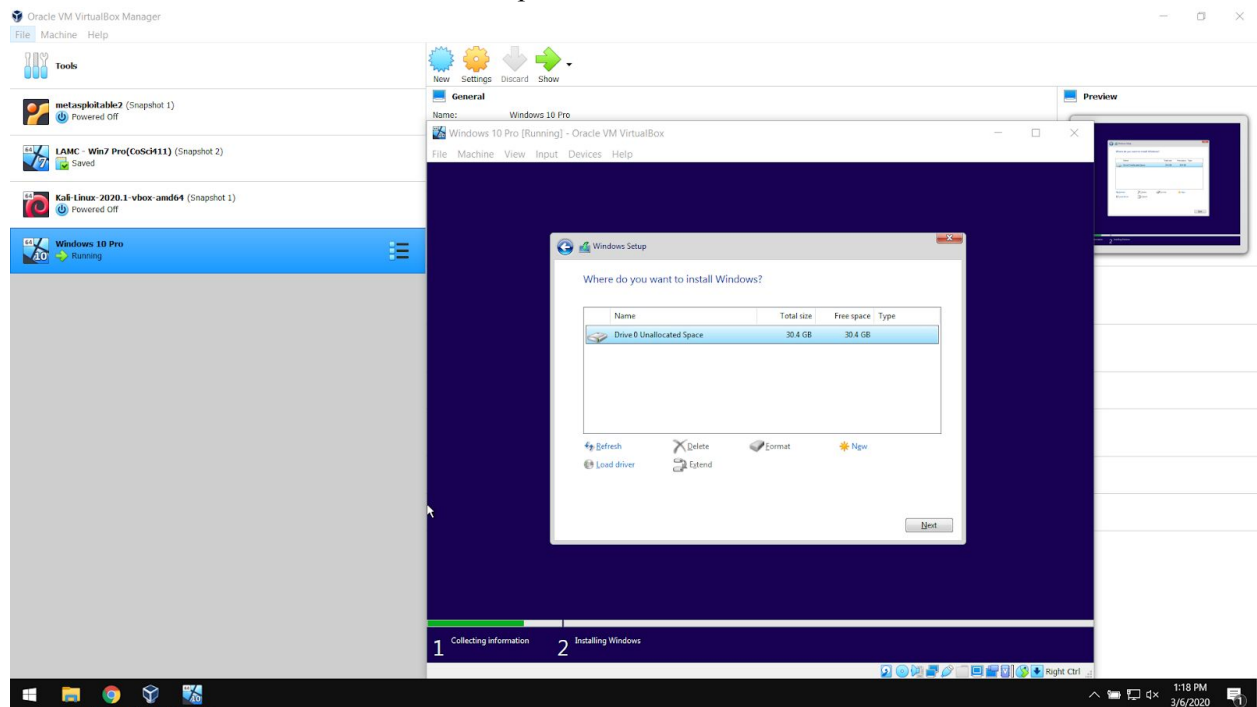The Windows 10 operating system is licensed software and not owned by the user.

Notices and License terms

This is a fresh install of Windows 10 Pro, so "Custom" option is selected.
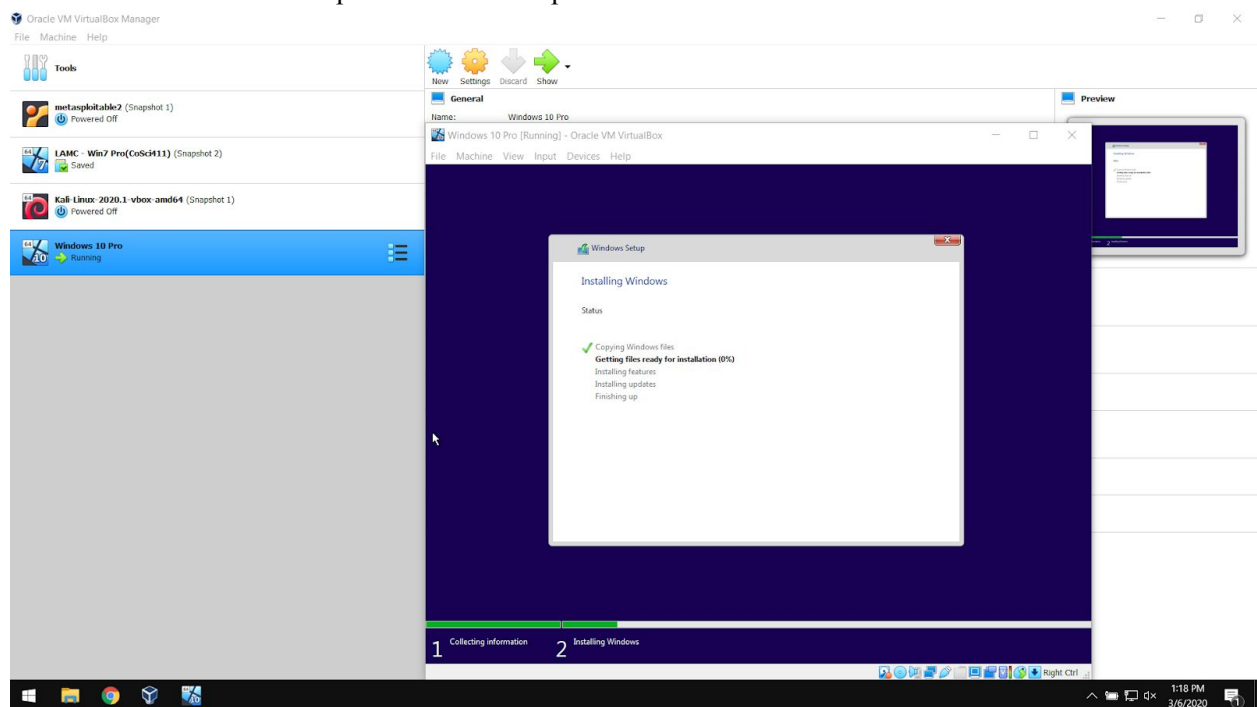

Initial Windows setup screen

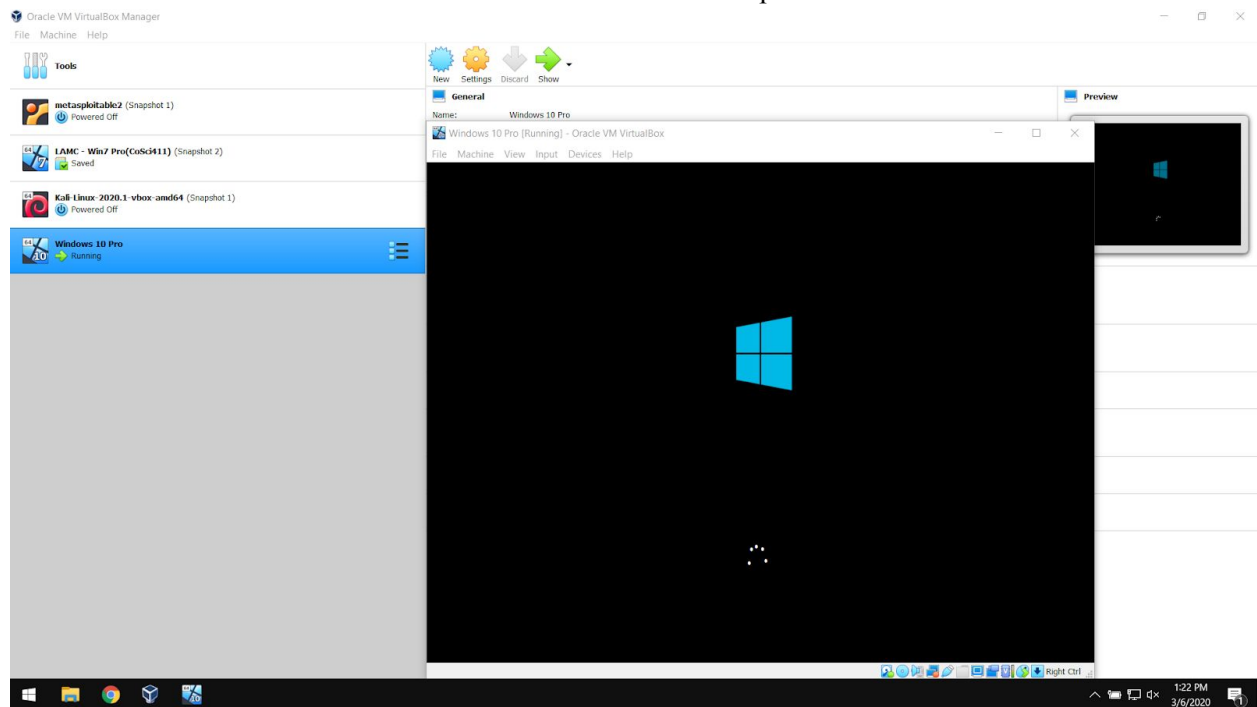The disk drive made in VirtualBox shows up here as 30.4 GiB/

Where Windows 10 will be installed

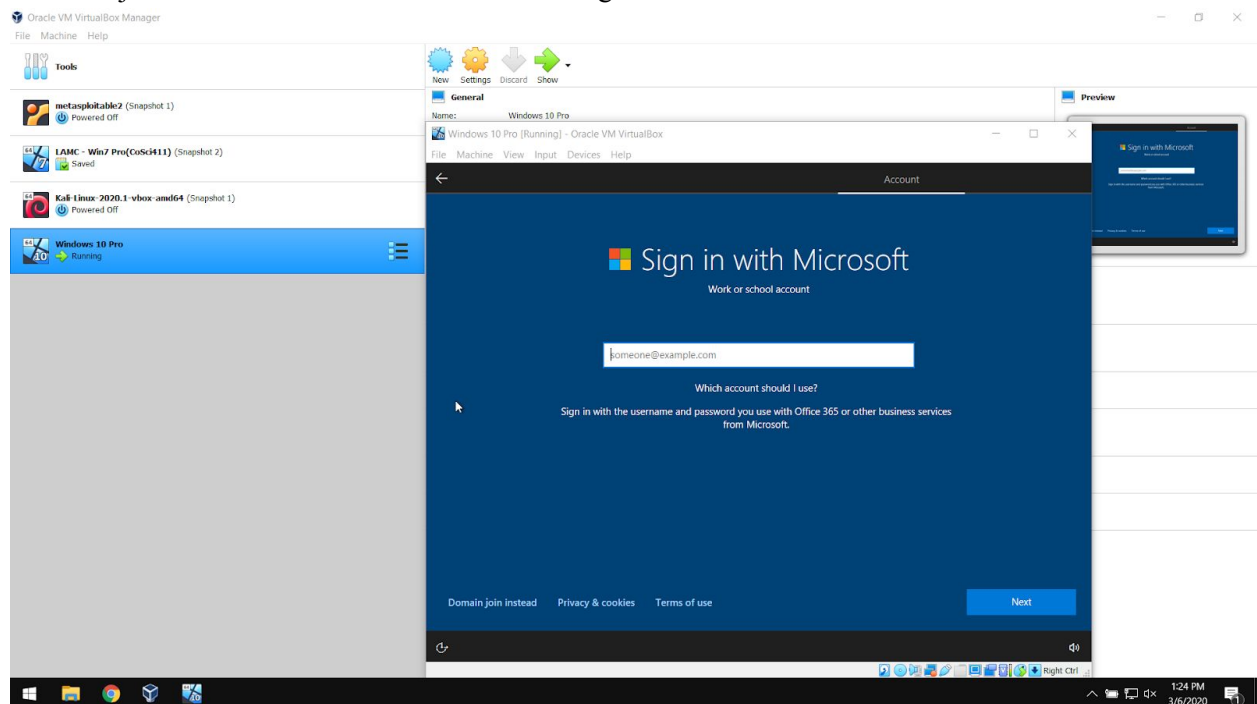Core installation files are copied. Time to complete took less than five minutes.

Files being prepped for installation

First screen after core installation files were loaded into the computer.
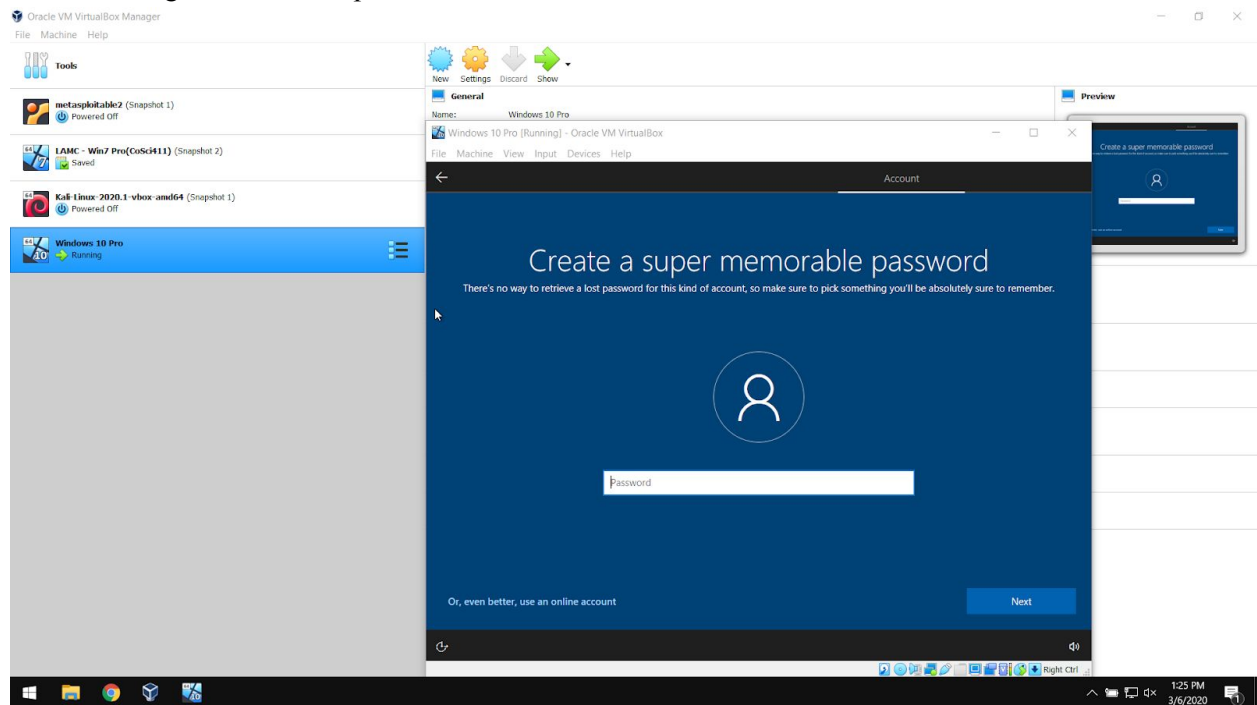

Initial install screen

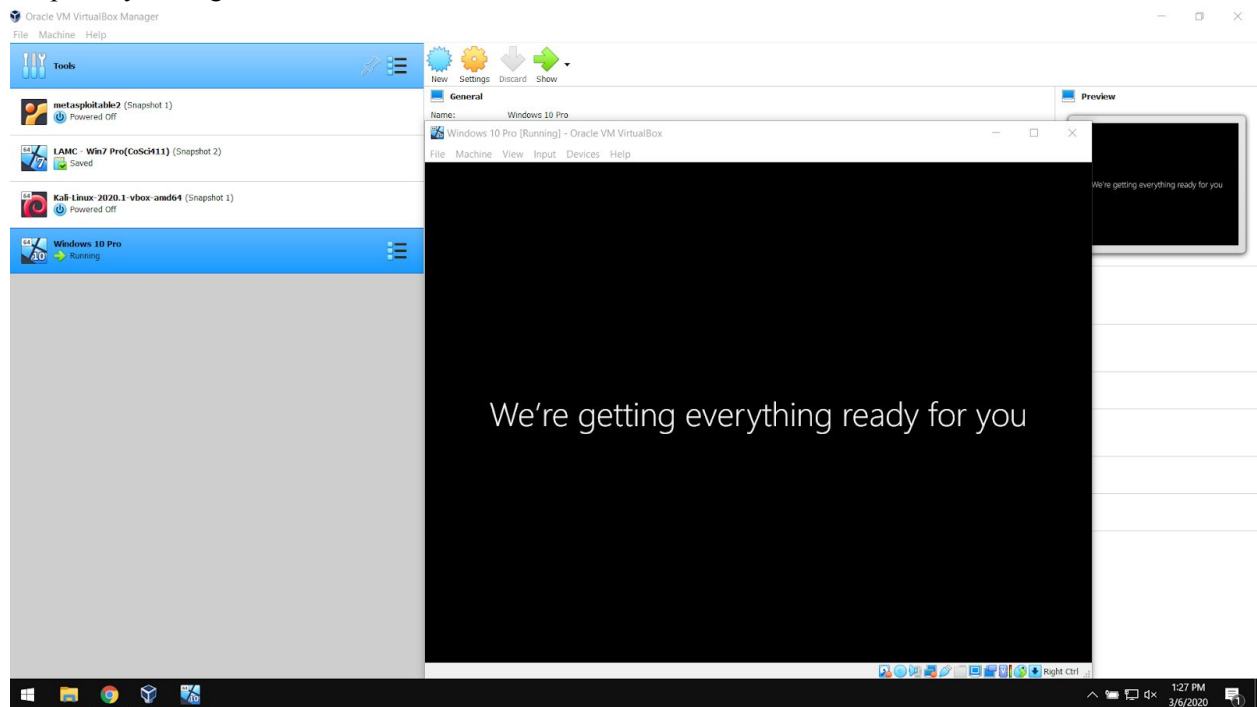"Domain join instead" was chosen at the bottom right corner of the screen.

Sign in screen

After selecting a username, a password was created.

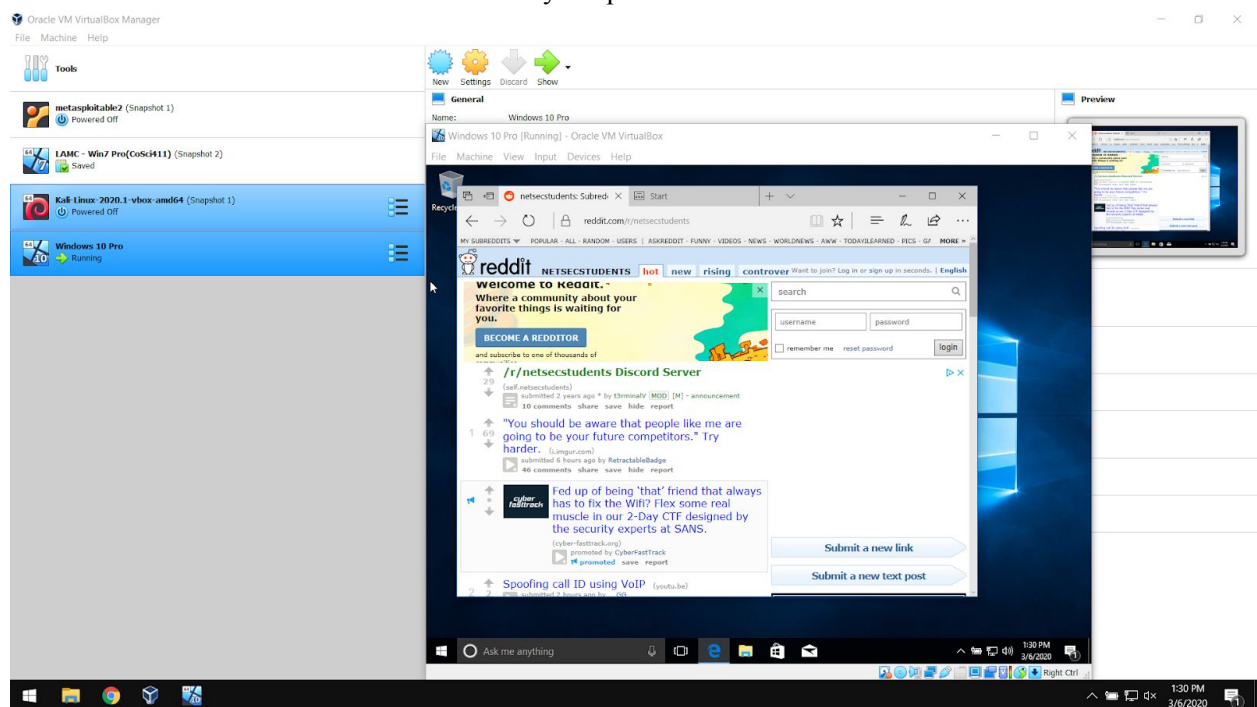User and Password selection

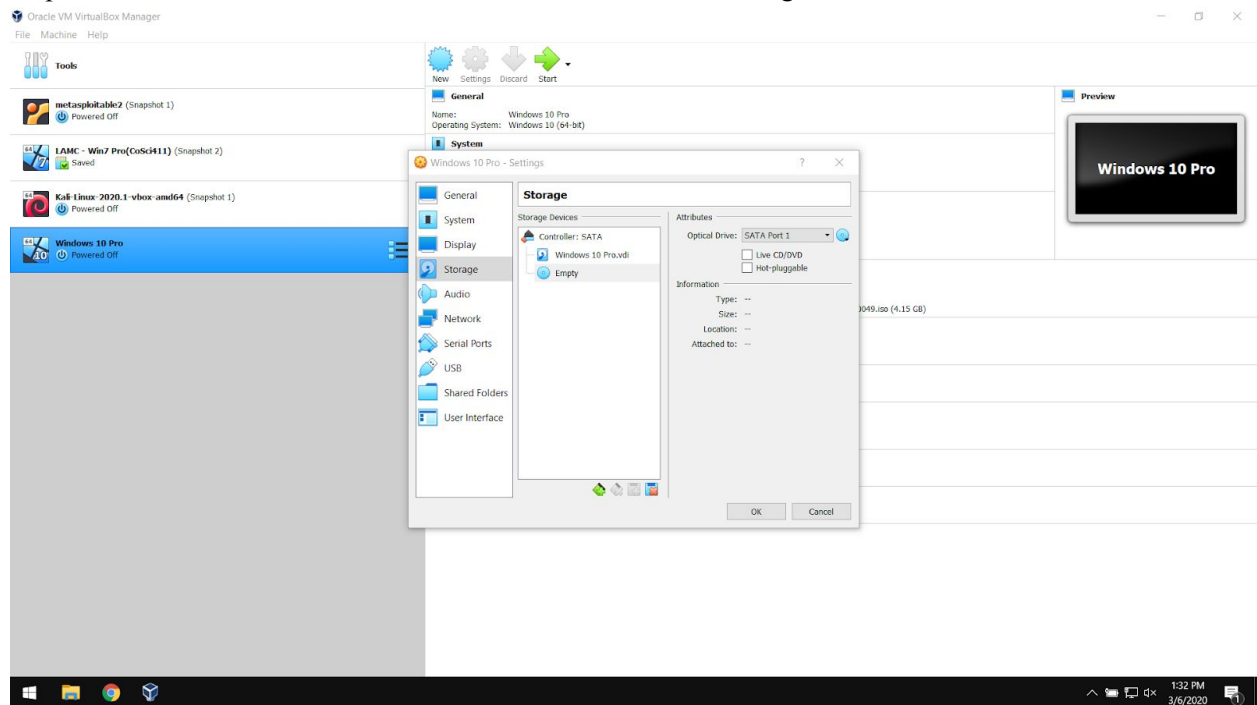All privacy settings were set to off.

Final setup screen

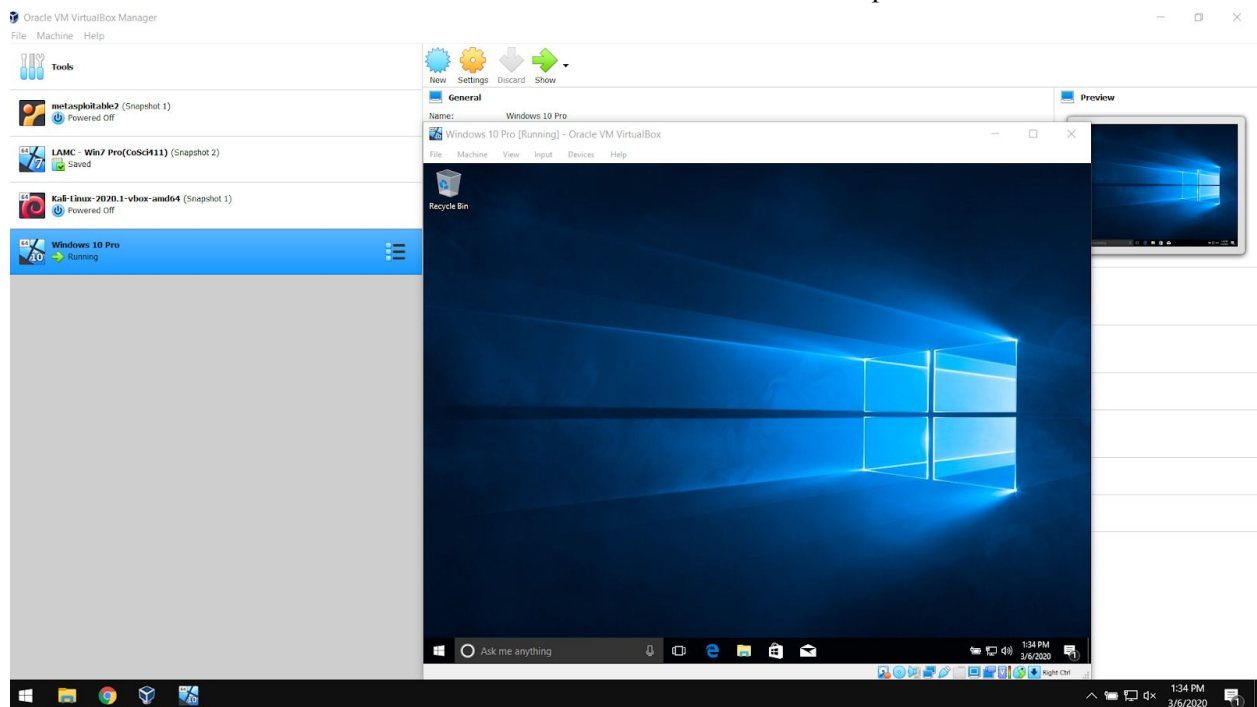Windows 10 Pro installed and network activity is up.

Reddit front page for /r/netsecstudents

To prevent the "Boot from CD/DVD...", I removed the install image from the virtual drive.

Cleared media from virtual DVD/CD drive

Verified the virtual medium does not have to be loaded to have OS boot up.

Windows 10

3. Surprises. Things rarely go as planned. Include this in your report. If things aren't working, documenting the problem can help you to find the solution.

4. A screenshot of the final result of the assignment. When you are installing windows and logging in for the first time, give your computer enough time to finish logging into the desktop. Show the final result.
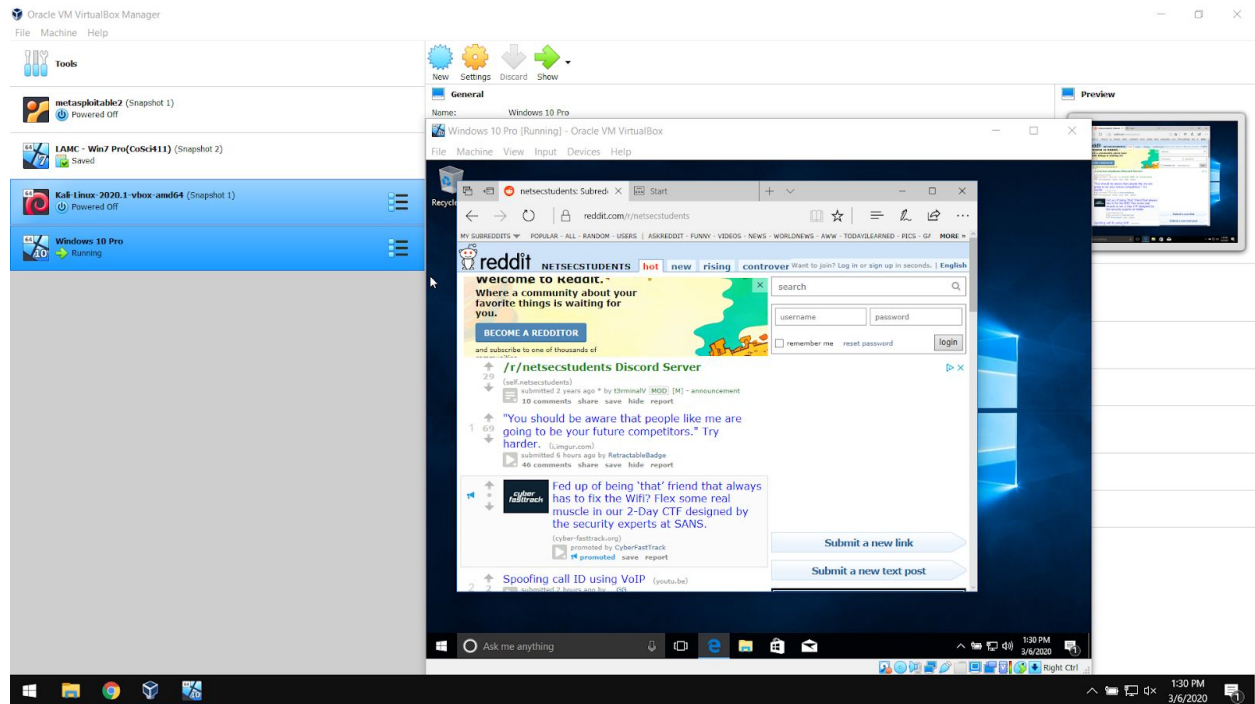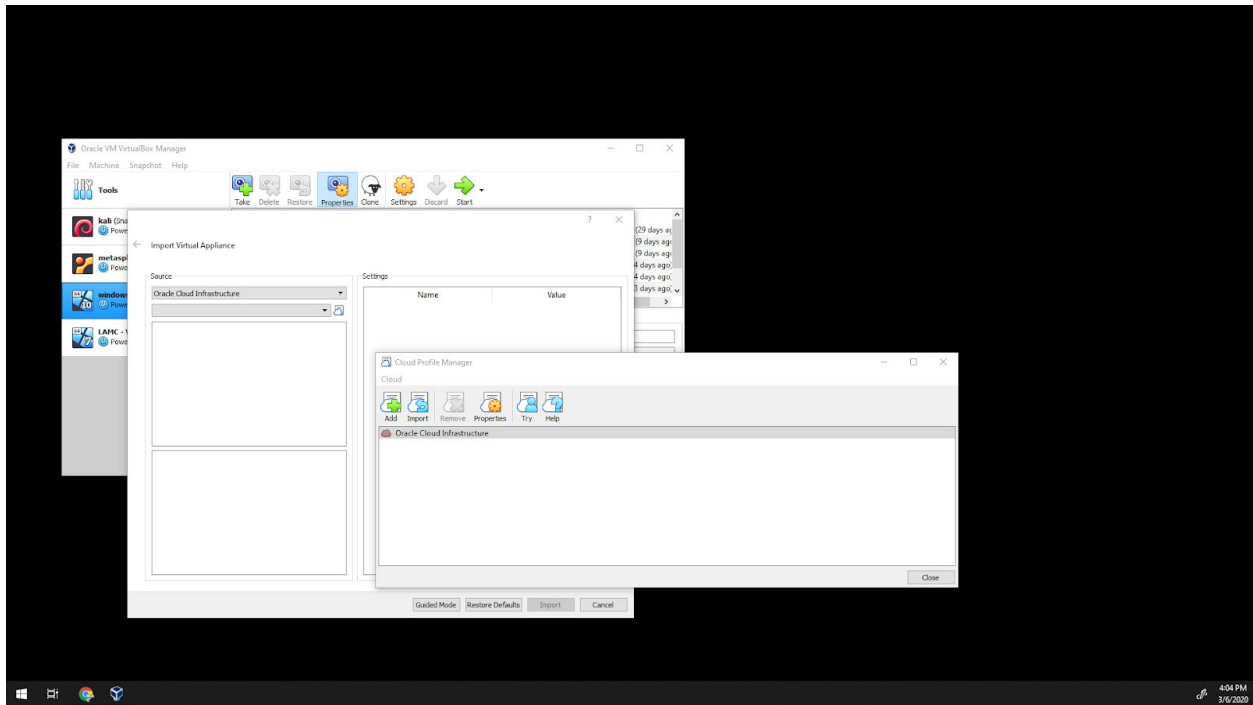

Final screenshot

5. Summary. Did it work as expected? Did you need more research? Also use the ideas from the Malware Freakshow to illustrate how this assignment can be used in an actual hack? Are there other tools you can use? Show your thinking just as a thought experiment.

> The installation of Windows 10 Pro occurred without any errors. The loading times for initial and post setups were not much of a surprise however the actual running of the machine was sluggish. Increasing the initial amount of RAM before installation may be a solution. There were no system processing draws on the host. Moreover, there was no need for a key when the installation occured. This may be due to the fact that this is an educational image but more research as to why may be required. Network installation of this image can occur via Oracle's Cloud Infrastructure as shown below. There are only two known vulnerabilities for Oracle Cloud Infrastructure[1]. Further research as to leveraging these known exploits may help in devising a leaner attack profile regarding this and other cloud infrastructures.

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[1] https://cve.mitre.org/cgi-bin/cvekey.cgi?keyword=Oracle+Cloud+Infrastructure

Importing Virtual Appliance via Oracle Cloud Infrastructure.

Oracle's Cloud Profile Manager