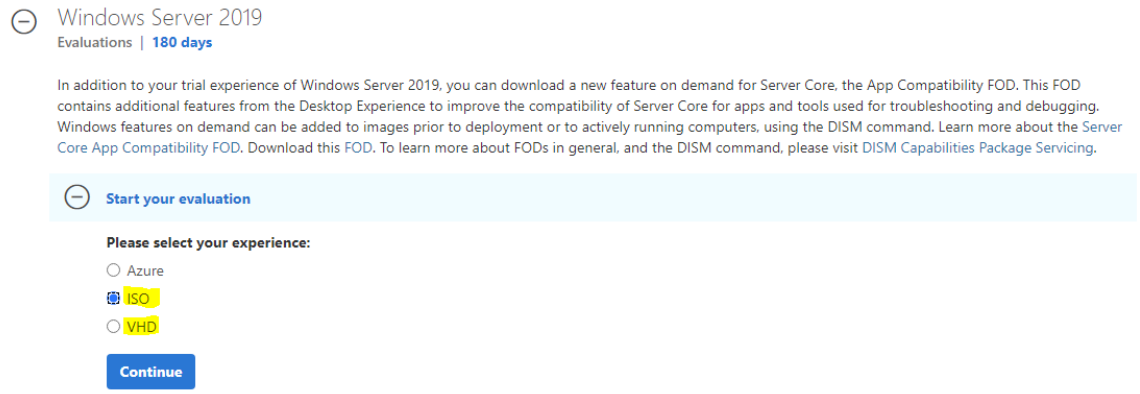
Create a Windows VM using Oracle VM VirtualBox

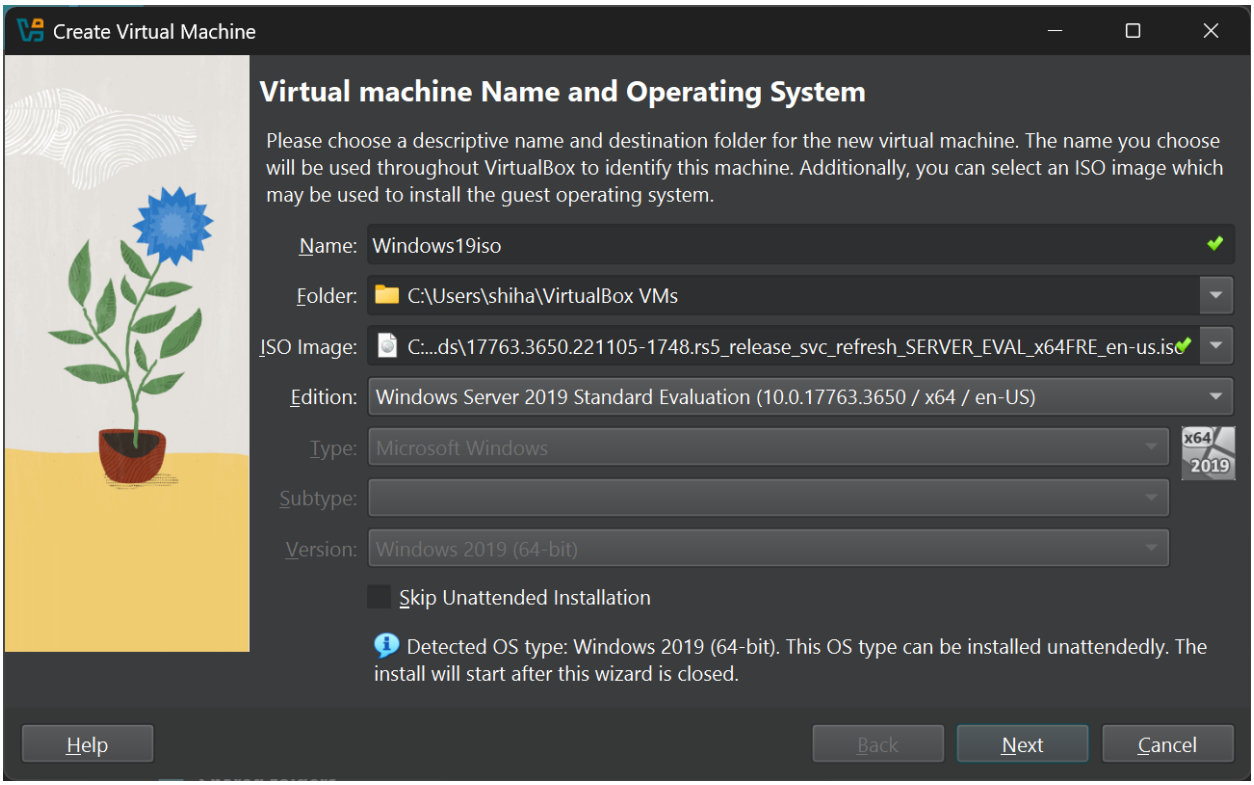
The purpose of this assignment is to create Windows 2019 VMs within Oracle VirtualBox VM Manager. You will create a Windows VM two different ways. Once performing the actual OS installation using the .iso file and another by using .vhd file. You can download the download the .iso and .vhd from https://www.microsoft.com/en-us/evalcenter/evaluate-windows-server-2019. You will need to provide your name and an email address to have access to the files. Reference the image below:



To receive full credit, you must answer the following questions as well as document and provide screenshots showing your steps:

1. **(10 points) Create the first Windows 2019 VM using the .ISO file naming the VM "Windows19iso"**

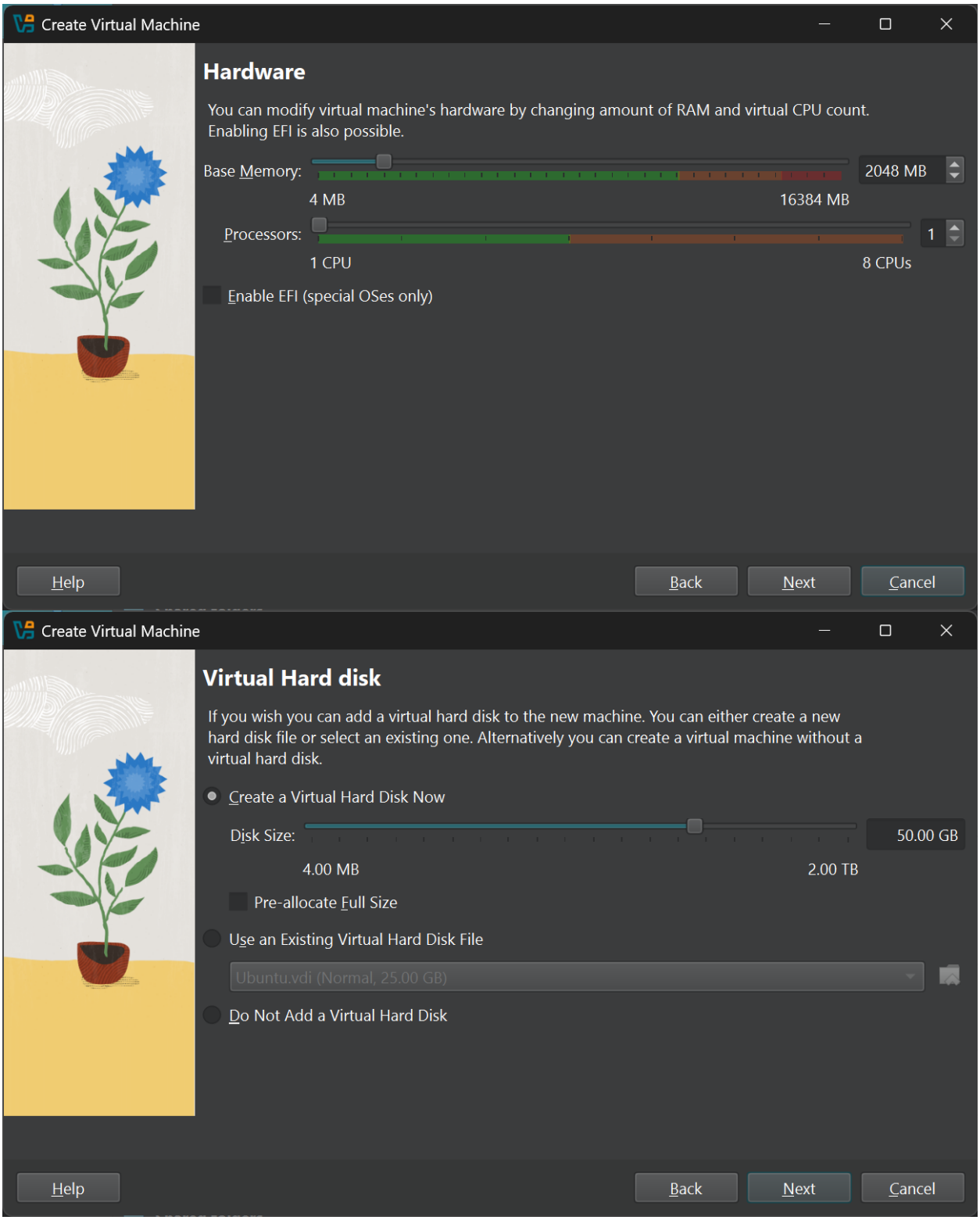
Create a Windows VM using Oracle VM VirtualBox



2. **(6 points) What are the default settings for CPU, memory, and hard disk size?**

   Default memory is 2048MB, default CPU is 1, and default HD is 50GB.

Create a Windows VM using Oracle VM VirtualBox



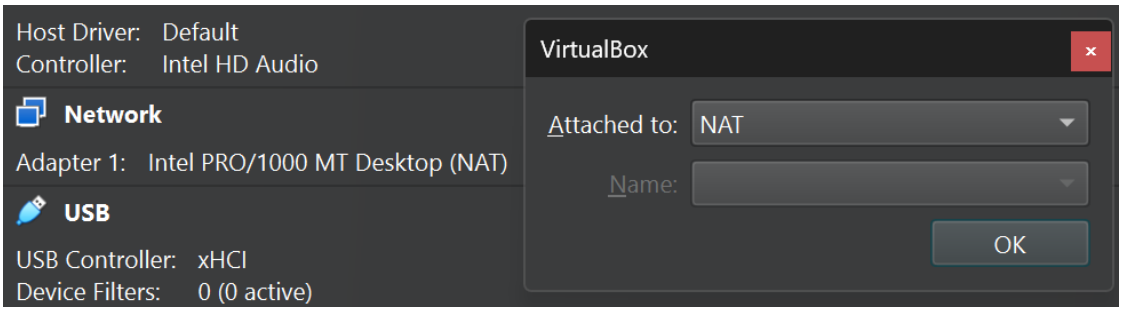
Create a Windows VM using Oracle VM VirtualBox

3. **(4 points) Ensure the hard disk is thinly provisioned. What is the benefit of thin provisioning?**

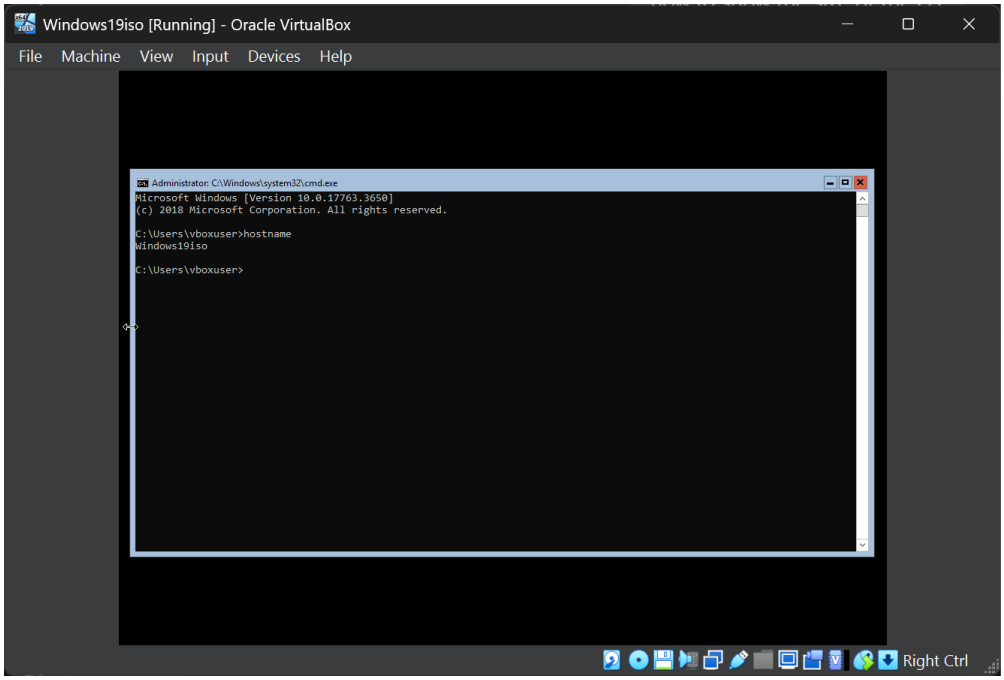
   The benefit of thin provisioning is that it allocates space as needed, which is a more efficient way of storage.

4. **(4 points) What is the default network setting (ie. internal network, bridge, etc...)?**

   The default networking setting is Network Address Translation (NAT).



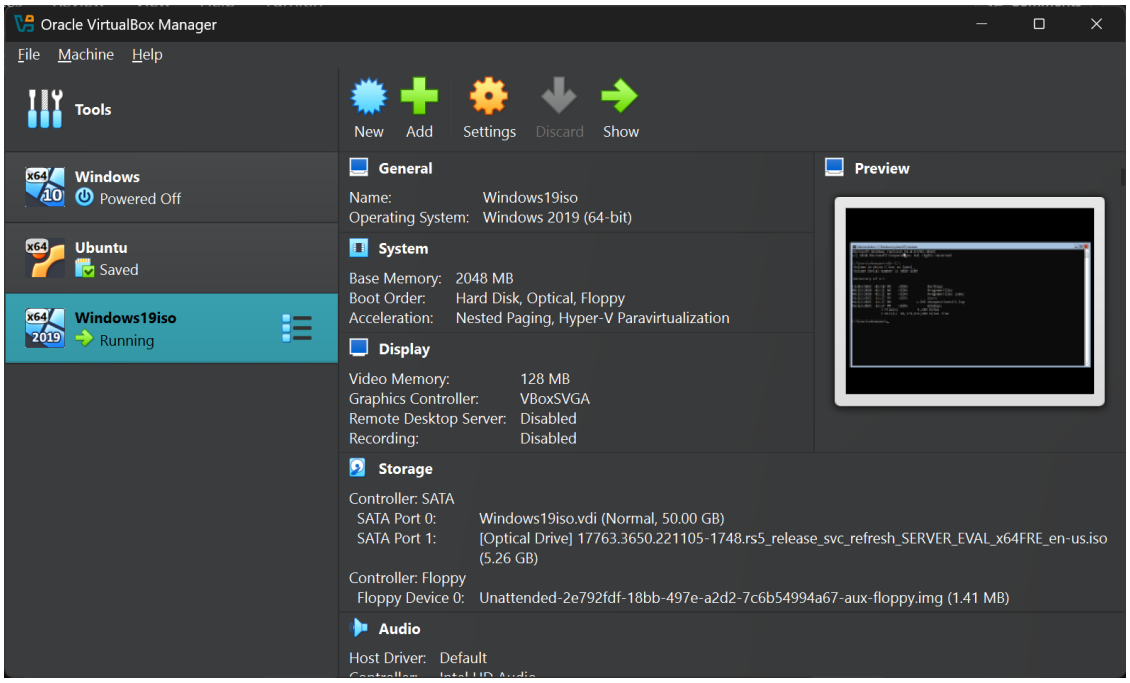
5. **Once the OS installation has completed provide the following information from the guest VM you created:**
   a. **(4 points) Hostname:** Windows19iso



Create a Windows VM using Oracle VM VirtualBox

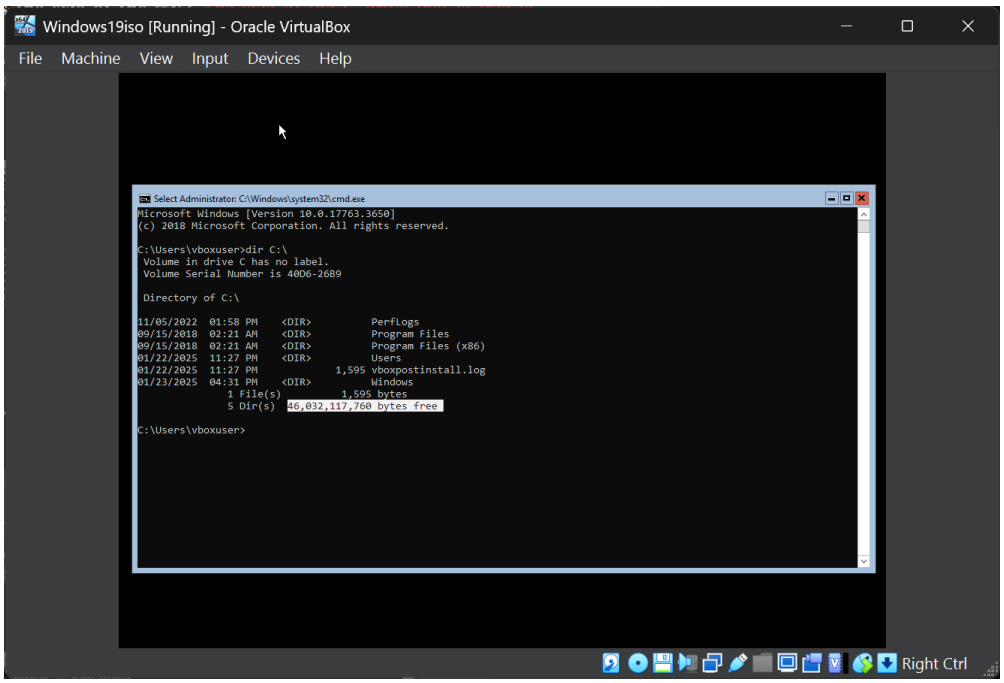
b. (4 points) Is the hostname different than the name of your VM? If so, why?

No, the hostname is the same as the name of this VM; Windows19iso.

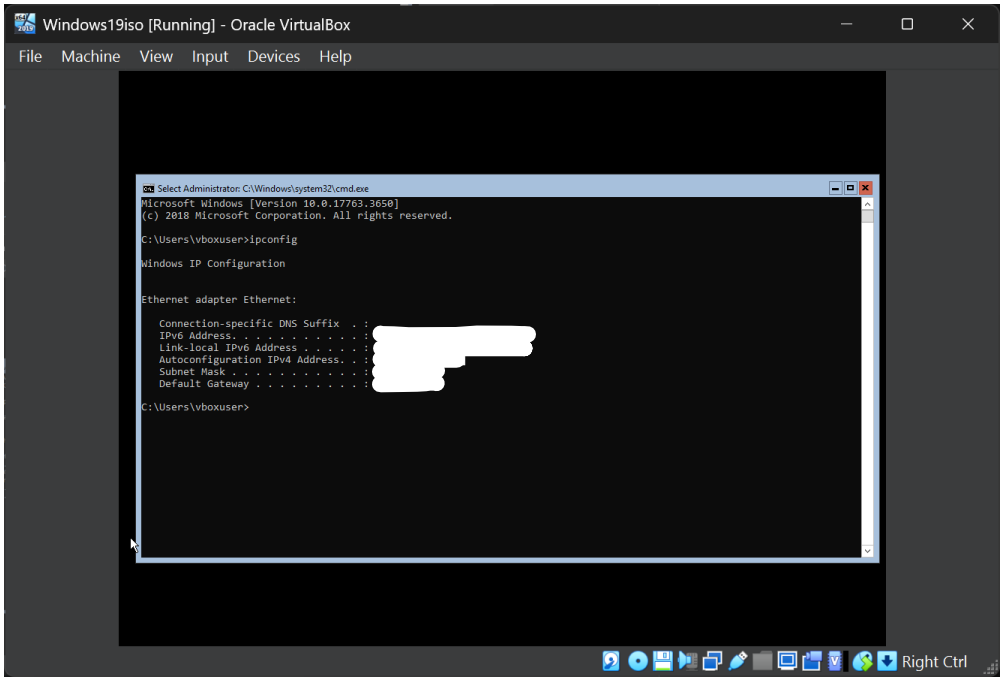


c. (4 points) What is the size of the C:\? The size of the C drive that is free is 46.18GB

Create a Windows VM using Oracle VM VirtualBox

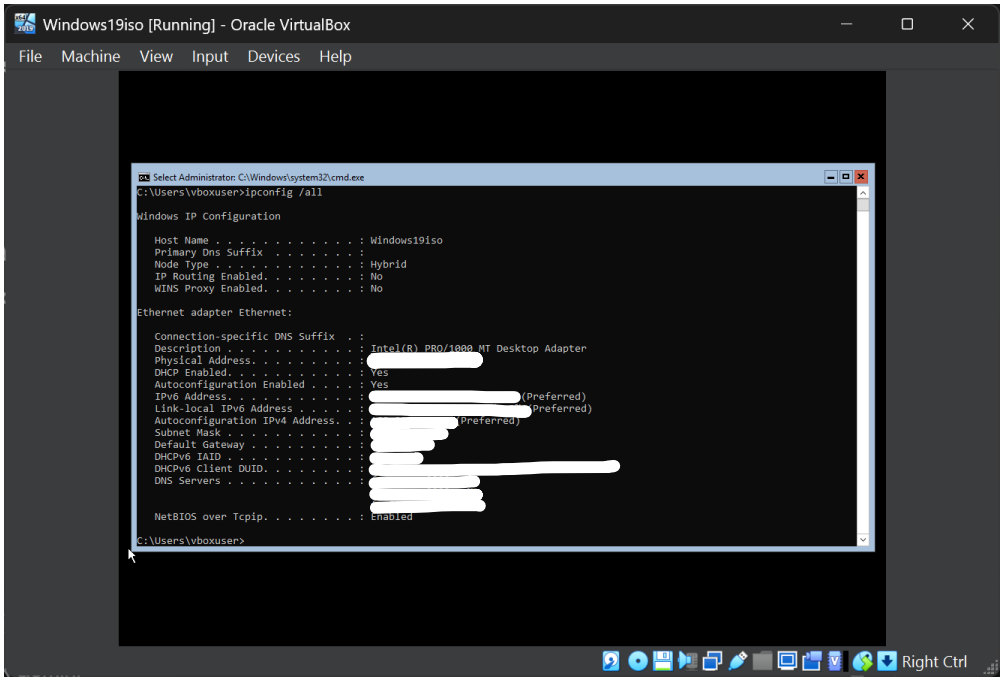


d. (4 points) What is the IP address of your VM? [redacted]

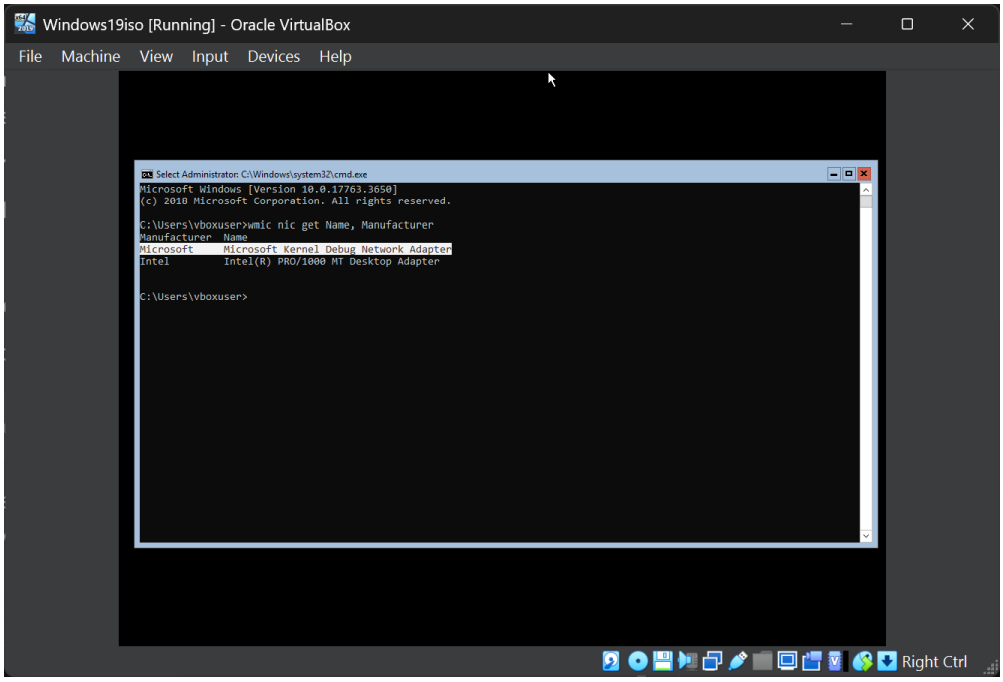


e. (4 points) What is the mac address for the NIC? [redacted]

Create a Windows VM using Oracle VM VirtualBox

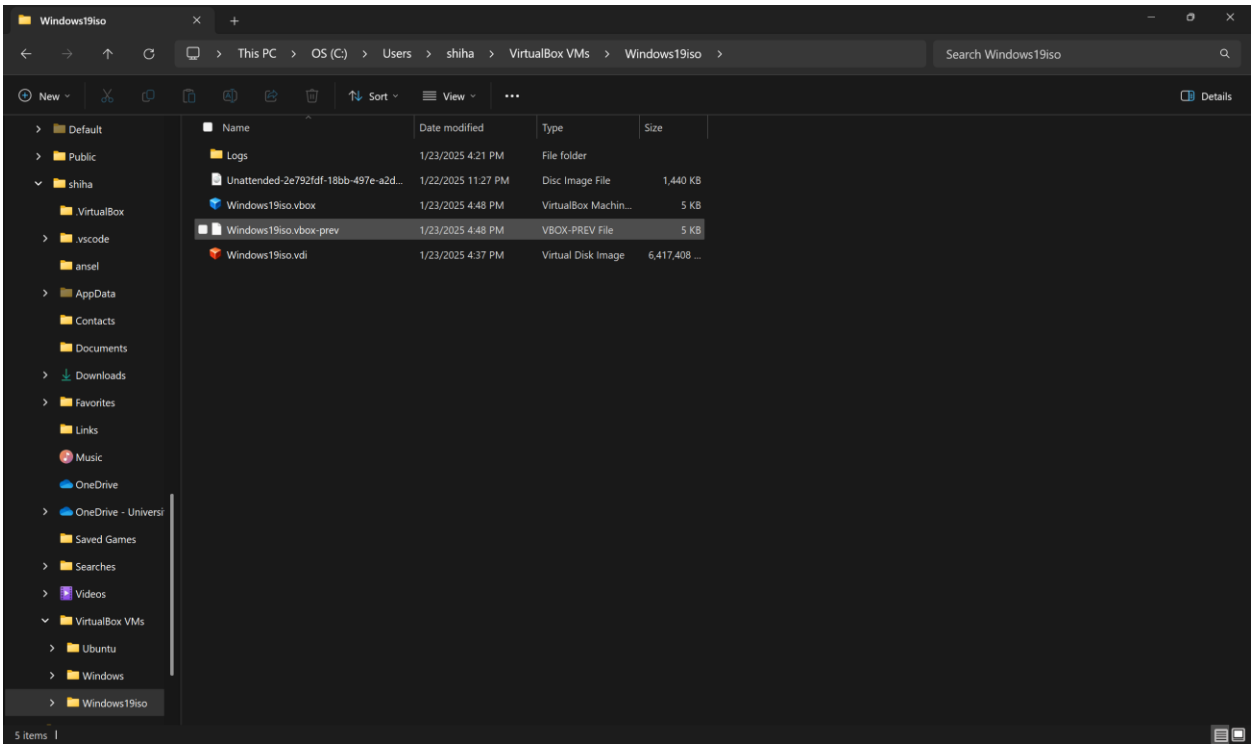


f. (4 points) Who is the manufacturer of this NIC? Microsoft is the manufacturer of network adapters.



Create a Windows VM using Oracle VM VirtualBox

6. **(4 points) Remember a VM is just a collection of files. Provide a screenshot showing the location of these files on your computer's file system.**

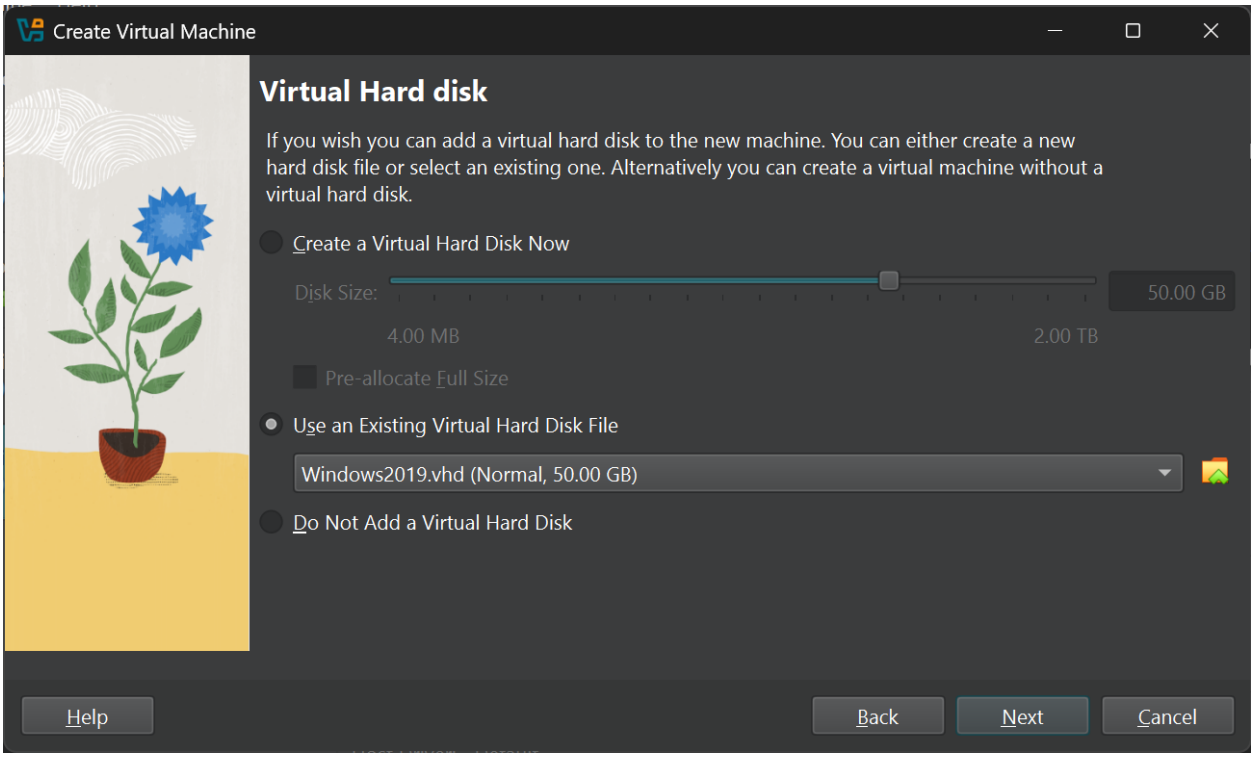


7. **(4 points) Why is the virtual hard disk file smaller than the size of the C:\ listed above?**

   This is because as I install programs and create files within the VM, the VHD file will gradually increase in size to accommodate the data. This significantly reduces the initial file size and disk space usage.

8. **(10 points) Create the second Windows 2019 VM using the .VHD file naming the VM "Windows19vhd" (Note: If you need to delete the first Windows VM to make room for the second feel free to do so, just ensure you completed all the steps above)**

Create a Windows VM using Oracle VM VirtualBox

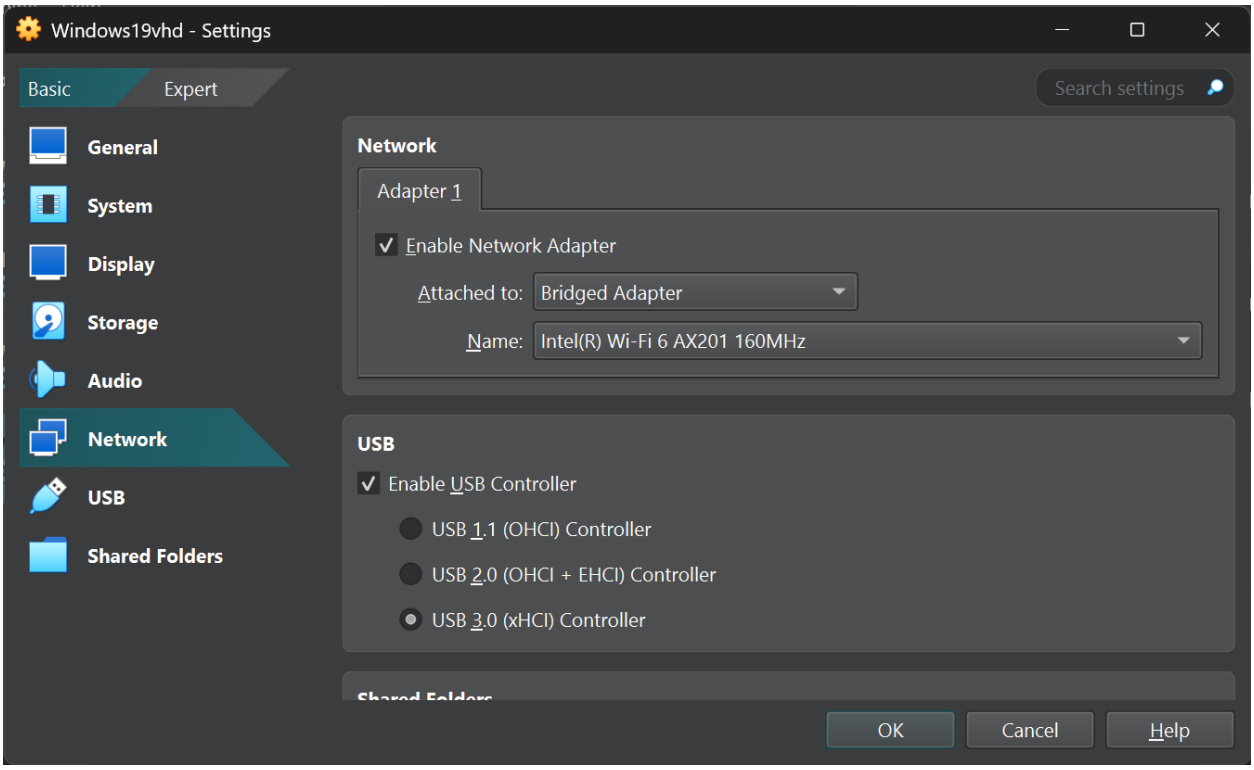


9. **(6 points) Explain the difference between creating the Windows VM using the .iso vs .vhd file? Which is faster?**

   The difference between creating the .iso and the .vhd file is that with the .iso file, I don't need to setup startup procedures (i.e. country/region, language, password), while the .vhd file does. Therefore, the .vhd file is faster than the .iso file.

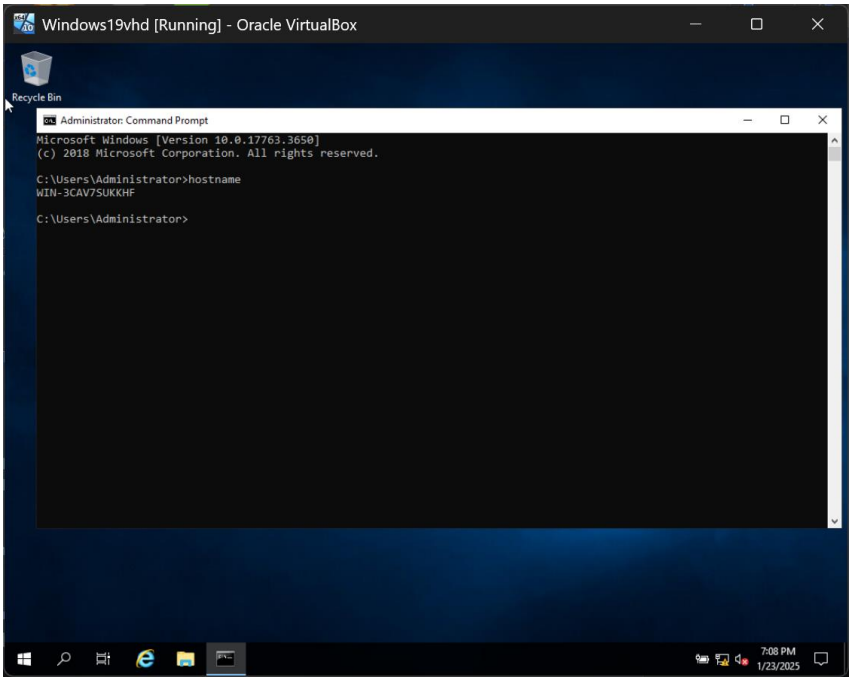
10. **(4 points) Change the network setting for this VM to be bridged.**

Create a Windows VM using Oracle VM VirtualBox



11. Once the guest VM has booted provide the following information:

a. **(4 points) Hostname:** WIN-3CAV7SUKHF



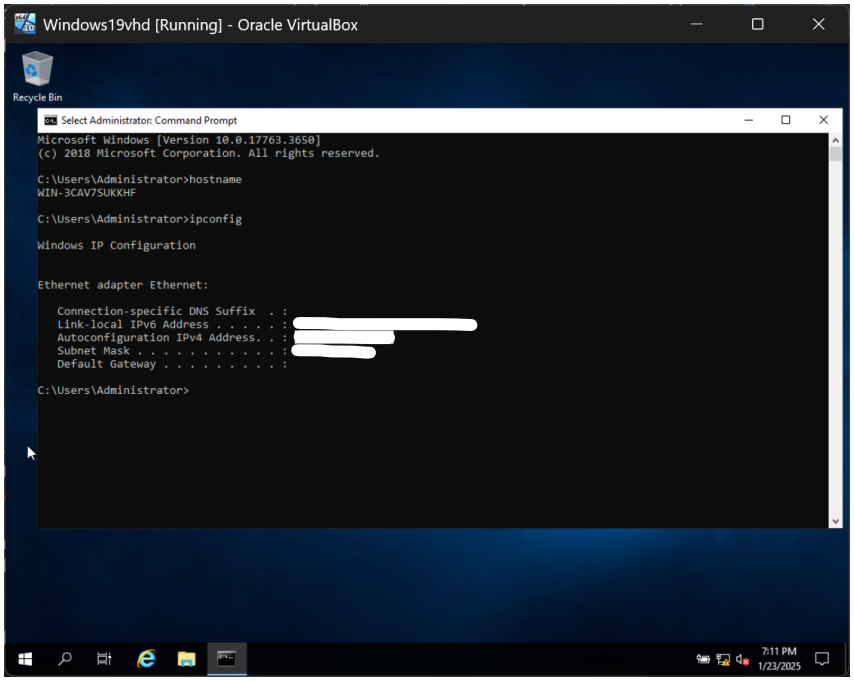
Create a Windows VM using Oracle VM VirtualBox

b. (4 points) Is this hostname different than the hostname of your previous VM created with the ISO?

Yes, the host on this VHD VM is different than the ISO VM.

c. (6 points) What is the IP address of this VM? Why is it on a different subnet (Assuming you mean different IP address? They have the same subnet.) than the VM created with the ISO?

The IP address on this VM is [redacted], and it is on a different IP address than the ISO VM because the VHD VM has a pre-configured network setting. Including a static IP address or a configuration to obtain an IP address via DHCP from a specific server.



12. (10 points). What is the IP address of your computer you have VirtualBox installed on? Is your computer on the same subnet as the VM created with the VHD? If so, why?

The IP address of my computer is [redacted]. No, the VM has a subnet of [redacted] while I have [redacted].

Create a Windows VM using Oracle VM VirtualBox