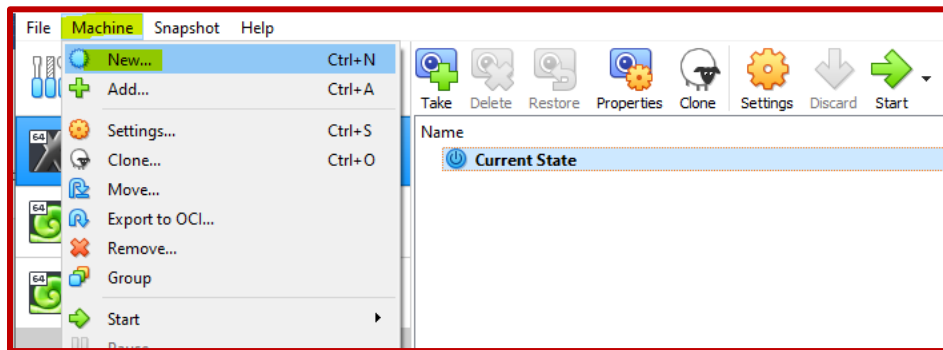


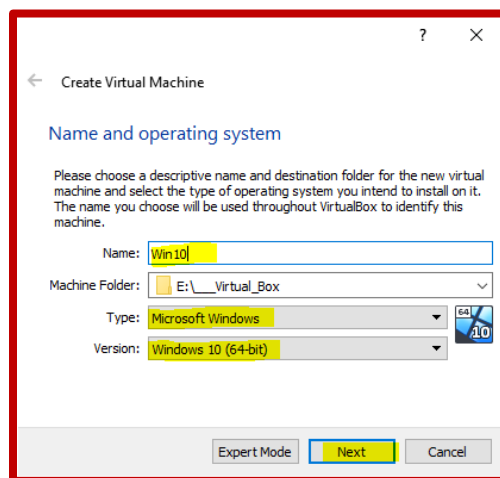
Preparing VirtualBox For A Windows 10 Virtual Machine

Dr. Tom Hicks
Trinity University

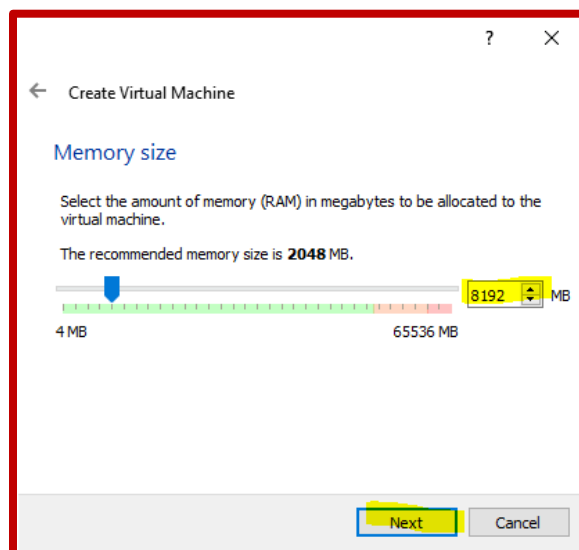
- 1] VirtualBox is a freeware, open source Virtualization Application available for Mac, Windows, & Linux System; the install is easy. Using the mouse, hold down the Machine Menu → Select New



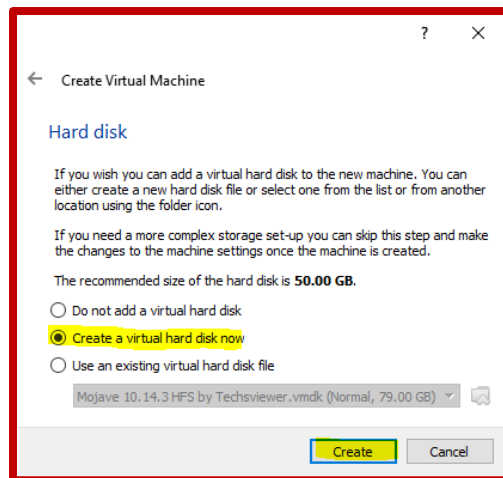
- 2] Name your machine; I chose Win10. Select Windows 10 (64 bit). Push the Next button.



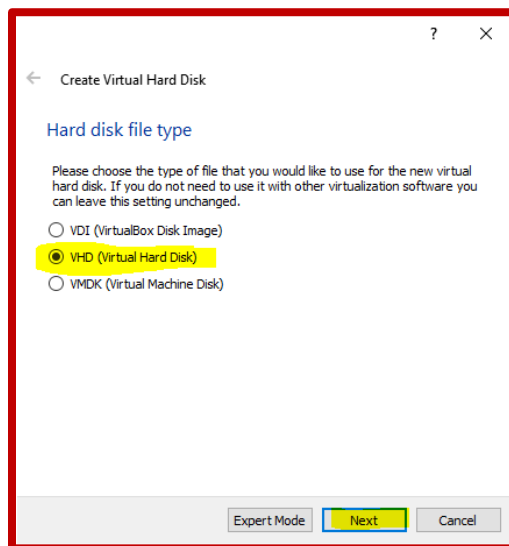
- 3] Select the amount of disk space you would like to allocate. Push the Next button.



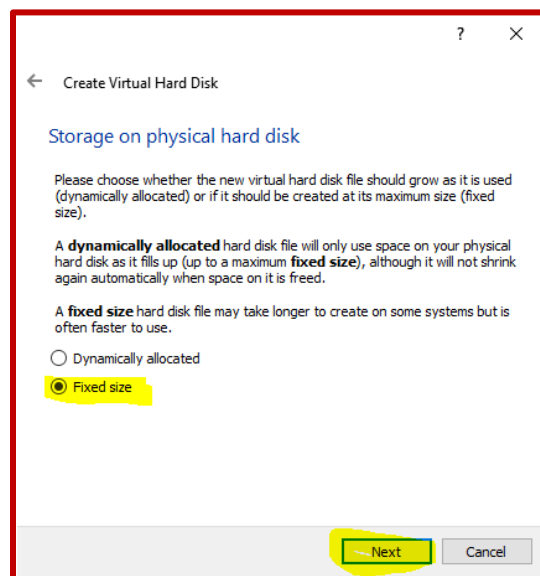
4] Select → Create a Virtual Hard Disk Now. Push the Create Button.



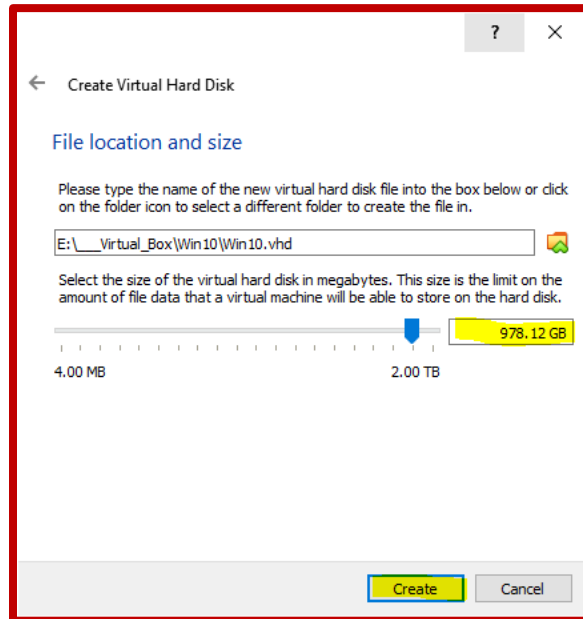
5] Select VHD Hard Disk. Push the Next Button.



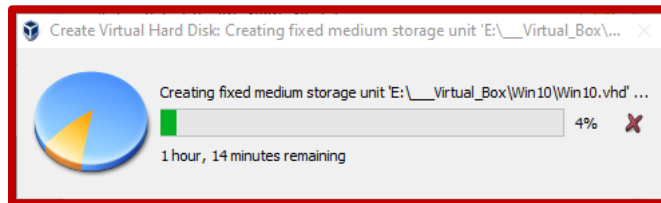
6] Select Either Fixed or Dynamic. If you are tight on space, make this dynamic. Push the Next Button.



- 7] Allocate what you can afford for the Hard Drive Size. Push the Create Button. I have plenty of disk space → I am allocating almost a TB. The basic operating system is going to require at least 30 + GB.

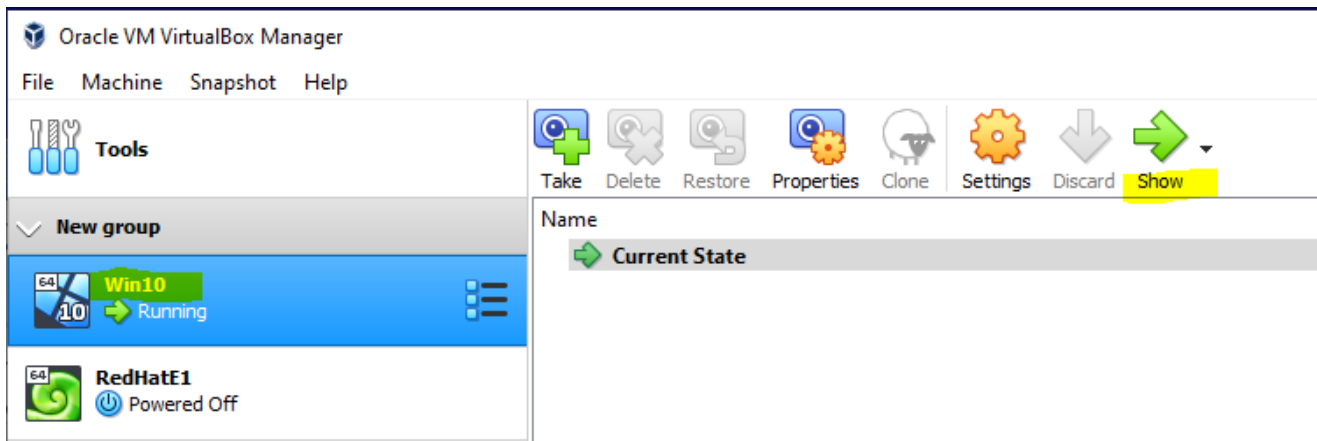


- 8] It Will Take A While.

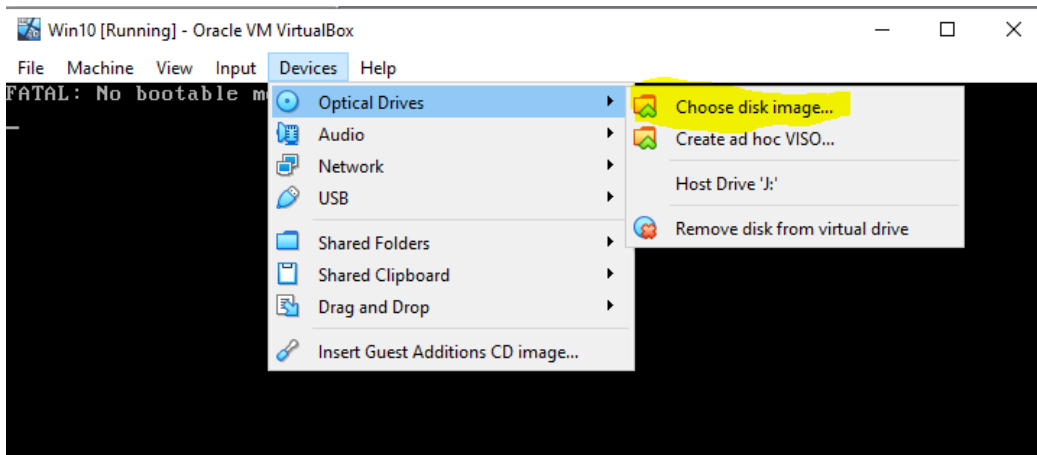


Configure VirtualBox To Start From Windows ISO

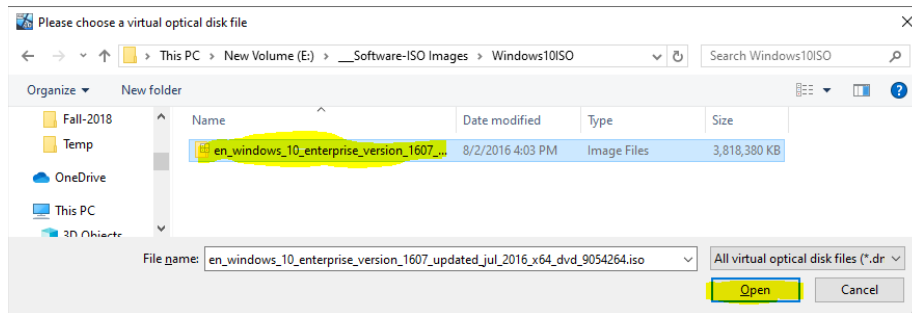
- 1] Select the VirtualBox Windows 10 Image (on the left) → push the Start (right) Button,



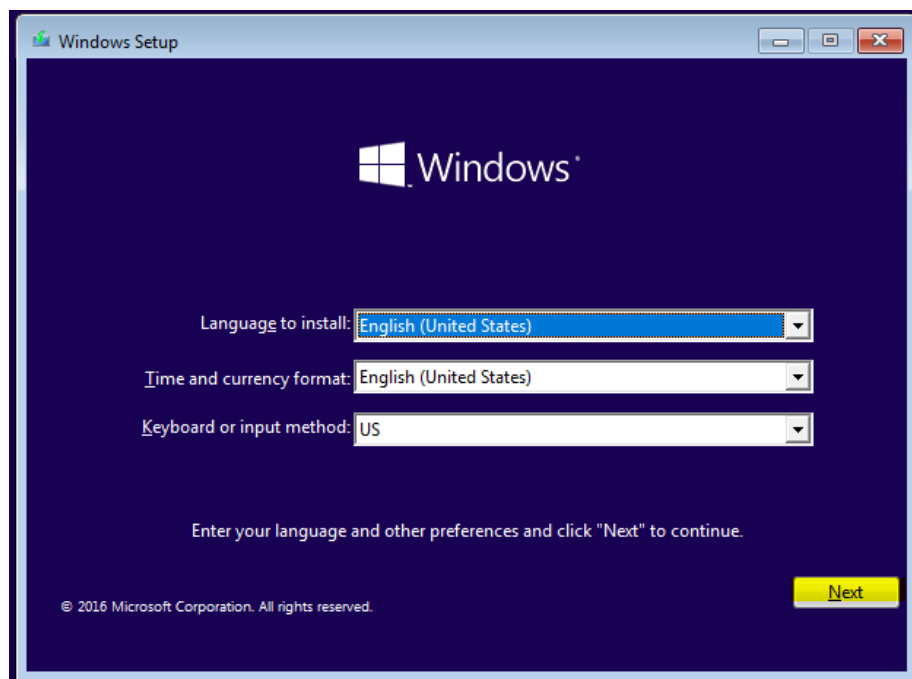
- 2] Hold down the Devices → Select Optical Drives → Choose Disk Image. [You might have to remove a disk from the virtual drive first → if there is one?



- 3] Navigate to where you have stored your Windows iso.

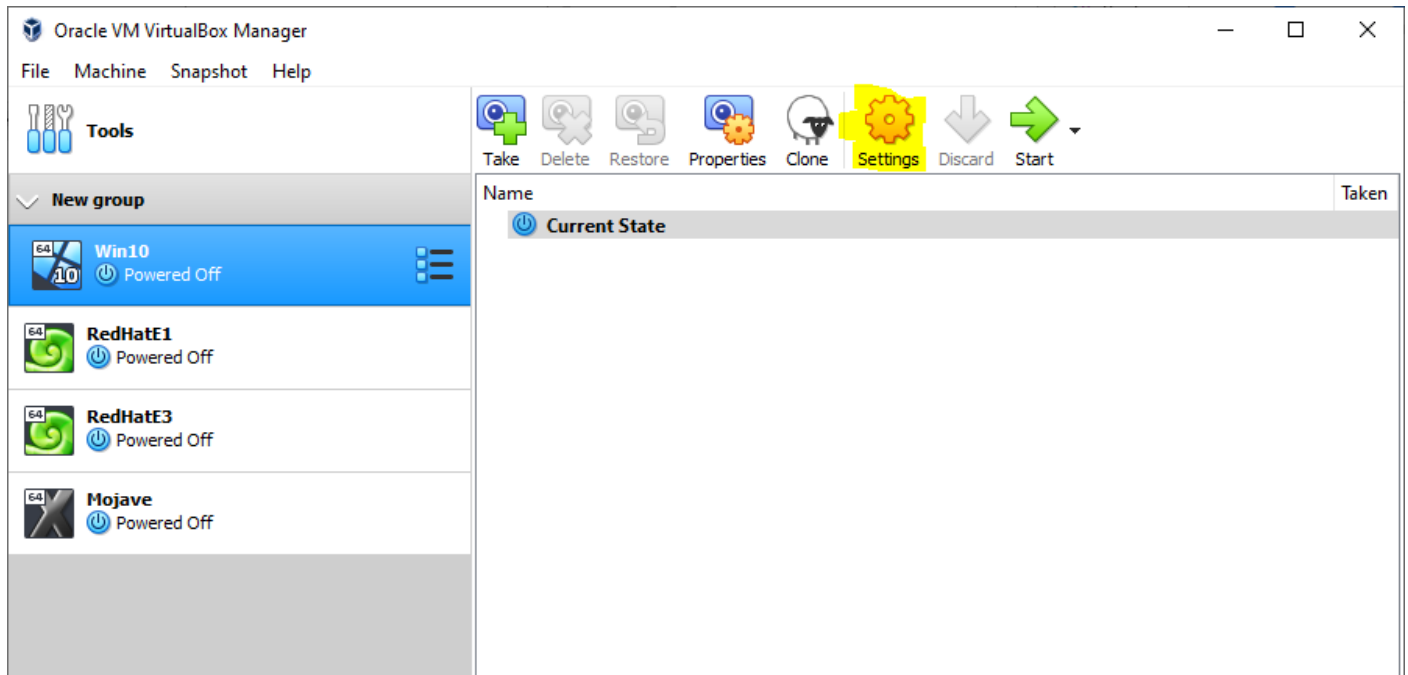


- 4] Then Restart The VirtualBox Machine.
- 5] Once you get to this point, refer to my tutorial on Installing & Configuring Windows 10.

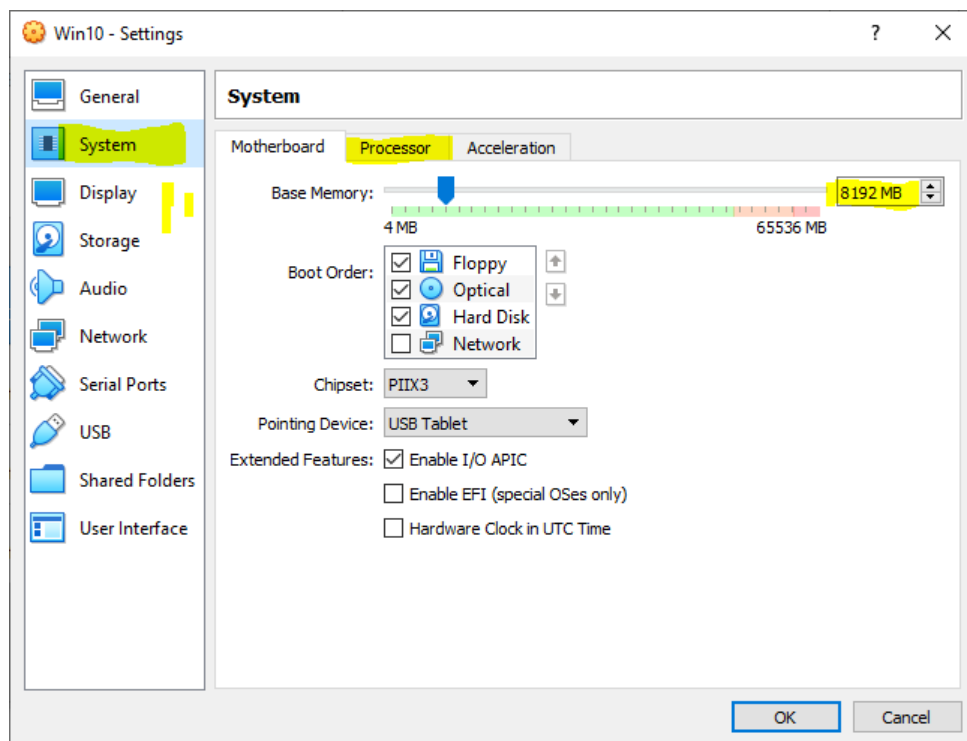


After Windows 10 Has Been Installed

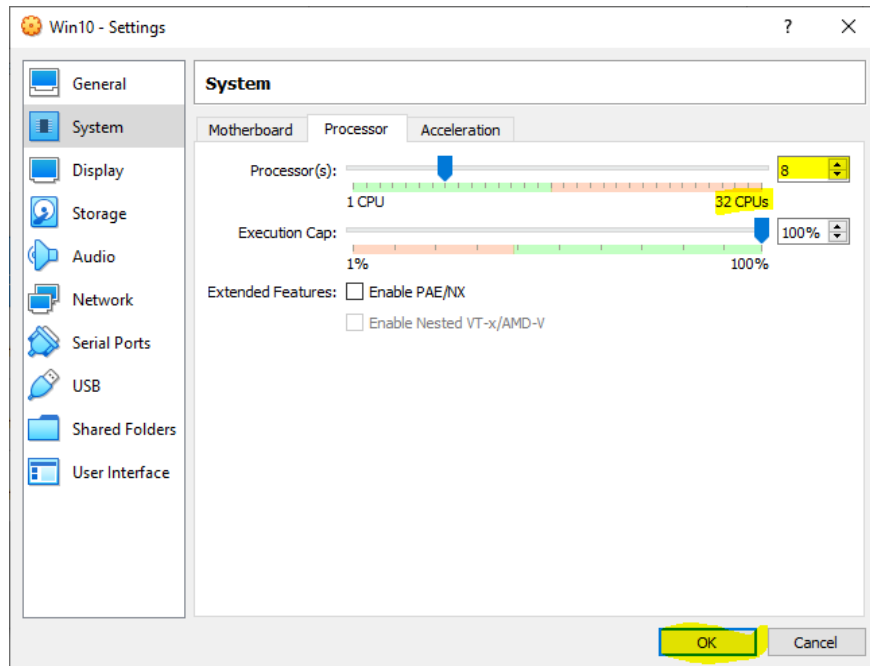
- 1] You will find the installation of things much faster if you can allocate additional resources to Windows 10. The best time to do this is just after the Windows 10 is installed.
- 2] Select the Windows 10 Virtual Machine (left); Push the Settings Button (top right).



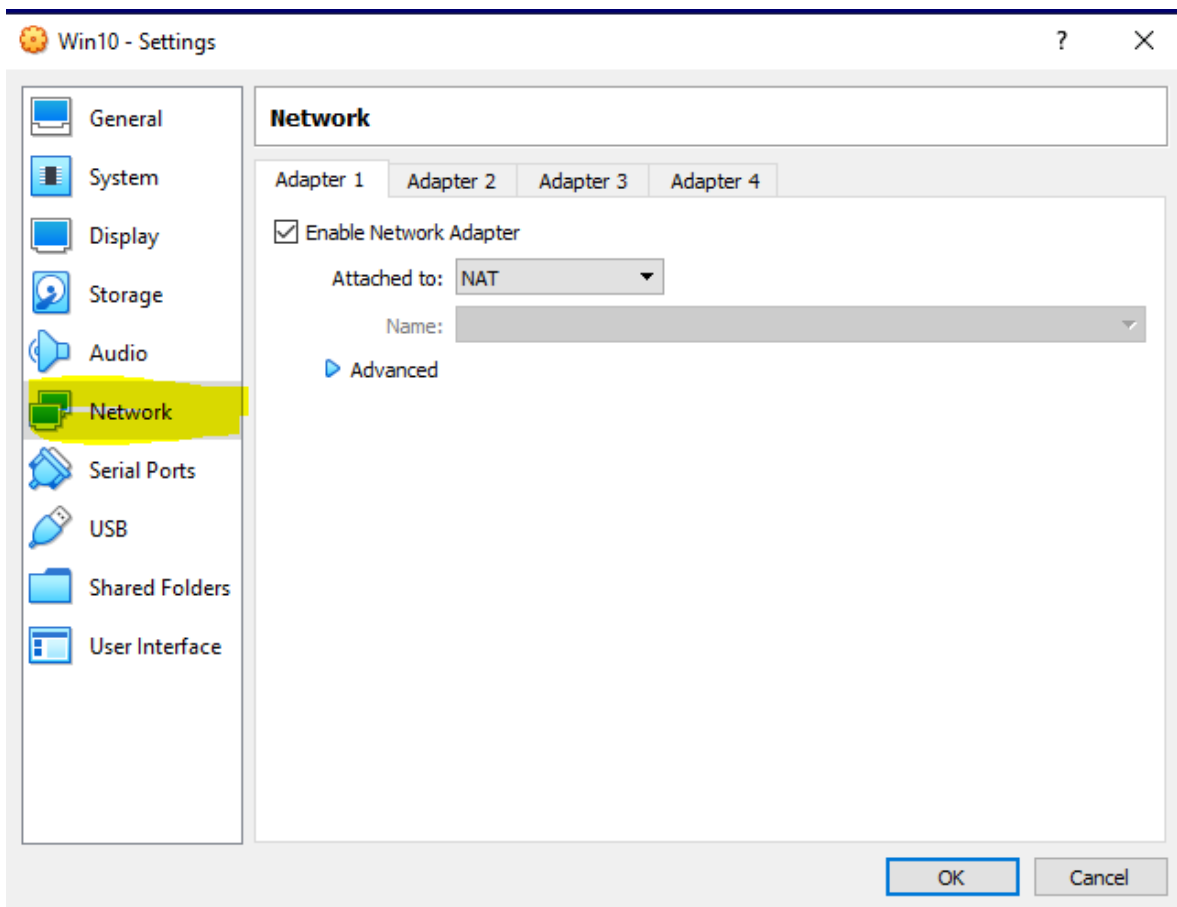
- 3] Allocate as much memory as you can afford. Remember, this decision will reduce the amount of memory you have available to the main operating system. I can afford to allocate 8 GB.



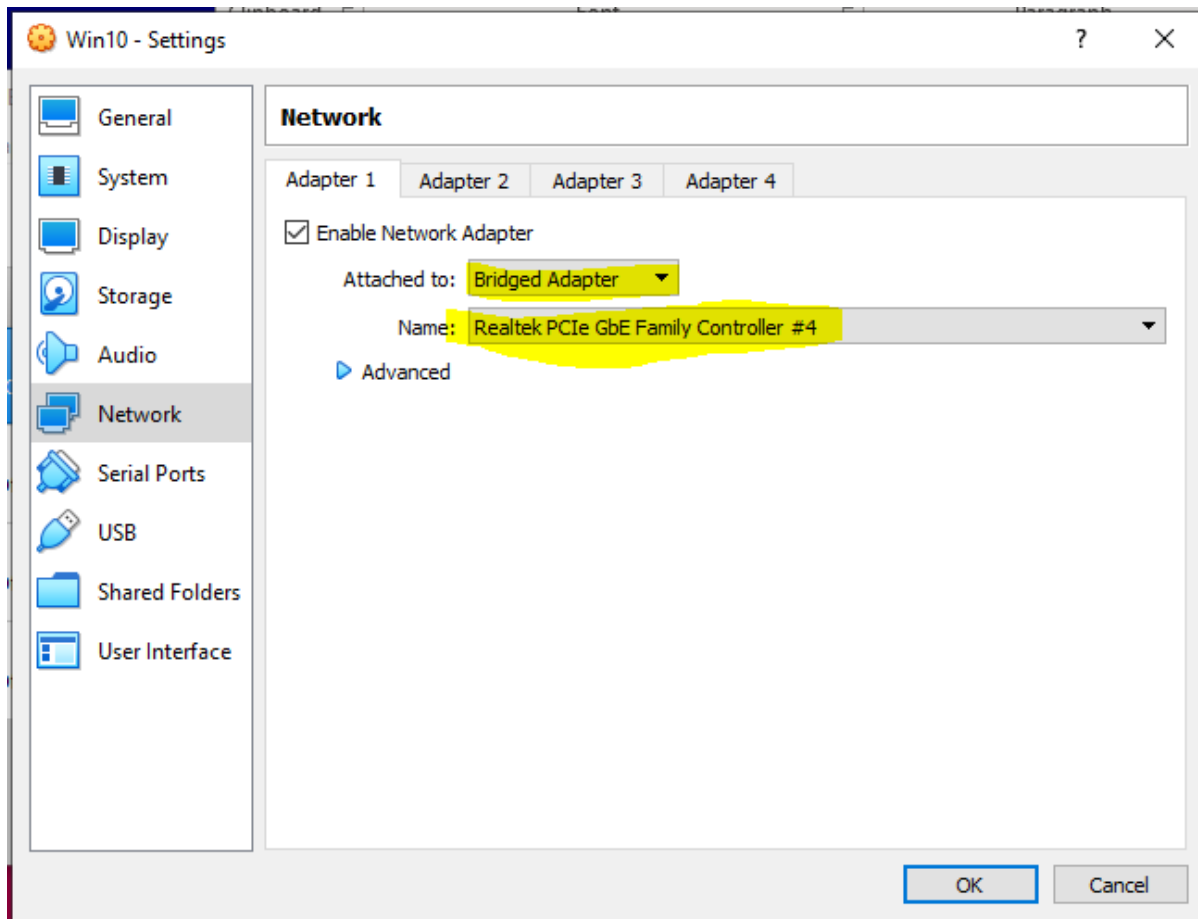
- 4] Allocate as many CPUs as you can afford. Remember, when the system is on, these will not be available to your primary OS. I am allocating 8 of my 32. Push the OK button.



- 5] We have already seen that the virtual system has Internet; I want to be able to remote into the system and access the file system from other computers. For this, I need to replace the NAT connection with a bridged connection.



- 6] If you happen to have multiple network adapters, you may select any one of them.



- 7] Restart Your Virtual System.

Software Engineering Tutorials

- 1] Historically, some students have come into Software Engineering with very little experience in Windows. This semester, we will be developing projects in Microsoft Visual Studio 2019.
[Install-Configure-Visual-Studio.pdf](#)
- 2] Database is an essential design component in today's software engineering. Well over 90% of applications utilize database; many of you will use it in internships and beyond. Since we do not have a required course in database the department has asked those teaching (1) CSCI-2320 to include at least 6 hours of database and (2) CSCI-3321 to include at least 8 hours of database. This fits very nicely in the design aspects of Software Engineering. We will begin with MySQL. Since some of you may choose to integrate portions of it with your Final Project, we are going to utilize MySQL in Windows.
[Install-Configure-MySQL-Windows.pdf](#)
- 3] Last year, I had some students with very little Windows Experience; they spent the first two-three weeks trying to get a Windows environment that they could use without coming to our labs.

- 4] WHAT DO I DO IF I DON'T HAVE A Windows 10 System?
- A) You could come to the labs
 - B) If you are a MAC user, you could
 - 1] Set up boot-camp (free) and run both Mac & Windows (if you have enough hard disk space). With this solution, you can run in both Windows & Mac OS but it requires a reboot. Easy to configure – check out YouTube for help.
 - 2] Buy Parallels (educational \$40-50) – allows you to run in both Windows & Mac at same time (if you have enough hard disk space). I use this myself.
 - 3] Install VirtualBox on your Mac and create a Windows Virtual Image.
 - C) If you are a LINUX user, you could
 - 1] Partition your hard drive (if you have enough hard disk space) into two major portions – one for LINUX and one for Windows, Hard to configure – check out YouTube for help.
 - 2] Install VirtualBox on your LINUX and create a Windows Virtual Image.
 - D) You can come to me and I will give you remote access to one of my systems.
- 5] Several of my MAC and LINUX users during the past few years have chosen to do Virtual Box. Many of them had no experience with Virtualization. Installing VirtualBox is extremely easy (no-brainer). I have a tutorial that will help you set up a Windows Image.

[Preparing-VirtualBox-Windows-10.pdf](#)

- 6] Each of the approaches requires setting up Windows 10 from iso or cd. I have designed a tutorial to help. This tutorial would be worth reviewing if you are not comfortable with all of the following
- | | |
|----------------------------------|--|
| A. Install Windows 10 | G. Run Automatic Update |
| B. Place Icons On Desktop | H. Create Windows Share Folders |
| C. Configure File View | I. Configure Share Access To Your Computer |
| D. Download & Install Chrome | J. Set Your Computer Name |
| E. Download & Install Notepad ++ | K. Configure Remote Desktop |
| F. Add Snipping Tool To Taskbar | |

[Install-Configure-Windows-10.pdf](#)

- 7] Your system could be a desktop that you remote into – if that is the case, make sure you have checked with IT to get a Windows 10 Professional or Windows 10 Enterprise version. The Home Versions just don't work.
- 8] If you want to do everything on your personal computer, you will need Microsoft Office. The Installation is so simple, it hardly justifies a tutorial.

[Install-Microsoft-Office.pdf](#)