Pre-Class Assignment

VirtualBox: Setting up a virtual machine

This pre-class assignment will prepare you for the upcoming in-class assignment. There will also be a quiz about the readings with a question asking if you did all the following.

Install VirtualBox

Download and install VirtualBox from the link below. This will take a few minutes so you should start this while doing the assigned reading below.
https://www.virtualbox.org/wiki/Downloads

Read the Documentation

Read the documentation for VirtualBox (**Only sections 1.0-1.5**). Make sure you know.

- What is a VM?
- What are the four scenarios that VirtualBox is useful?
- What is the difference between a Host OS and a Guest OS?
- What operating systems does VirtualBox support? (just the 4 general categories)

https://www.virtualbox.org/manual/UserManual.html

Install an Ubuntu OS

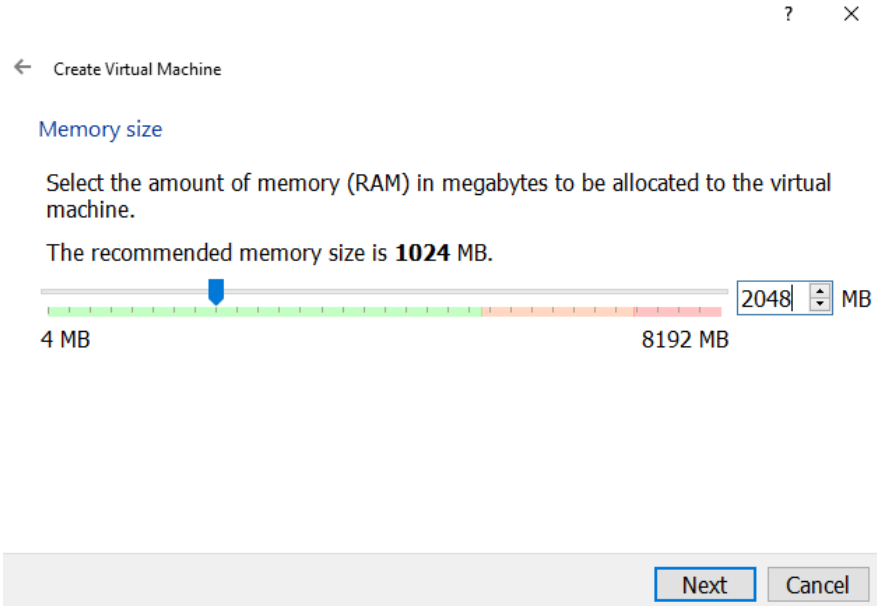
1. Download the ubuntu.iso file from https://ubuntu.com/download/desktop
2. Follow the documentation https://www.virtualbox.org/manual/UserManual.html (**sections 1.6-1.8**) to create an Ubuntu virtual machine.

   Notes:
   - When asked if you want to create a virtual hard disk, keep the default setting of “Create a virtual hard disk now”
   - Ubuntu requires approximately 10 GB of hard drive space to install, so you will need to allocate this much space when creating your virtual machine.
   - When starting the virtual machine for the first time, you will need to click the folder icon and select the iso file you downloaded in step 1.
   - When asked if you want to ‘try’ or ‘install’ Ubuntu, select ‘install’.
   - Do a “normal” installation and Select “Erase disk and install Ubuntu” when prompted.

        - Ignore the warning that when you install Ubuntu all other operating systems on your machine will be erased. The Ubuntu installer cannot tell it is being installed in a virtual machine. The installer only has access to the file you allocated when you created the virtual machine so this is the only file that will be erased.
    - When prompted to restart the virtual machine after the initial installation you may see a black screen when the machine starts up. This is probably because the default 16 MB of Video Memory allocated for your virtual machine is not enough, or you need an additional processor in the VM. Adjust both items by following these steps:
        - Close the virtual machine window (you will need to power it all the way off by selecting “Send the shutdown signal”. Do not select “Save machine state”.
        - Select the new virtual machine in VirtualBox.
        - Select “Machine.../Settings” from the VirtualBox menu.
        - Select the “Display” tab.
        - Increase Video Memory to 32 MB.
        - Select “System” and within “System” select the “Processor” tab.
        - Increase the number of processors to 2.
        - Select OK.
        - You should now be able to successfully start the virtual machine.

3. Start up your Ubuntu OS virtual machine and follow the operating system’s setup process.
4. If you successfully setup and started your Ubuntu virtual machine, you are done. If you are having trouble getting through the set-up process, complete the following steps:
    a. Remove the instance that you created in step 2.
    b. Make sure you read and follow all notes for step 2 above.
    c. Create a new Ubuntu instance.

d. When asked how much memory to allocate, increase it to 2048:



e. Complete the rest of the dialog and try to set up Ubuntu again.

5. Known issues
    a. If you are running Windows 10 Version 1903 , there is a compatibility issue between Windows Hyper-V and Virtual Box. It will cause an error to occur when you attempt to power up a VM. Making it impossible to use virtual box.
        i. To successfully power up a Virtual Box VM in this case, you will need to disable Hyper-V
        ii. Follow the steps in this tutorial to disable it: https://www.tenforums.com/tutorials/139405-run-hyper-v-virtualbox-vmware-same-computer.html
        iii. Restart your computer, remove any instances you created
        iv. Start at step 2 again