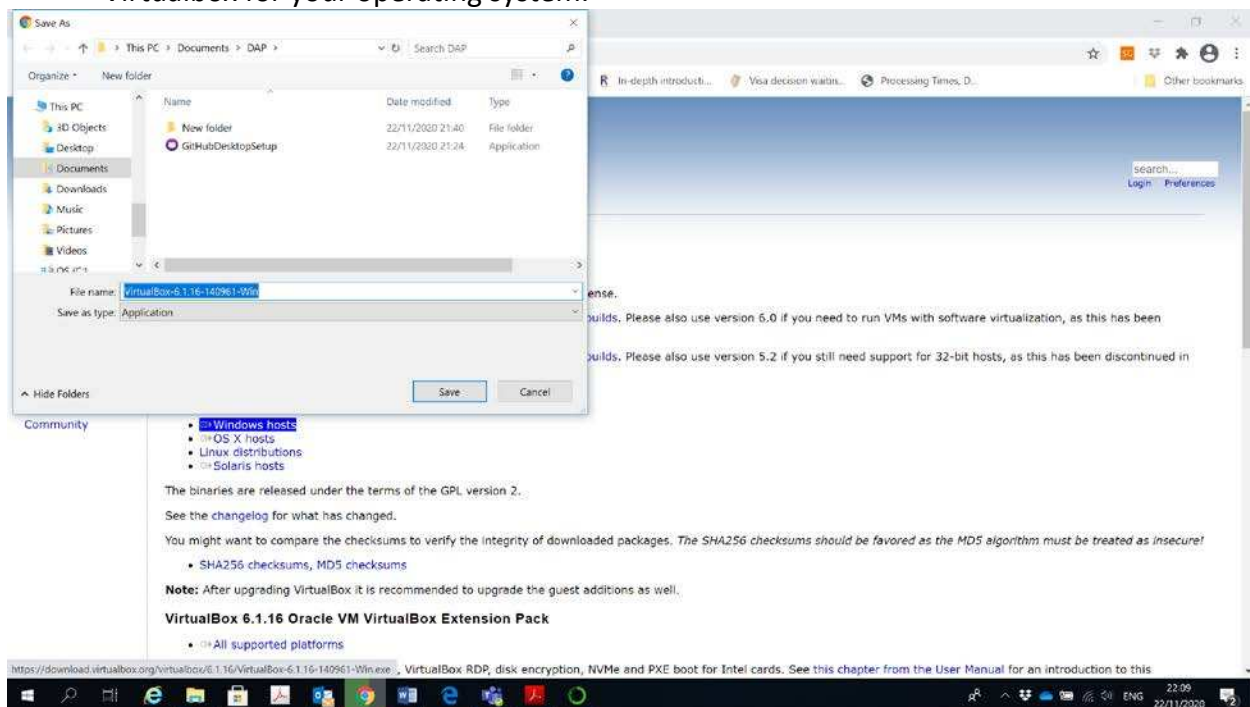


Install VirtualBox

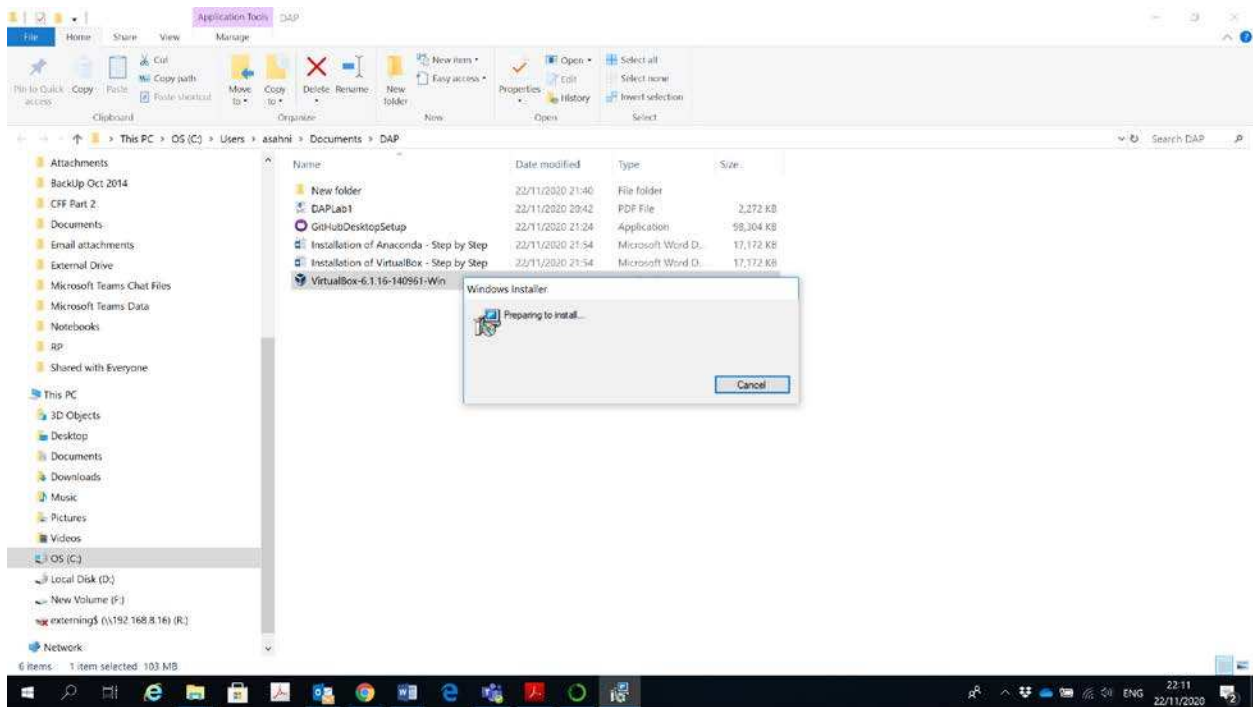
VirtualBox is software that allows you to run another operating system on top of the operating system installed on your computer. Typically this allows us to run Linux or other operating systems on computers running Windows or MacOS.

Note that your operating system is considered the host, so Windows users should download the version for Windows hosts and Mac users should download the version for MacOS hosts. Mac Users please note: The installation of VirtualBox may fail. If that happens, go to System Preferences, and choose Security and Privacy. On the General tab, click to allow installation of software from Oracle Corporation.

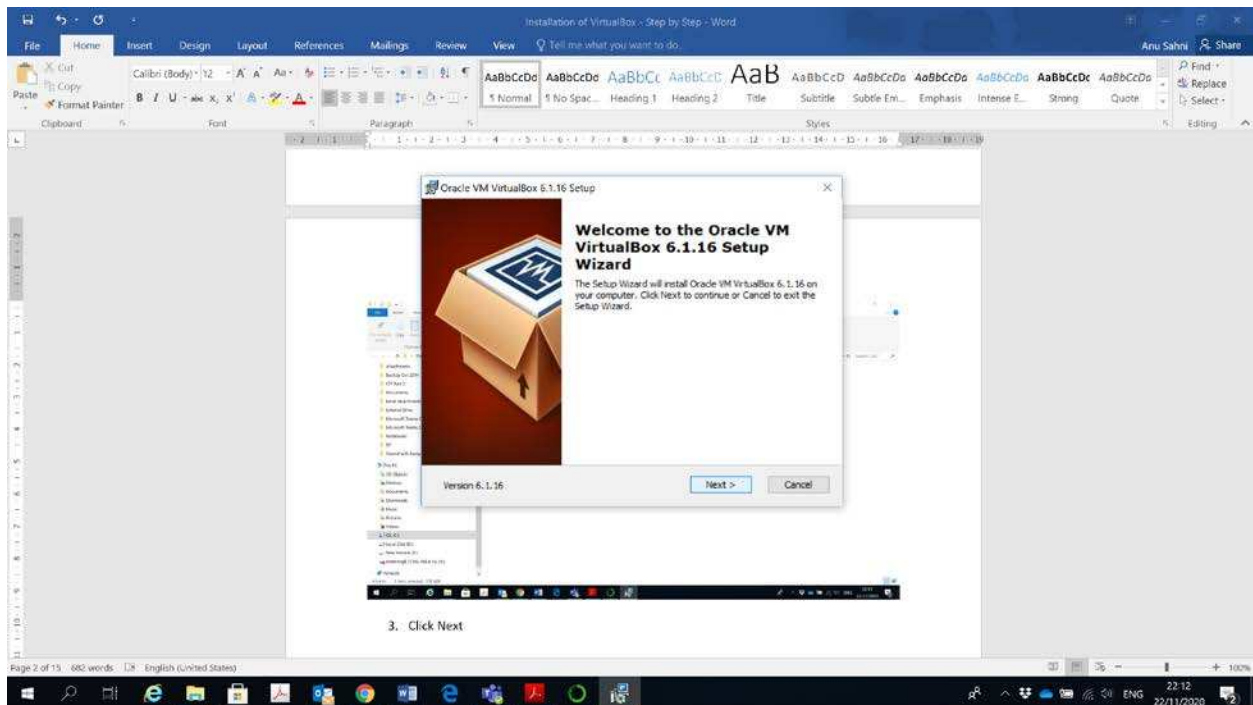
1. Go to <https://www.virtualbox.org/wiki/Downloads> and download the correct version of Virtualbox for your operating system.

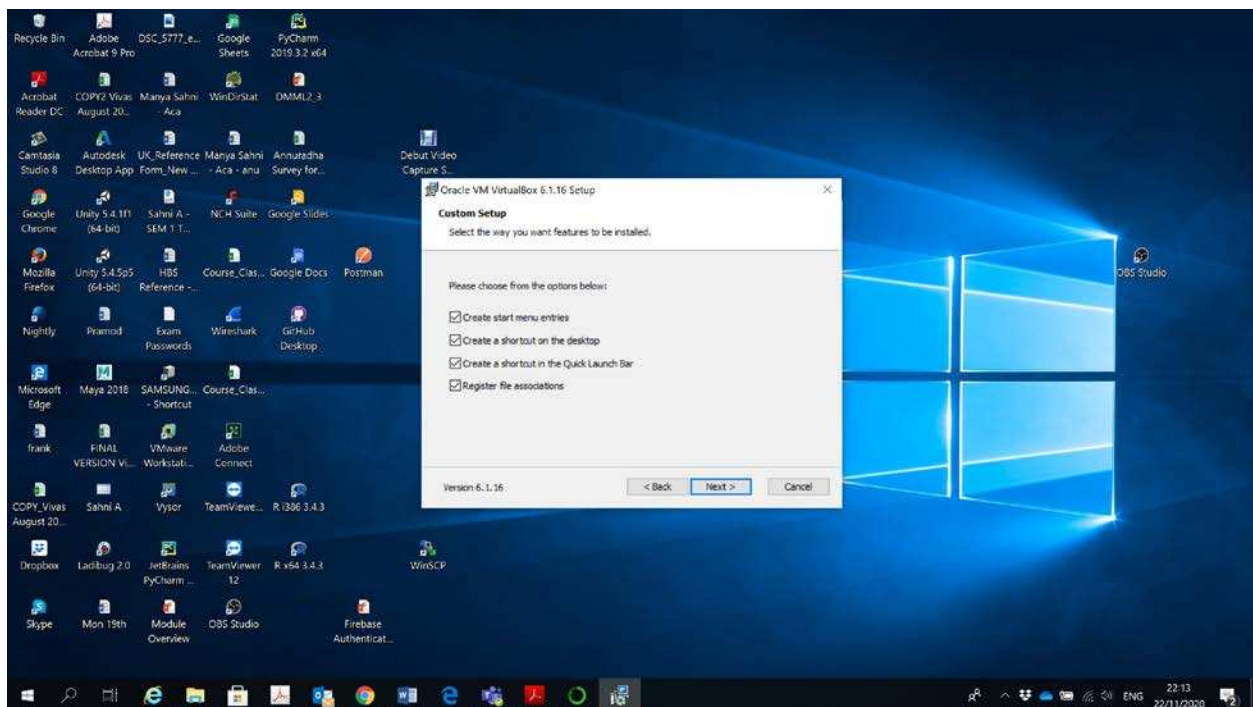
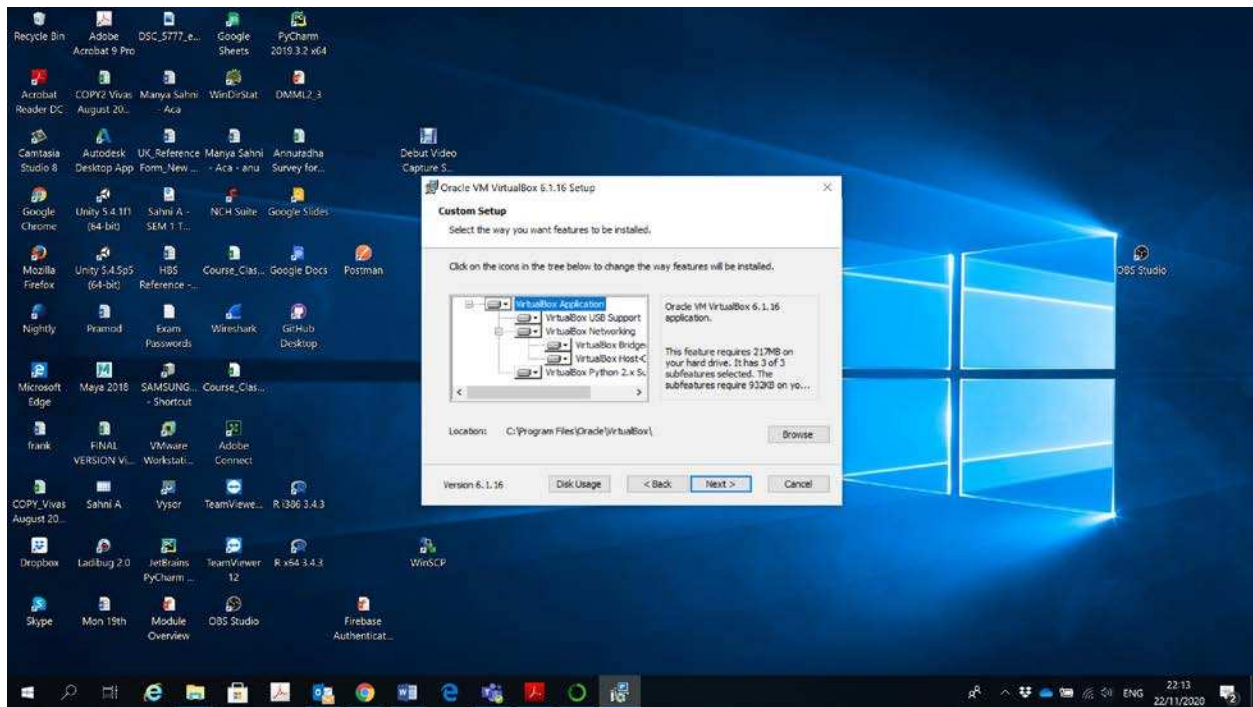


2. Run the .exe file



3. Click Next and accept all the default settings:

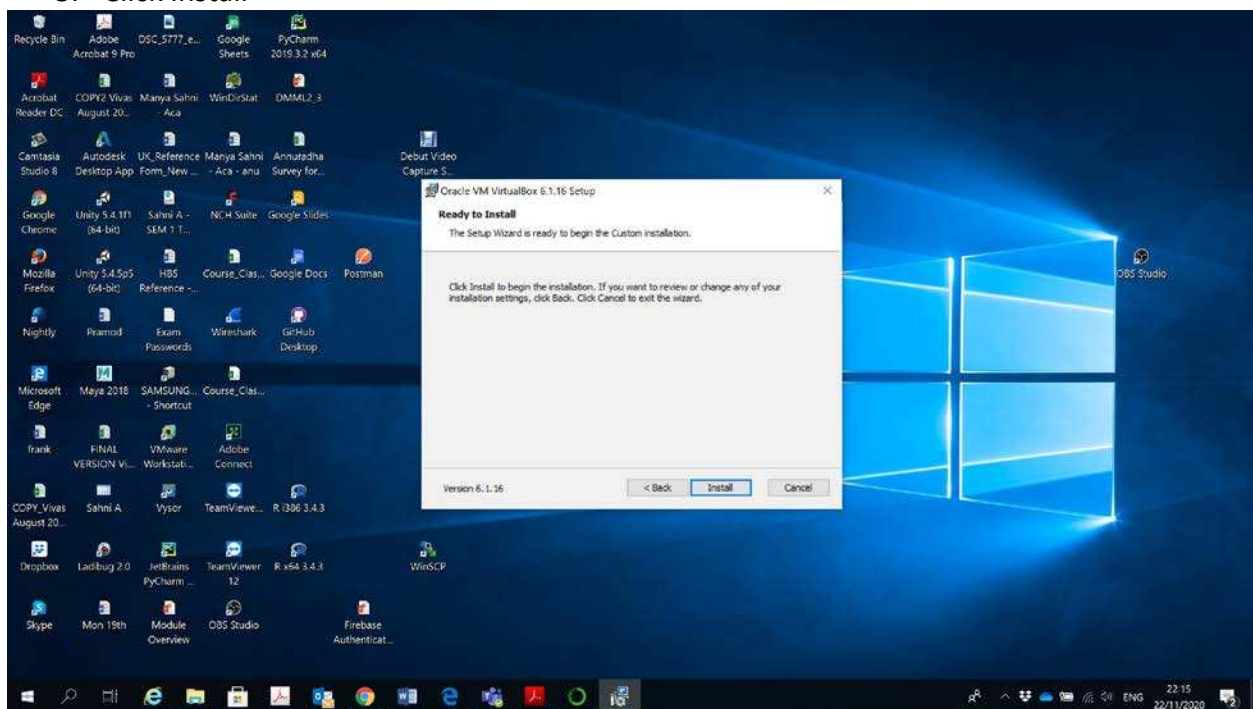




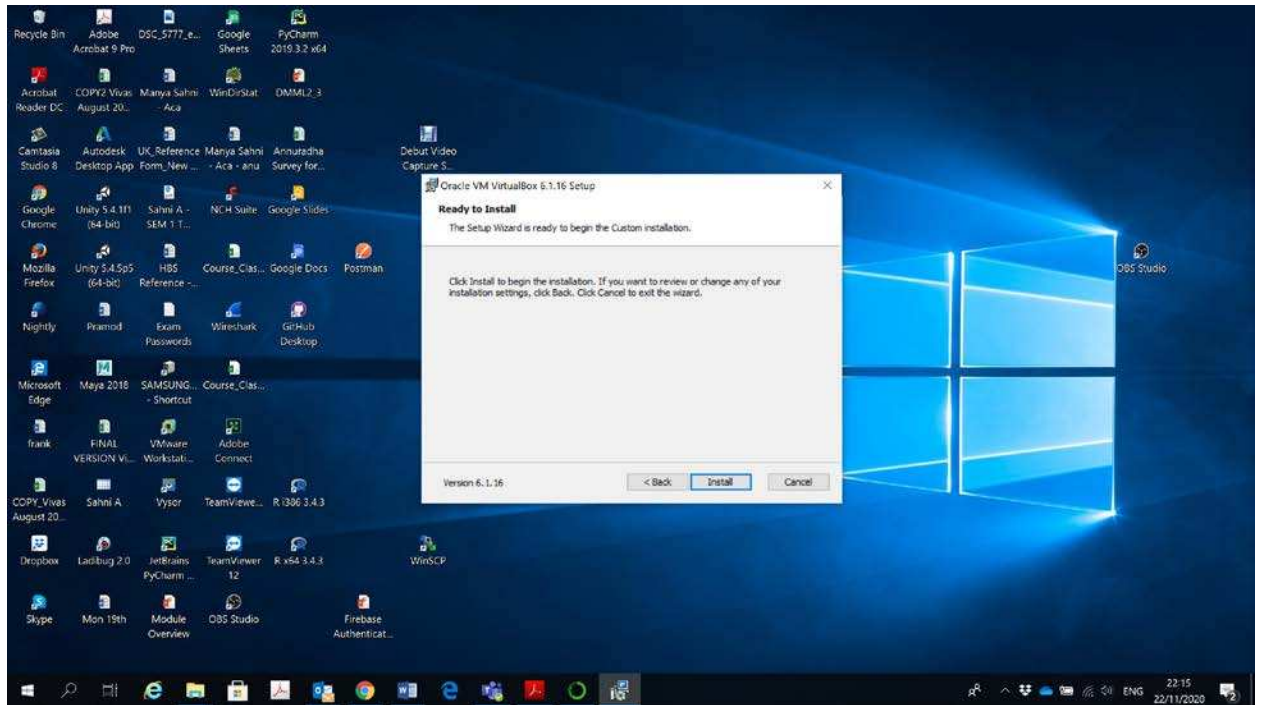
4. Click Yes



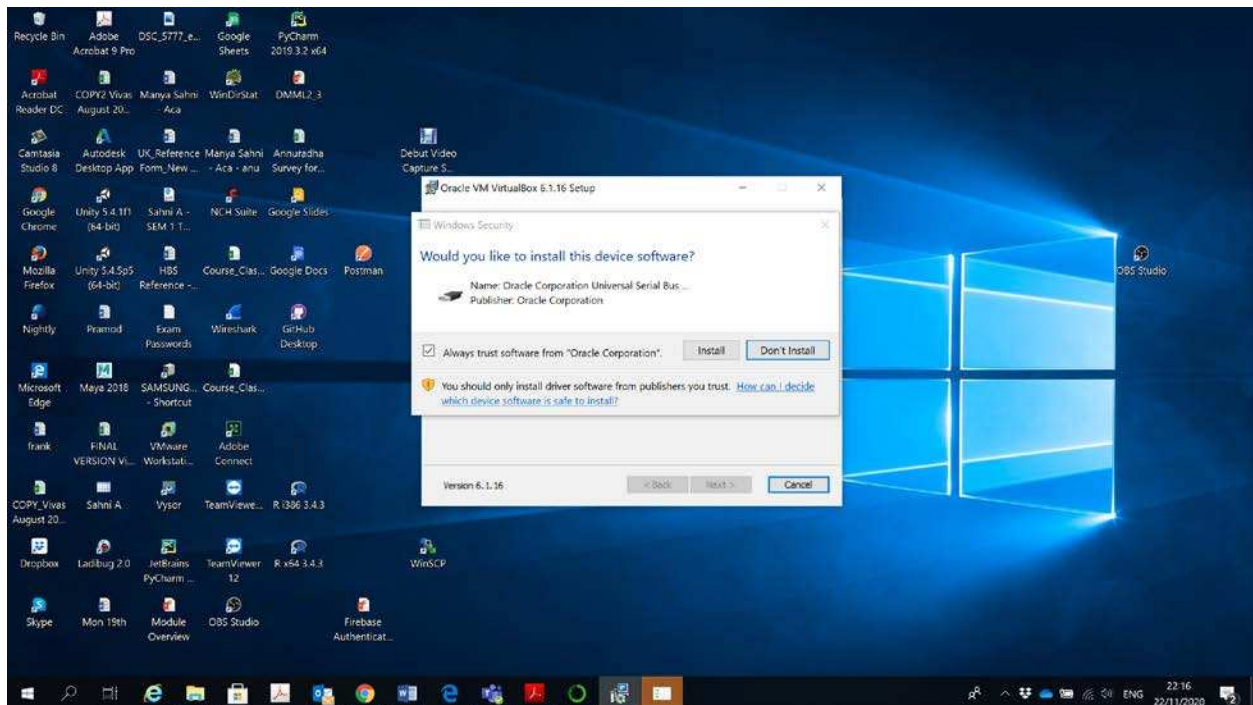
5. Click Install



6. Click Yes



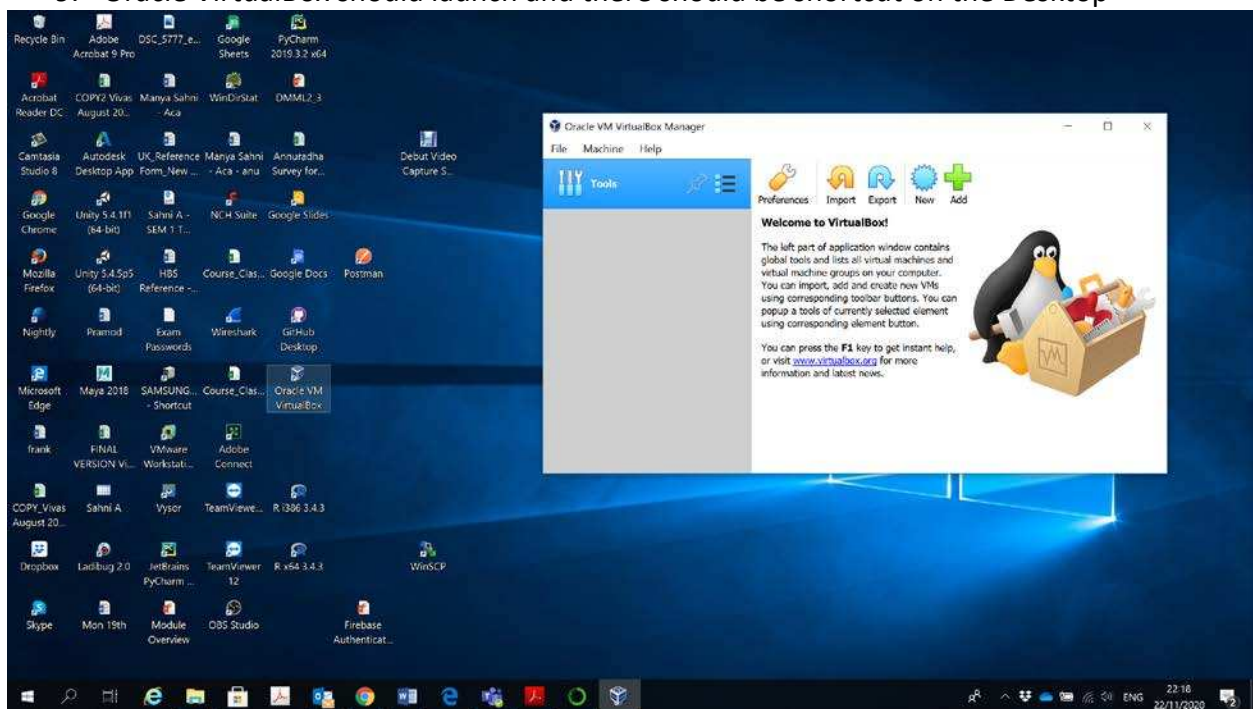
7. Allow the virtual box to make changes and press install



8. Click Finish

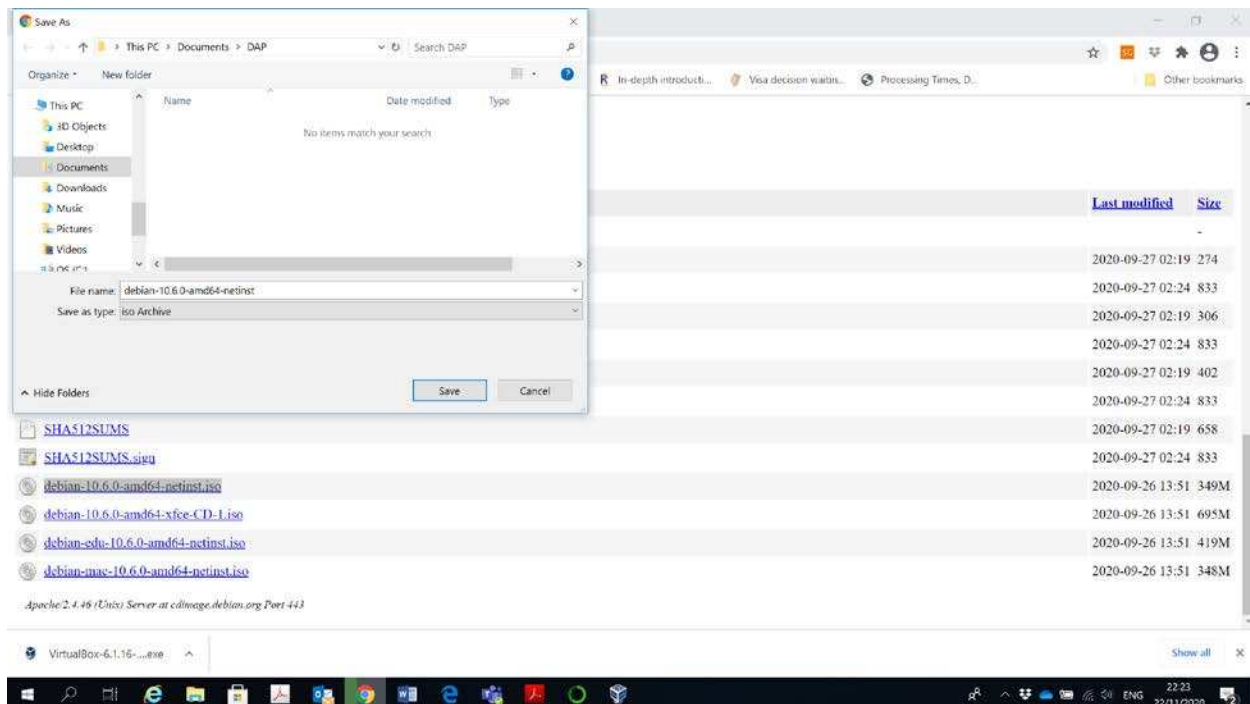


9. Oracle VirtualBox should launch and there should be shortcut on the Desktop

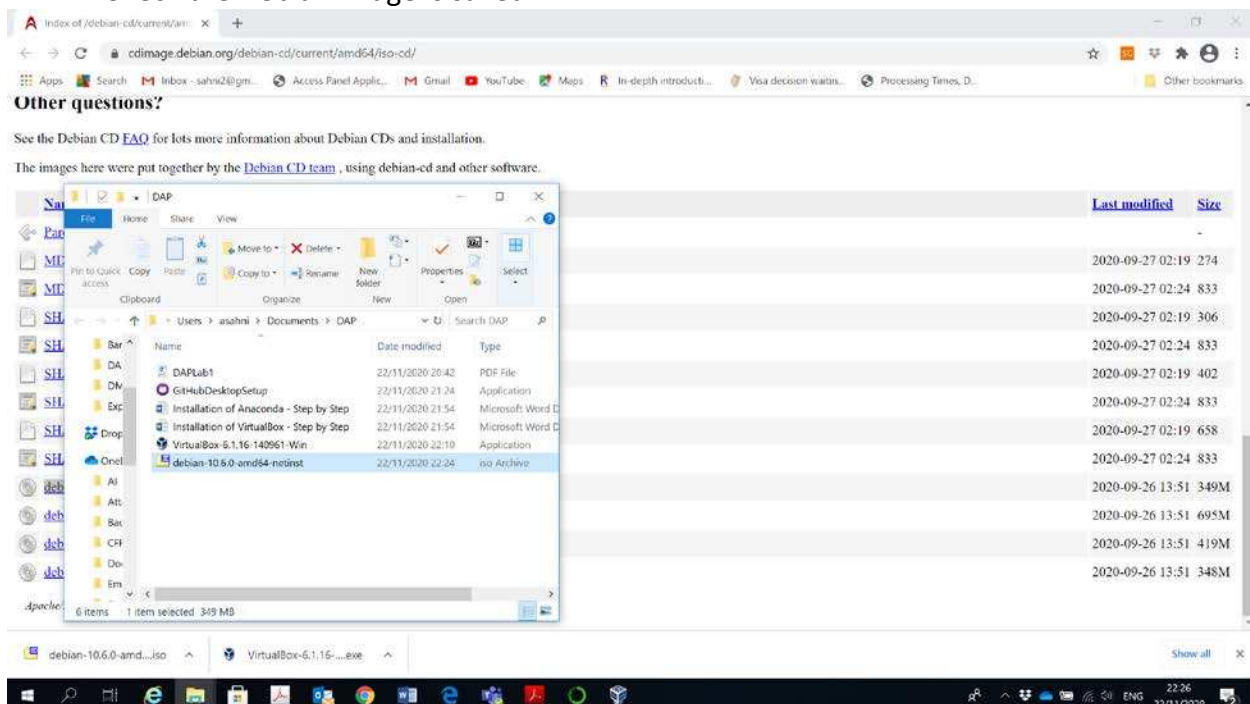


Install Debian Linux on Virtualbox

1. Go to <https://cdimage.debian.org/debian-cd/current/amd64/iso-cd/> , scroll down, and download the Debian network installer image.

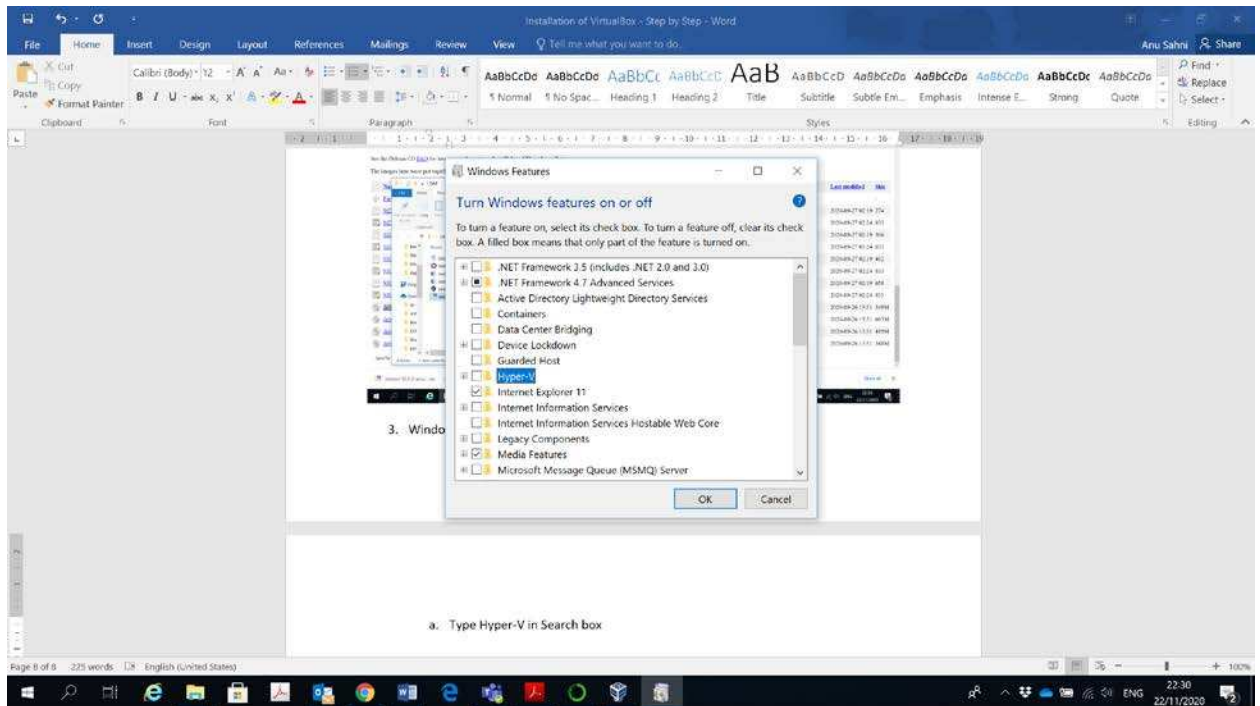


2. Check the Debian image is saved

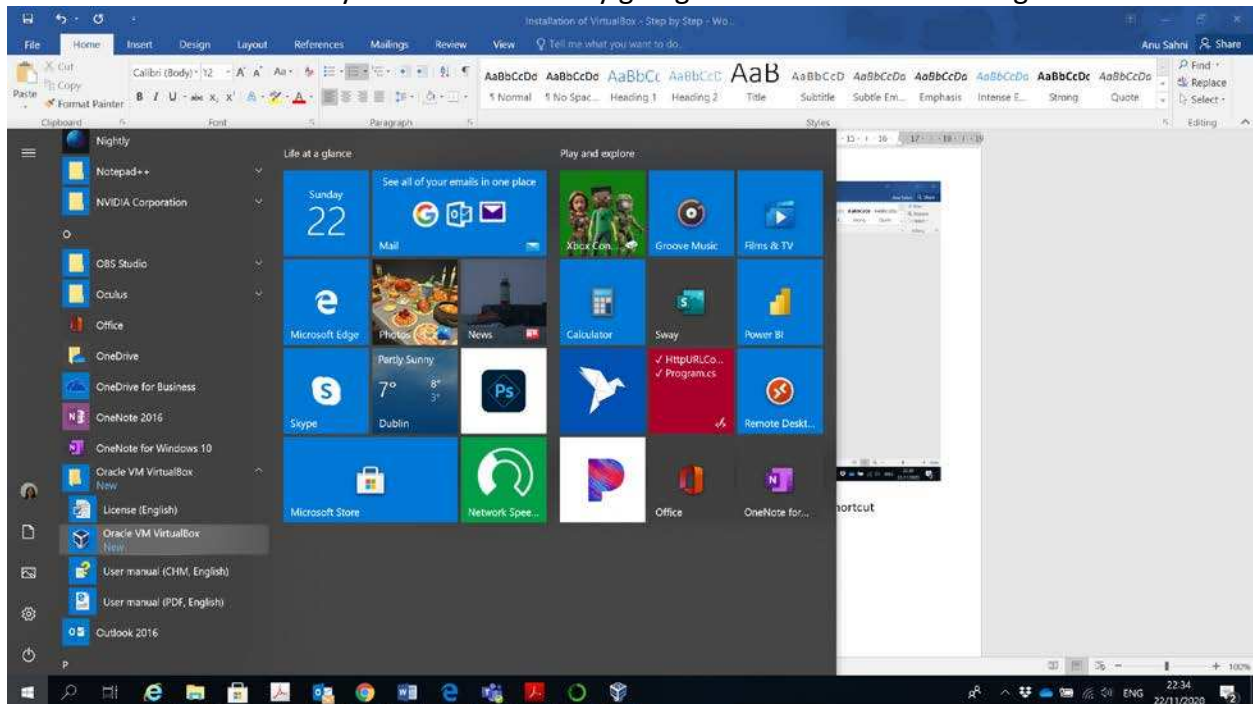


3. Windows OS: Check if Hyper-V enabled

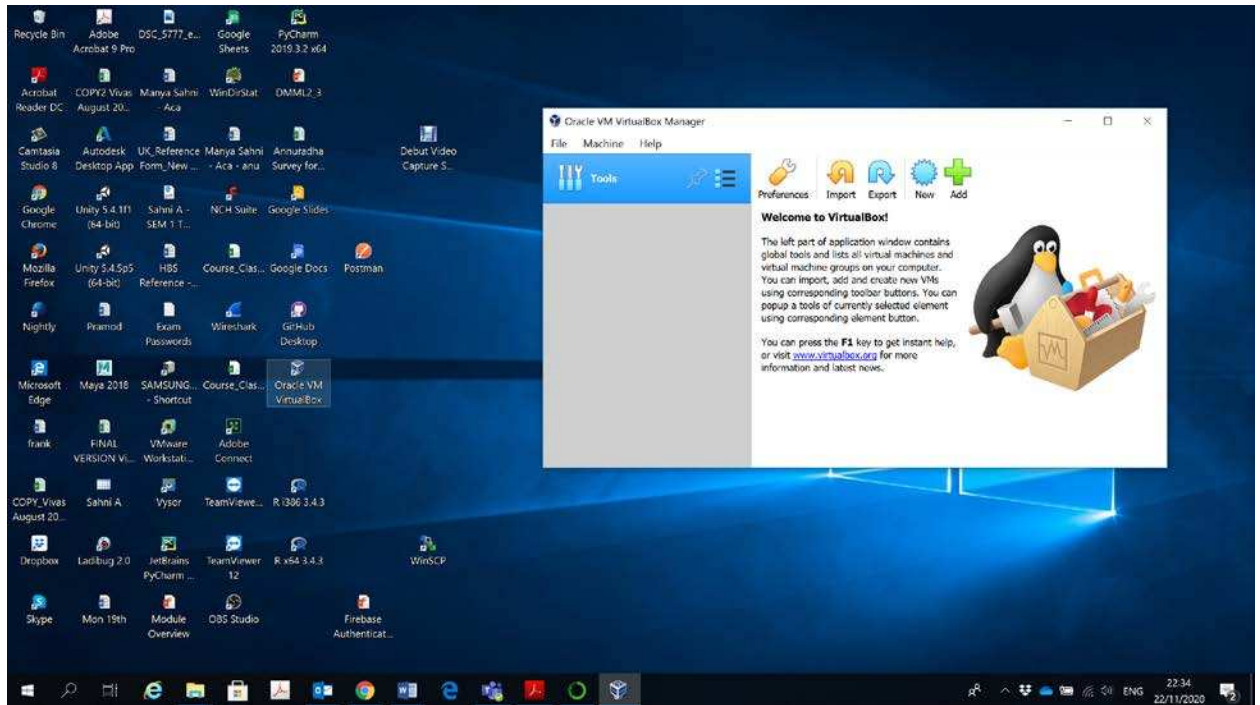
- a. Type Hyper-V in Search box, select Control Panel to turn on or off. If it is enabled, disable by unchecking



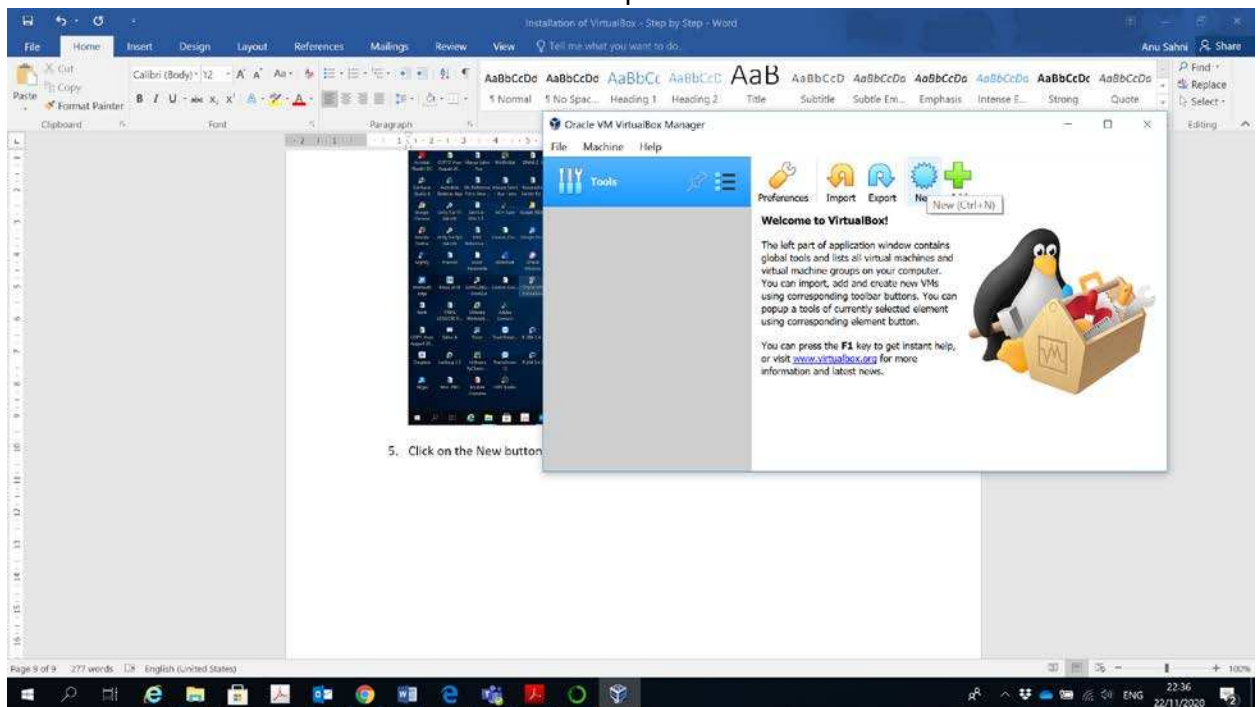
4. Start VirtualBox if you have closed it by going to Start button or clicking the shortcut



or clicking the shortcut

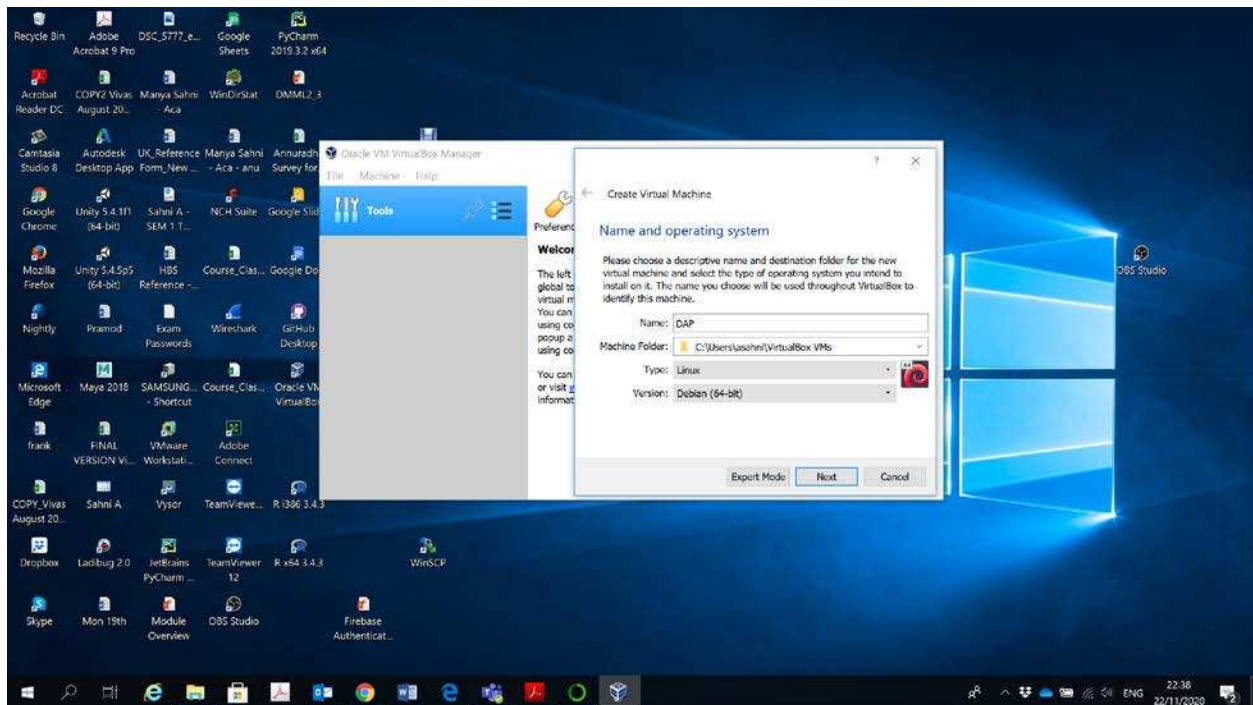


5. Click on the New button in the toolbar at the top of the VirtualBox window.



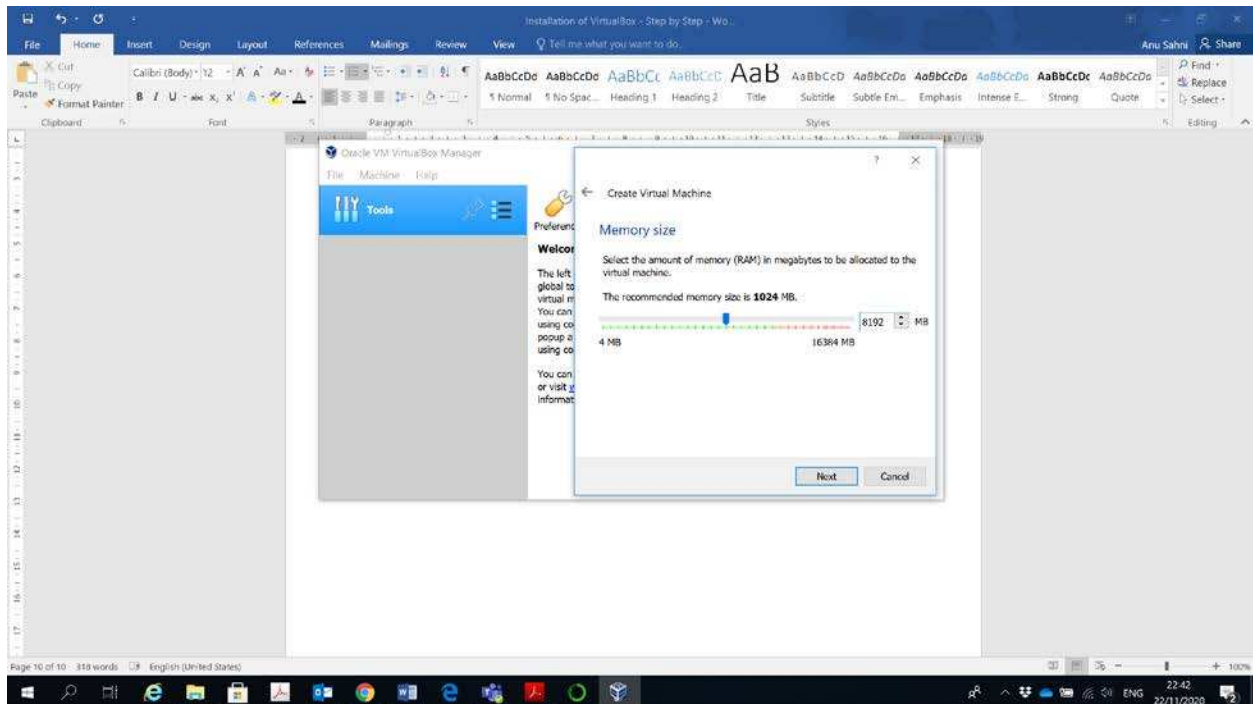
6. Configure your virtual machine as shown below:

- Name: DAP
- Machine Folder: leave the default
- Type: Linux
- Version – Debian (64-bit)

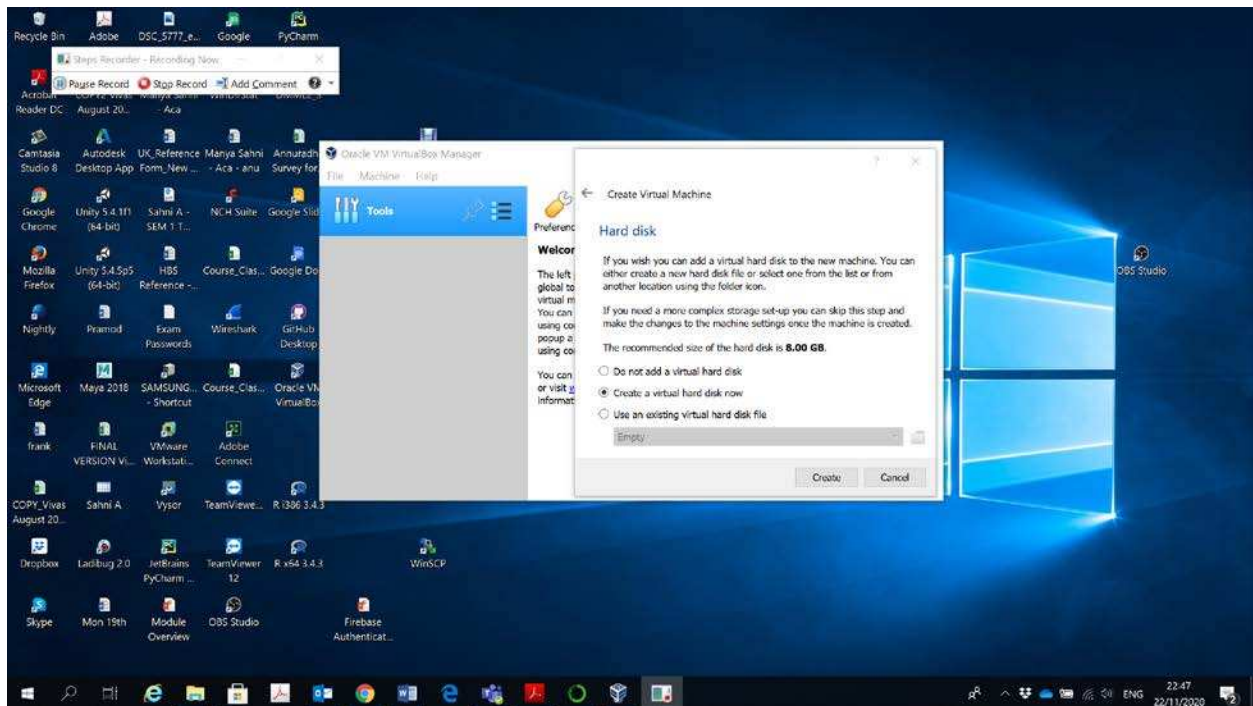


Note: if you leave Type as Windows or Version: Oracle, it will give error in later tutorials

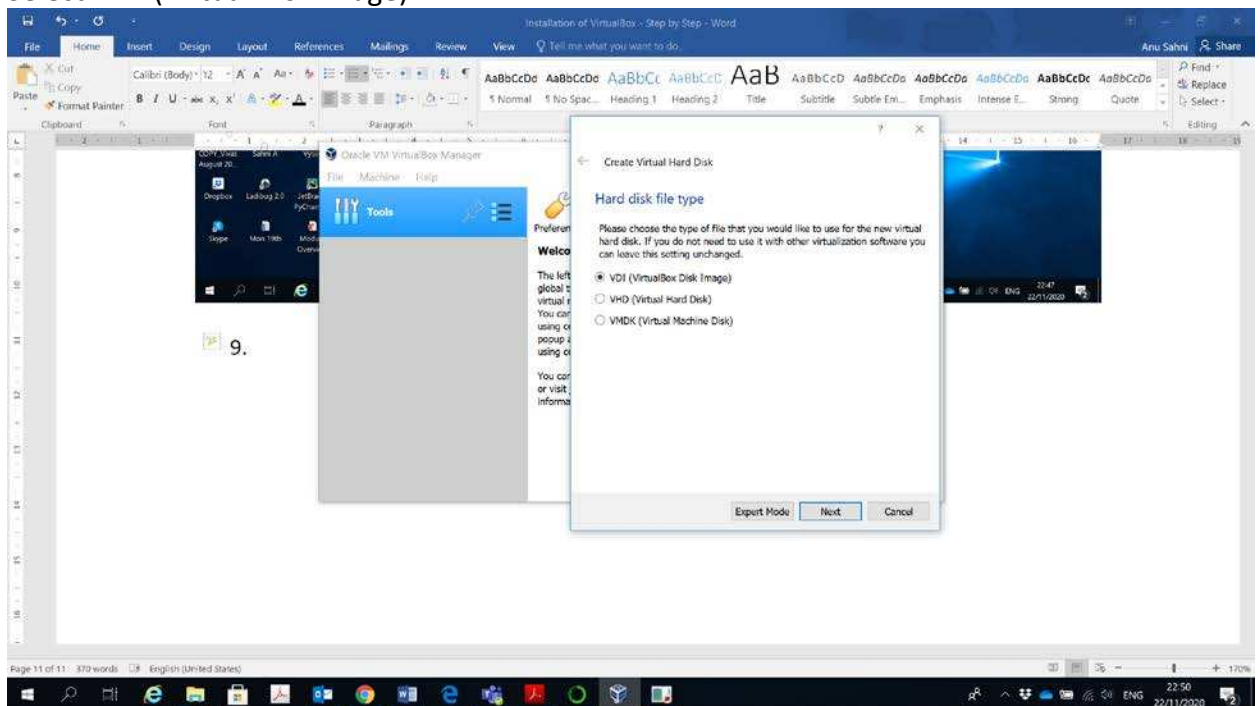
- Allocate half of the amount of total installed RAM. memory to your virtual machine. For example, the total memory is 16384 for my PC and half of it, 8192MB, is allocated to the virtual machine



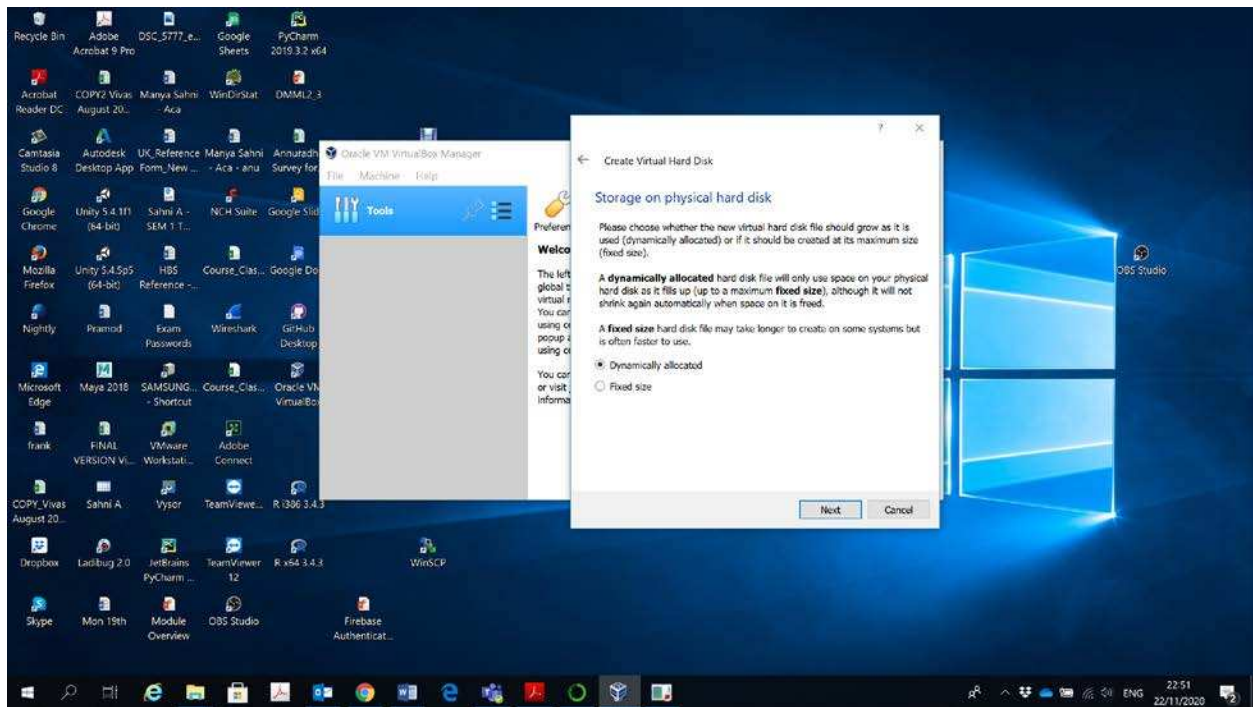
8. Select 'Create a virtual hard disk now' if not already selected and click Create



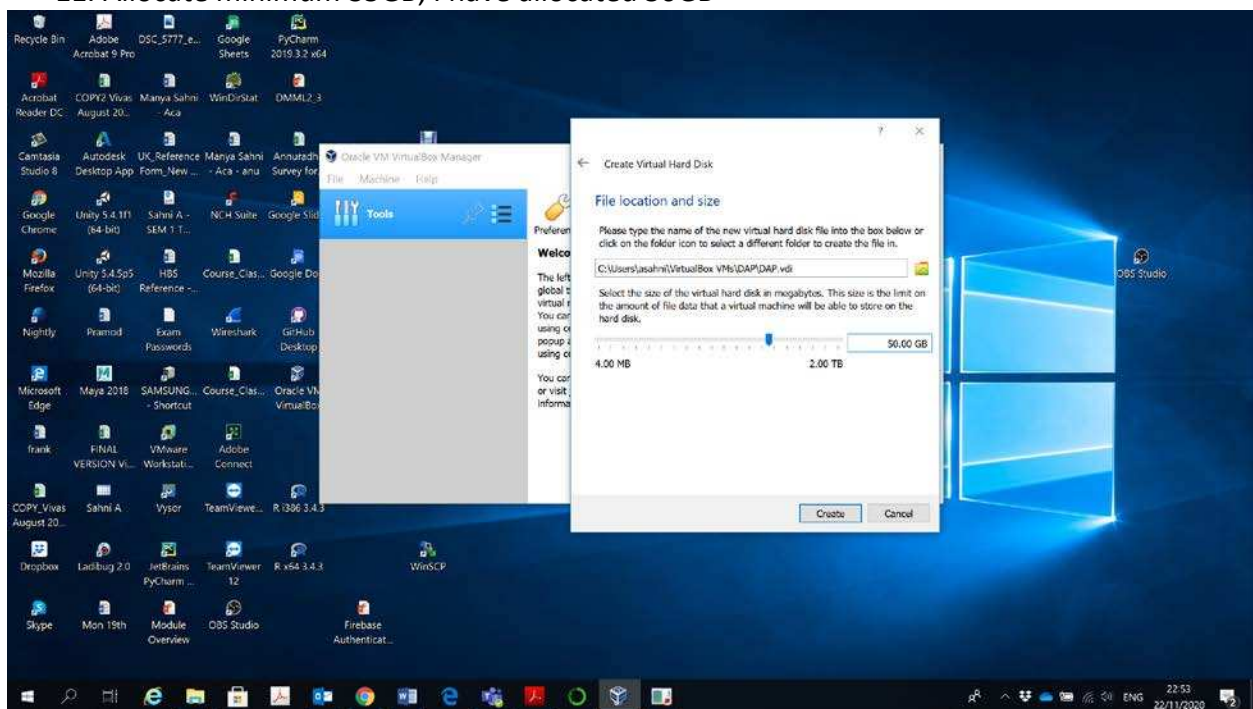
9. Select 'VDI (Virtual Disk Image)



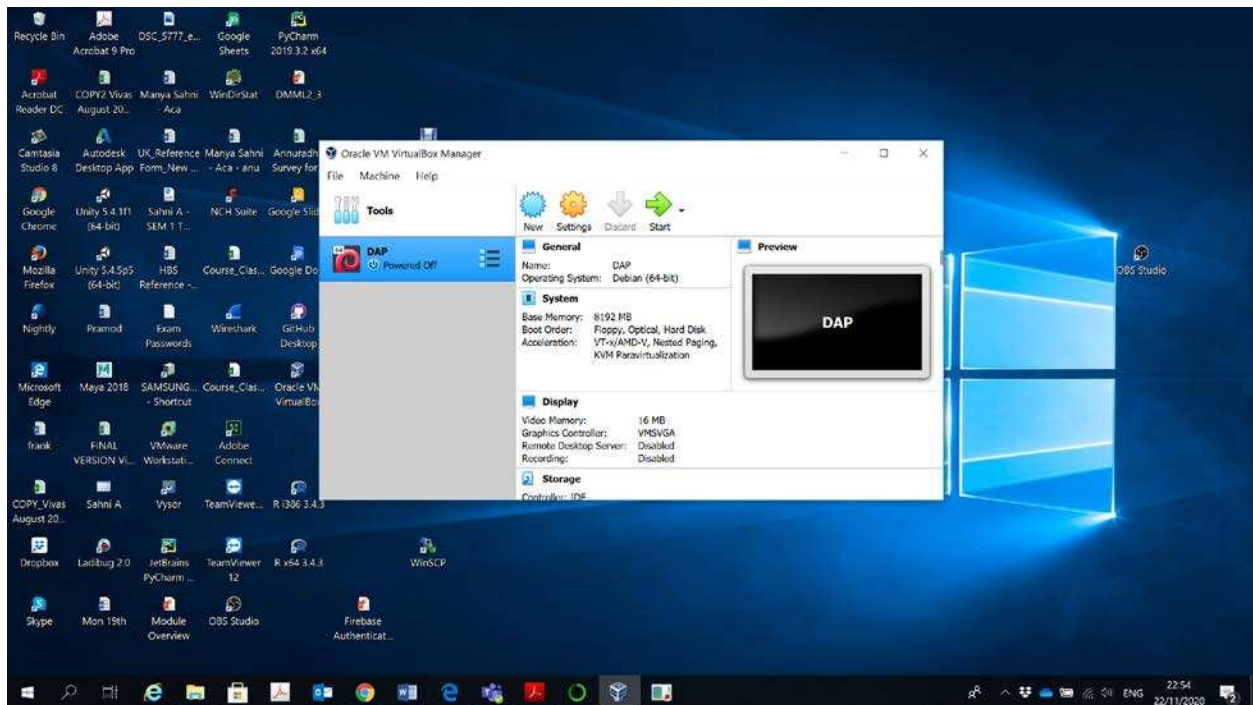
10. Select 'Dynamically Allocated'



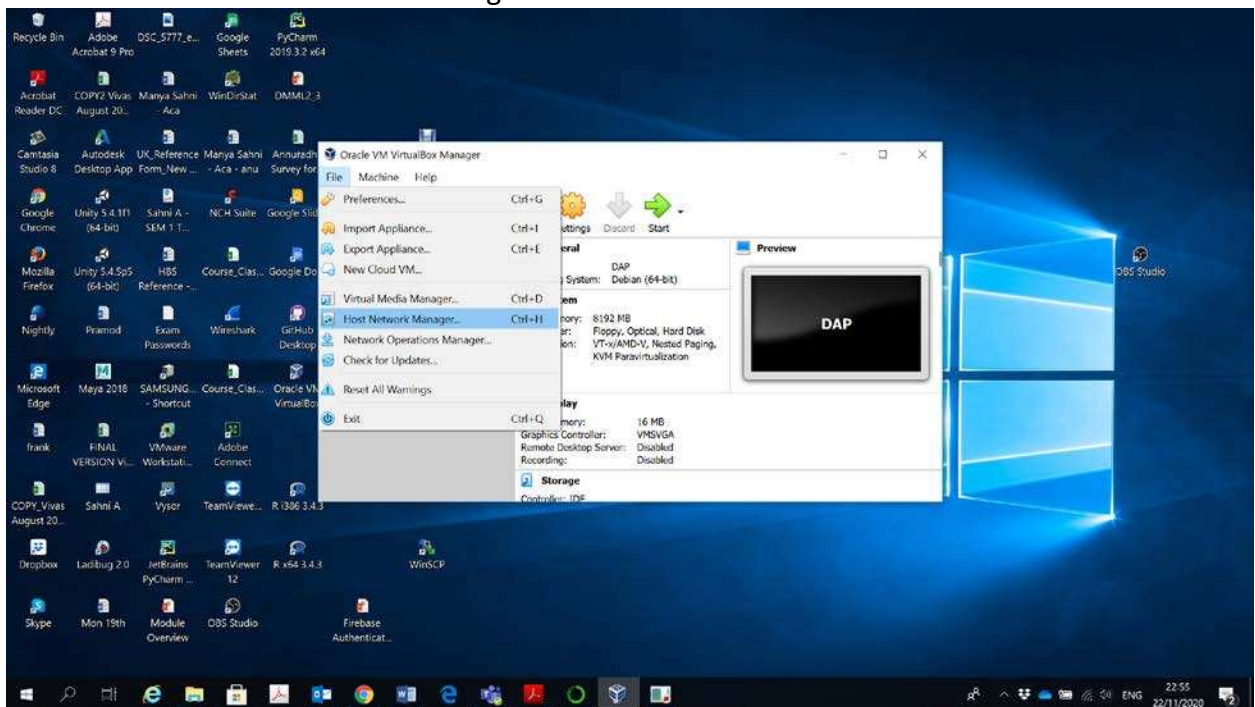
11. Allocate minimum 35GB, I have allocated 50GB



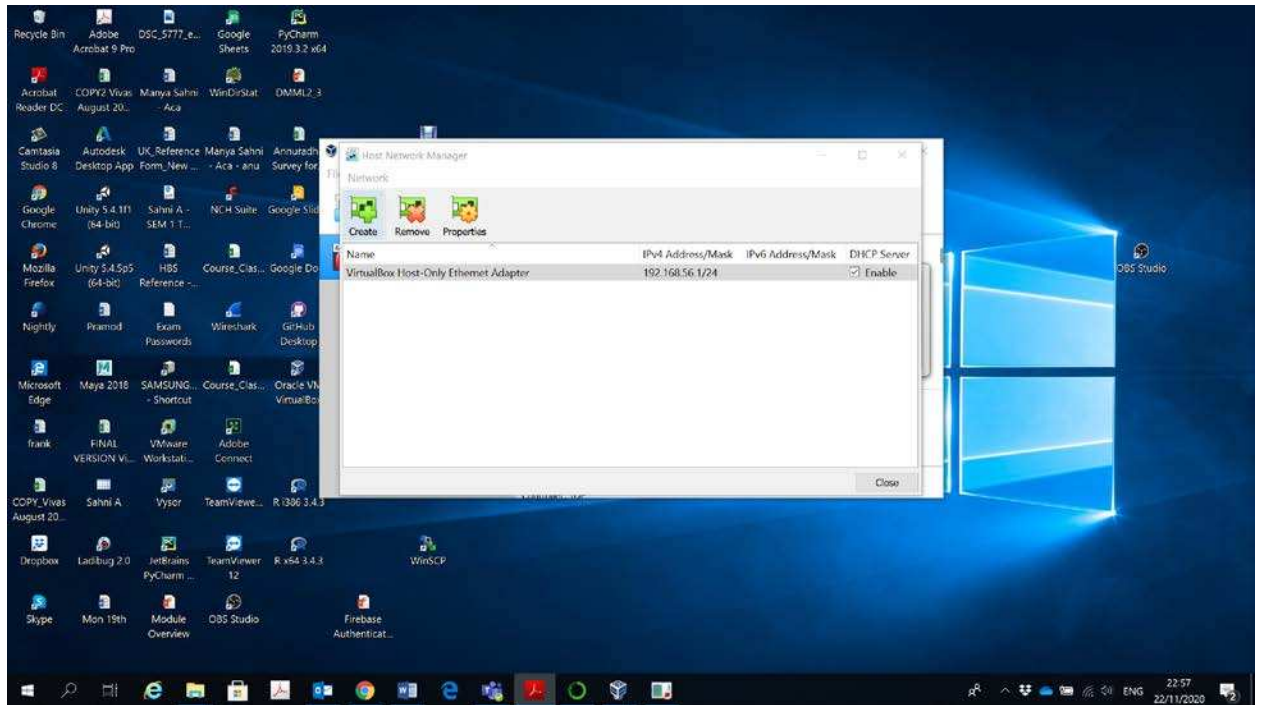
12. The DAP virtual machine will show in the virtual box



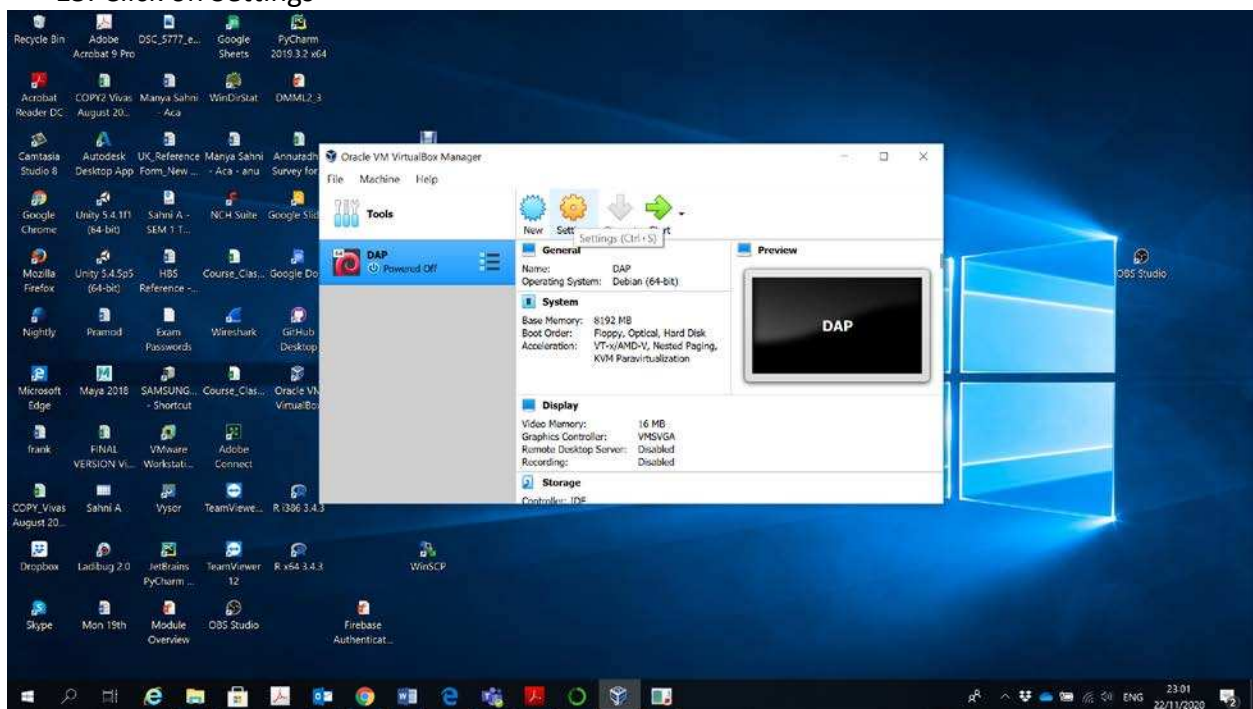
13. Go to File → Host Network Manager.



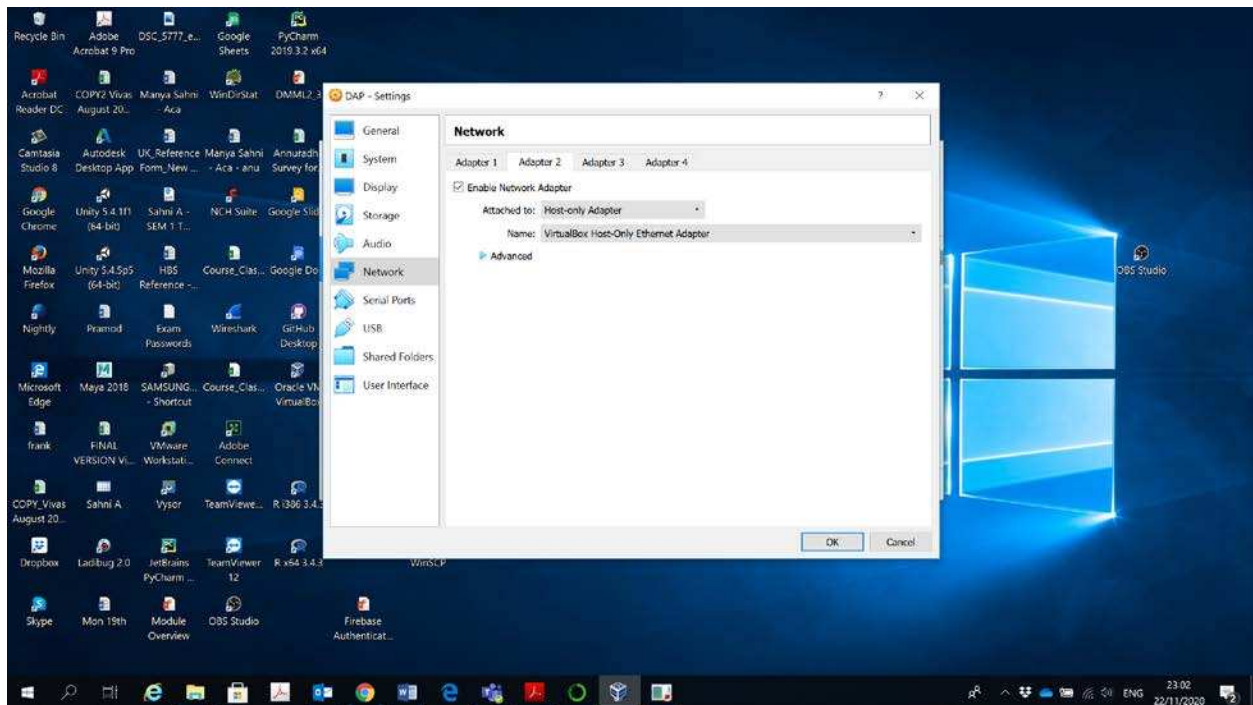
14. On the window that pops up, click on Close. Note: you should only do this once, i.e. you should only have one host-only adapter.



15. Click on Settings

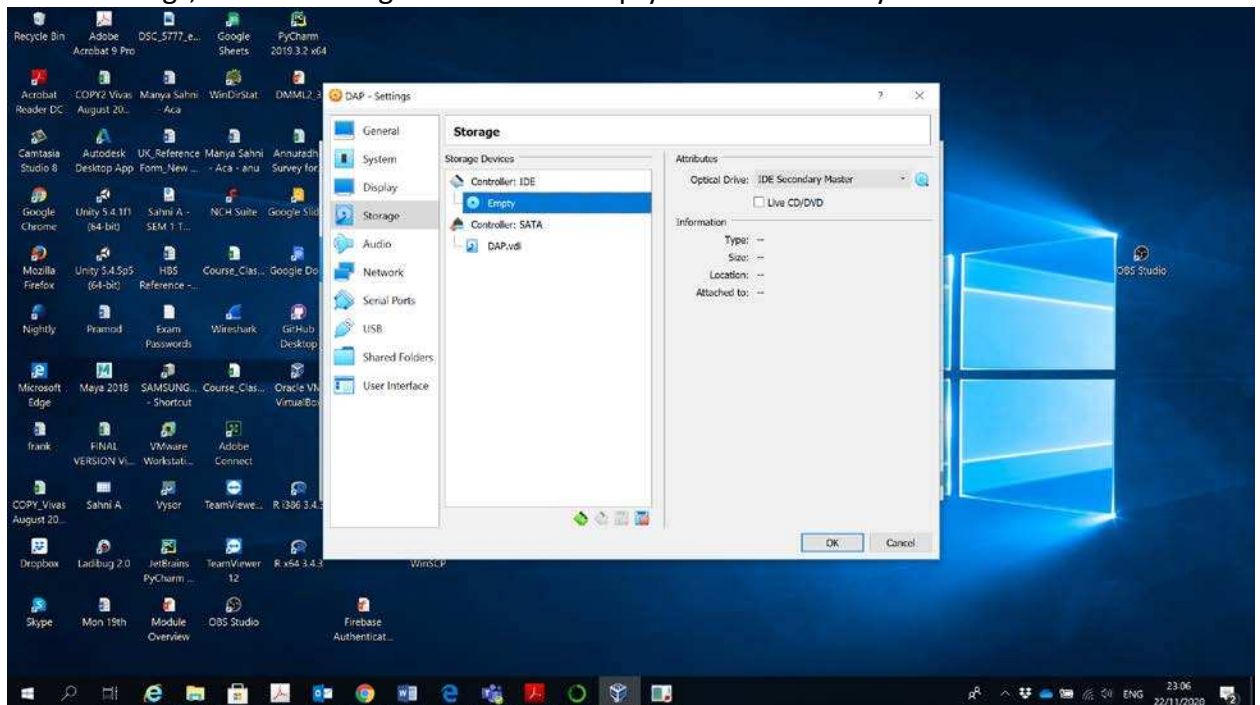


16. Select Network → Adapter 2. Configure this adapter as shown below

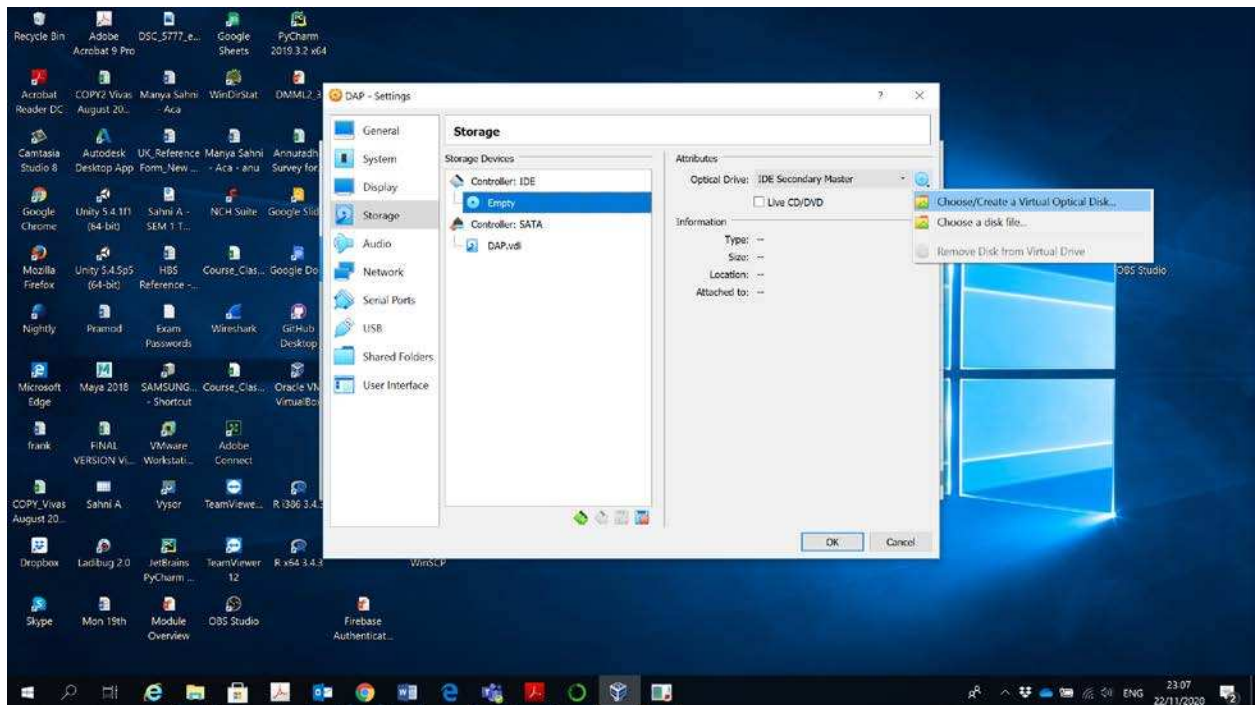


17. Click Ok

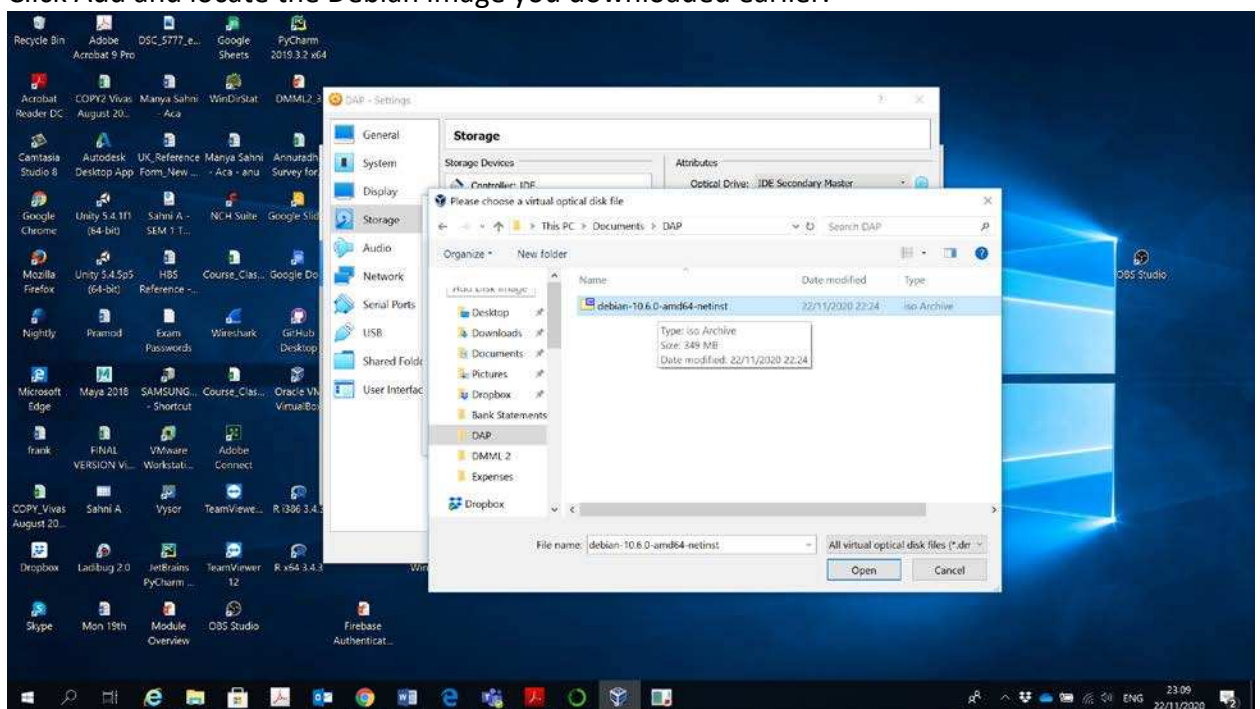
18. Go to Settings, click on Storage and click on Empty next to the CD symbol.



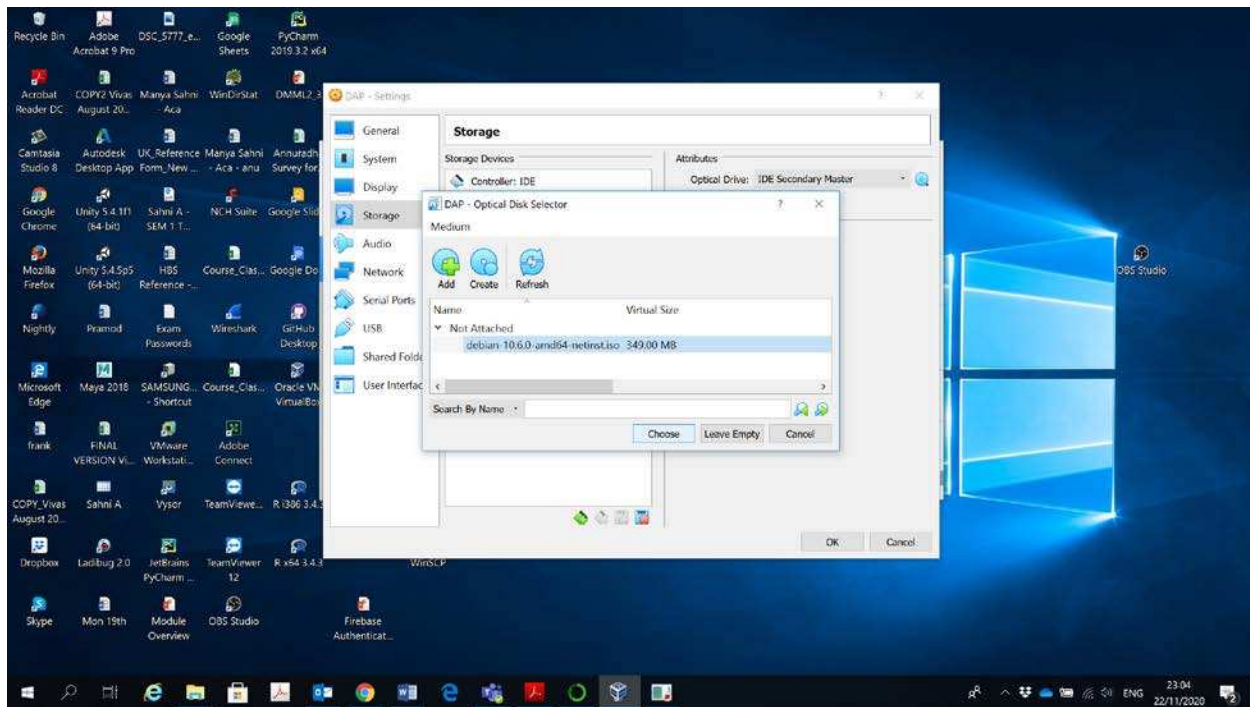
19. Then click on the blue CD symbol to the right of the window, next to IDE Secondary Master. Click on Choose Virtual Optical Disk



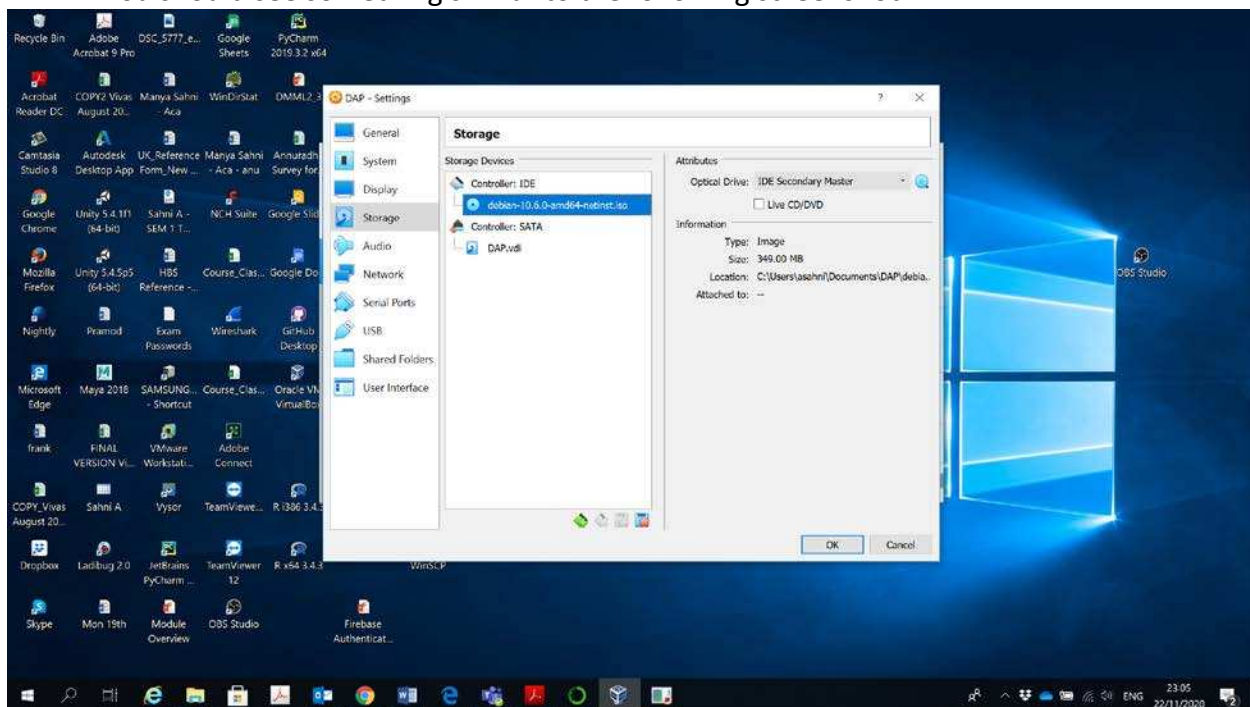
20. Click Add and locate the Debian image you downloaded earlier.



21. Click 'Choose'



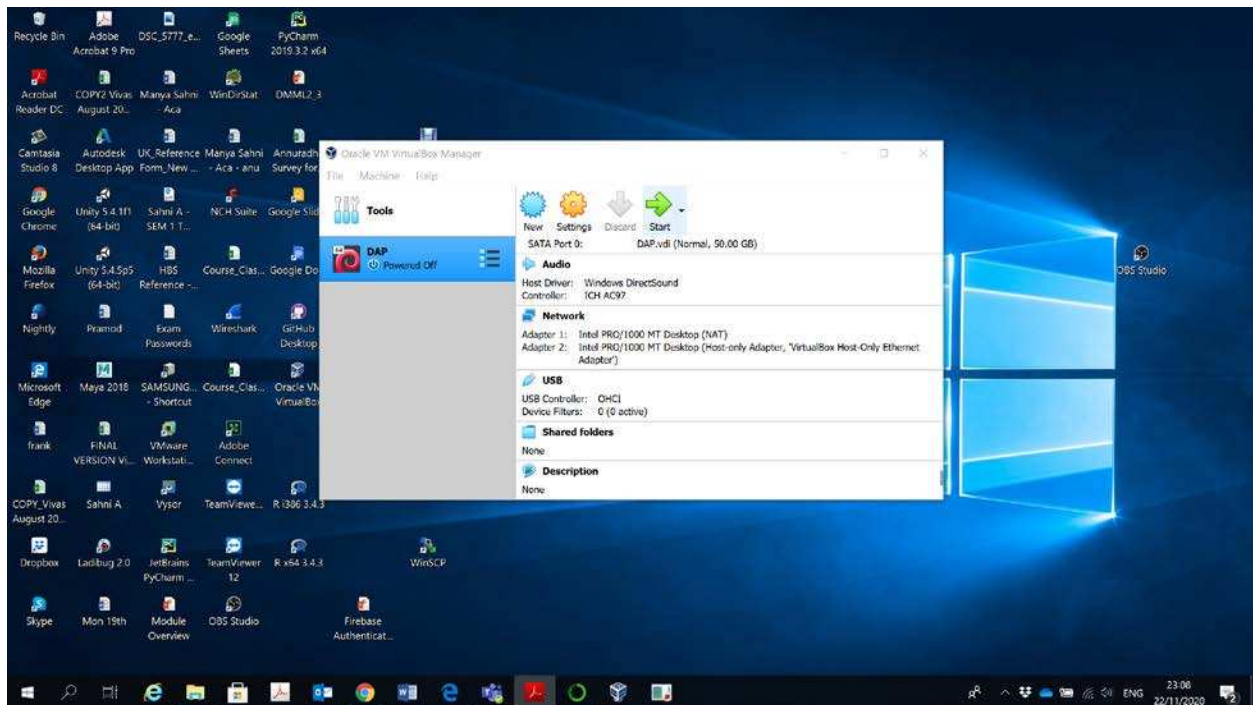
22. You should see something similar to the following screenshot.



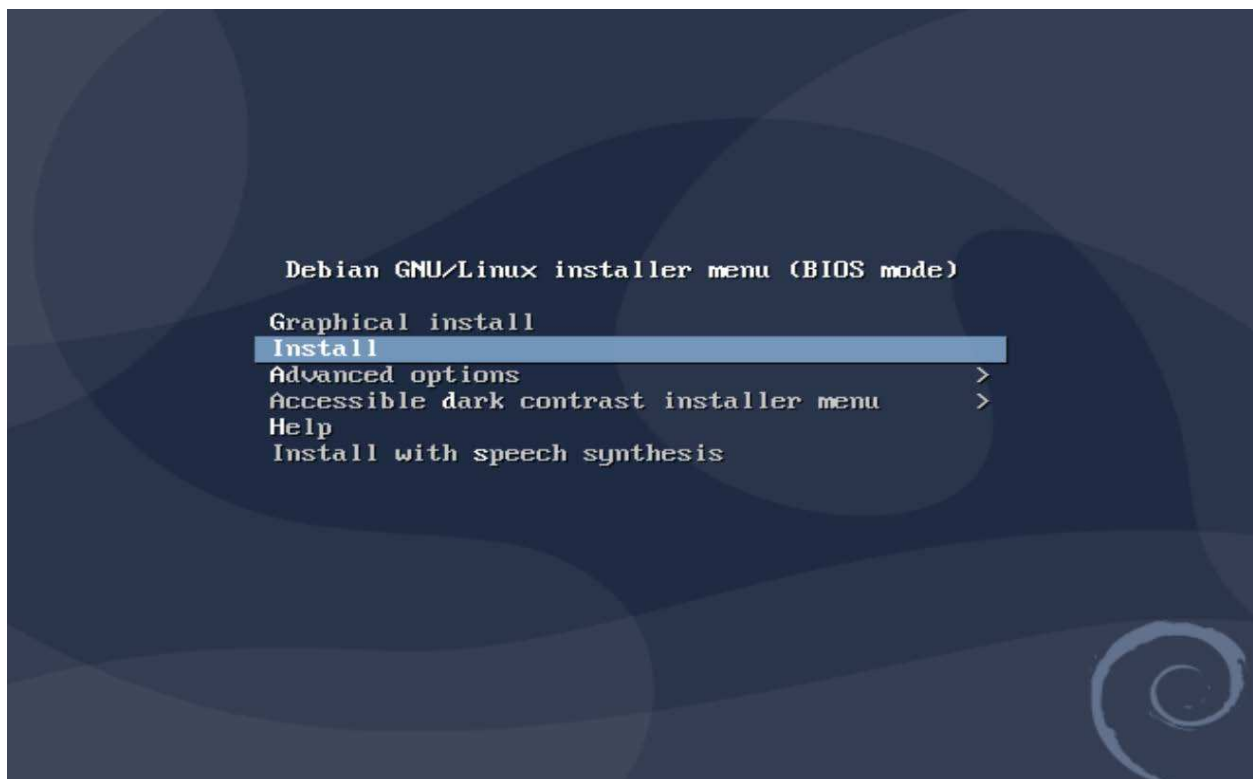
23. Click Ok

Install Debian

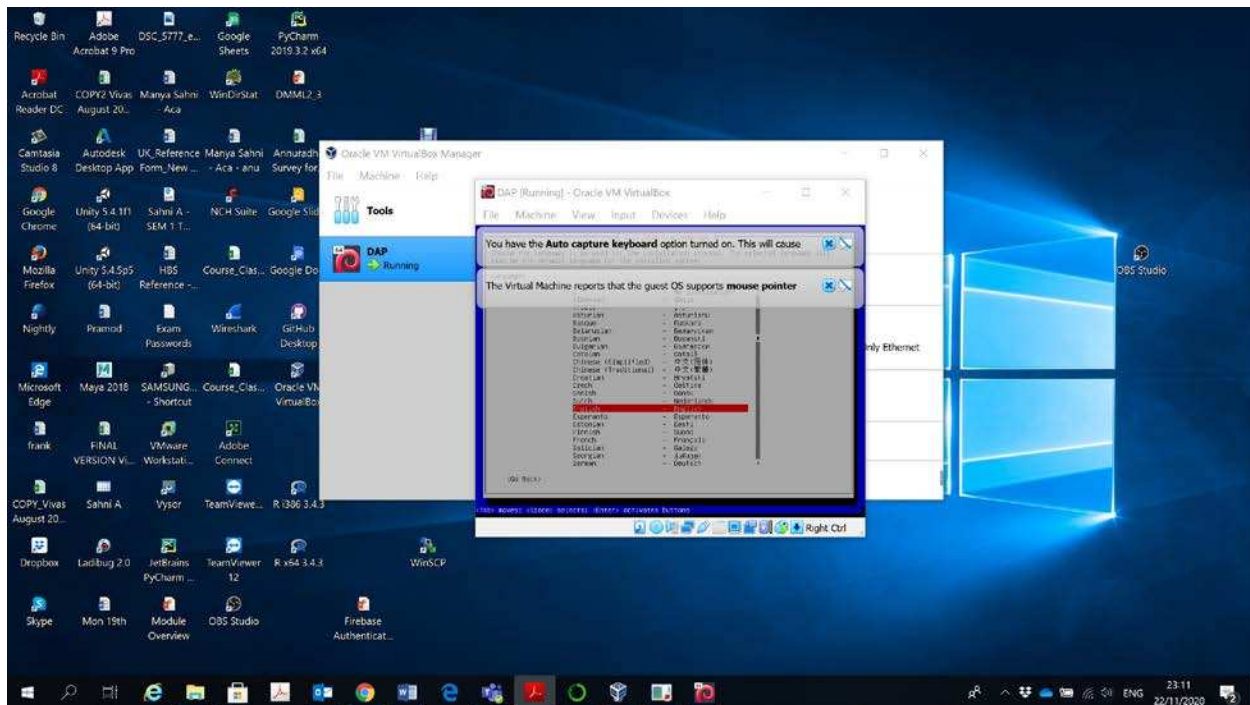
24. Click on the green Start button



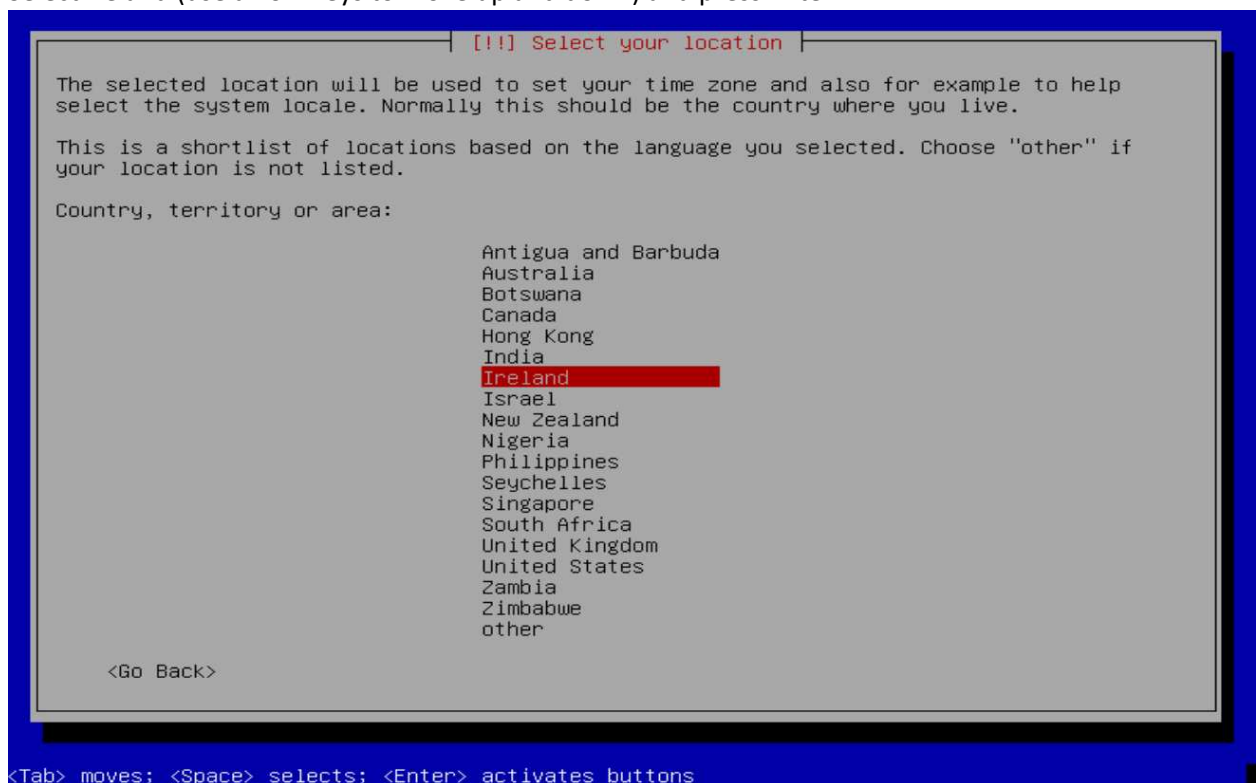
25. Click on Install, use arrow keys to move to 2nd option and press Enter



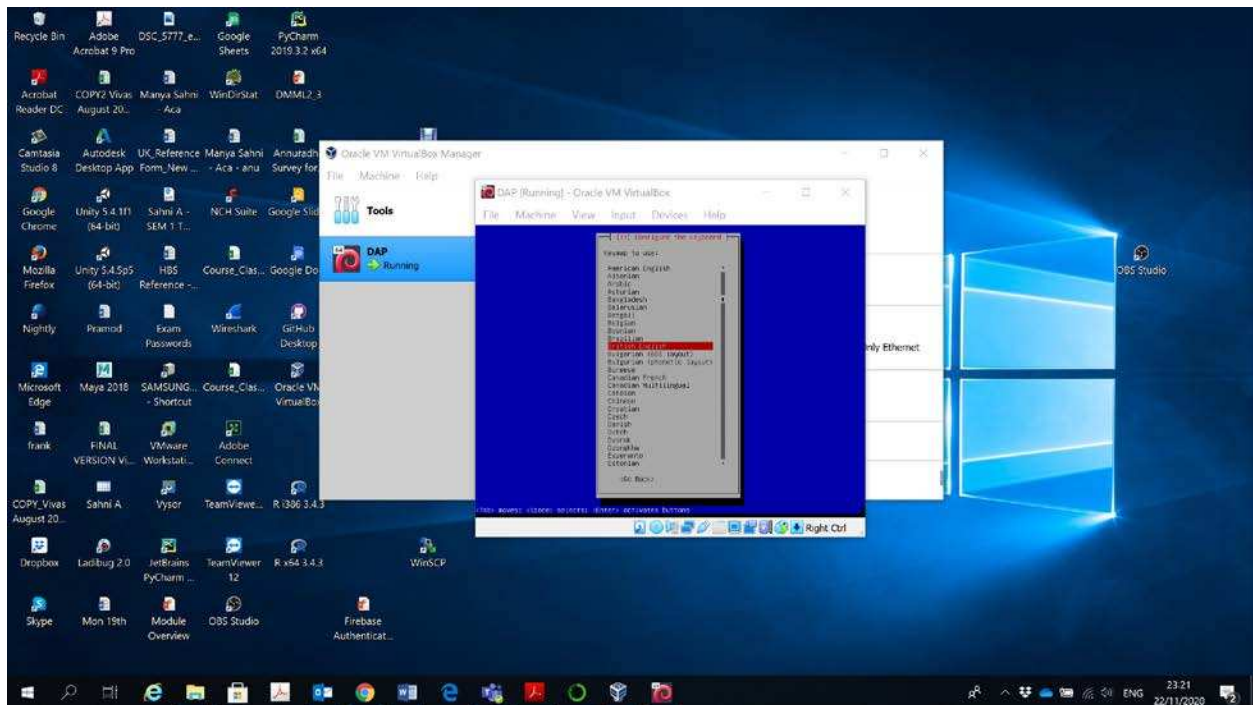
26. Choose English and press Enter



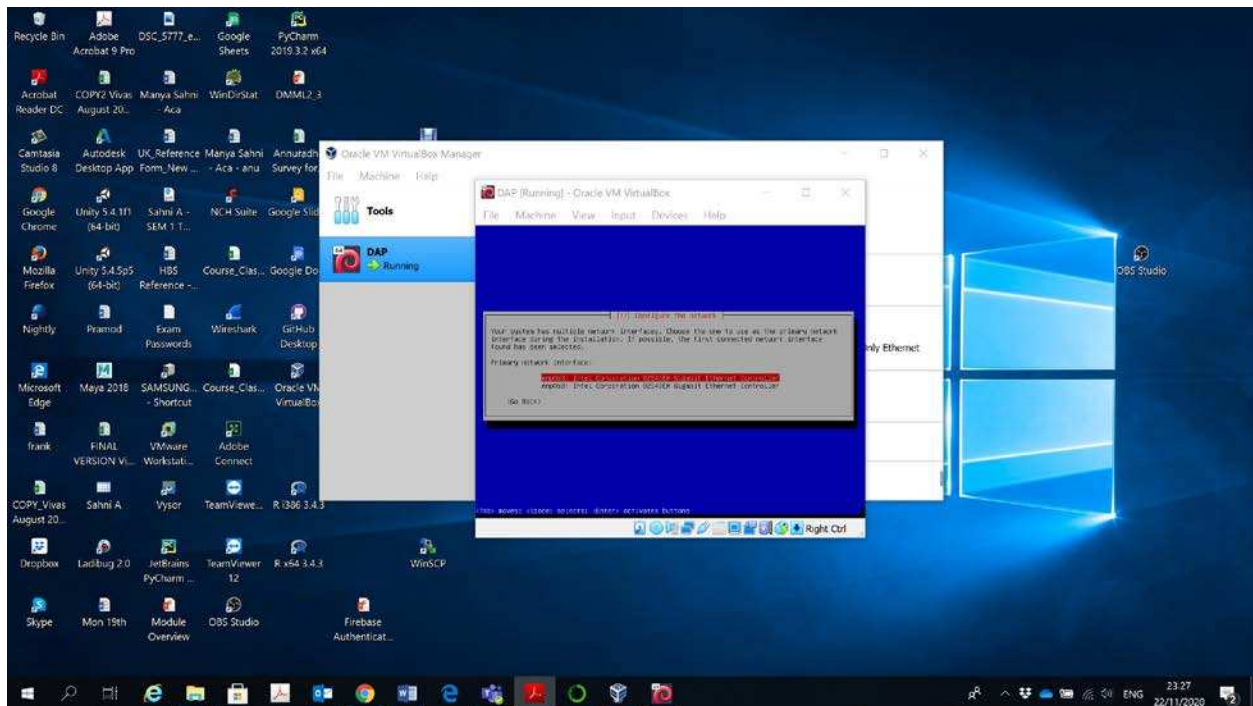
27. Select Ireland (use arrow keys to move up and down) and press Enter



28. Select British English and press Enter

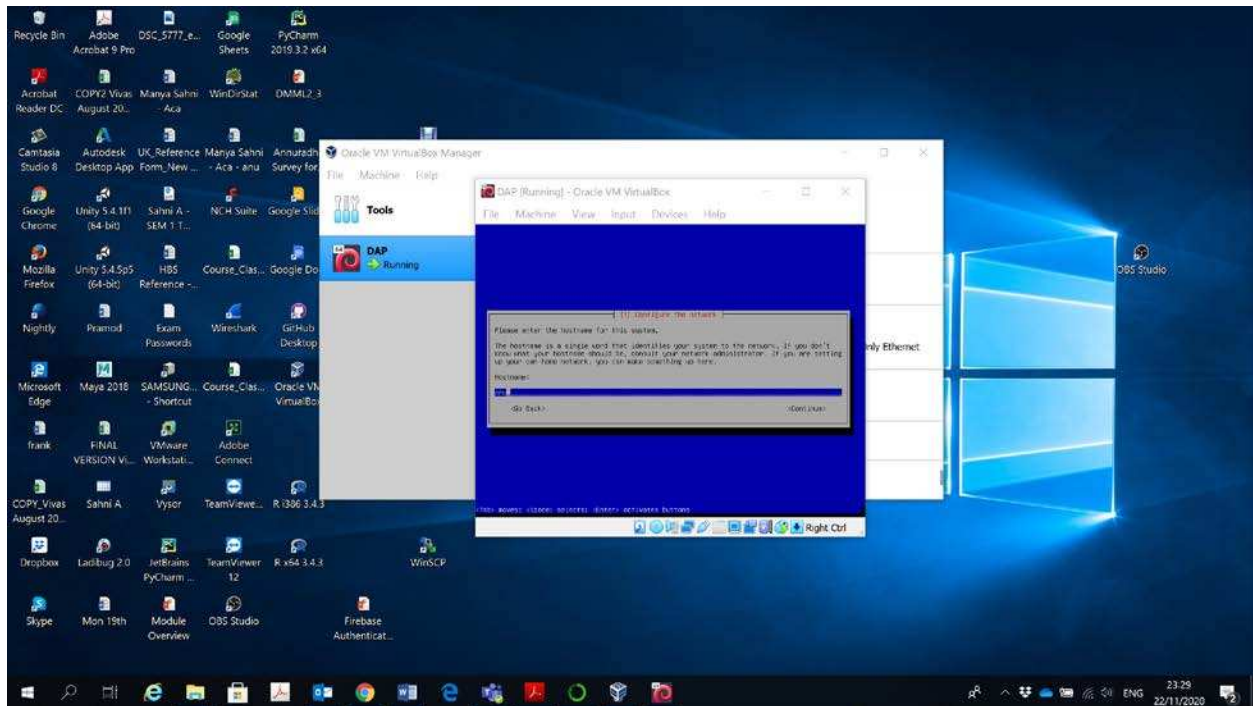


29. Choose enp0s3 as your default network interface and press Enter.

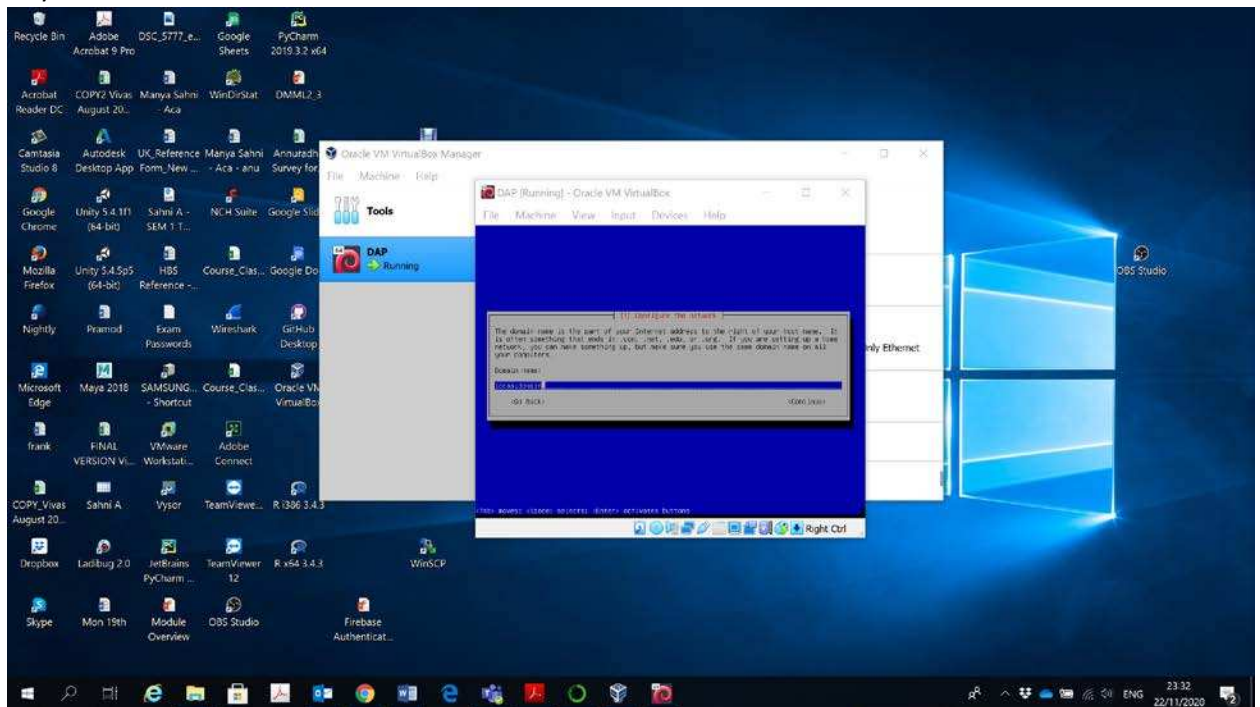


Note: After the install procedure completes network auto-configuration, you will be asked to provide a hostname for your virtual machine. There may already be some name such as 'debian', delete it before you enter your name.

30. Your name, in lower case and without spaces will suffice. To keep it simple, I have entered my name, anu. Press Enter when you have done



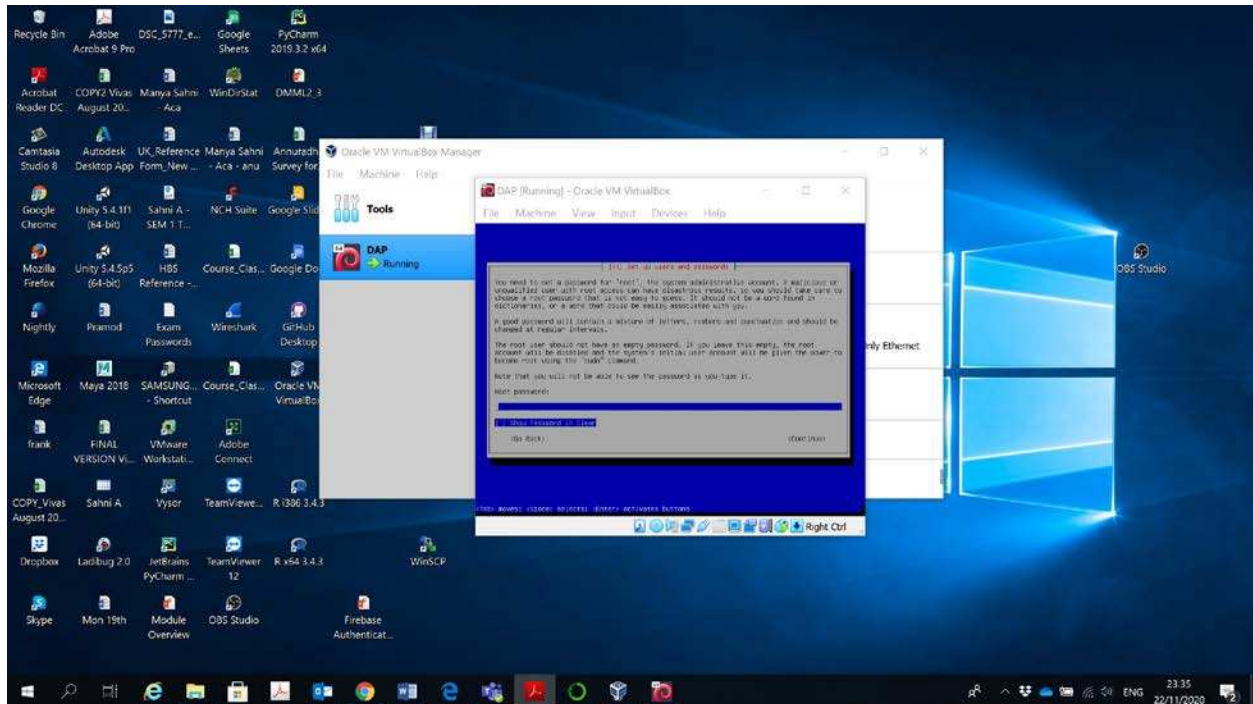
31. Next you will be asked to provide a domain name for your installation. You can give localhost as your domain



32. Use arrow keys and go to 'continue' and press Enter

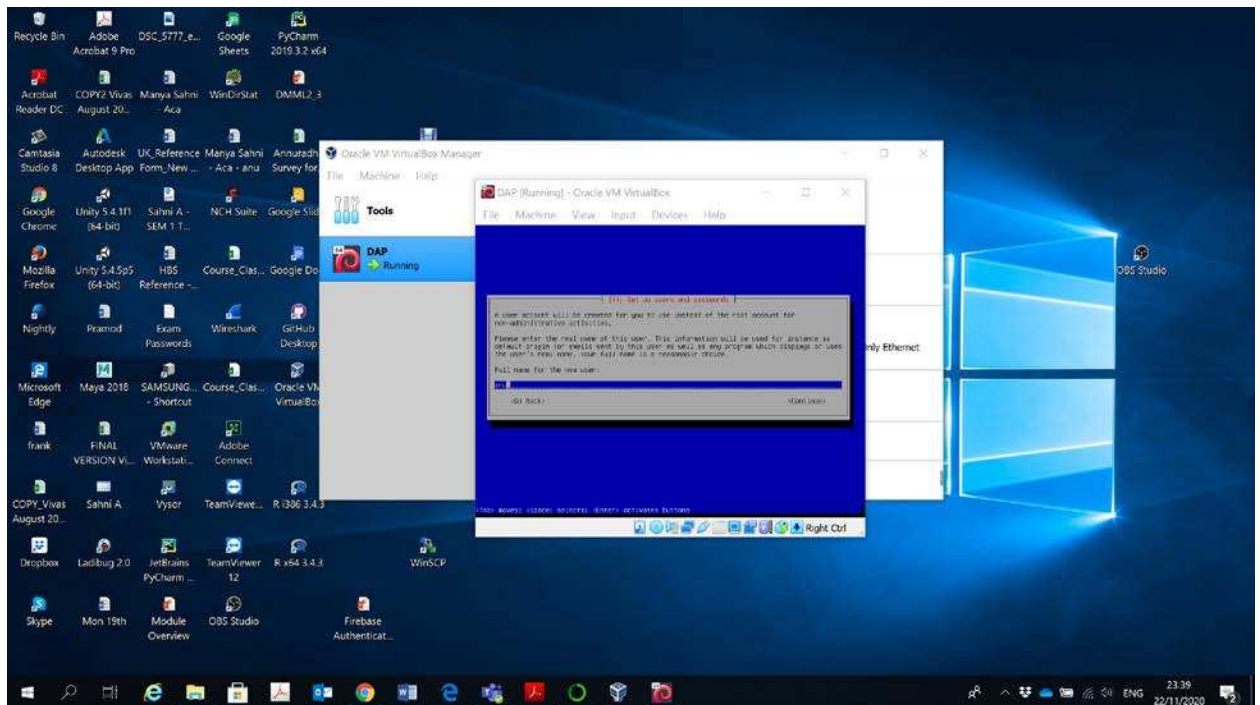


33. Leave the root password empty and press Enter. Make sure you don't enter anything.

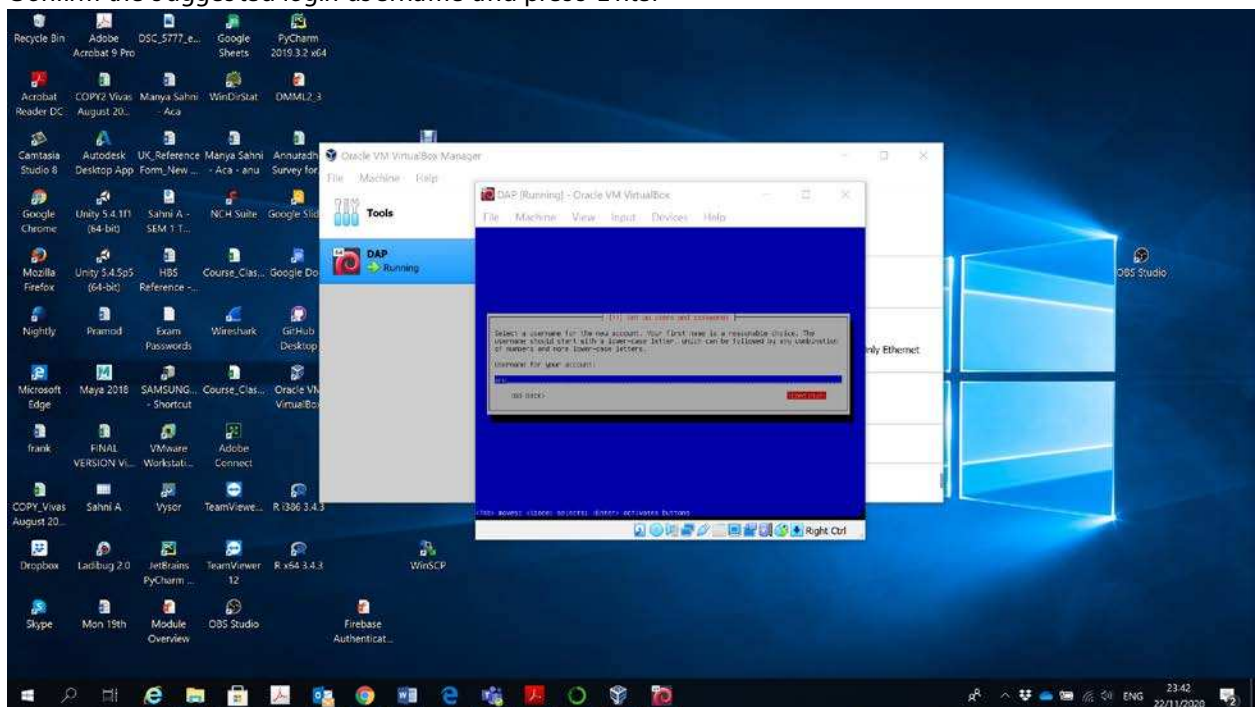


34. Confirm the empty root password by pressing Enter. Make sure you don't enter anything

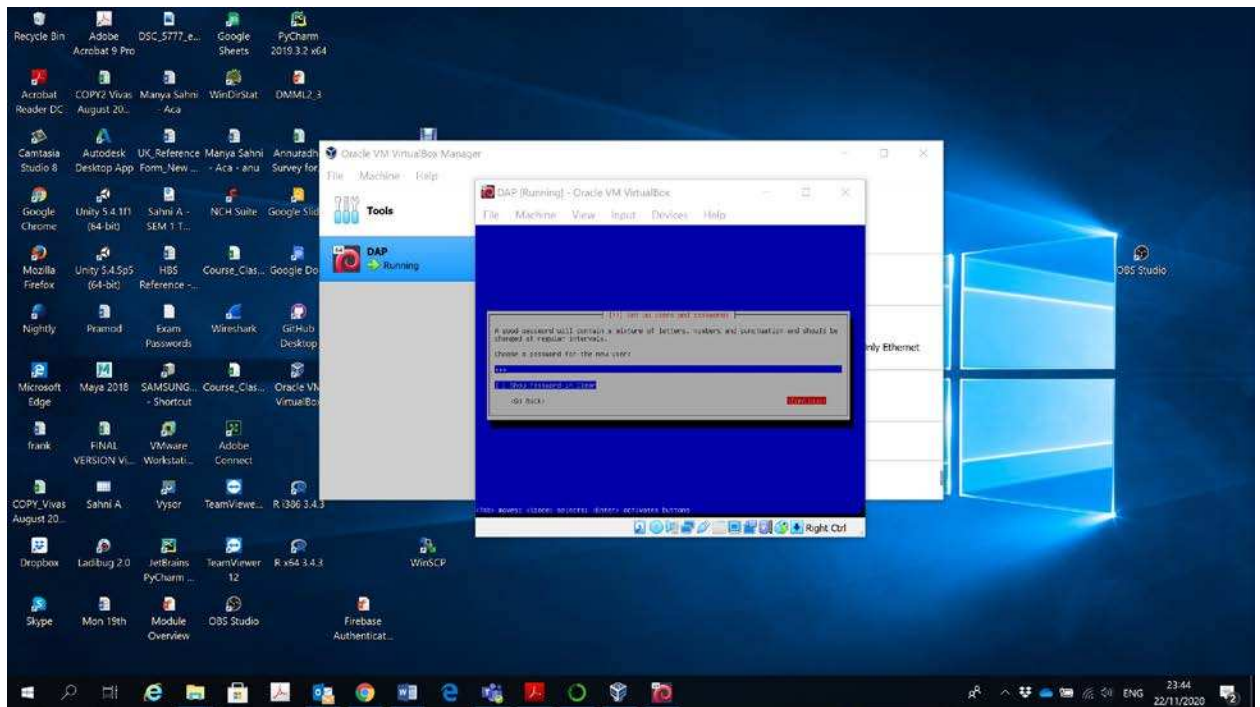
35. Give your full name (for a new user) and press Enter. I have given anu. Go to continue and press Enter



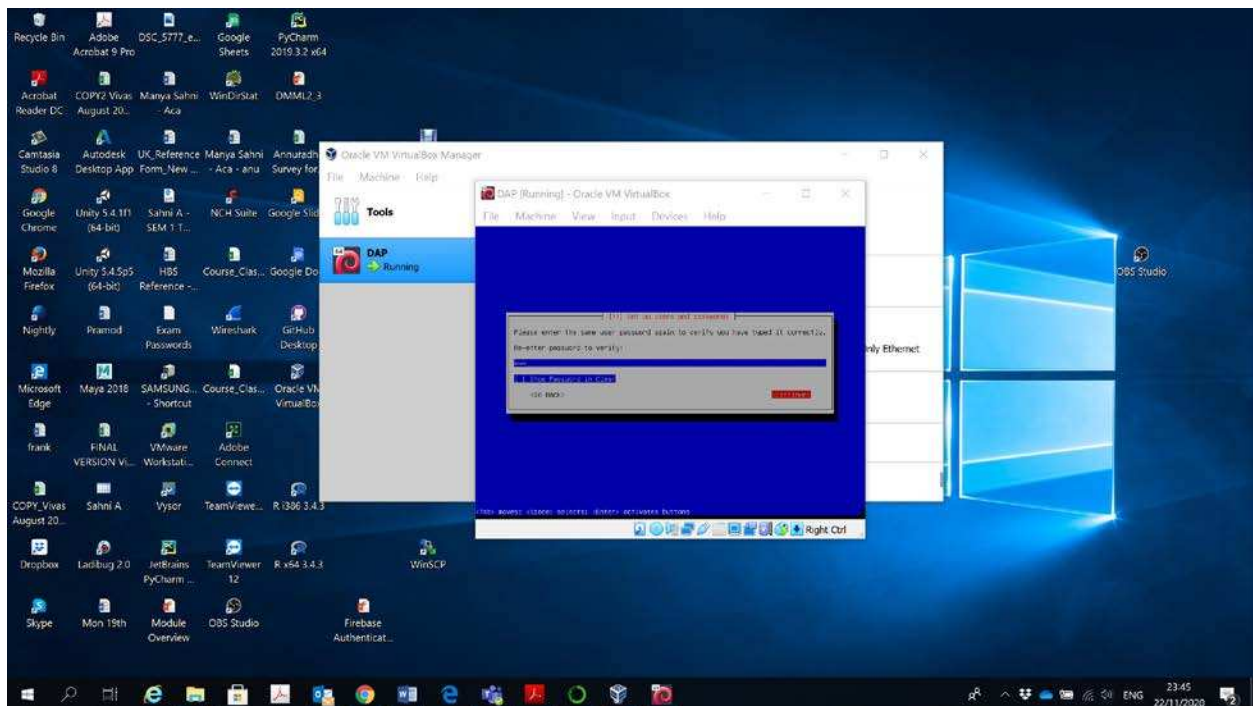
36. Confirm the suggested login username and press Enter



37. Enter a password for your new user account. Note: you must remember this password or store it in a secure place. There is no way to retrieve it later. I have used anu. Go to continue and press Enter.

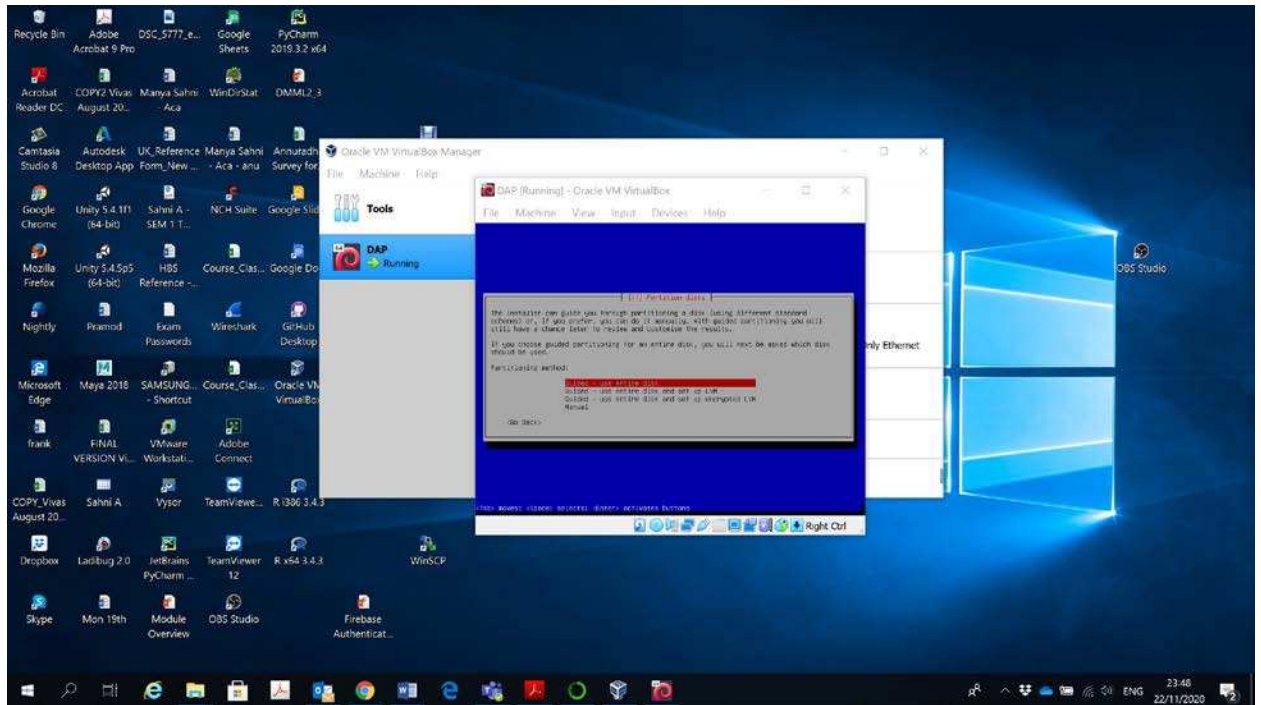


38. Confirm the password on the next screen.

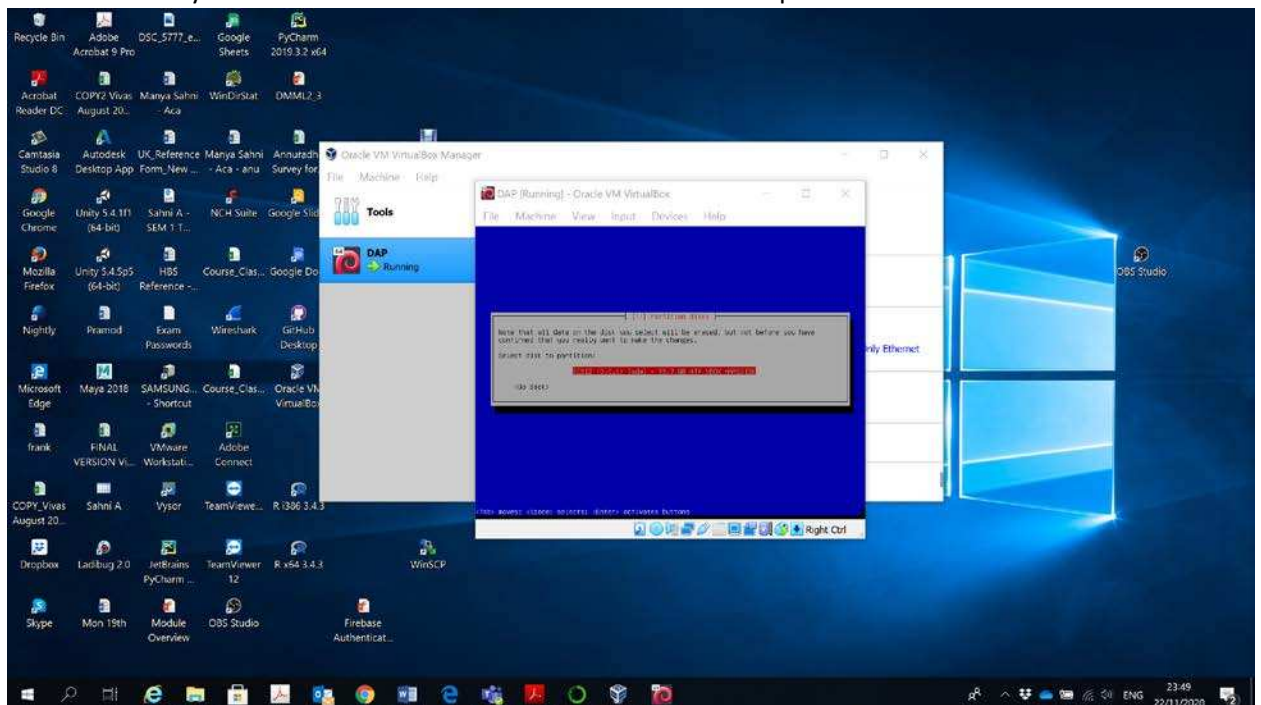


39. Additional components will start installing.

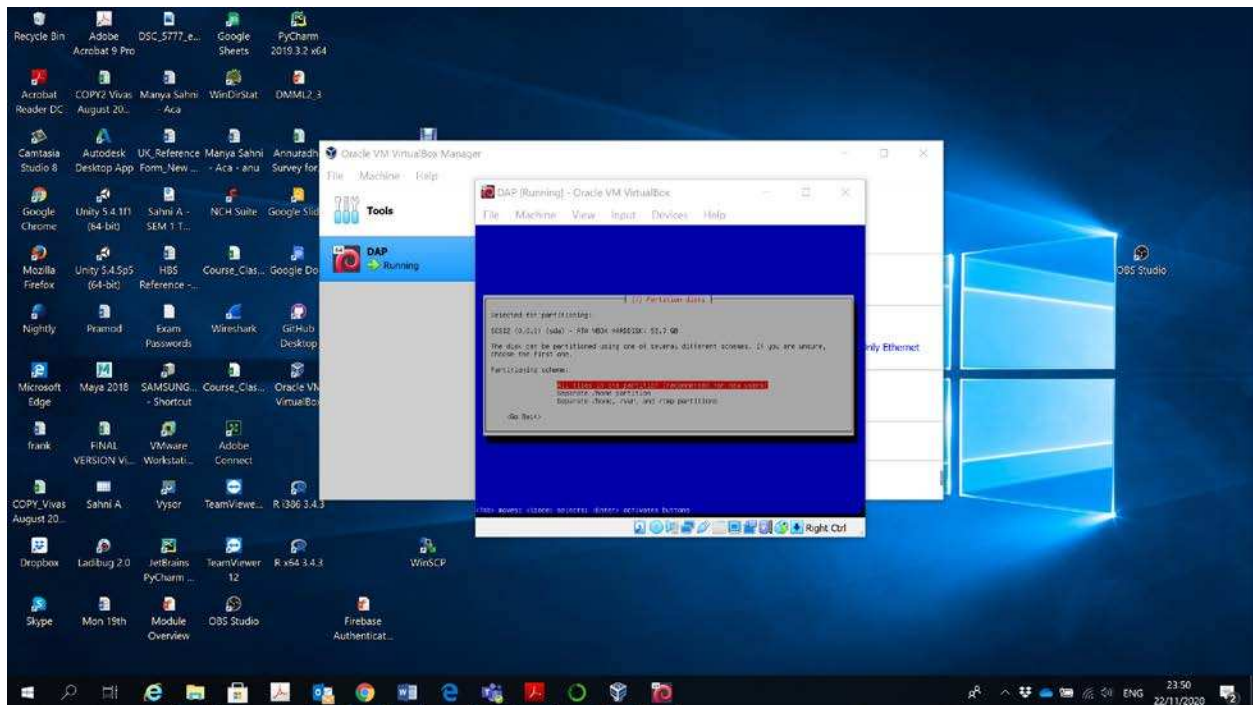
40. Choose Guided - use entire disk and press Enter



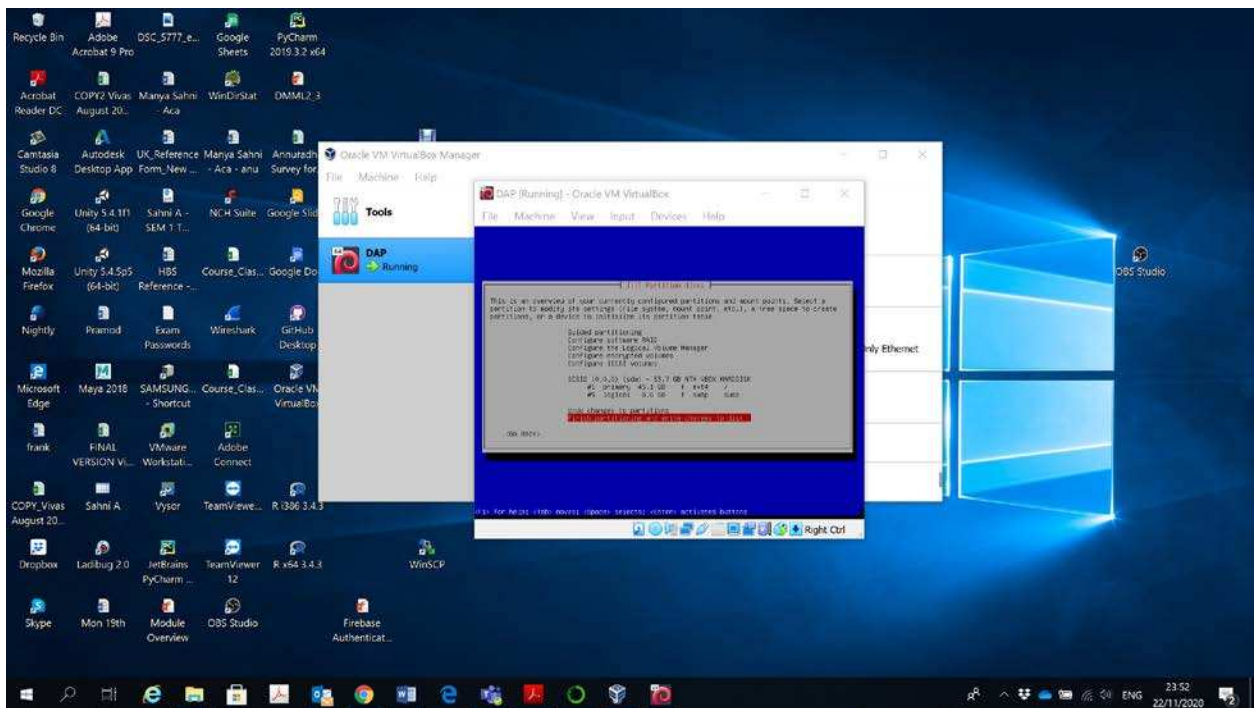
41. You will be asked to choose the disk to partition. There should only be one disk listed, which is the virtual disk you created earlier. Ensure that it is selected and press Enter.



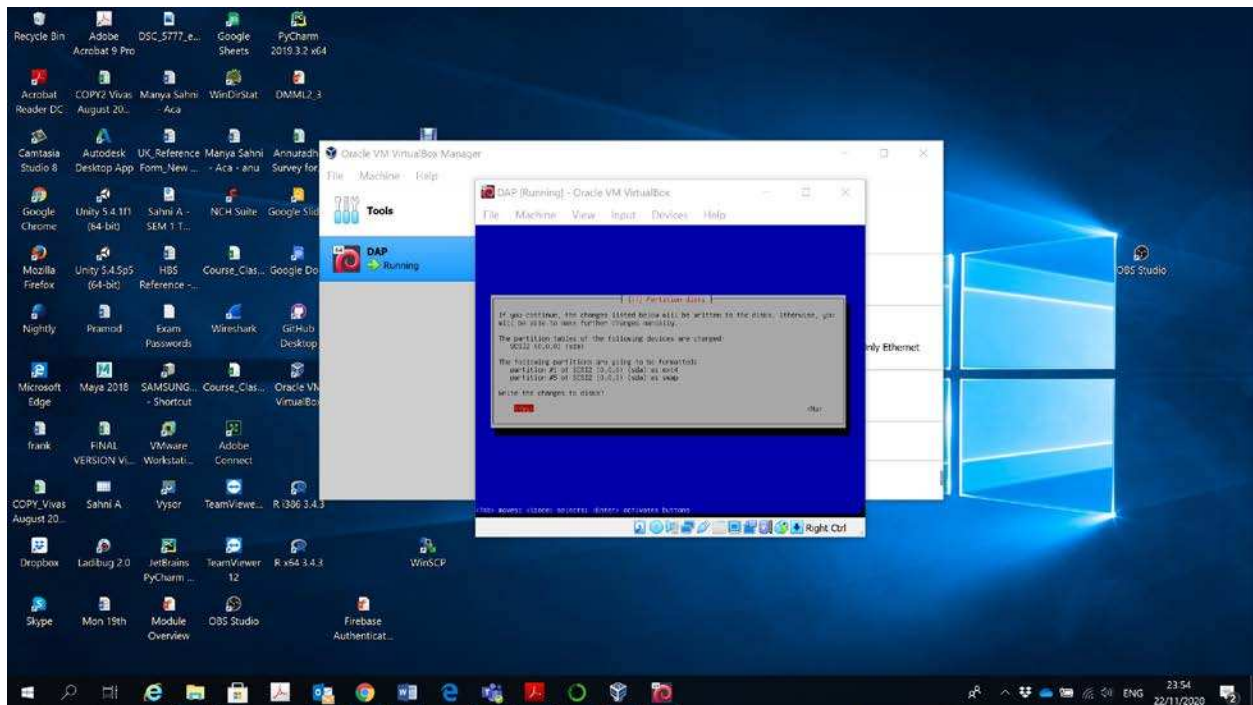
42. choose All files in one partition and press Enter.



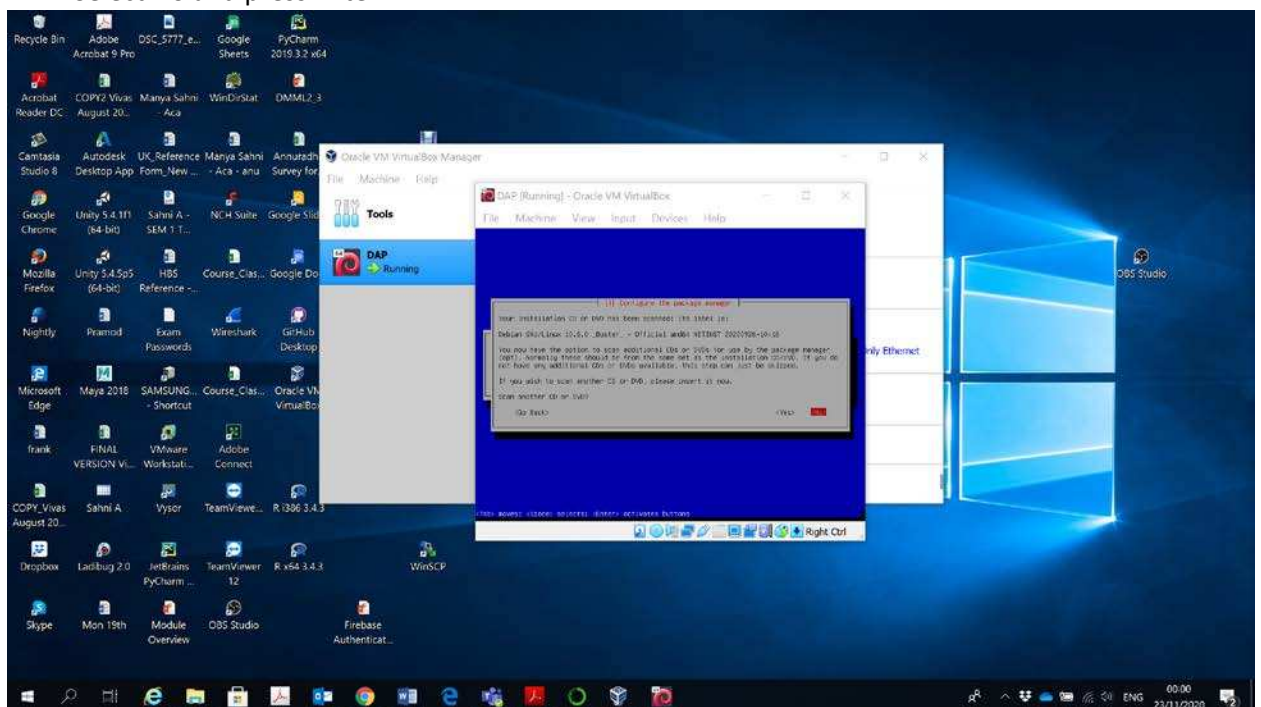
43. Press Enter.



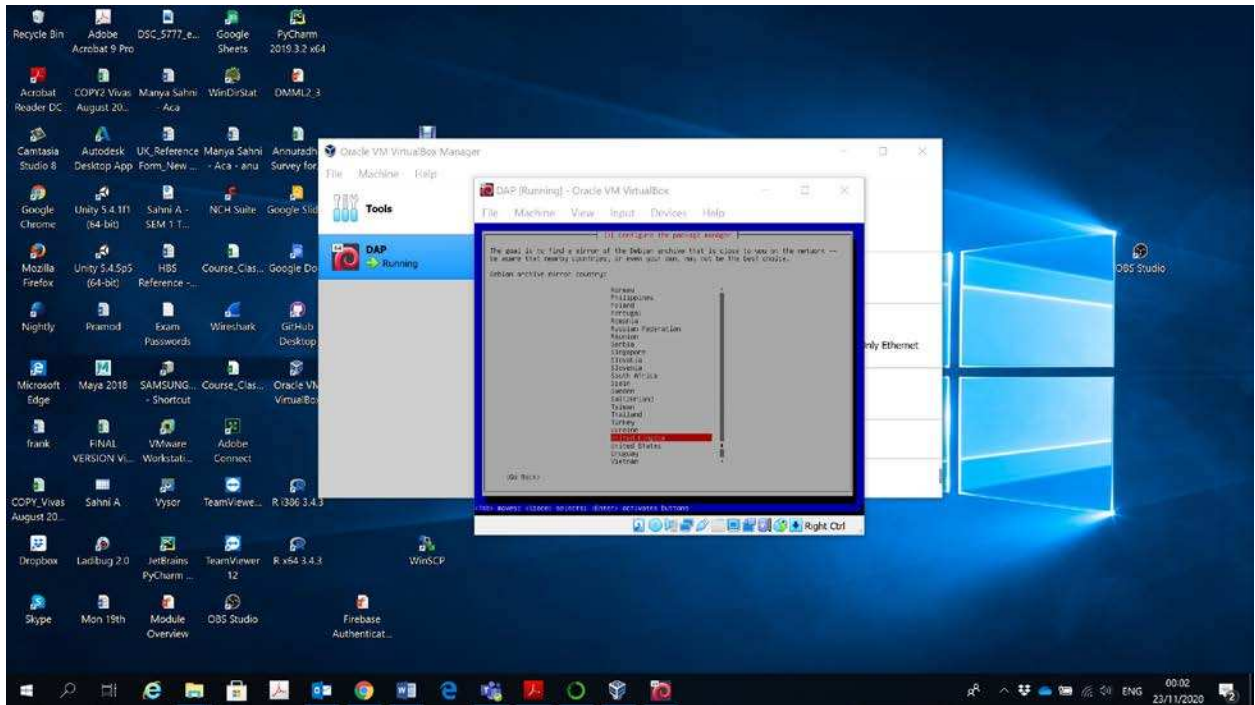
44. Select Yes and press Enter.



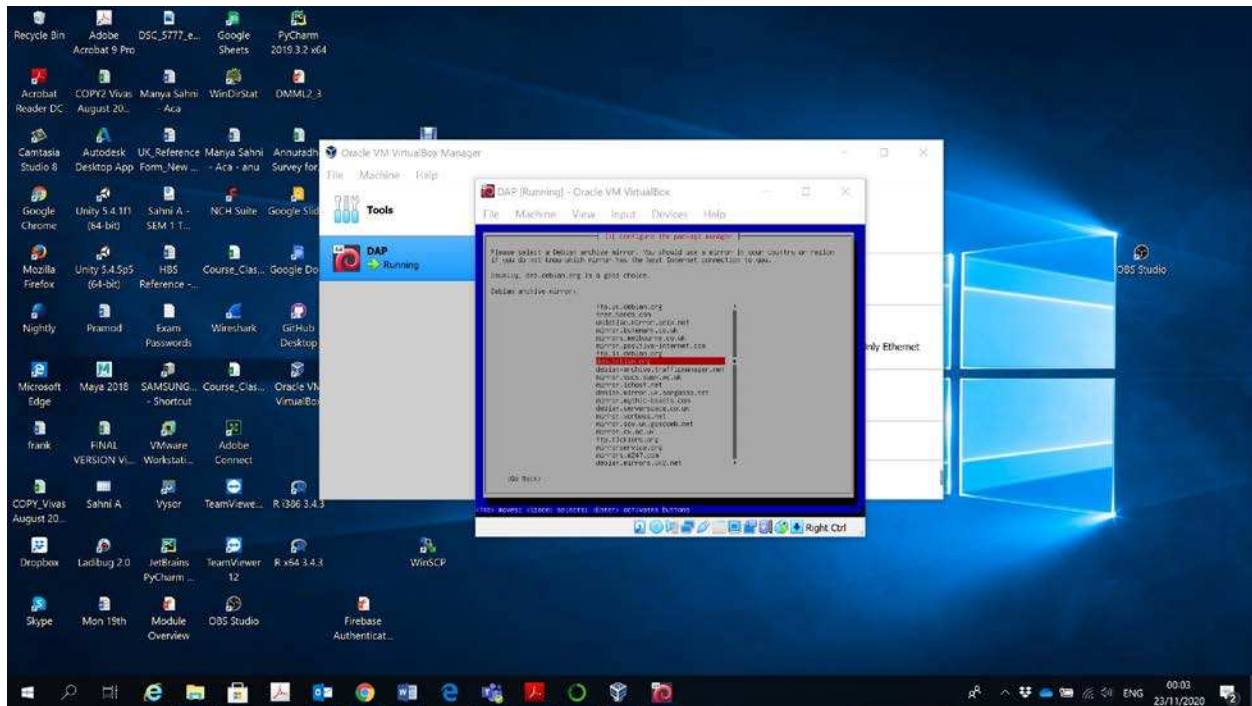
45. After the base system has finished installing, you will be asked if you want to use another CD or DVD. Select No and press Enter.



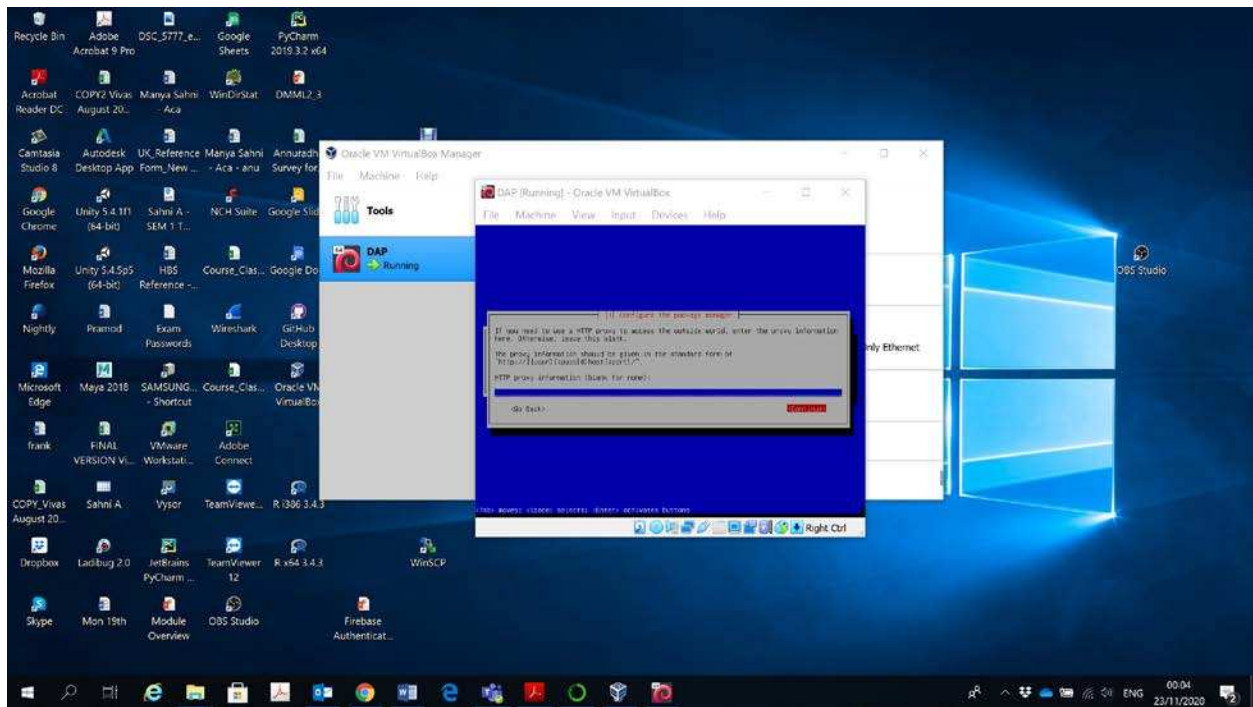
46. choose United Kingdom and press Enter.



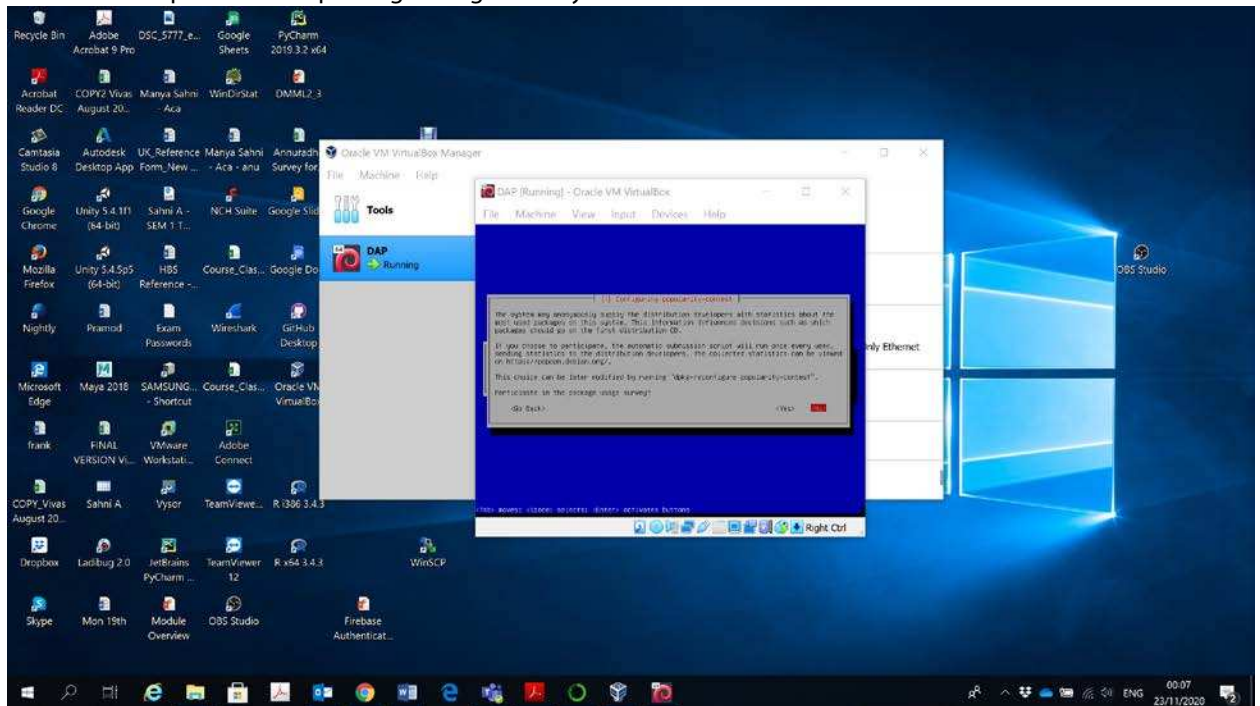
47. Choose deb.debian.org as the archive mirror.



48. Leave the configuration entry for the HTTP proxy empty.



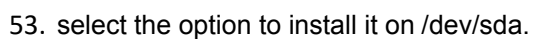
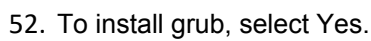
49. select No to opt out of the package usage survey

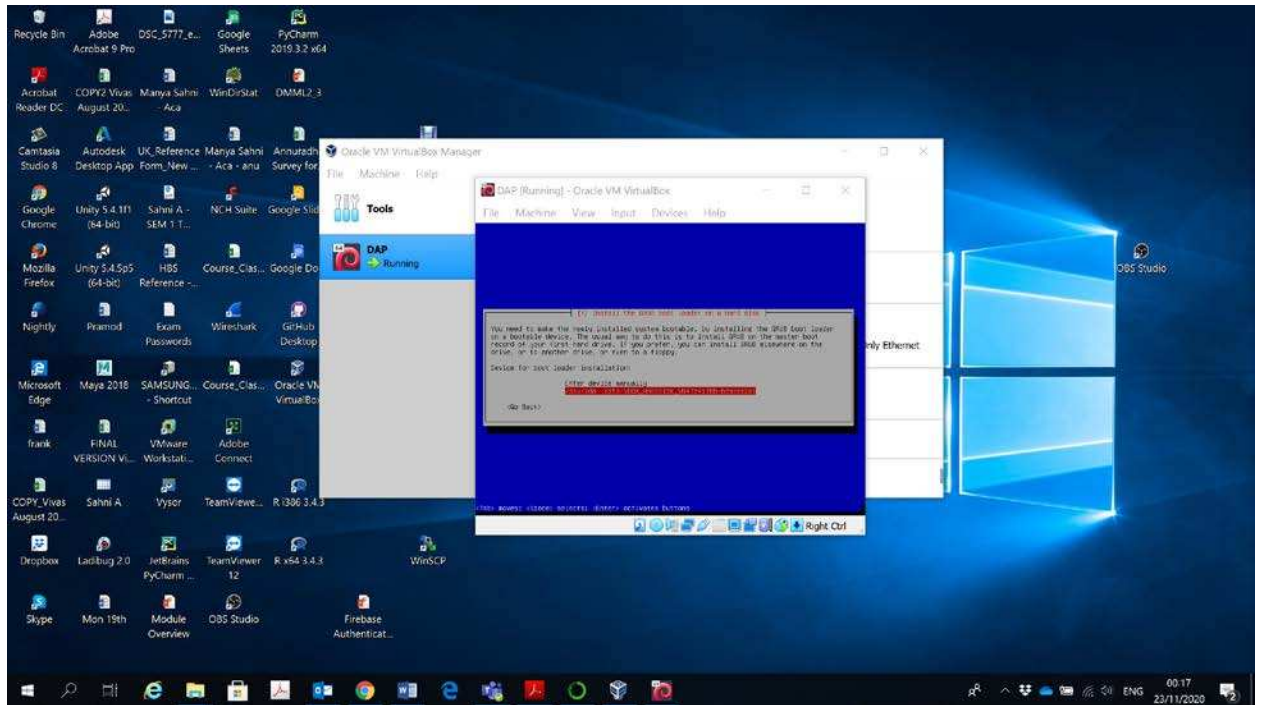


50. On the software selection screen, make the following selection by moving to the entry and pressing the spacebar

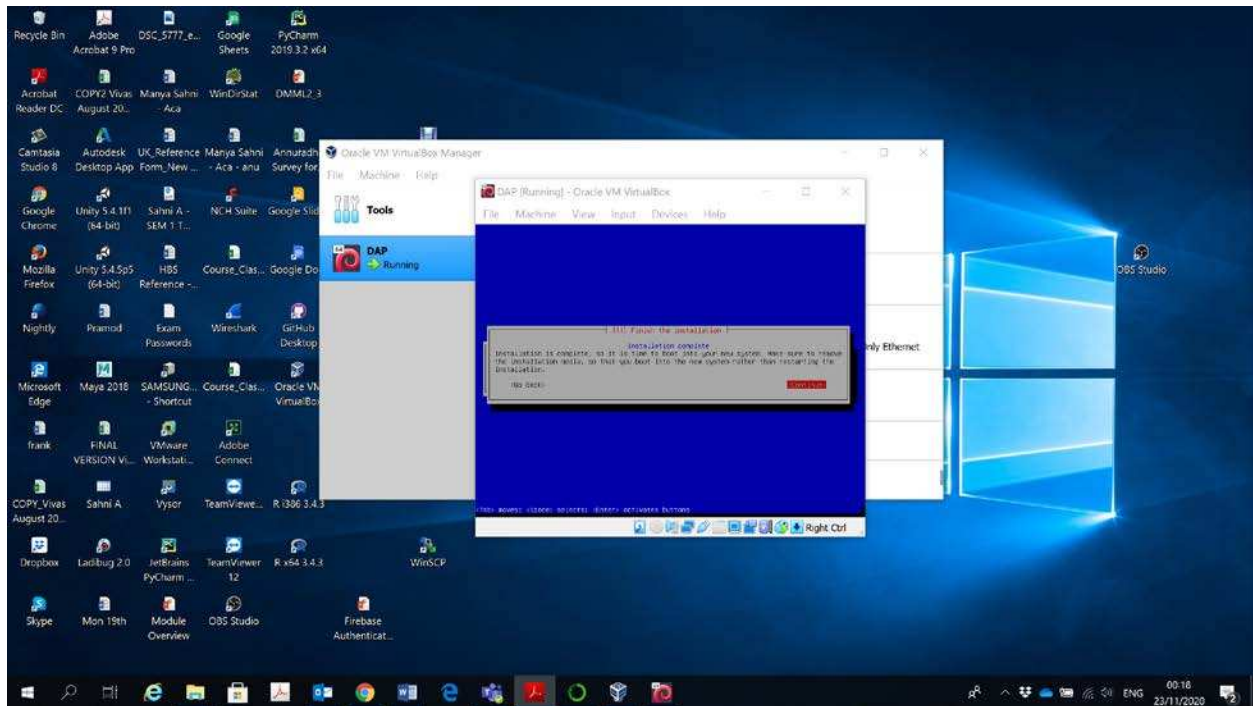
- a. uncheck
 - i. Debian Desktop Environment
 - ii. Print Server

51. Press Enter

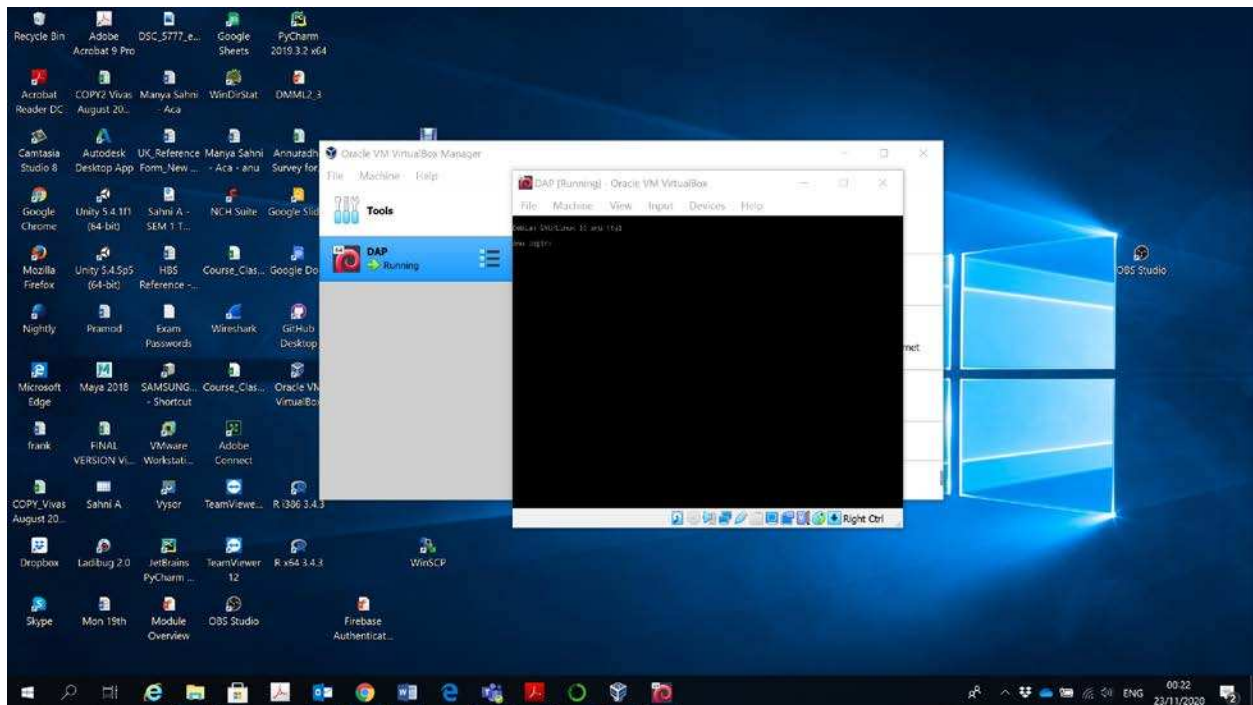




54. Press continue to reboot

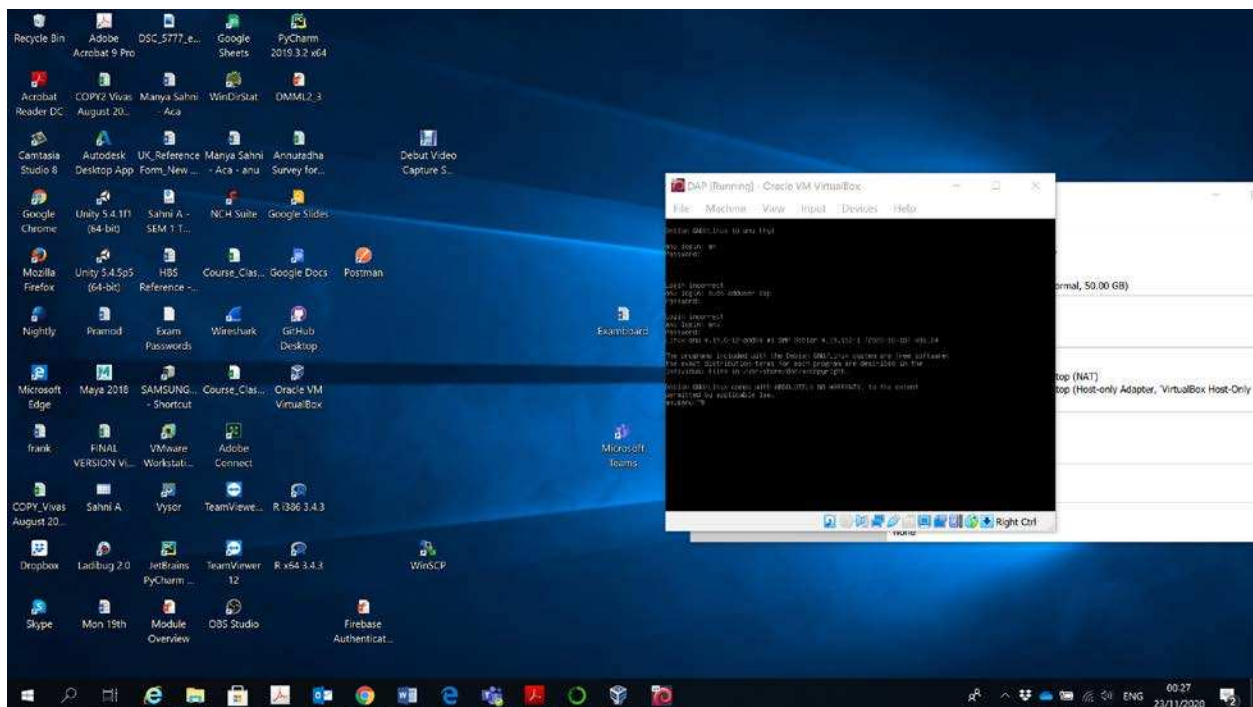


55. First I have closed the message box so that the prompt can be seen.



56. Enter your login name and password, mine was anu for both

Note: when you enter password, the curser may not move, just press enter after entering the password



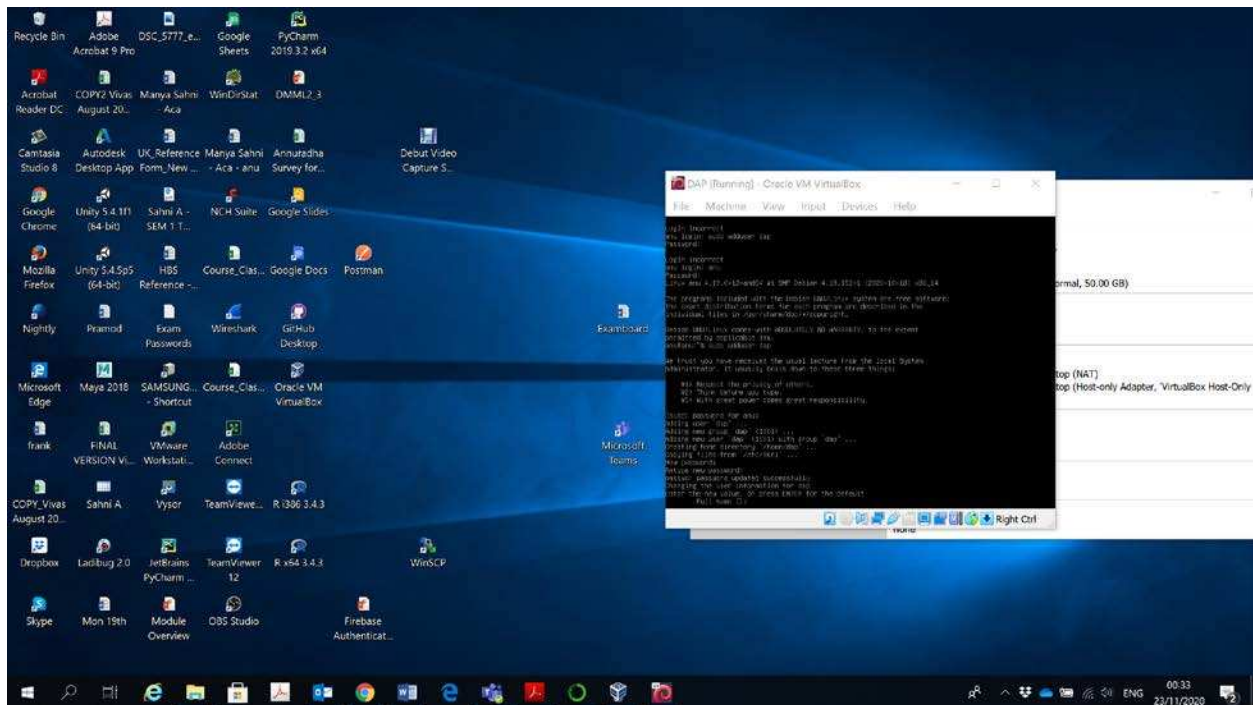
57. Create a new user by entering the following at the prompt:

```
sudo adduser dap
```

58. Enter your password, in my case, anu



59. You will be prompted for a password for the dap user and also to confirm this password. Enter **DAP2020Nci** as the password. **DO NOT USE ANY OTHER PASSWORD**. Leave all other entries empty.



60. Leave all other entries blank, just press enter and then 'y' to confirm



61. enter the command below at the terminal prompt to add the new user to the group of users
 sudo usermod -a -G sudo dap

