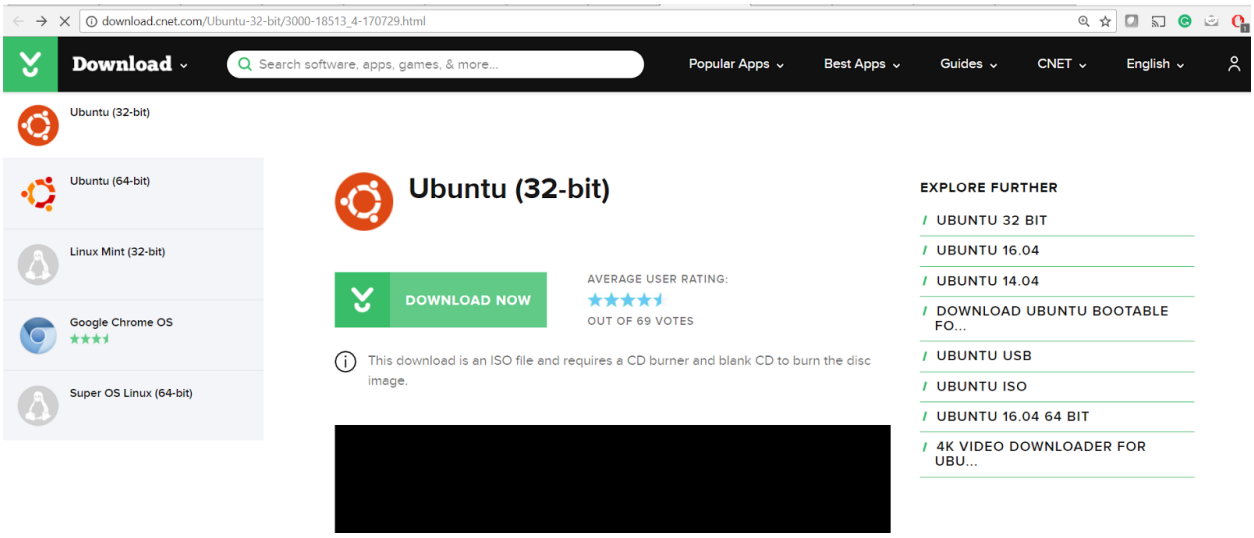
Real-Time Embedded Systems

[ECEN 5623]

Creating Linux Environment

Booting Linux from USB

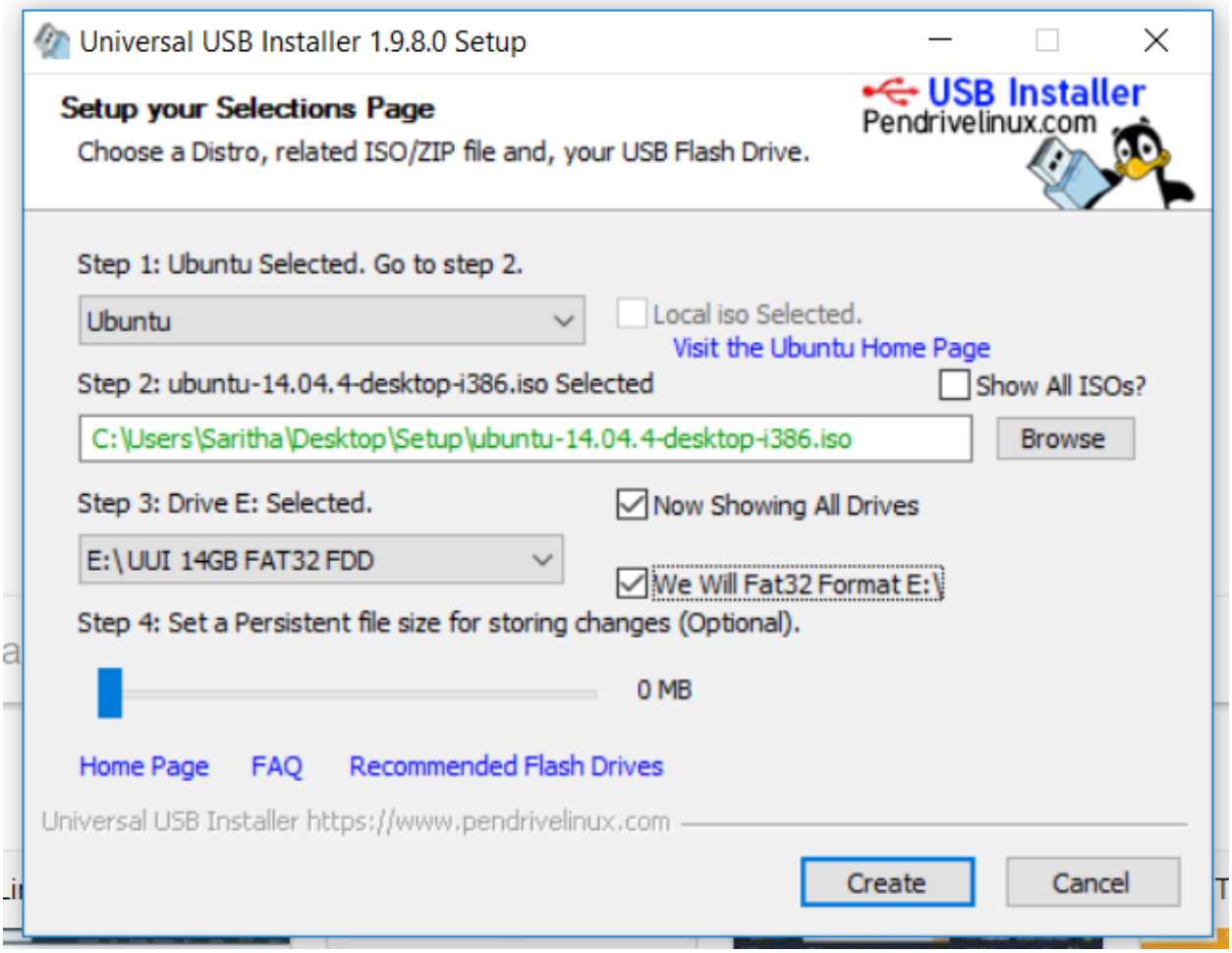
- Download the [ubuntu- 14.04.4-desktop-i386.iso]
  At least 2GB size of USB flash drive is recommended



Depending on your machine download 32bit/64bit version

- Download and install the [USB Installer]

- Open the installer,
  - In Step1, select the Linux distribution.
  - In step 2, select the downloaded .iso file.
  - In step 3, select the USB drive letter and select the checkbox to format the drive
  - In step 4, select the persistent size to be 0MB



- Then click create and Yes

- Now reboot your system with the USB connected
- Ensure to have the BIOS settings set to boot from USB device by changing the priority order in the BIOS settings (usually you can set this by pressing F9/F12 during the system bootup – check with your laptop manufacturer)
- Now you can run Linux from your USB

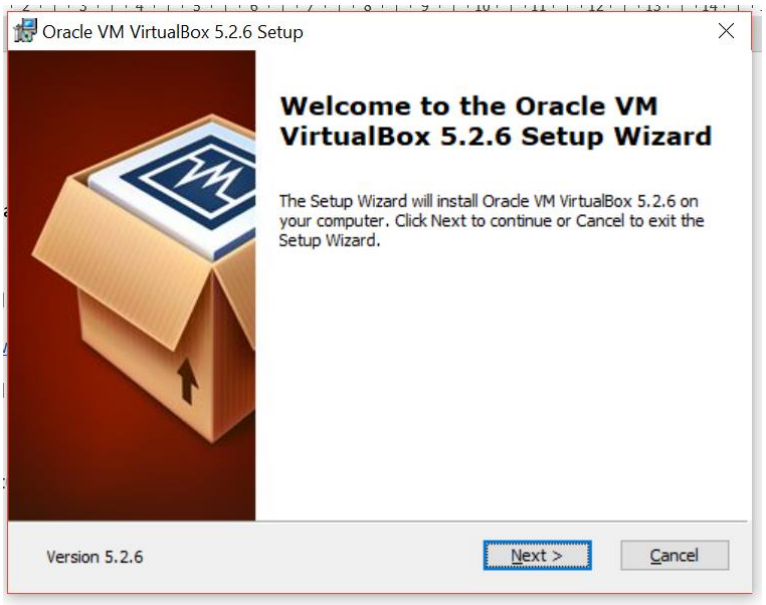
Getting Started with Virtual Box

Download the Virtual Box Binaries from the Link:

https://www.virtualbox.org/wiki/Downloads

Download the **VirtualBox 5.2.6 for Windows host** from the above link

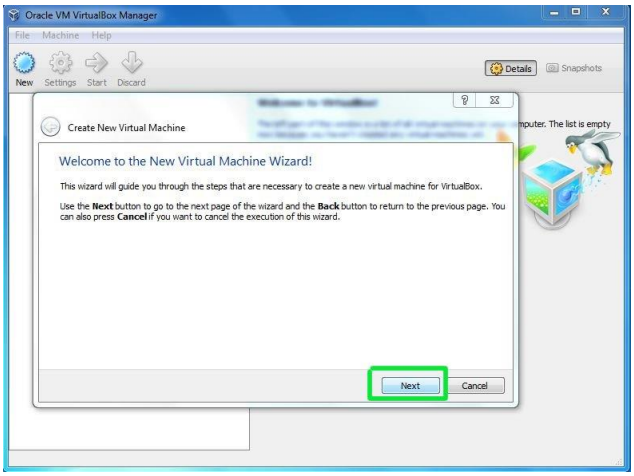
Install Virtual Box from the binary above. Install it the same way you would any normal Windows program.



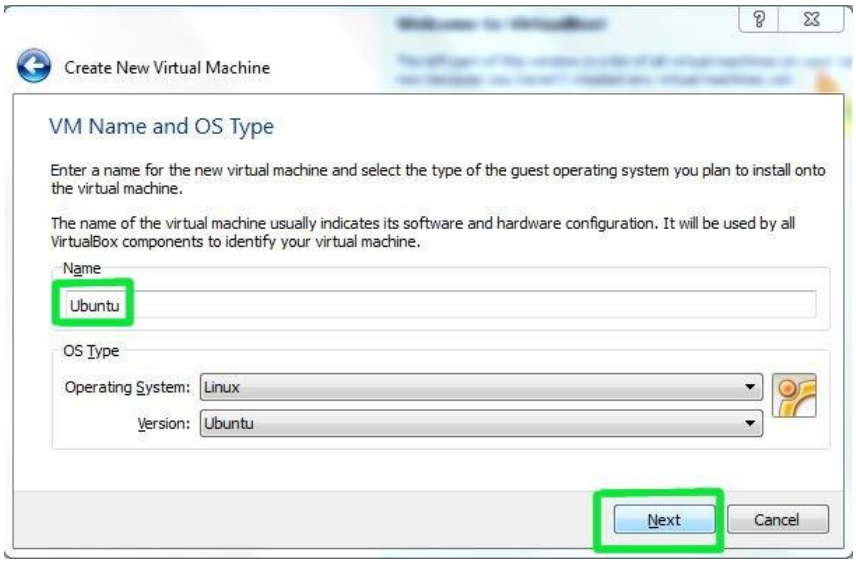
Download the Ubuntu 14.04 : here

Setting Up the Virtual Box VM for Ubuntu 14.04

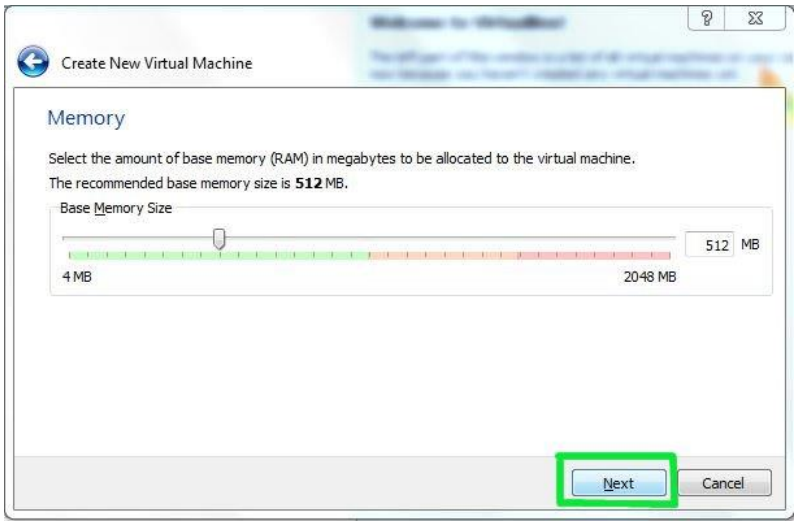
1. After you launch VirtualBox from the Windows Start menu, click on **New** to create a new virtual machine. When the New Virtual Machine Wizard appears, click **Next**.



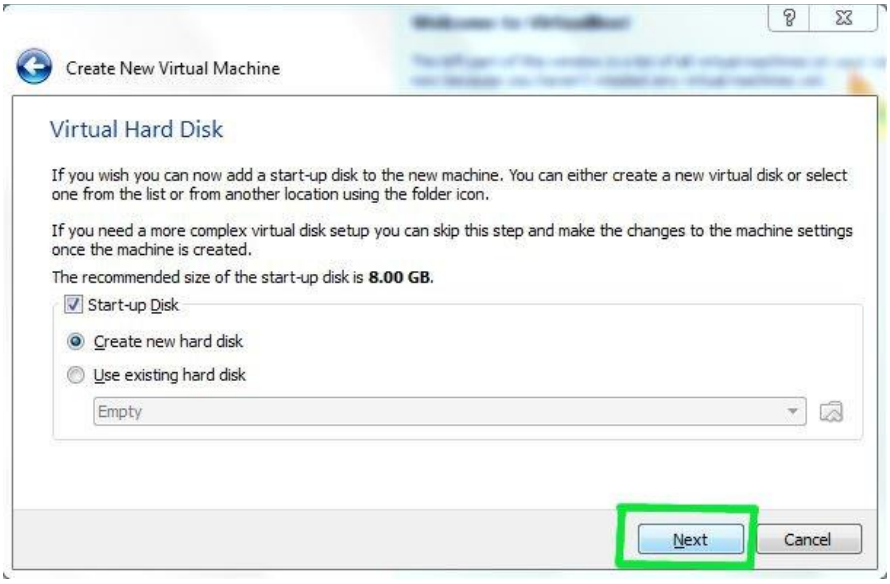
2. You can call the machine whatever you want. You should also specify that the operating system is **Linux**.



3. VirtualBox will try to guess how much of your memory (or RAM) to allocate for the virtual machine. If you have 1 GB or less of RAM, I would advise you stick with the recommendation. If, however, you have over 1 GB, about a quarter your RAM or less should be fine. For example, if you have 2 GB of RAM, 512 MB is fine to allocate. If you have 4 GB of RAM, 1 GB is fine to allocate. If you have no idea what RAM is or how much of it you have, just go with the default. Click **Next**.

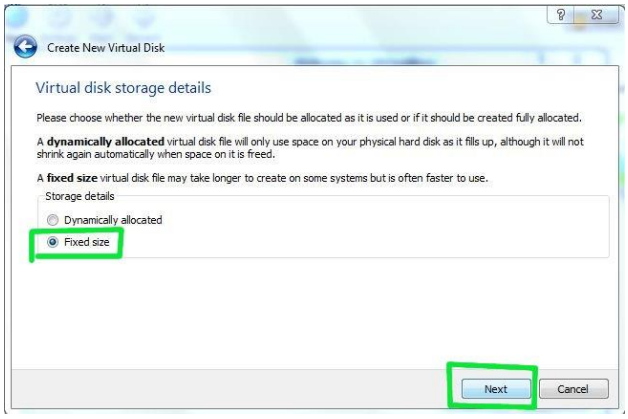


4. If this is your first time using VirtualBox then you do want to Create new hard disk and then click Next.

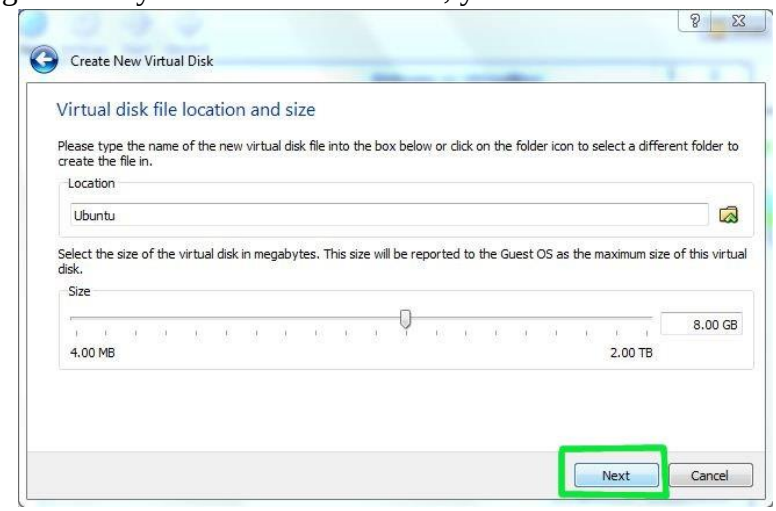


5. Click Next

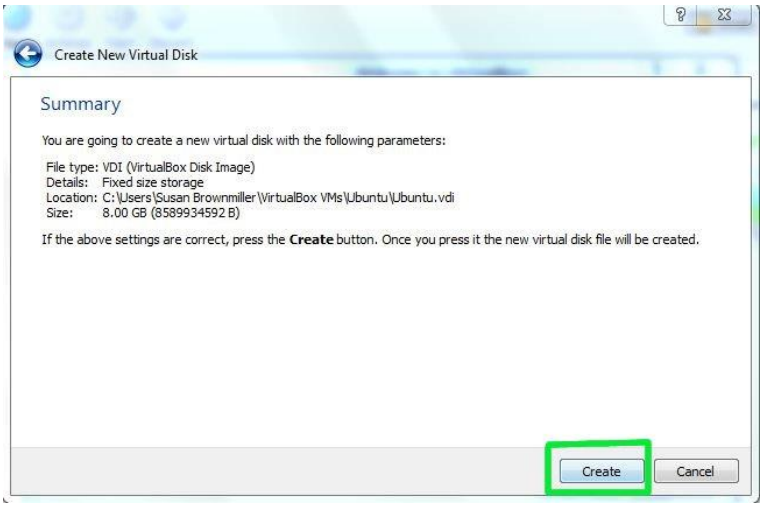
6. Select **Fixed Size** and Click **Next**



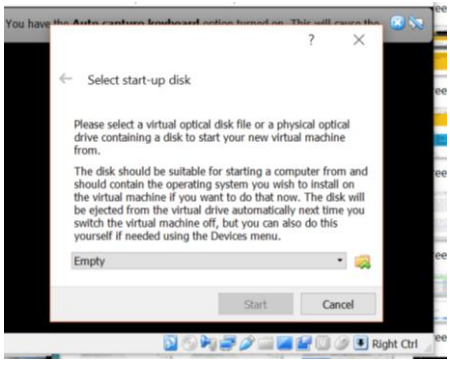
7. Ubuntu's default installation is less than 3 GB. If you plan on adding software or downloading large files in your virtualized Ubuntu, you should tack on some buffer.



8. Click Create



9. The next thing to do to make the (currently blank) virtual hard drive useful is to add the downloaded Ubuntu disk image (the .iso) boot on your virtual machine. next to Empty, you'll see a little folder icon. Click that. Select the Ubuntu .iso you downloaded earlier.



10. Once you've selected it, click OK. Then double-click your virtual machine to start it up.

11. Once it's started up, just follow the regular installation procedure as if you were installing Ubuntu on a real hard drive