UBUNTU INSTALLATION GUIDE

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What is ubuntu?

Ubuntu is a free and open source operating system and Linux distribution based on Debian. Ubuntu is offered in three official editions: Ubuntu Desktop for personal computers, Ubuntu Server for servers and the cloud, and Ubuntu Core for Internet of things devices.

AUTHOR : PARTH PATIL

Email :- parthvin@gmail.com

Below is step by step process to install ubuntu. This is the most common method used to install ubuntu, which involves manually creating a partition. But there is one more easy but uncommon method to install. Both methods are reliable, its up to you whether you want to have granular control over the partition sizes, if not feel free to try method II.

Step 1: Preparing for installation

- Downloads:-
    - Download Ubuntu 16.04 ISO Image as per your system architecture using the following link:
      [Ubuntu 16.04 64-bit Desktop](#)

      Download page

    - [Power ISO](#)

- Creating a partition (skip if using method 2):
  - The first thing you need to take care of is to create free space on the computer hard disk in case the system is installed on a single partition.

    Login to your Windows machine with an administrative account and right-click on the Start Menu -> Command Prompt (Admin) in order to enter Windows Command Line.
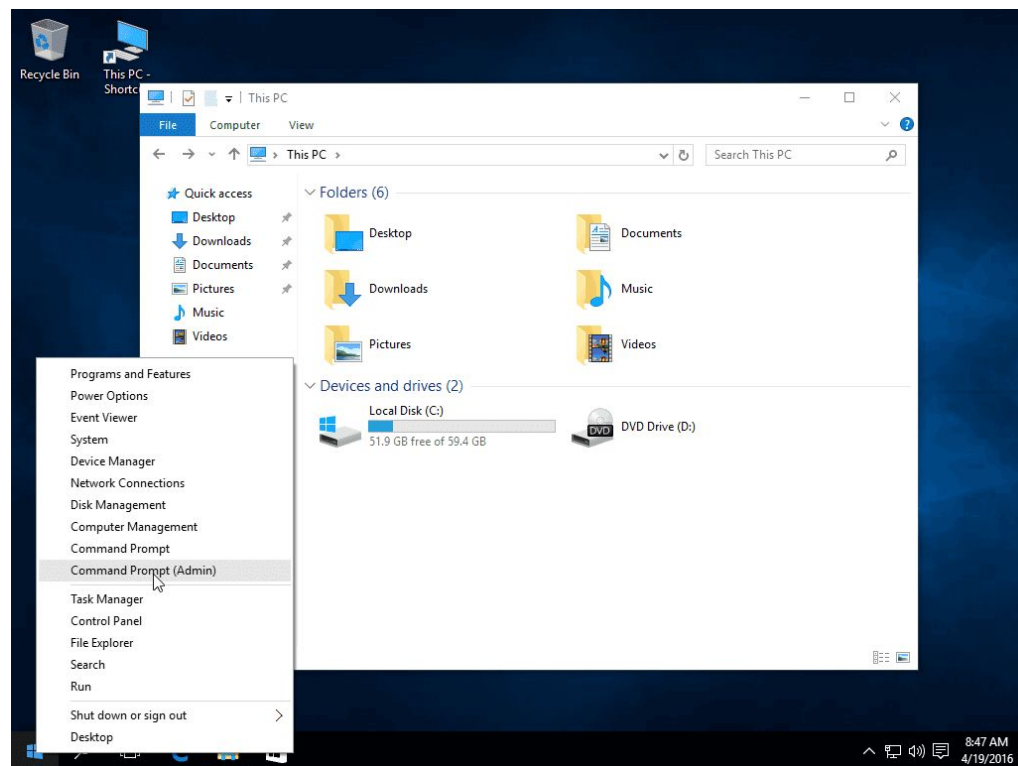
Preparing Windows for Dual-Boot with Ubuntu 16.04

○ Once in CLI, type diskmgmt.msc on prompt and the Disk Management utility should open. From here, right click on C: partition and select Shrink Volume in order to resize the partition.

C:\Windows\system32\>diskmgmt.msc
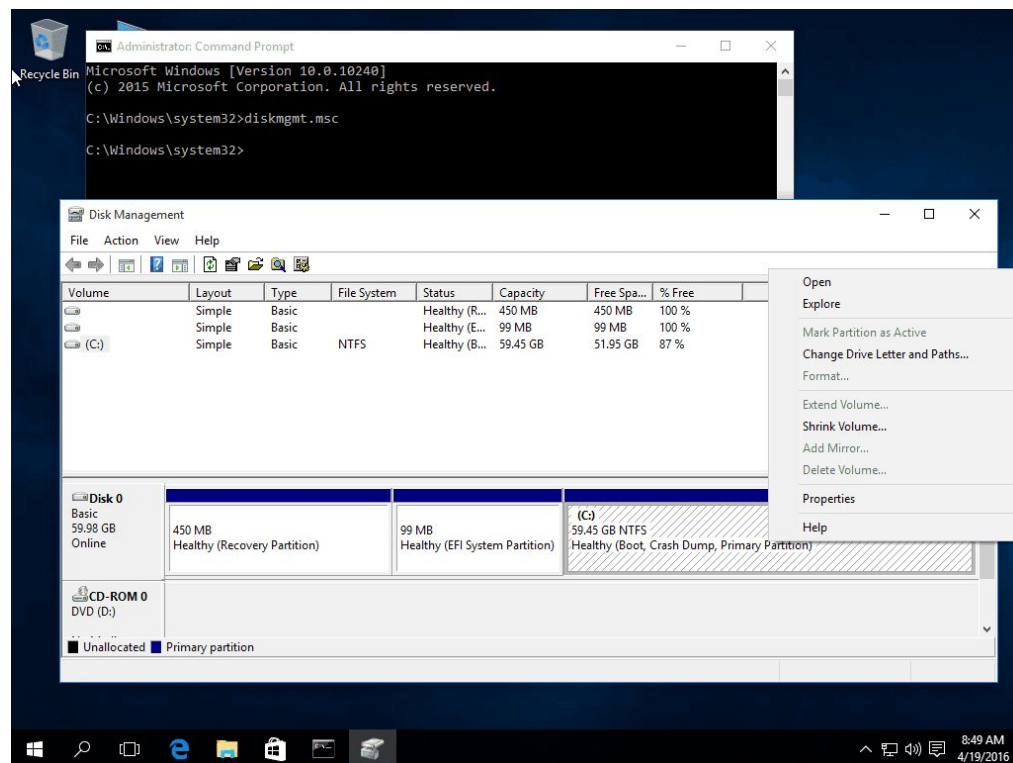
Shrink Volume to Resize Partition

○ On Shrink C: enter a value on space to shrink in MB (use at least 30000 MB depending on the C: partition size)(60000 MB recommended) and hit Shrink to start partition resize as illustrated below (the value of space shrink from below image is lower and only used for demonstration purposes).

Once space has been resized you will see a new unallocated space on the hard drive. Leave it as default and reboot the computer in order to proceed with Ubuntu 16.04 installation.
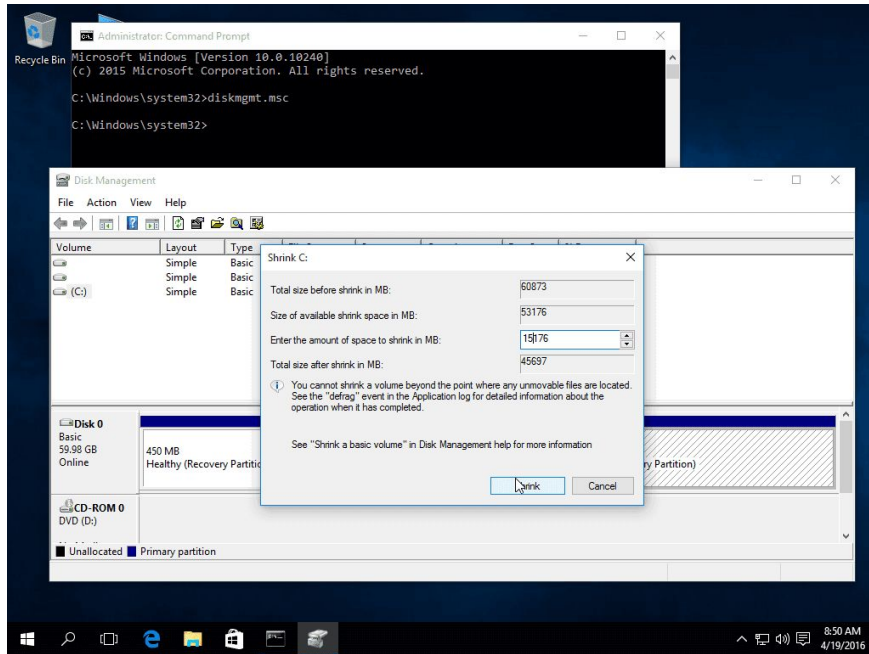

Create Windows Partition for Ubuntu 16.04 Installation
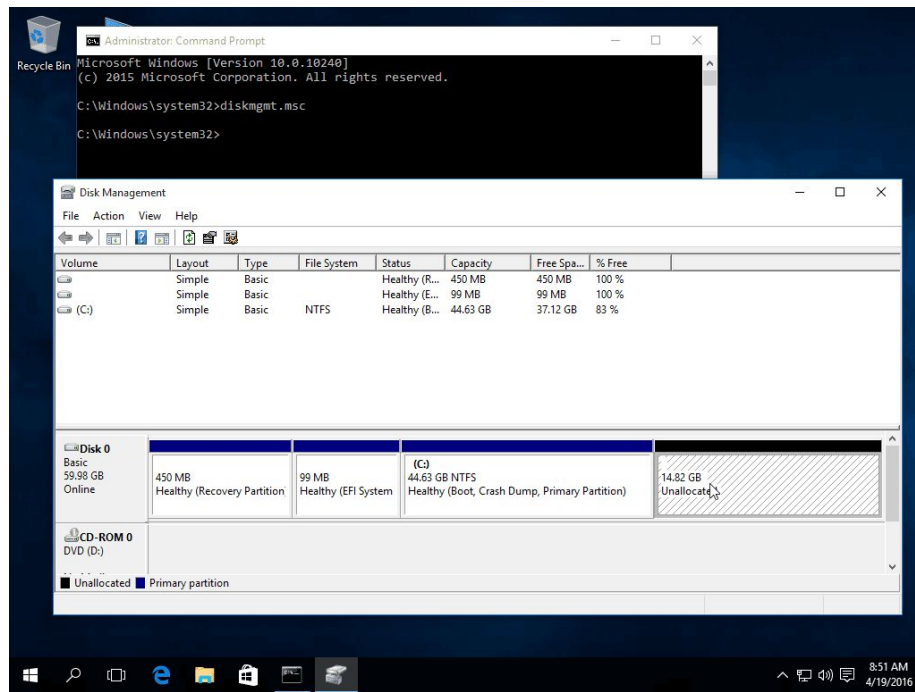
Windows Partition for Dual Boot Ubuntu 16.04

- Making a bootable drive:-
  a. Install the PowerISO in windows and open it.
  b. Insert the USB drive you intend to boot from.
  c. Choose the menu "Tools > Create Bootable USB Drive". The "**Create Bootable USB Drive**" dialog will popup. If you are using Windows Vista or above operating system, you need to confirm the UAC dialog to continue.
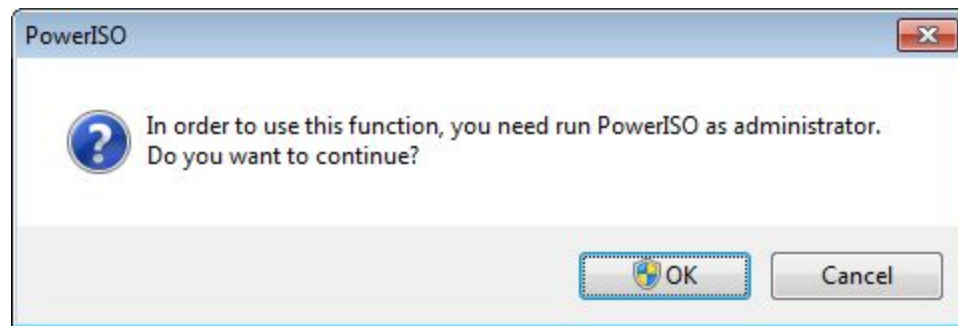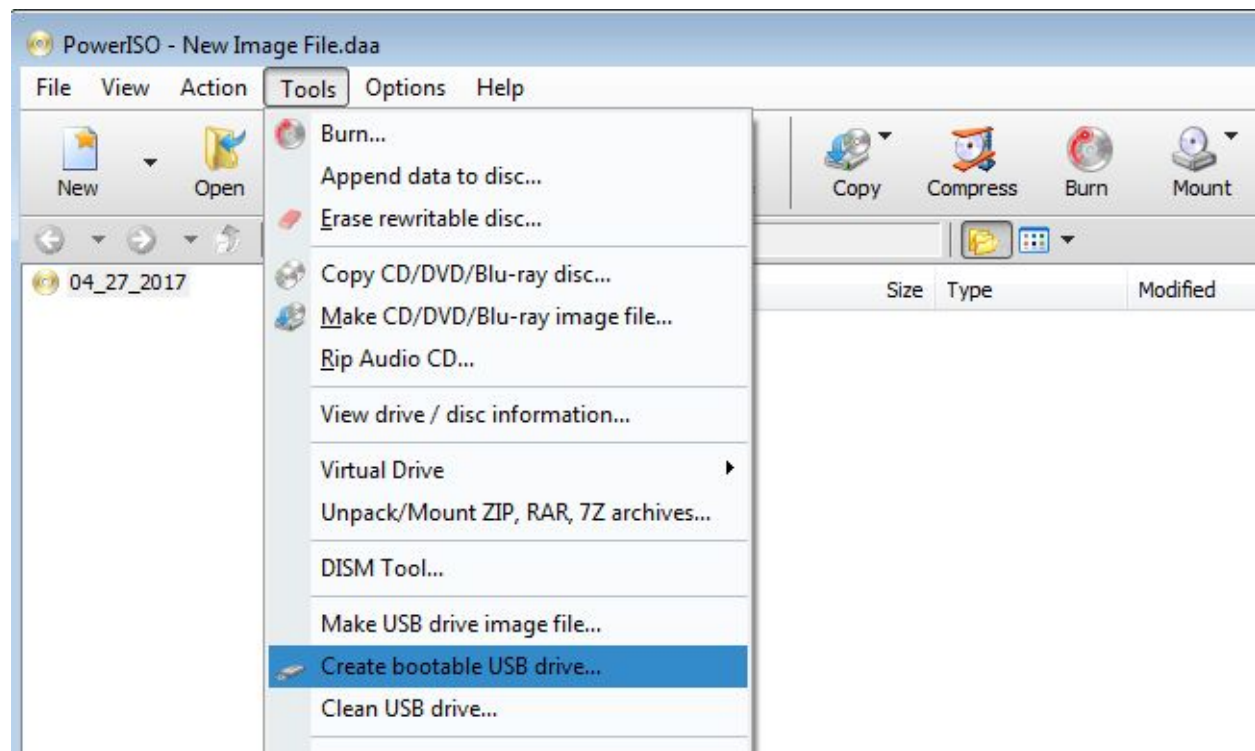
d. In "Create Bootable USB Drive" dialog, click "..." button to open the iso file of Windows operating system.
e. Select the correct USB drive from the "Destination USB Drive" list if multiple USB drives are connected to the computer.
f. Choose the proper writing method. "USB-HDD" is recommended.

g. Click "Start" button to start **creating a bootable USB drive**.
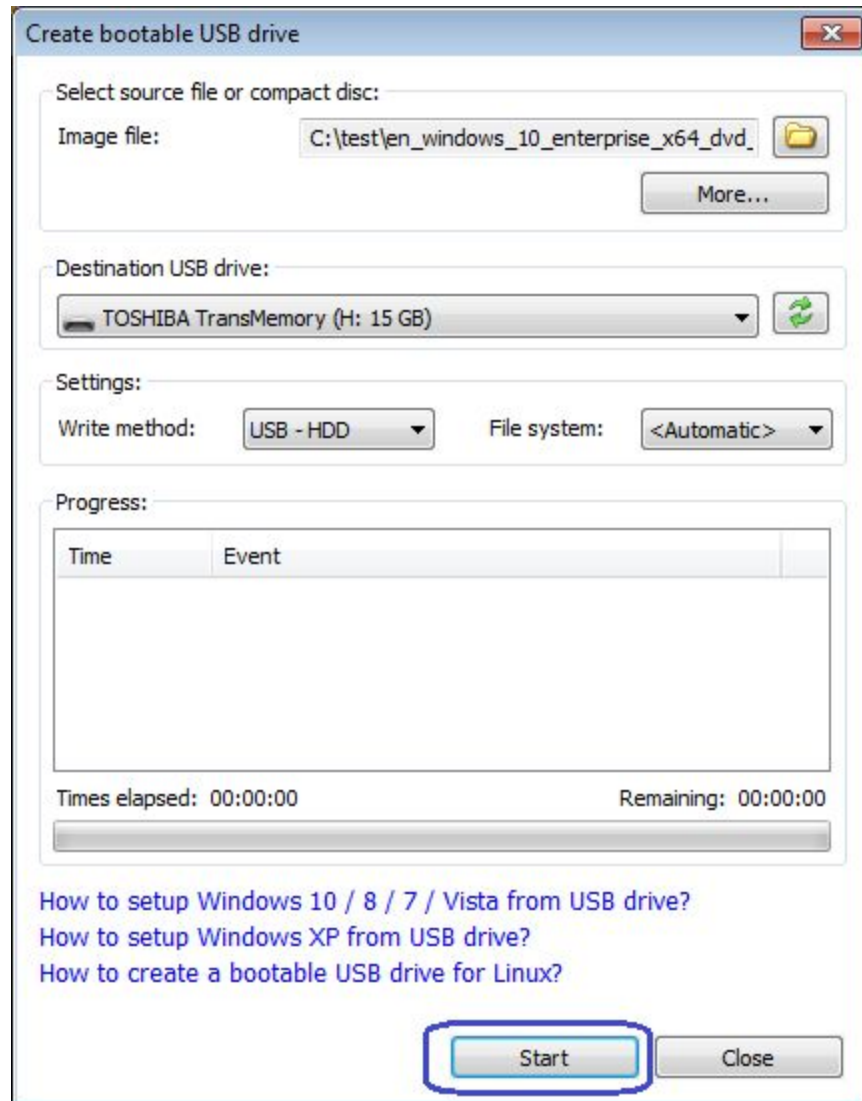
h. PowerISO will alert you that all data on the USB drive will be destroyed. Click "OK" to continue.
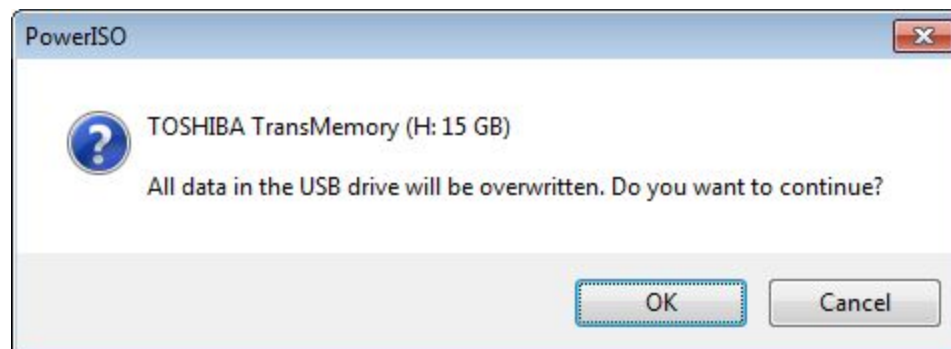
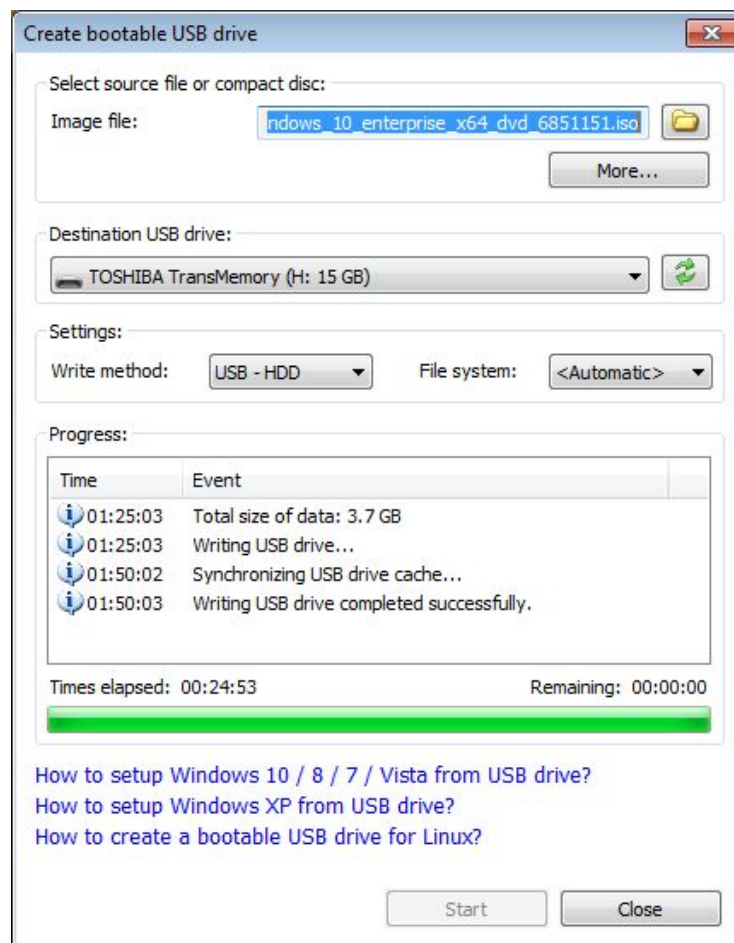The program will start writing the USB drive, and showing the progress information. You should get the message "Writing USB drive completed successfully." after the operation completes.
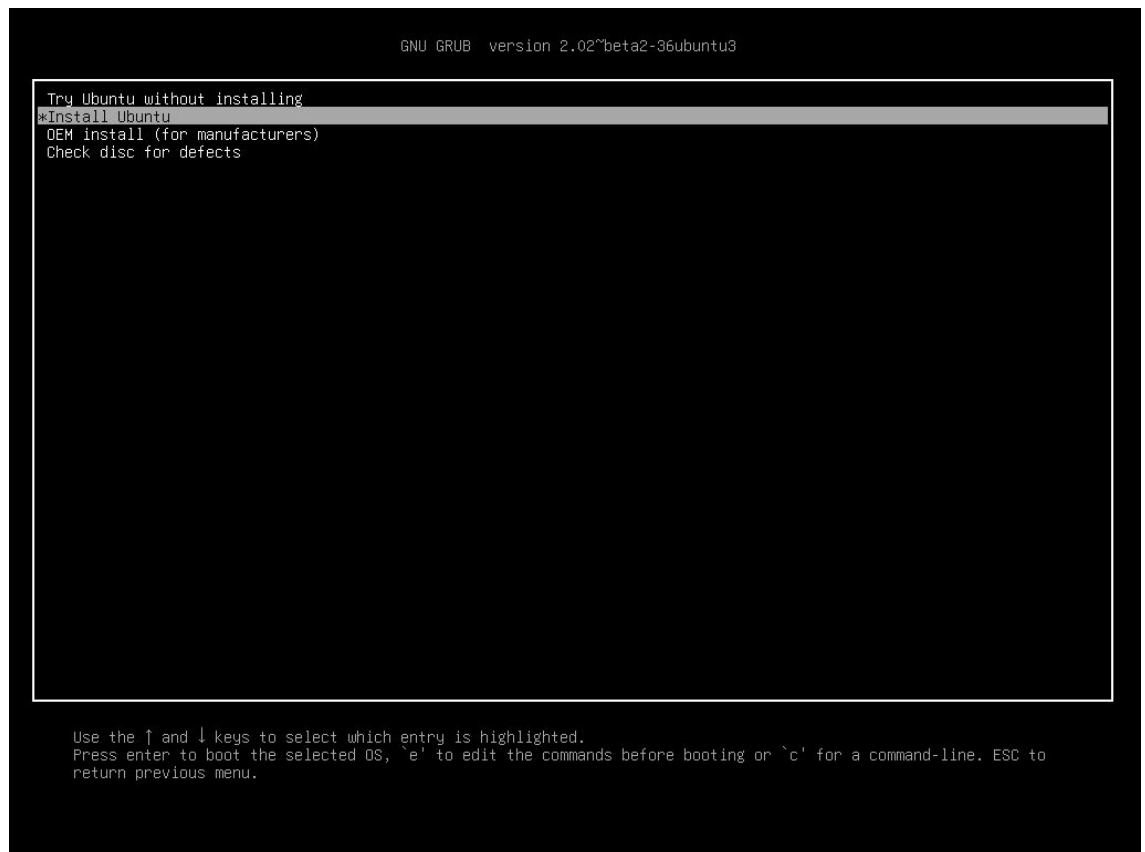
- **MAKE A BACKUP:-**
  a. This is just to emphasize that you can lose your data if something went wrong, so it is better to make a backup of some really important files now.
- **INSTALLING UBUNTU:-**
  a. Place the USB stick or DVD in the appropriate drive, reboot the machine and instruct the **BIOS/UEFI** to boot-up from the DVD/USB by pressing a special function key (usually **F12**, **F10** or **F2** depending on the vendor specifications).
  b. Once the media boot-up a new grub screen should appear on your monitor. From the menu select **Install Ubuntu** and hit **Enter** to continue.

```
                      GNU GRUB  version 2.02~beta2-36ubuntu3

  Try Ubuntu without installing
 *Install Ubuntu
  OEM install (for manufacturers)
  Check disc for defects








      Use the ↑ and ↓ keys to select which entry is highlighted.
      Press enter to boot the selected OS, `e' to edit the commands before booting or `c' for a command-line. ESC to
      return previous menu.
```

c. After the boot media finishes loading into RAM you will end up with a completely functional Ubuntu system running in live mode.

d. On the Launcher hit on the second icon from top, **Install Ubuntu 16.04 LTS**, and the installer utility will start(this may also start automatically). Choose the language you wish to perform the installation and click on the **Continue** button to proceed further.
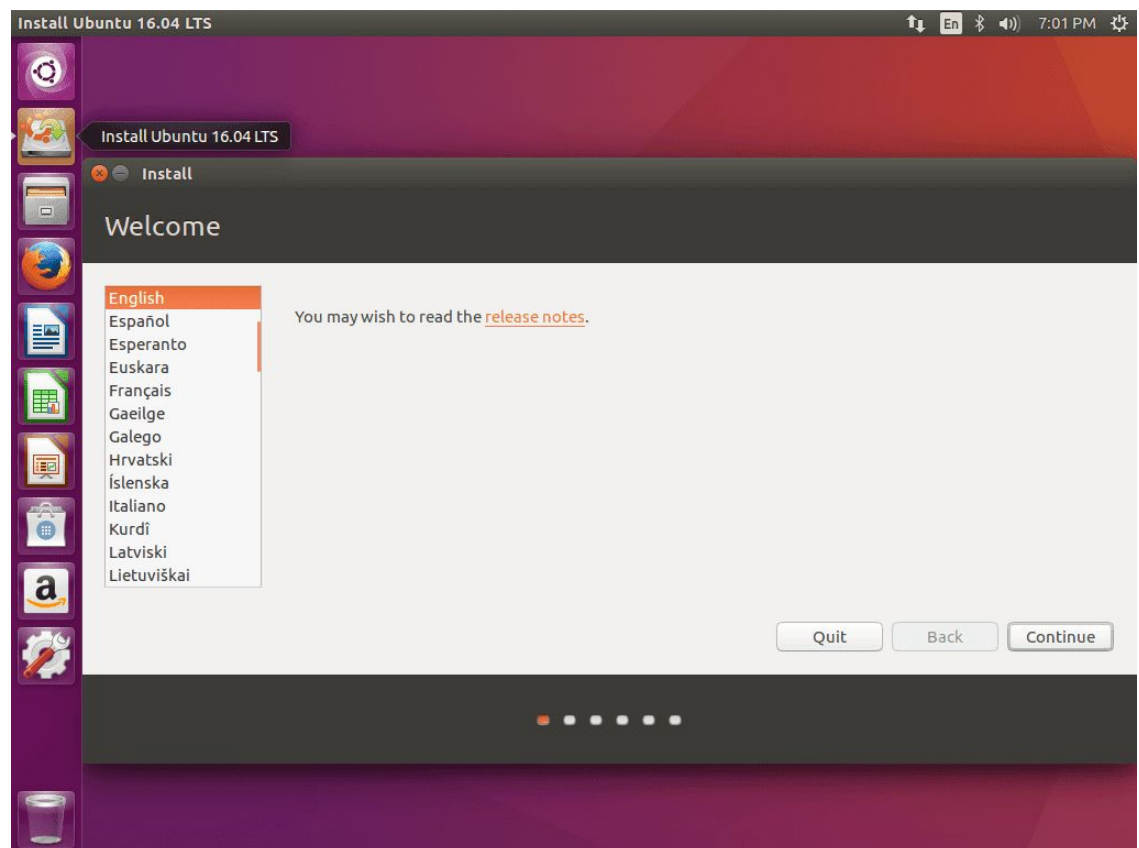
e. Now select the second option if you wish to have the third party softwares or multimedia drivers preinstalled.
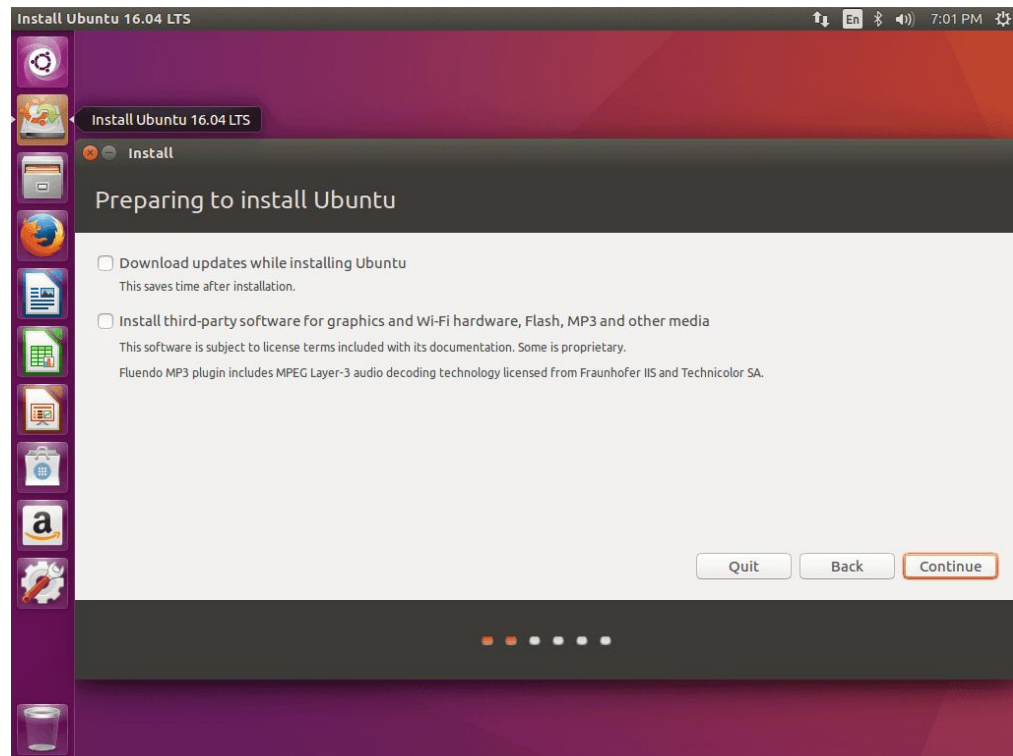

f. Now it's time to select an Installation, check the **Something else** option and hit on **Continue** button to proceed further.

The option **Erase disk** and install Ubuntu should be avoided on dual-boot because is potentially dangerous and will wipe out your disk.
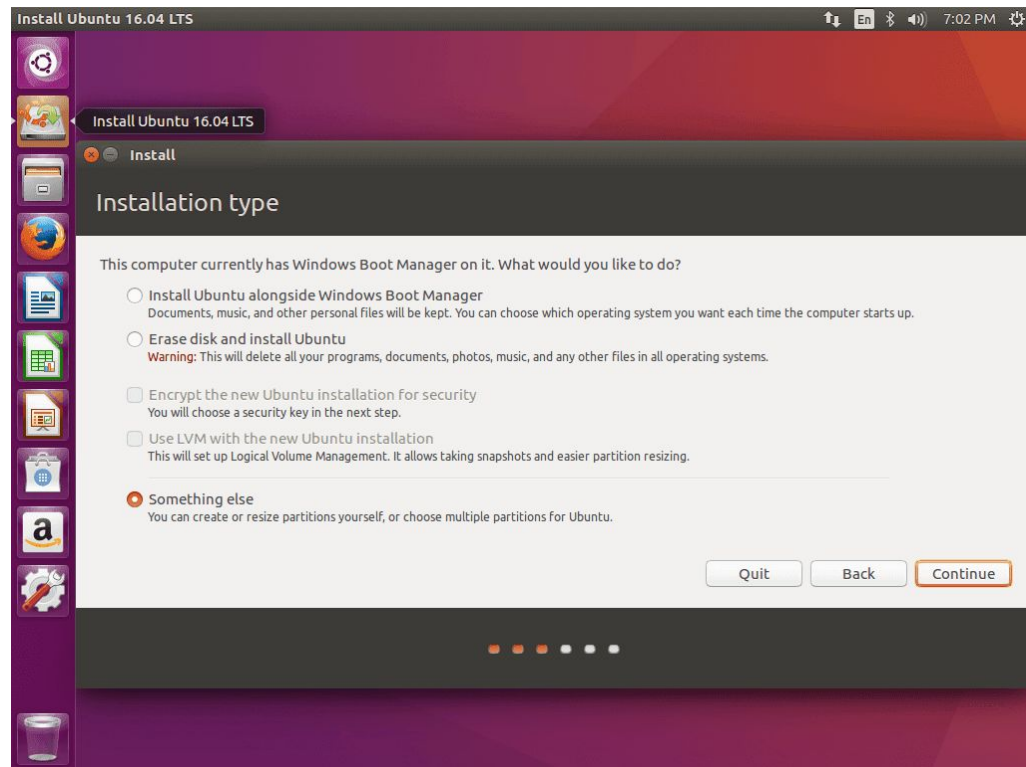
g. On this step, we'll create our custom partition layout for **Ubuntu 16.04**. On this guide will recommend that you create two partitions, one for root and the other for the swap. To create the first partition, the root partition, select the free space (the shrink space from Windows created earlier) and hit on the + icon below. On partition settings use the following configurations and hit **OK** to apply changes:

- Size = at least **30000** MB (this would be whatever space you have shrunk minus 10000MB)
- Type for the new partition = **Primary**
- Location for the new partition = **Beginning**
- Use as = **EXT4** journaling file system
- Mount point = **/**
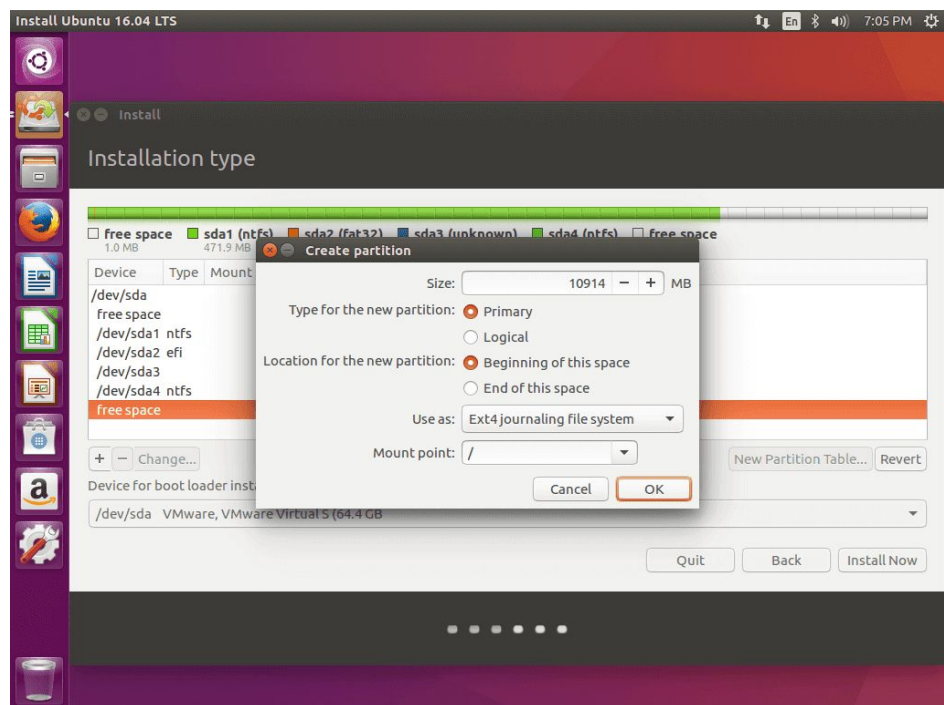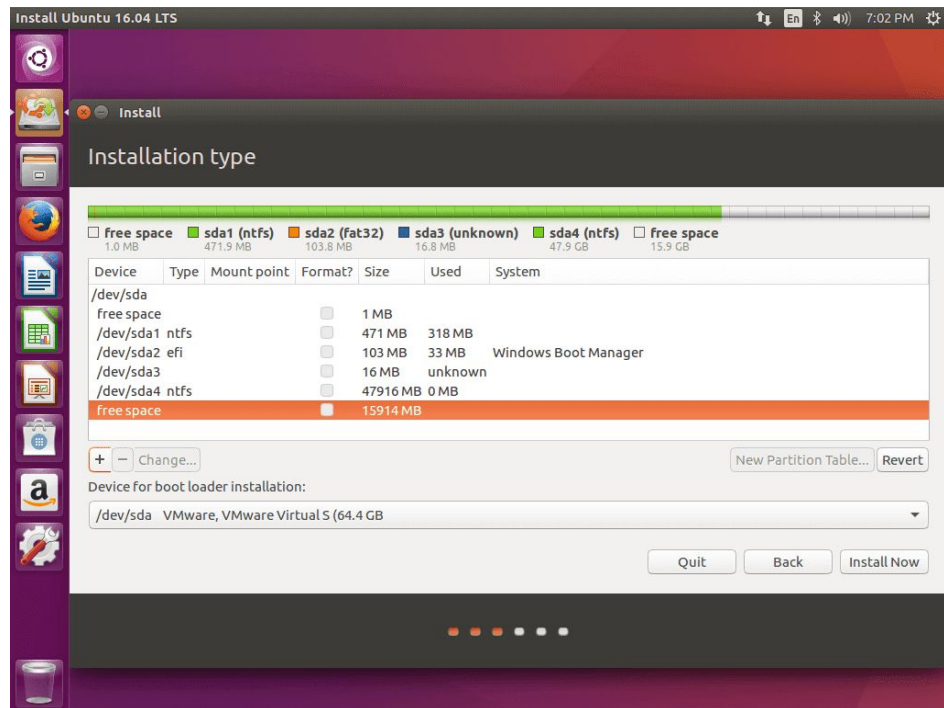
Then click on the 10000MB free space again and hit the plus button this time select

- Use as = **SWAP Area**

  And hit OK.

h. When finished, hit the **Install Now** button in order to apply changes to disk and start the installation process.

   A pop-up window should appear to inform you about **swap** space. Ignore the alert by pressing on the **Continue** button.

   Next, a new pop-up window will ask you if you agree with committing changes to disk. Hit **Continue** to write changes to disk and the installation process will now start.

i. On the next screen adjust your machine physical location by selecting a city nearby from the map. When done hit **Continue** to move ahead.

j. Next, select your **keyboard** layout and click on the **Continue** button.

k. Pick up a username and password for your administrative **sudo** account, enter a descriptive name for your computer and hit **Continue** to finalize the installation.
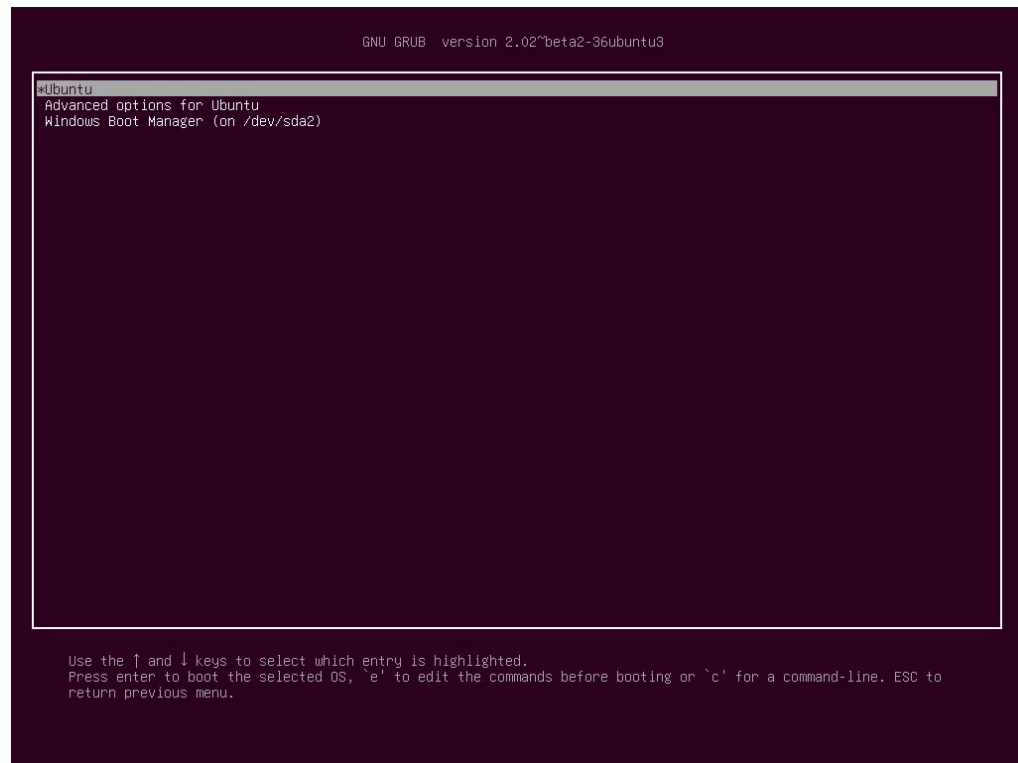
   These are all the settings required for customizing **Ubuntu 16.04** installation. From here on the installation process

will run automatically until it reaches the end.
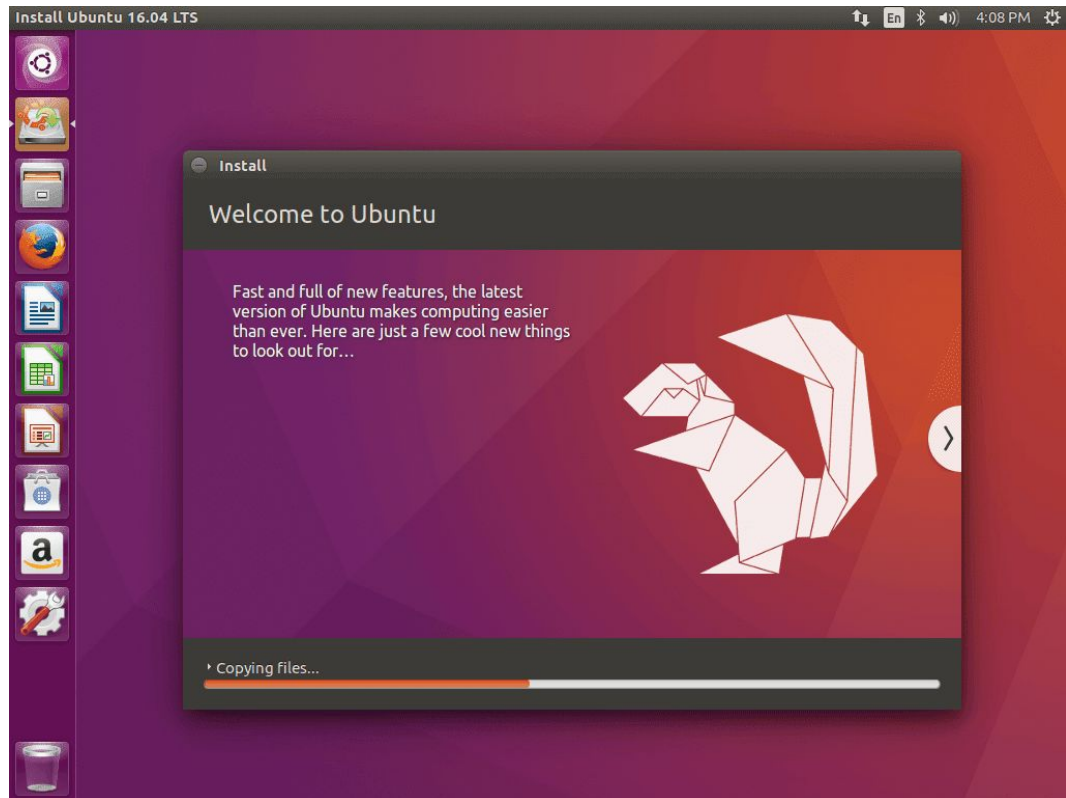
l. After the installation process reaches its end hit on **Restart Now** button in order to complete the installation.

m. The machine will reboot into the **Grub** menu, where for ten seconds, you will be presented to choose what OS you wish to use further: **Ubuntu 16.04** or **Microsoft Windows**.

```
                          GNU GRUB  version 2.02~beta2-36ubuntu3

 *Ubuntu
  Advanced options for Ubuntu
  Windows Boot Manager (on /dev/sda2)
```

```
     Use the ↑ and ↓ keys to select which entry is highlighted.
     Press enter to boot the selected OS, `e' to edit the commands before booting or `c' for a command-line. ESC to
     return previous menu.
```

METHOD 2

Method 2 is more or less the same thing. Only you don't have to follow anything in green.

You can entirely skip the part of making partitions

Then in step g) of installation instead of selecting "something else" you can select "install ubuntu alongside with windows" i.e. the first option. Next you should be able to see this on the next window.
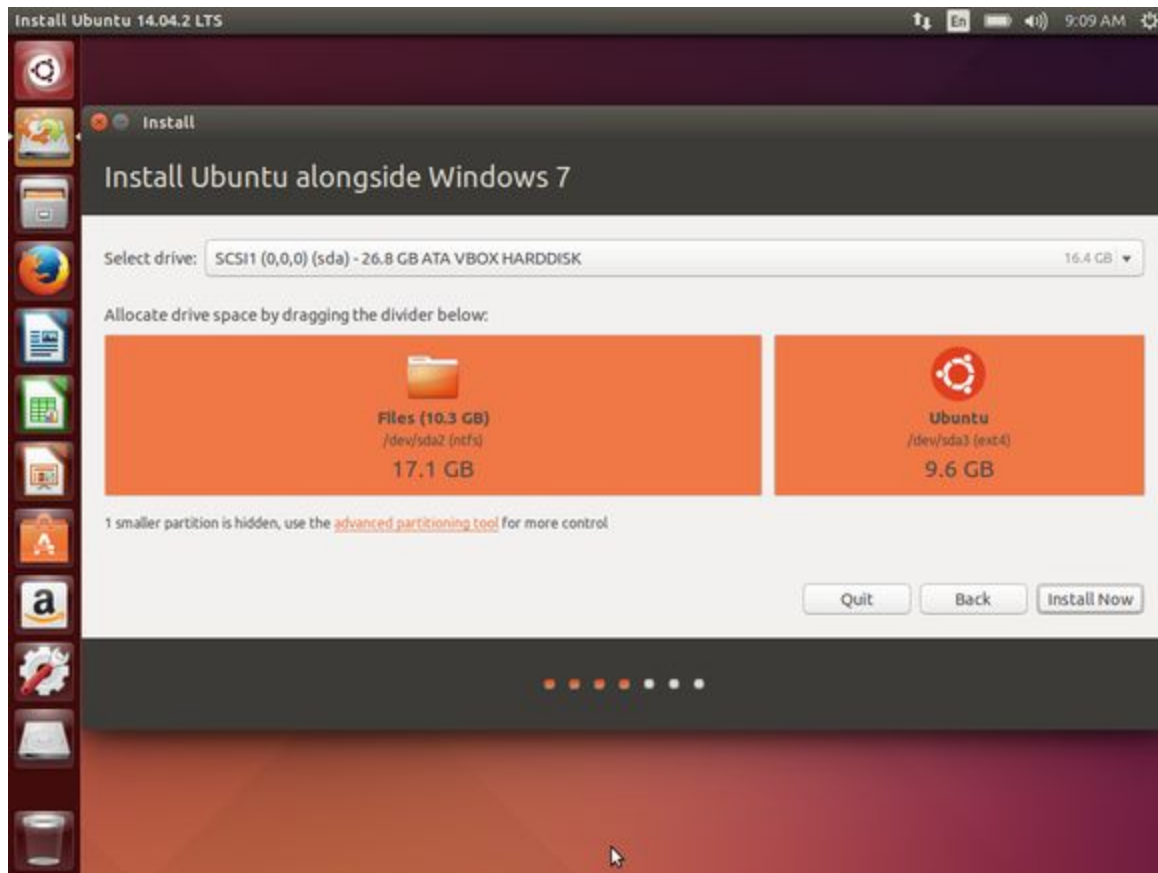
Select the appropriate drive and how much space you want to allot to Ubuntu (recommended 60GB). Then click "Continue", and follow the above guide from step h).

NOTE:- Please be careful, don't do anything if you are not sure about what you are doing.