Linux

The Linux open source operating system, or Linux OS, is a freely distributable, cross platform operating system based on Unix that can be installed on PCs, laptops, mobile and tablet devices, video game consoles, servers, supercomputers and more.

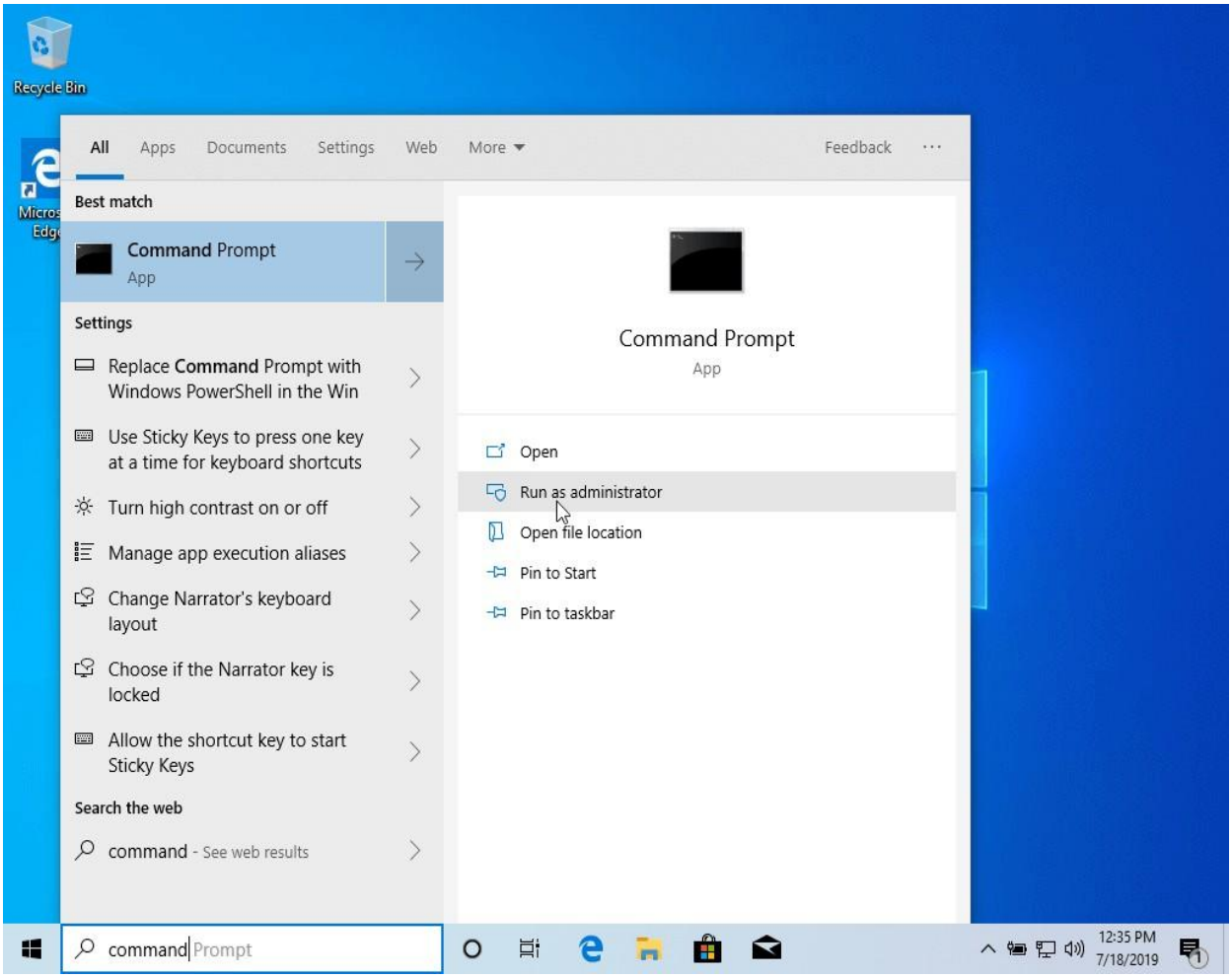
Popular flavor of linux are Ubuntu, Fedora, Linux Mint, openSUSE, PCLinuxOS, Debian, Mandriva, Sabayon/Gentoo and many more.

Install Ubuntu Alongside With Windows 10 or 8 in Dual-Boot

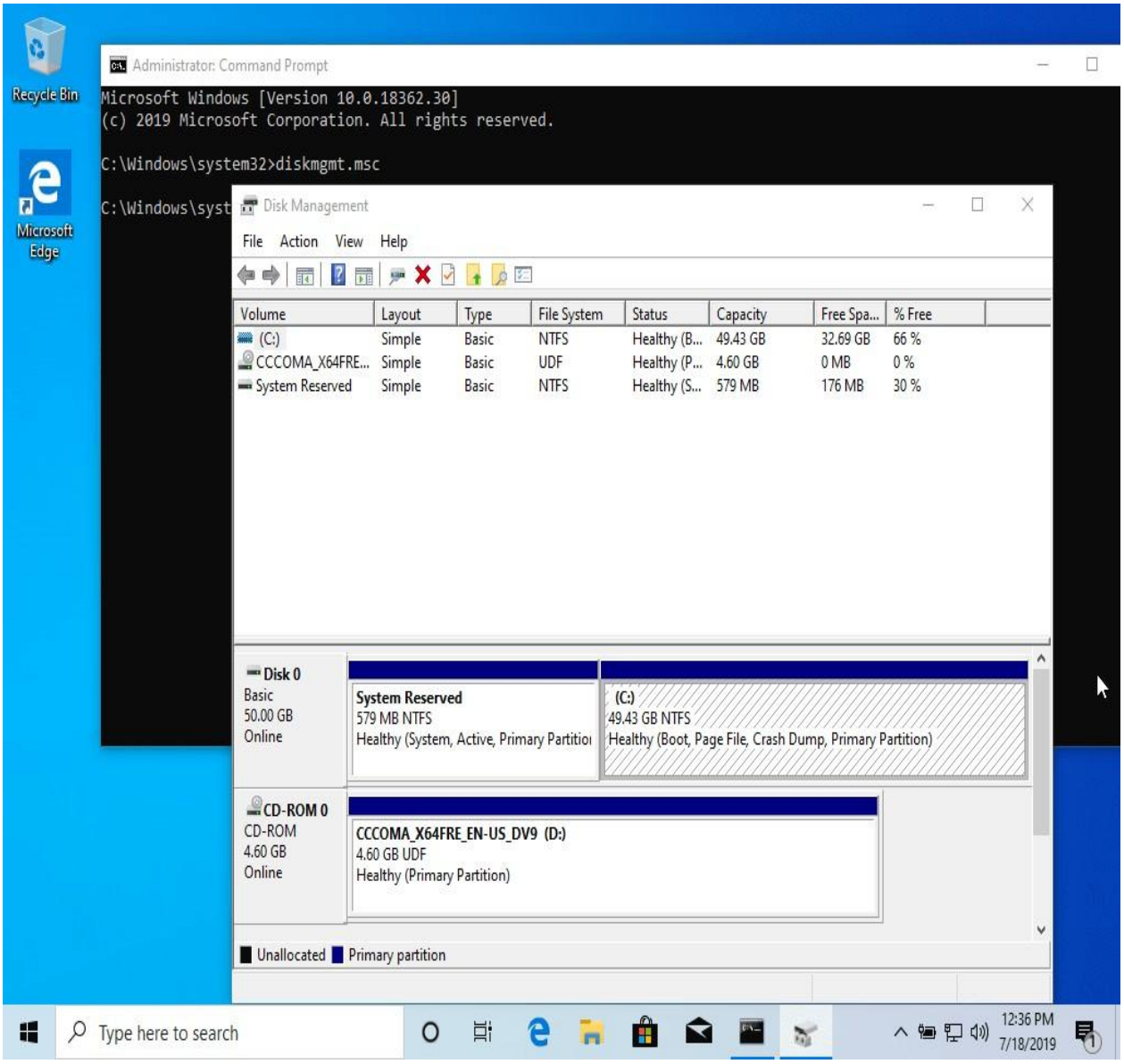
This tutorial will guide you on how you can perform the installation of Ubuntu 20.04**,** Ubuntu 19.04**,** Ubuntu 18.10**,** or Ubuntu 18.04 in dual-boot with a Microsoft Operating System on machines that come pre-installed with Windows 10.

> If your computer has no other Operating System already installed and you plan to use a Windows variant alongside Ubuntu, you should first install Microsoft Windows and then proceed with Ubuntu installation.

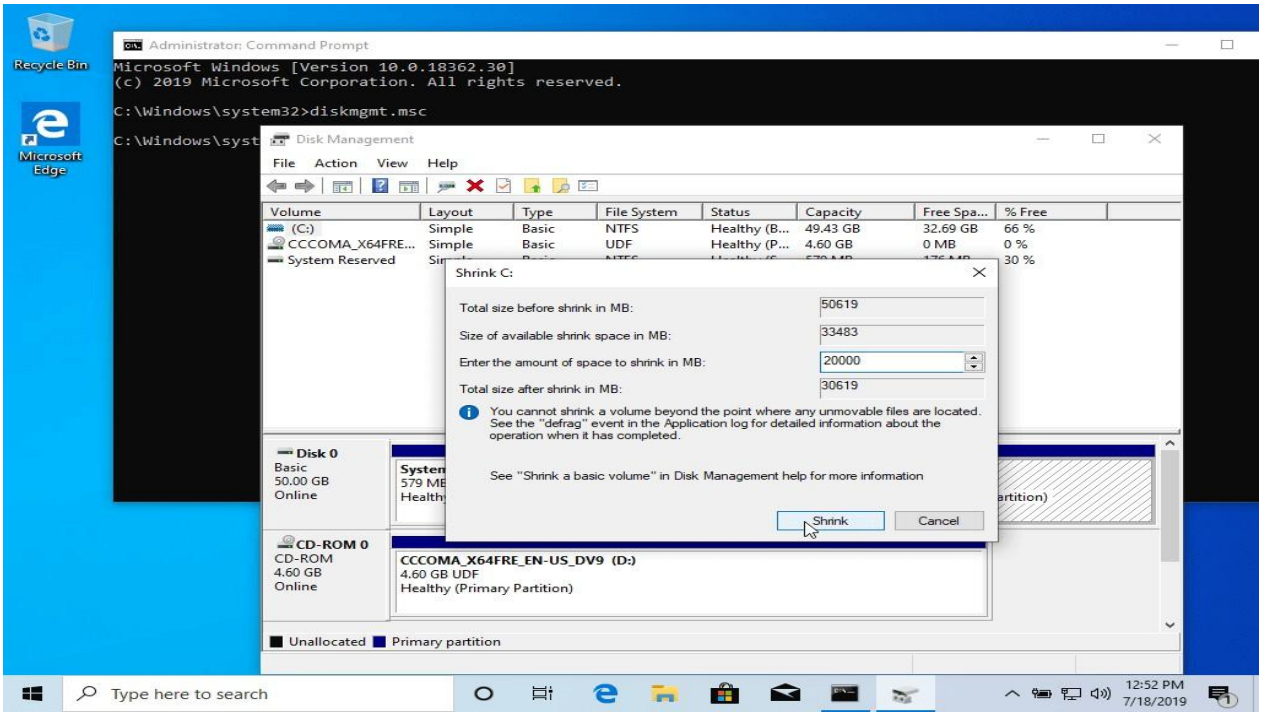
1. The first thing you need to take care of is to create free space on the computer hard disk in case the system is installed on a single partition.

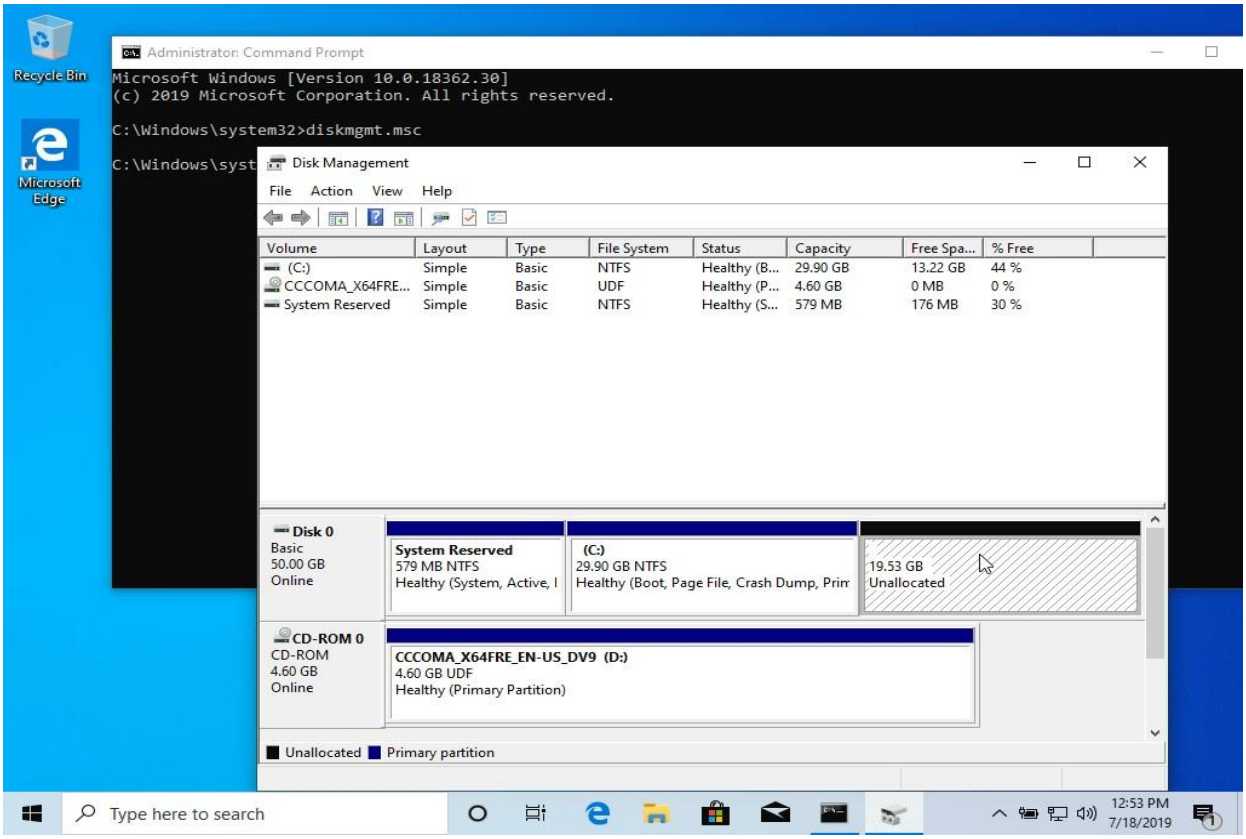


2. Once in **CLI**, type **diskmgmt.msc** on prompt and the **Disk Management** utility should open. From here, right-click on **drive** the partition and select **Shrink Volume** in order to resize the partition.



3. On Shrink of selected drive enter a value on space to shrink in MB (use at least **20000 MB** depending on the **drive** partition size) 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 the Ubuntu installation


Recycle Bin
Microsoft Edge
Administrator: Command Prompt
Microsoft Windows [Version 10.0.18362.30]
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Windows\system32>diskmgmt.msc
C:\Windows\syst
Disk Management
File Action View Help
Volume Layout Type File System Status Capacity Free Spa... % Free
(C:) Simple Basic NTFS Healthy (B... 49.43 GB 32.69 GB 66 %
CCCOMA_X64FRE... Simple Basic UDF Healthy (P... 4.60 GB 0 MB 0 %
System Reserved Simple Basic NTFS Healthy (S... 579 MB 176 MB 30 %
Shrink C:
Total size before shrink in MB: 50619
Size of available shrink space in MB: 33483
Enter the amount of space to shrink in MB: 20000
Total size after shrink in MB: 30619
You cannot shrink a volume beyond the point where any unmovable files are located. See the "defrag" event in the Application log for detailed information about the operation when it has completed.
See "Shrink a basic volume" in Disk Management help for more information
Shrink
Cancel
Disk 0
Basic
50.00 GB
Online
CD-ROM 0
CD-ROM
4.60 GB
Online
CCCOMA_X64FRE_EN-US_DV9 (D:)
4.60 GB UDF
Healthy (Primary Partition)
Unallocated
Primary partition
Type here to search
12:52 PM
7/18/2019


Recycle Bin
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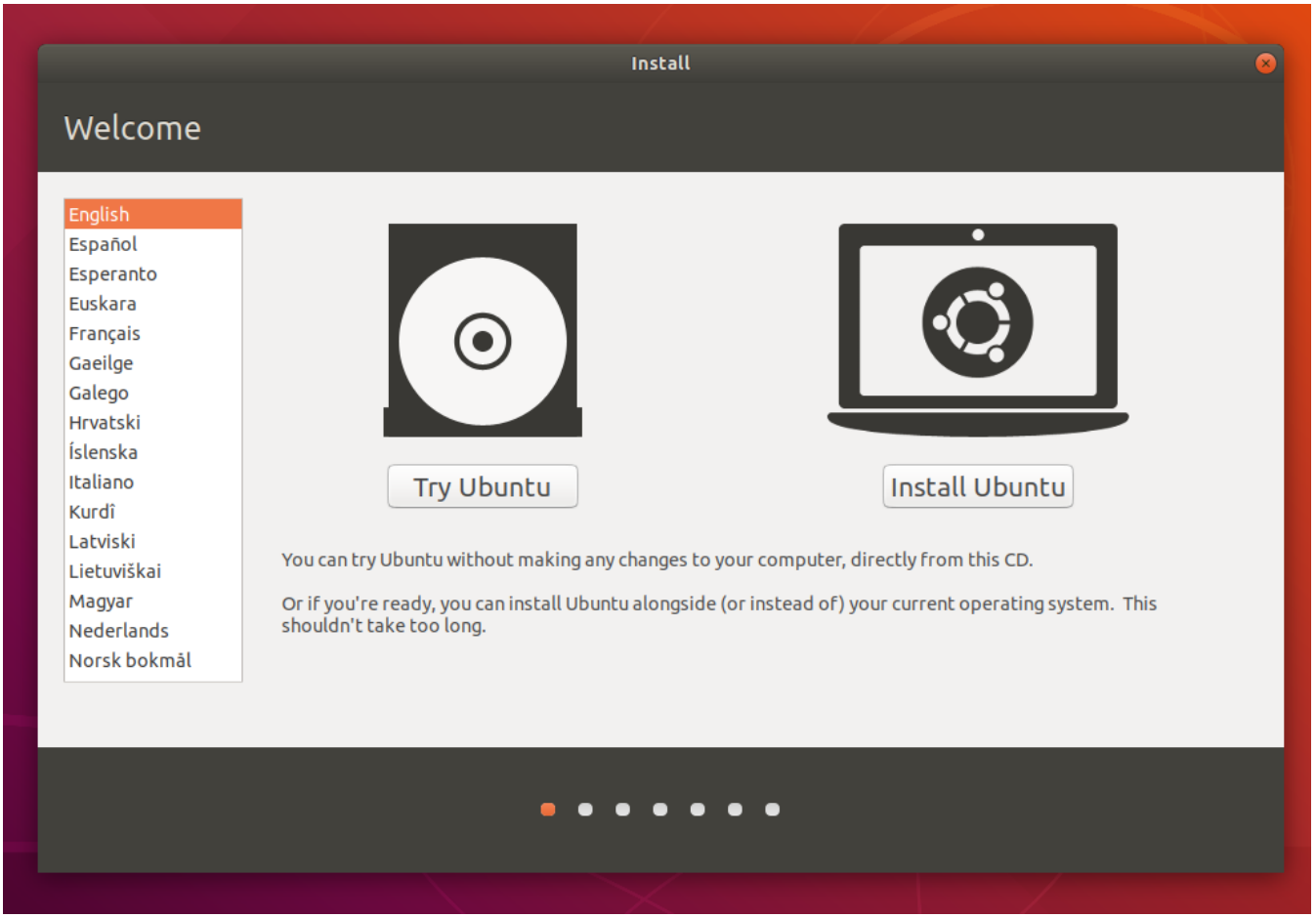
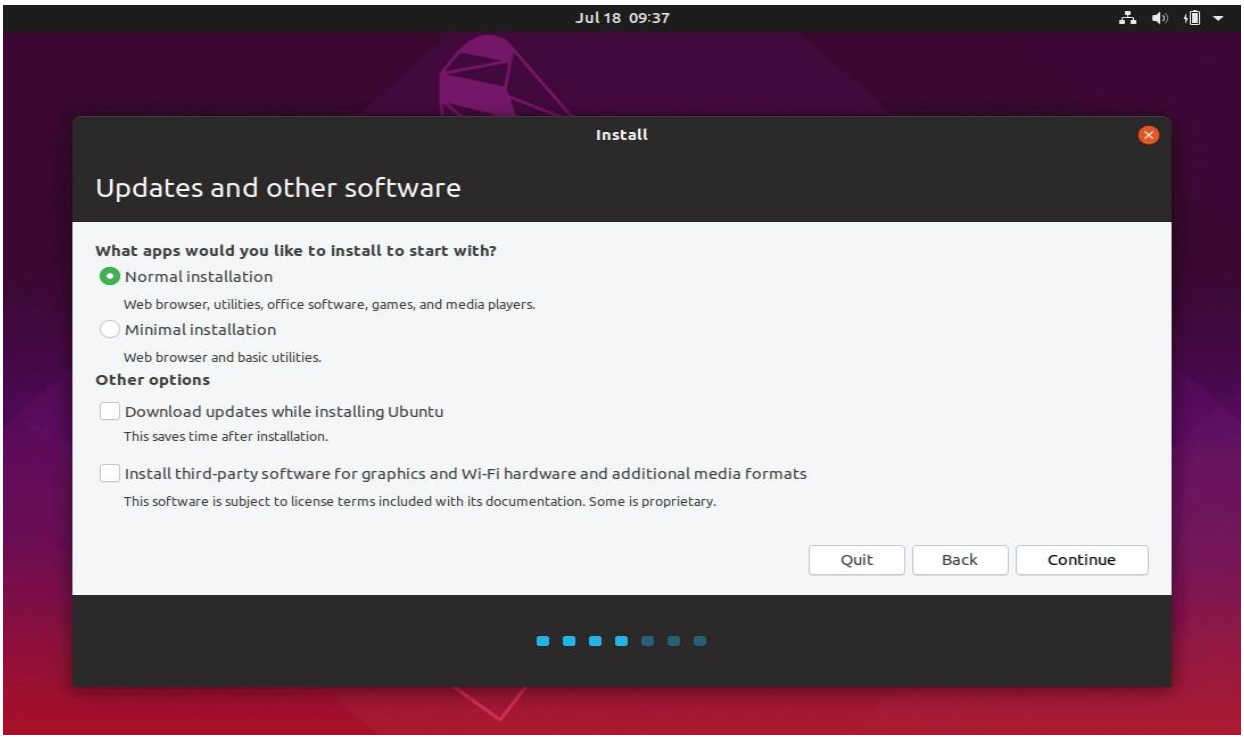
(c) 2019 Microsoft Corporation. All rights reserved.
C:\Windows\system32>diskmgmt.msc
C:\Windows\syst
Disk Management
File Action View Help
Volume Layout Type File System Status Capacity Free Spa... % Free
(C:) Simple Basic NTFS Healthy (B... 29.90 GB 13.22 GB 44 %
CCCOMA_X64FRE... Simple Basic UDF Healthy (P... 4.60 GB 0 MB 0 %
System Reserved Simple Basic NTFS Healthy (S... 579 MB 176 MB 30 %
Disk 0
Basic
50.00 GB
Online
System Reserved
579 MB NTFS
Healthy (System, Active, I
(C:)
29.90 GB NTFS
Healthy (Boot, Page File, Crash Dump, Prim
19.53 GB
Unallocated
CD-ROM 0
CD-ROM
4.60 GB
Online
CCCOMA_X64FRE_EN-US_DV9 (D:)
4.60 GB UDF
Healthy (Primary Partition)
Unallocated
Primary partition
Type here to search
12:53 PM
7/18/2019

Install Ubuntu with window Dual-Boot

4. For this article, we will be installing Ubuntu 20.04 alongside with Windows dual boot (you can use any Ubuntu release for installation).
4.1 Burn the image to a DVD or create a bootable USB stick using a utility such as Rufus (UEFI compatible).
4.2 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 laptop/pc specifications).
4.3 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.



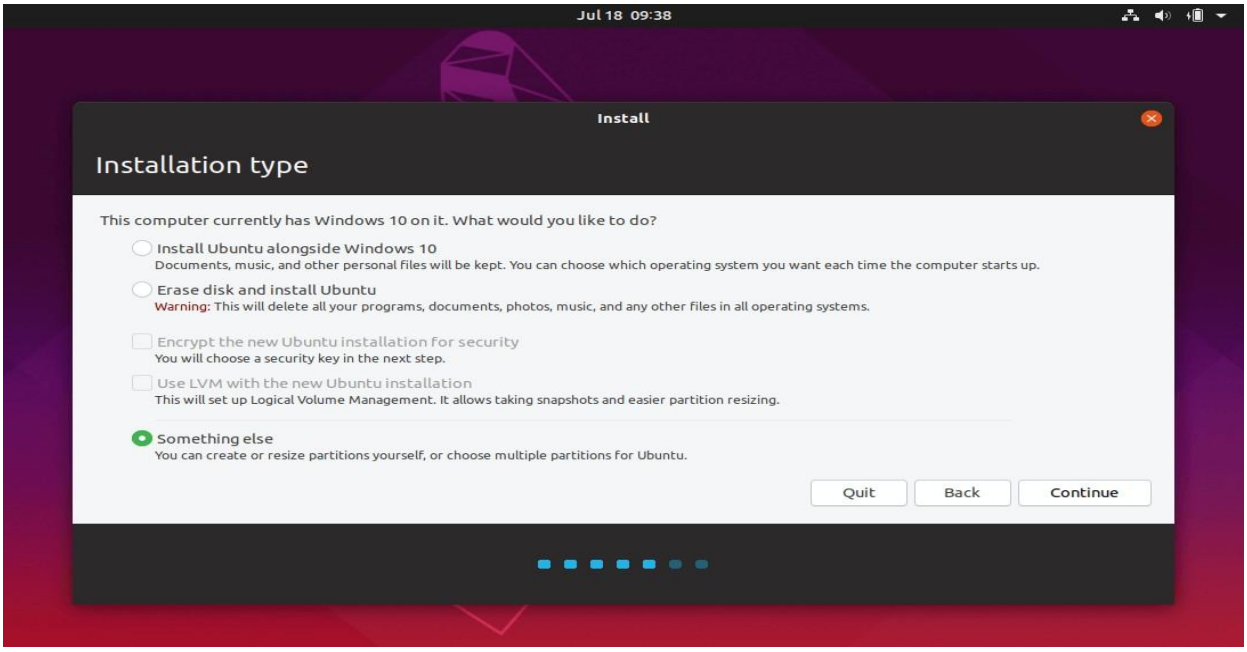
5. Choose the language you wish to perform the installation and click on the **Continue** button to proceed further.
6. Next, choose the first option "**Normal Installation**" and hit on the **Continue** button again.



7. Now it's time to select an Installation Type. You can choose to **Install Ubuntu** alongside **Windows Boot Manager**, an option that will automatically take care of all the partition steps. Use this option if you don't require a personalized partition scheme.

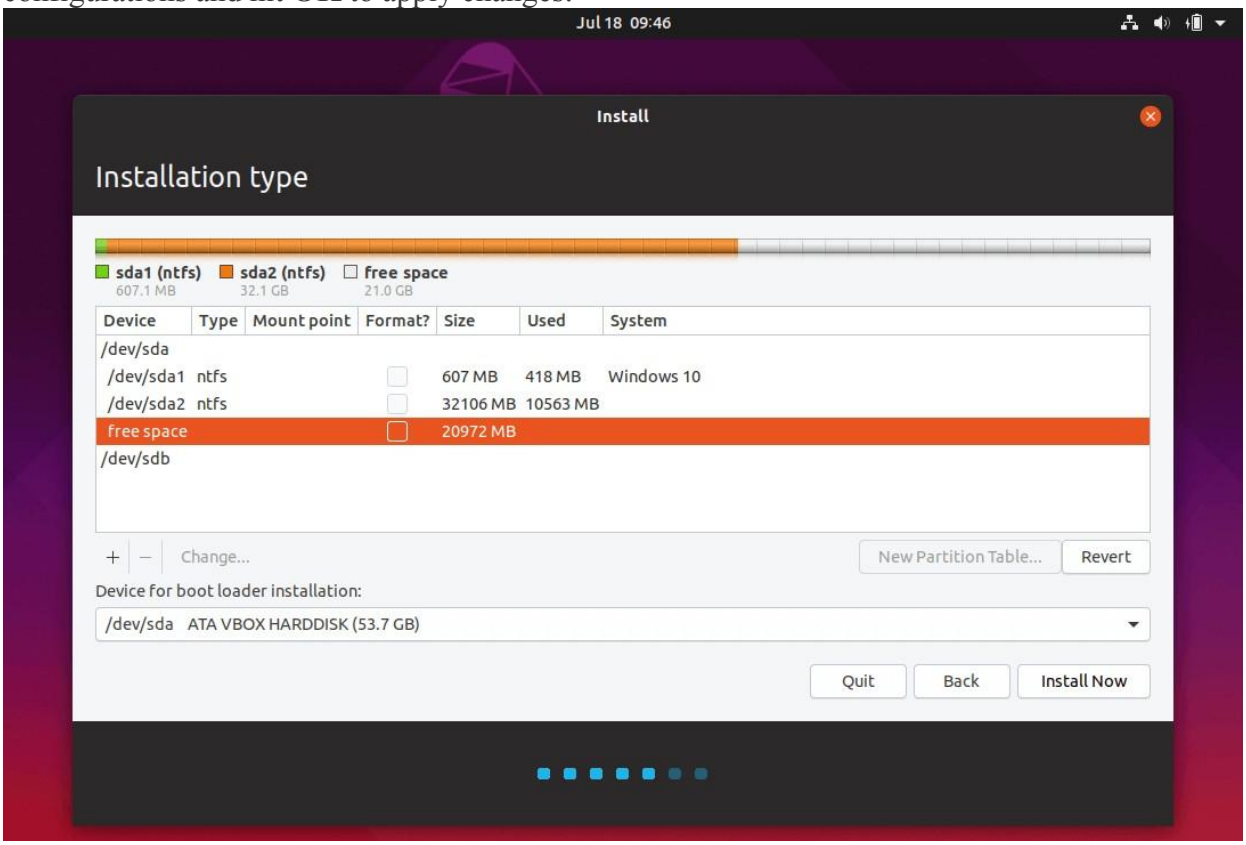
7.1 In case you want a custom partition layout, check the **something else** option and hit on the **Continue** button to proceed further.

Note: The option **Erase disk** and install Ubuntu should be avoided on dual-boot because is potentially dangerous and will wipe out your disk.

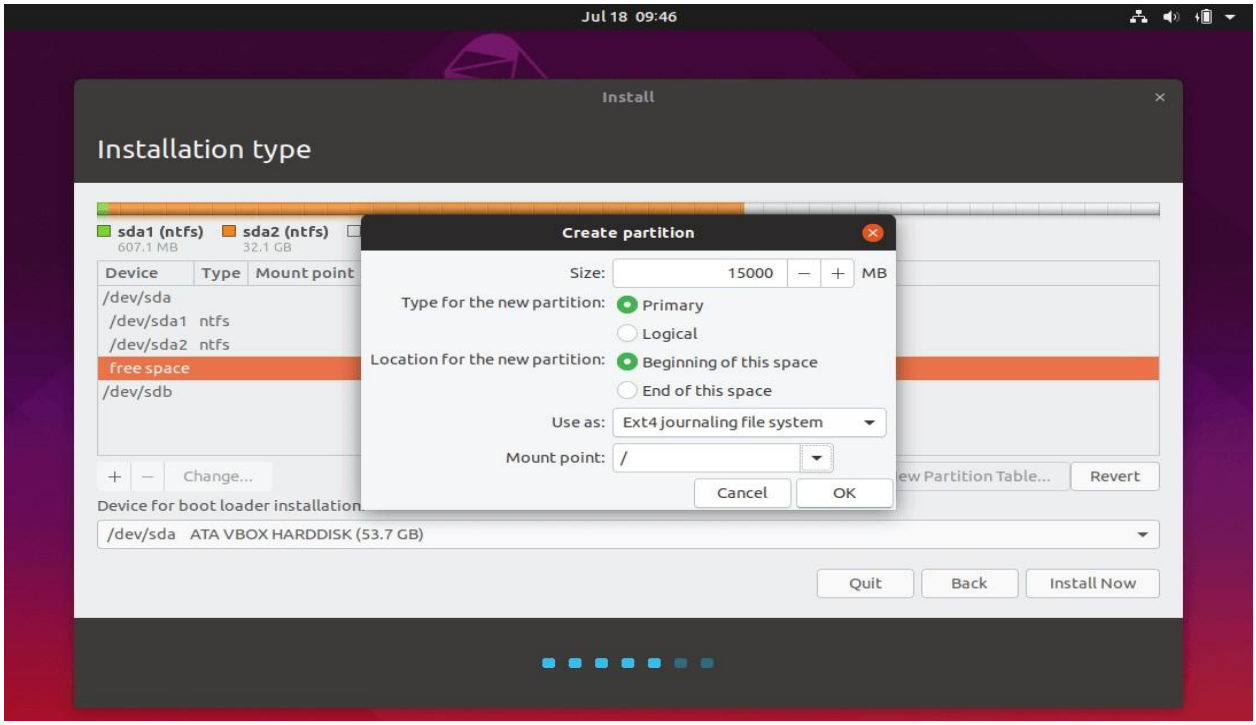


8. On this step, we'll create our custom partition layout for **Ubuntu**. This guide will recommend that you create two partitions, one for **root** and the other for **home** accounts data and no partition for **swap** (use a swap partition only if you have limited RAM resources or you use a fast SSD).

To create the first partition, the **root** partition, select the free space (the shrinking space from Windows created earlier) and hit on the + icon below. On partition settings use the following configurations and hit **OK** to apply changes:



1. Size = at least **20000** MB
2. Type for the new partition = **Primary**
3. Location for the new partition = **Beginning**
4. Use as = **EXT4** journaling file system
5. Mount point = /



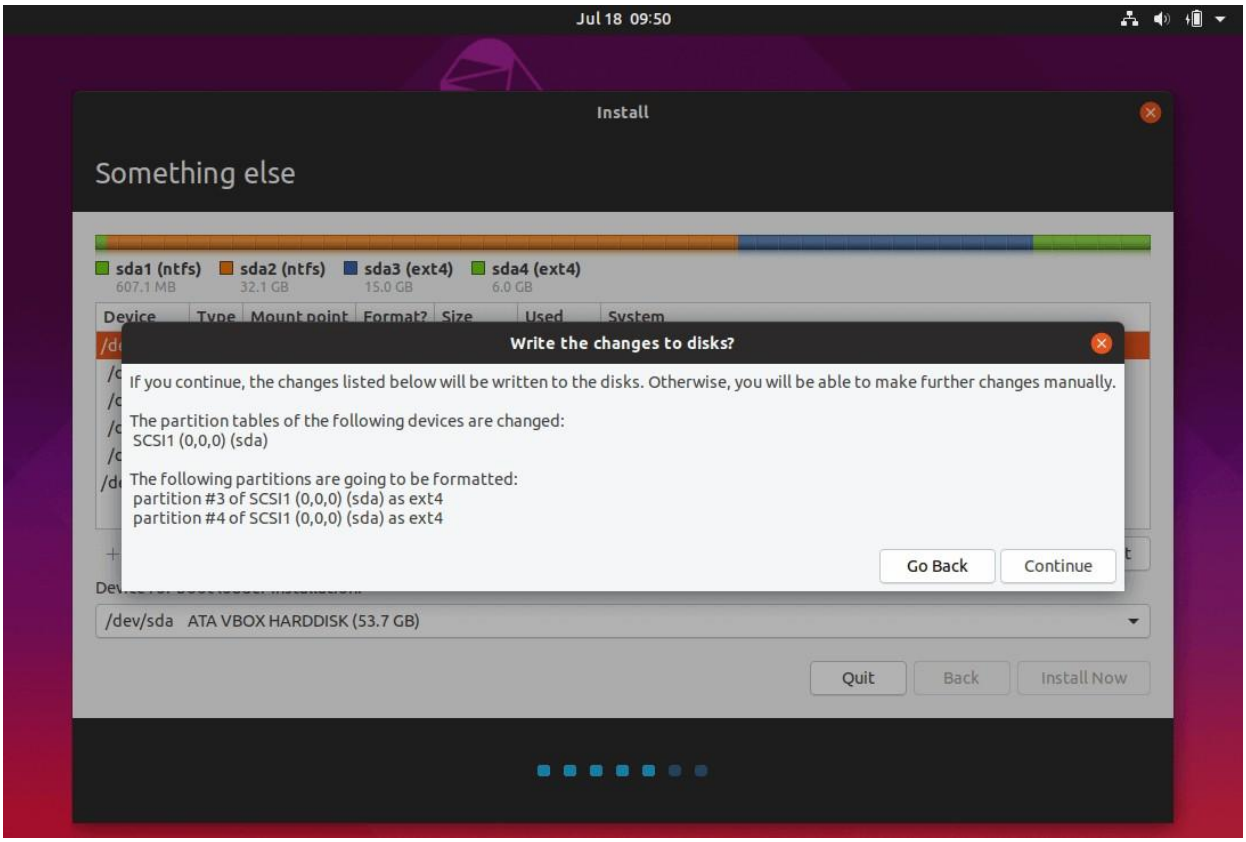
Create the **home** partition using the same steps as above. Use all the available free space left for the home partition size. The partition settings should look like this:

1. Size = all remaining free space
2. Type for the new partition = **Primary**
3. Location for the new partition = **Beginning**
4. Use as = **EXT4** journaling file system
5. Mount point = **/home**

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

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

9.2 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.



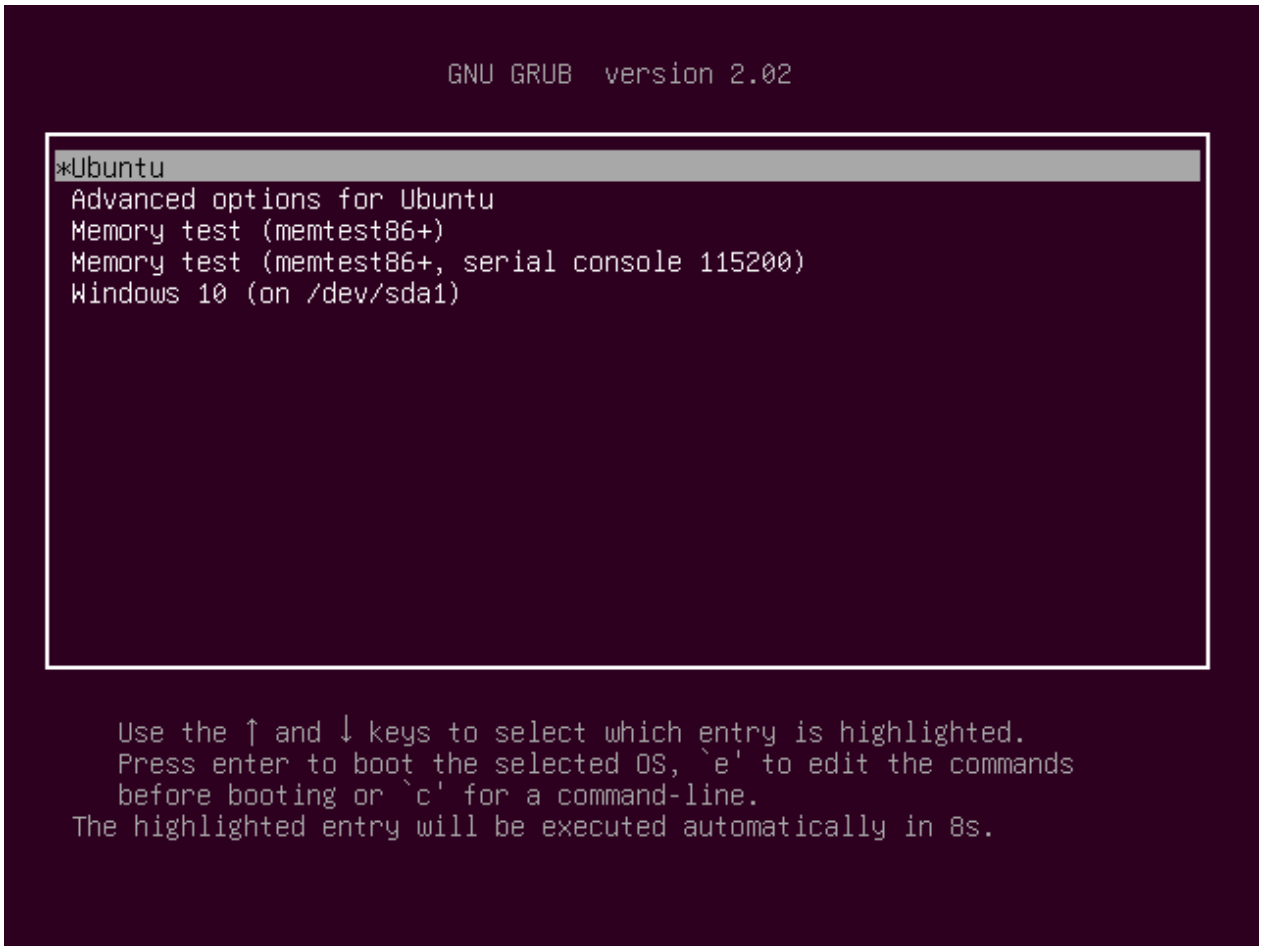
10. On the next screen adjust your machine physical location by selecting a city nearby from the map. When done hit **Continue** to move ahead.

11. 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 the **Ubuntu** installation. From here on the installation process will run automatically until it reaches the end.

12. After the installation process reaches its end hit on the **Restart Now** button in order to complete the installation.

12.1 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 20.04** or **Microsoft Windows**.

12.2 Ubuntu is designated as default OS to boot from. Thus, just press **Enter** key or wait for those **10** seconds timeout to drain.



13. After Ubuntu finishes loading, login with the credentials created during the installation process. **Ubuntu** provides **NTFS** file system support automatically so you can access the files from Windows partitions just by clicking on the **Windows** volume.