

Report

S1.03

TP Install Party
For the 22/09/2022

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INFO1A2

The goal of this tutorial will be to install Ubuntu on a Virtual Machine
It's divided into 3 sections :

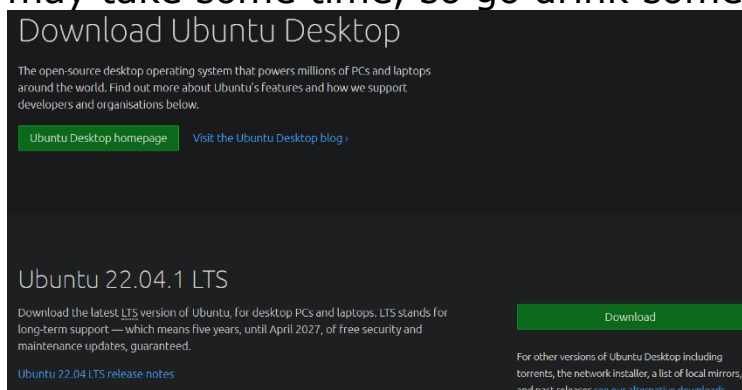
- 1) Download and install VirtualBox
- 2) Create the Virtual Machine
- 3) Start and use it

1) Download and install VirtualBox


- Go on <https://www.virtualbox.org/wiki/Downloads> and click on Windows hosts (the version number may differ of what you see on the screenshot)

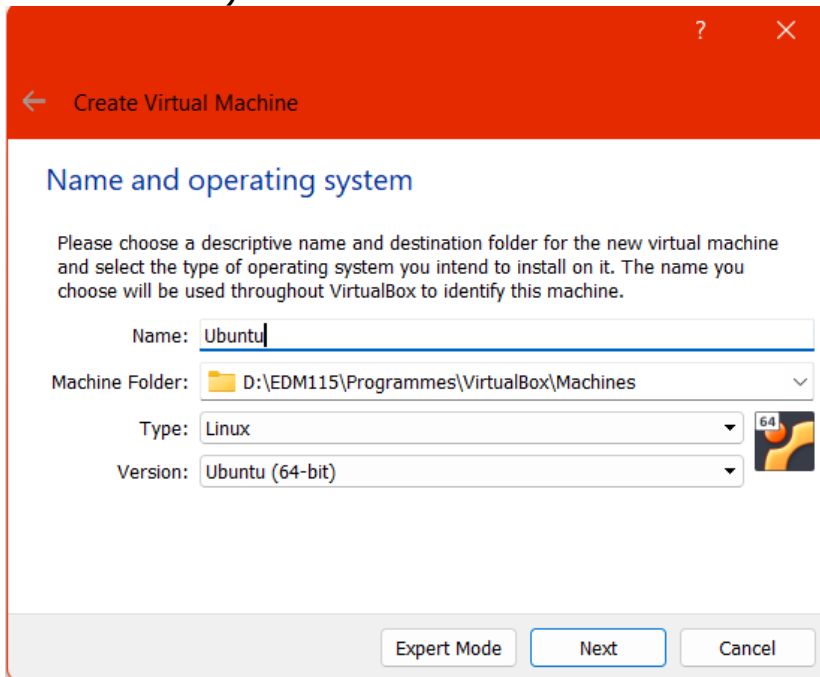


- Install the downloaded file by following the steps of the wizard
- Go to <https://ubuntu.com/download/desktop> and click on the green Download button (here again, the version may differ). It may take some time, so go drink some coffee



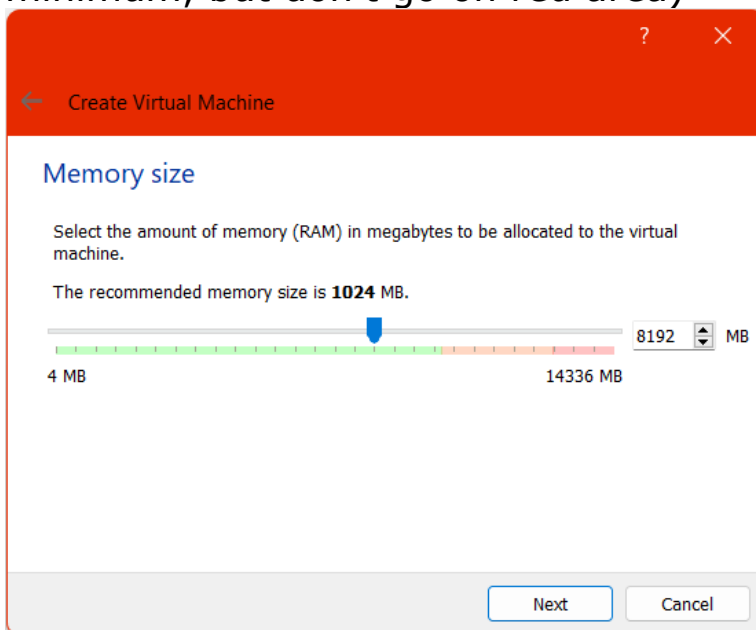
2) Create the Virtual Machine

- Launch VirtualBox as Administrator
- At the top, click on the blue New button 
- Give a name to your virtual machine (you can set it to anything, but choosing Ubuntu will automatically set the type and version)



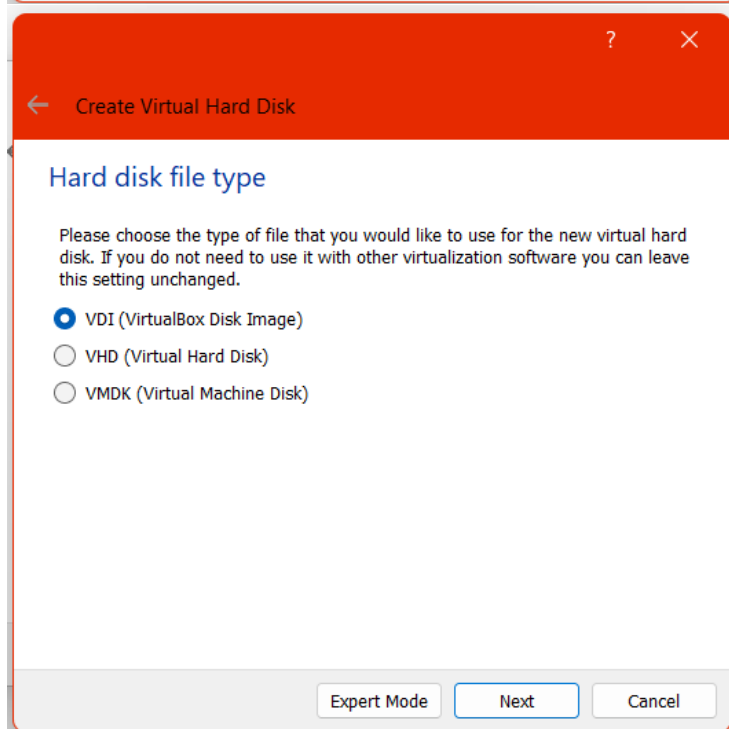
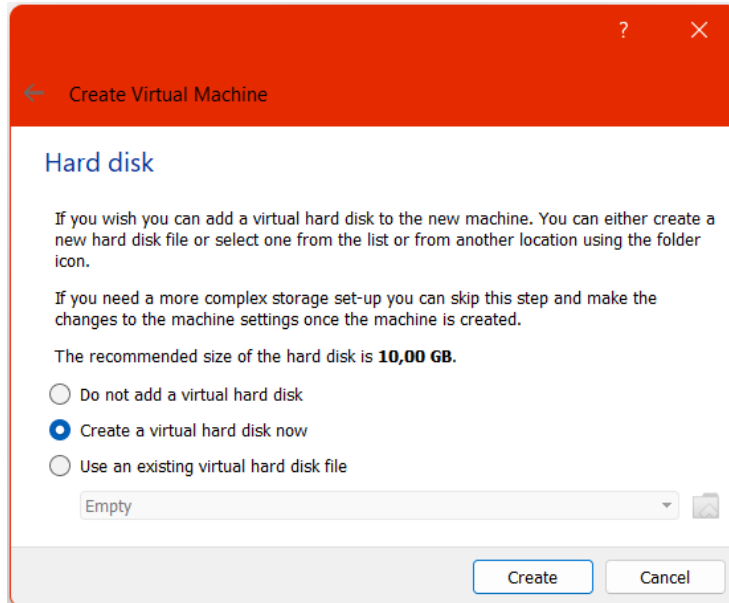
The screenshot shows the 'Create Virtual Machine' dialog box with the title bar 'Create Virtual Machine'. The main heading is 'Name and operating system'. Below it, a text box says: 'Please choose a descriptive name and destination folder for the new virtual machine and select the type of operating system you intend to install on it. The name you choose will be used throughout VirtualBox to identify this machine.' The 'Name' field contains 'Ubuntu'. The 'Machine Folder' dropdown shows 'D:\EDM115\Programmes\VirtualBox\Machines'. The 'Type' dropdown is set to 'Linux' and the 'Version' dropdown is set to 'Ubuntu (64-bit)'. There is a small '64' icon next to the version dropdown. At the bottom, there are three buttons: 'Expert Mode', 'Next', and 'Cancel'.

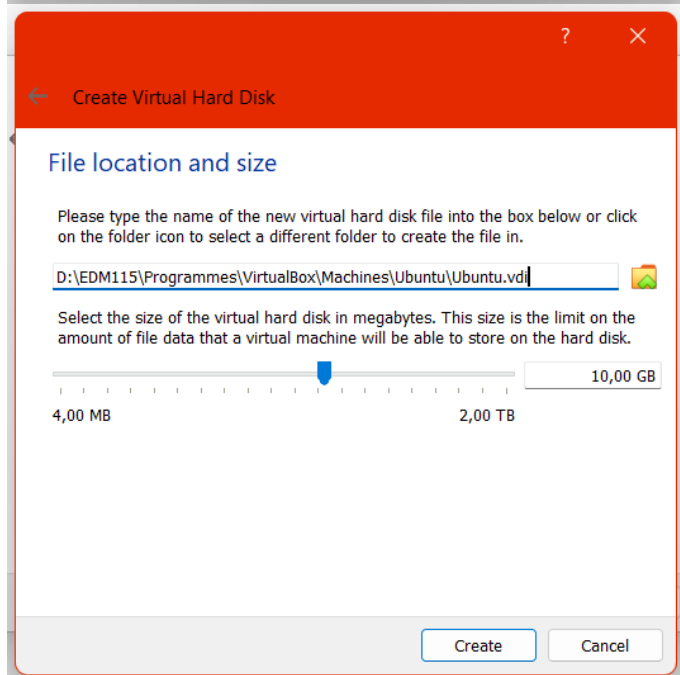
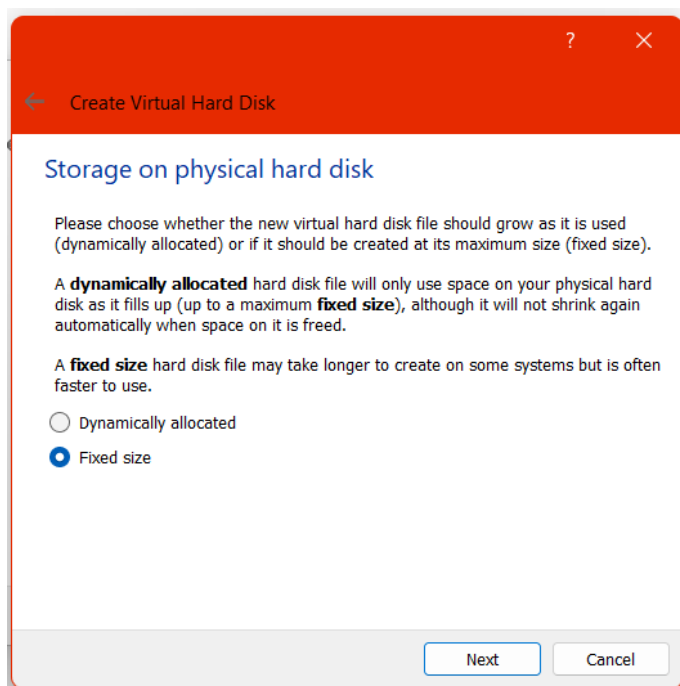
- Give a correct amount of RAM to your machine (1 Gb minimum, but don't go on red area)



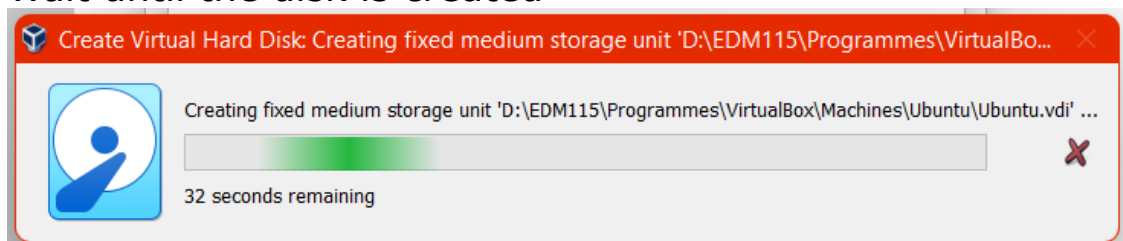
The screenshot shows the 'Create Virtual Machine' dialog box with the title bar 'Create Virtual Machine'. The main heading is 'Memory size'. Below it, a text box says: 'Select the amount of memory (RAM) in megabytes to be allocated to the virtual machine.' Another text box says: 'The recommended memory size is 1024 MB.' There is a slider bar with a blue handle. The slider has a green section on the left and a red section on the right. The values '4 MB' and '14336 MB' are shown at the ends of the slider. The current value is '8192 MB', which is shown in a text box next to the slider. At the bottom, there are two buttons: 'Next' and 'Cancel'.


- Keep Create a virtual hard disk now and click on Create. Keep it VDI. Then, go on Fixed size, and choose a correct size for the virtual disk (15–25 Gb is a fair value). Click again on Create

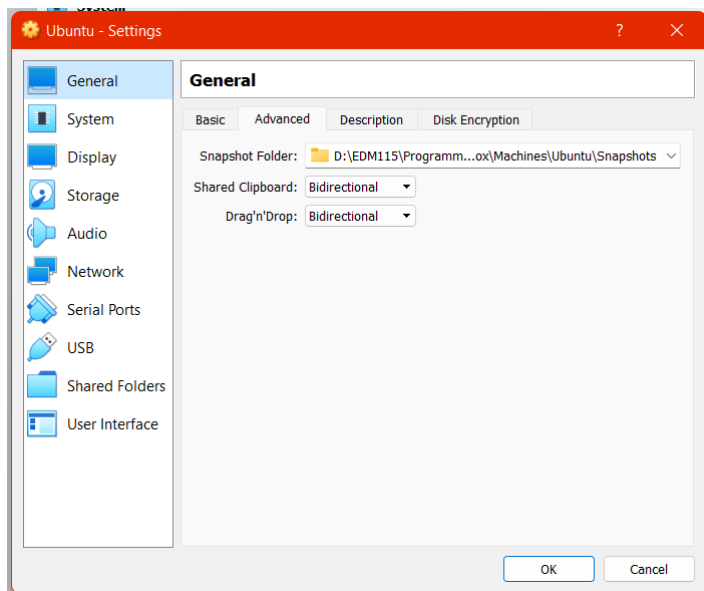




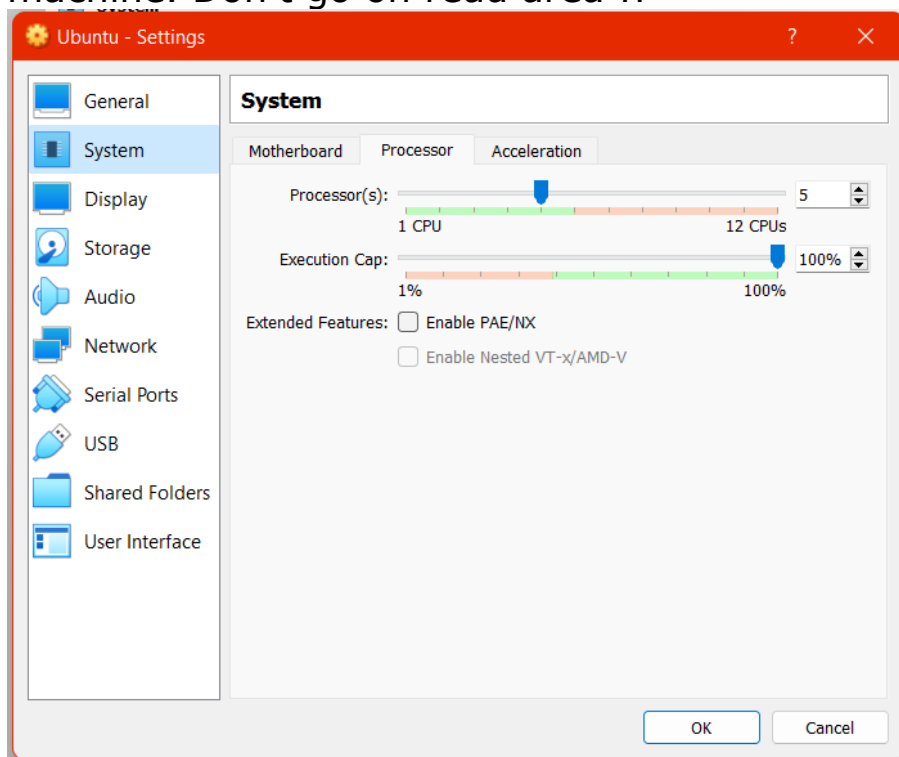
- Wait until the disk is created



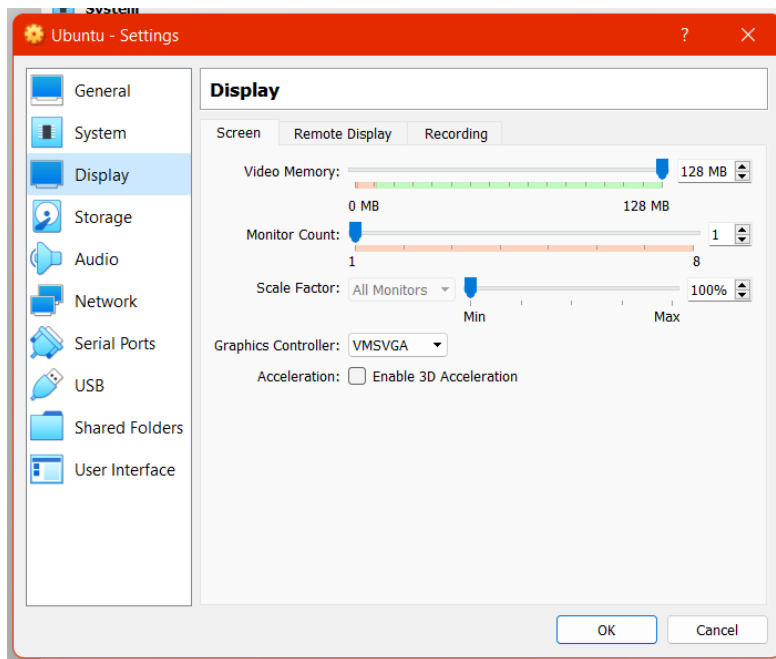
- Once it's done, click on the orange Settings button  Settings
- On General → Advanced, make both Shared Clipboard and Drag'n'Drop Bidirectional



- On System → Processor, allocate more Processors to the machine. Don't go on read area !!



- On Display → Screen, put the Video Memory to the maximum (128 Mb)

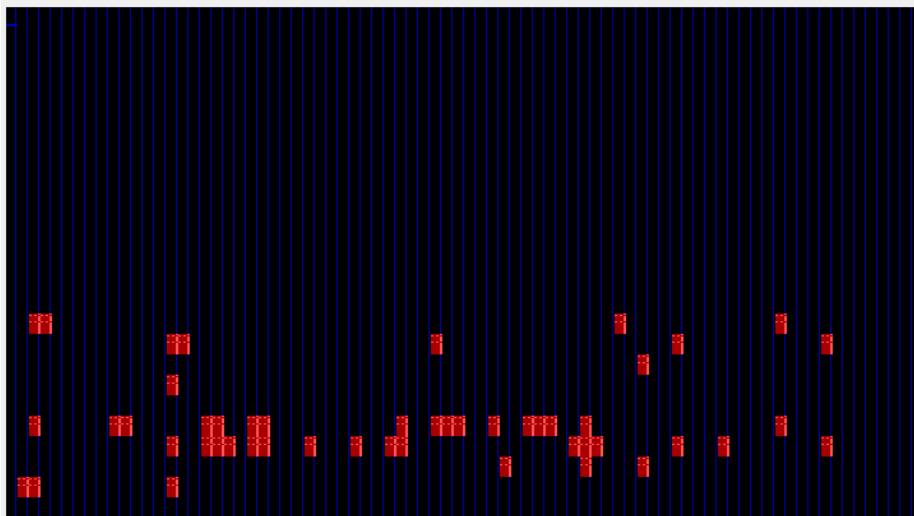


- And for the sake of God, make sure that 3D Acceleration is **DISABLED** !! Else, you will end up with a Kernel Panic error and a glitchy screen 🤯 (and no one wants that)

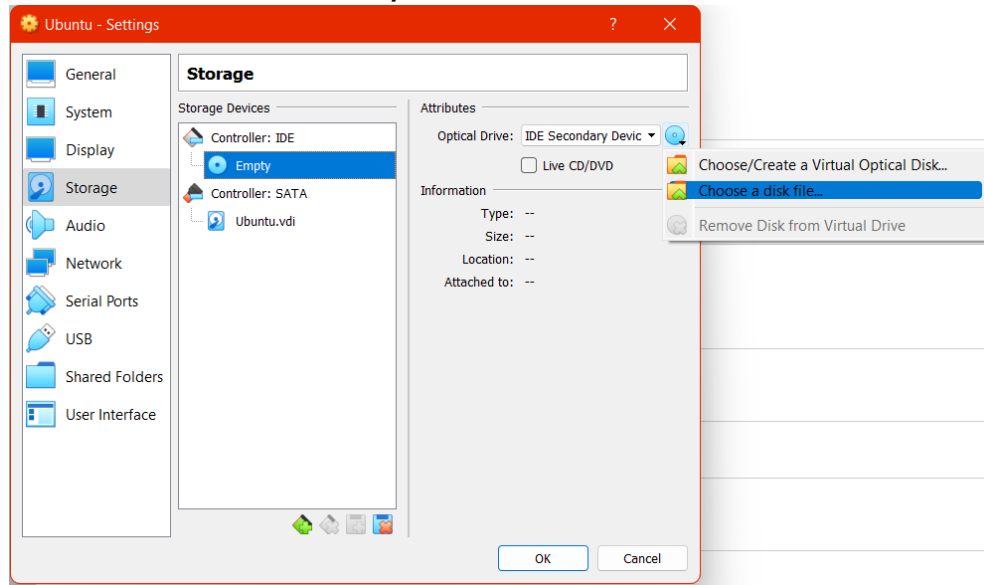
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unknown-block(0,0)
[ 1.275016] CPU: 2 PID: 1 Comm: swapper/0 Not tainted 5.15.0-43-generic #46-U
buntu
[ 1.278978] Hardware name: innotek GmbH VirtualBox/VirtualBox, BIOS VirtualBo
x 12/01/2006
[ 1.283043] Call Trace:
[ 1.284287] <TASK>
[ 1.285444] show_stack+0x52/0x58
[ 1.287008] dump_stack_lvl+0x4a/0x5f
[ 1.288726] dump_stack+0x10/0x12
[ 1.291470] panic+0x149/0x321
[ 1.293871] mount_block_root+0x144/0x1d9
[ 1.295586] mount_root+0x10c/0x118
[ 1.297131] prepare_namespace+0x13f/0x18d
[ 1.298879] kernel_init_freeable+0x18c/0x1b1
[ 1.301693] ? rest_init+0x100/0x100
[ 1.303288] kernel_init+0x1b/0x150
[ 1.304826] ? rest_init+0x100/0x100
[ 1.306448] ret_from_fork+0x22/0x30
[ 1.308016] </TASK>
[ 1.313159] Kernel Offset: 0xfc00000 from 0xffffffff81000000 (relocation rang
e: 0xffffffff80000000-0xffffffffbfffffff)
[ 1.316816] ---[ end Kernel panic - not syncing: VFS: Unable to mount root fs
on unknown-block(0,0) ]---

```



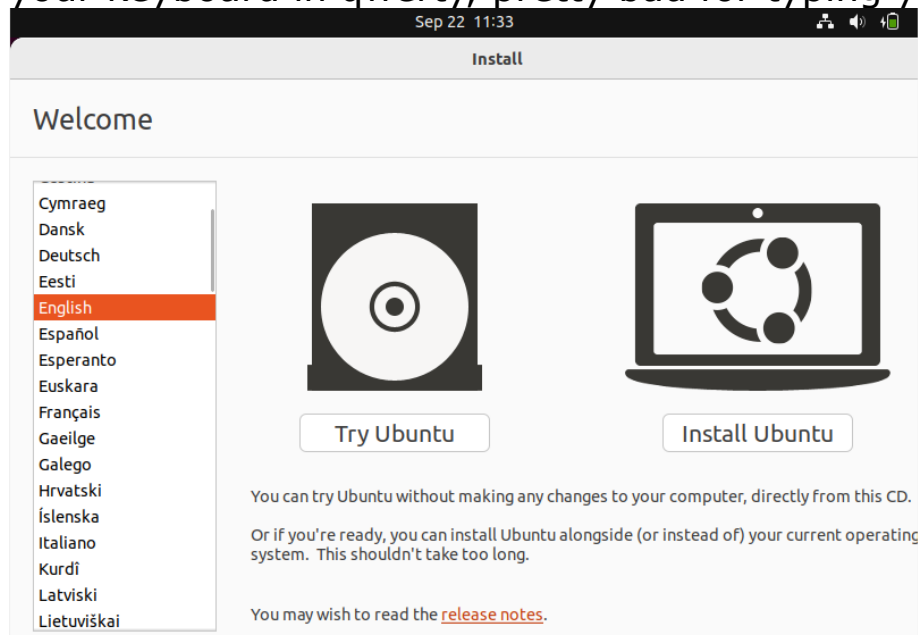
- Finally, go on Storage. Click on Empty, then the Disk logo after Optical Drive, and click Choose a disk file. Select the .iso of Ubuntu you downloaded before

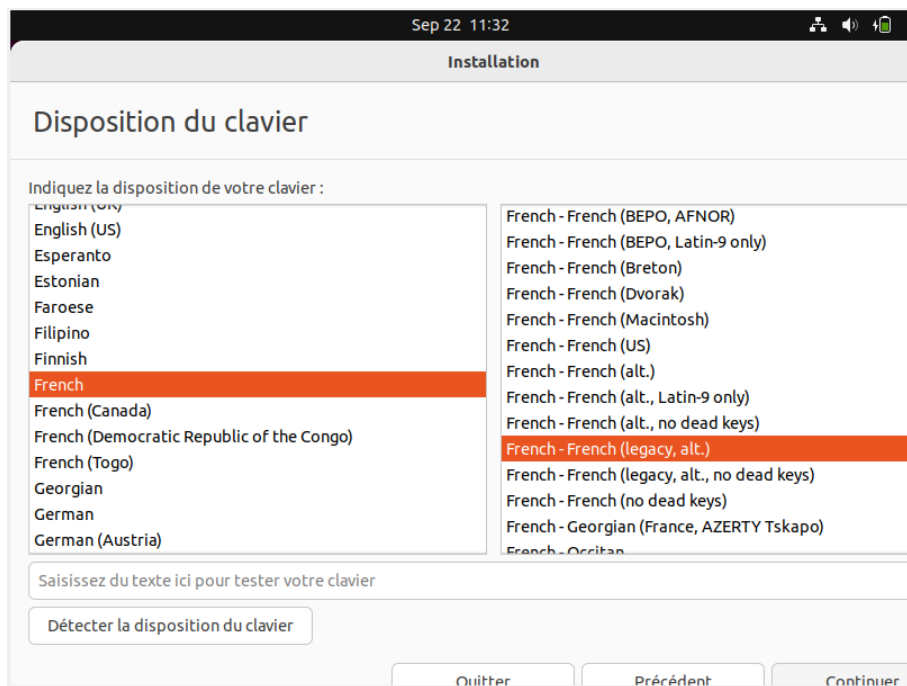


- Now click Ok, then click on the green Start button  (not the dropdown arrow)

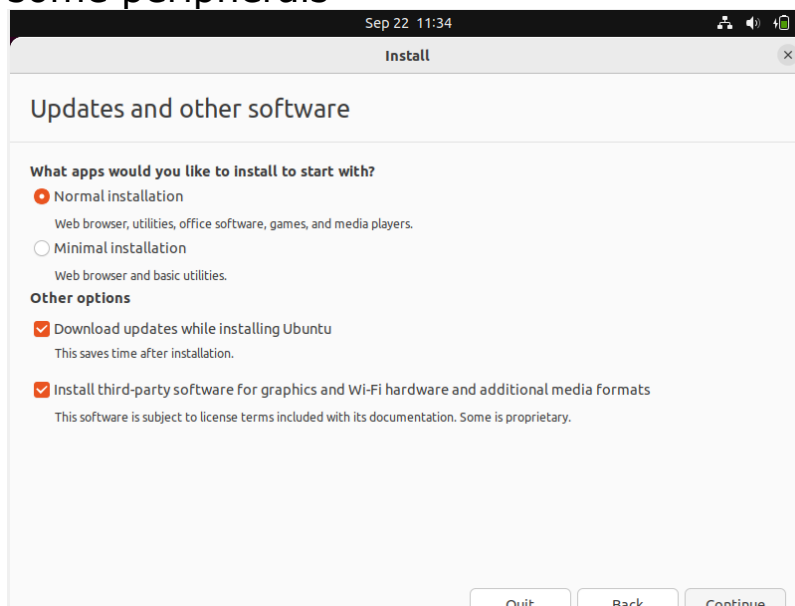
3) Start and use it

- Click on Install Ubuntu, then choose French and in the second row French–French (legacy, alt.) (else you'll have your keyboard in qwerty, pretty bad for typing your password)

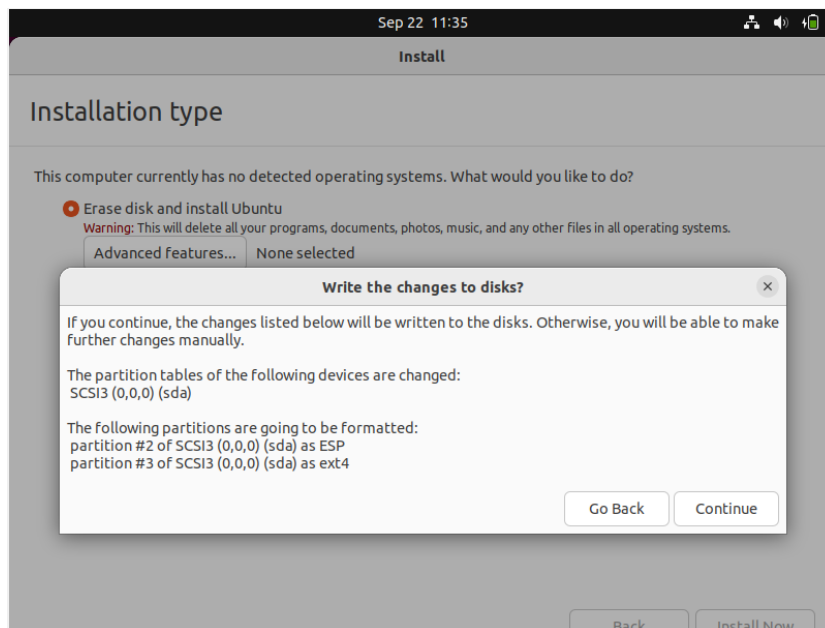




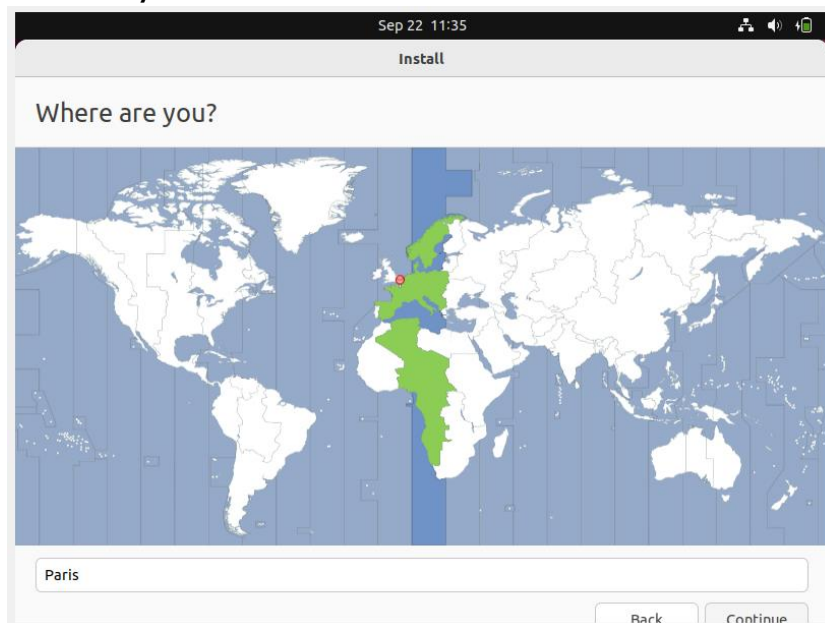
- Tick the last checkbox to install additional drivers which will help you to connect easily to networks and handle correctly some peripherals



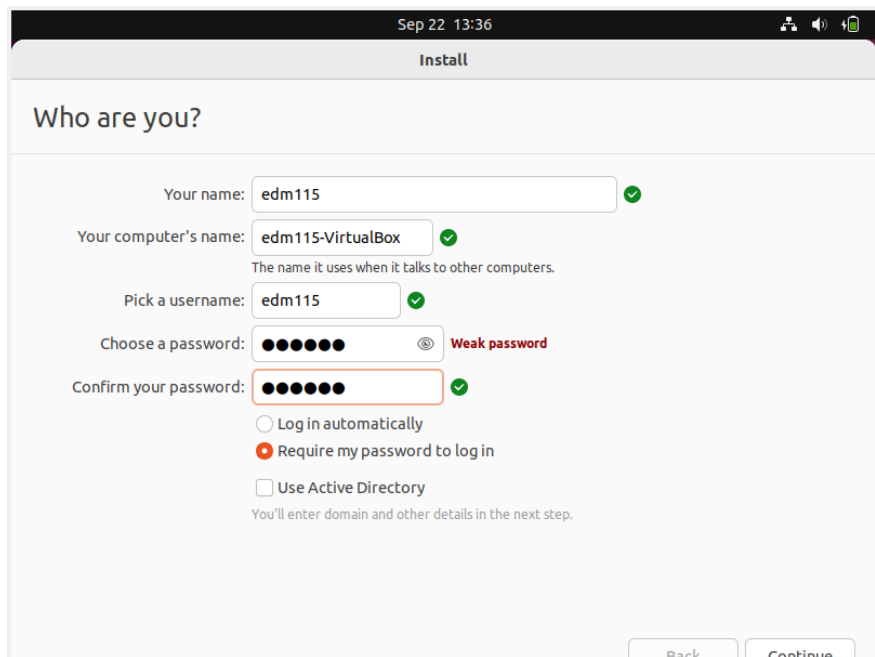
- Keep Erase disk enabled and click on Install Now, then Continue



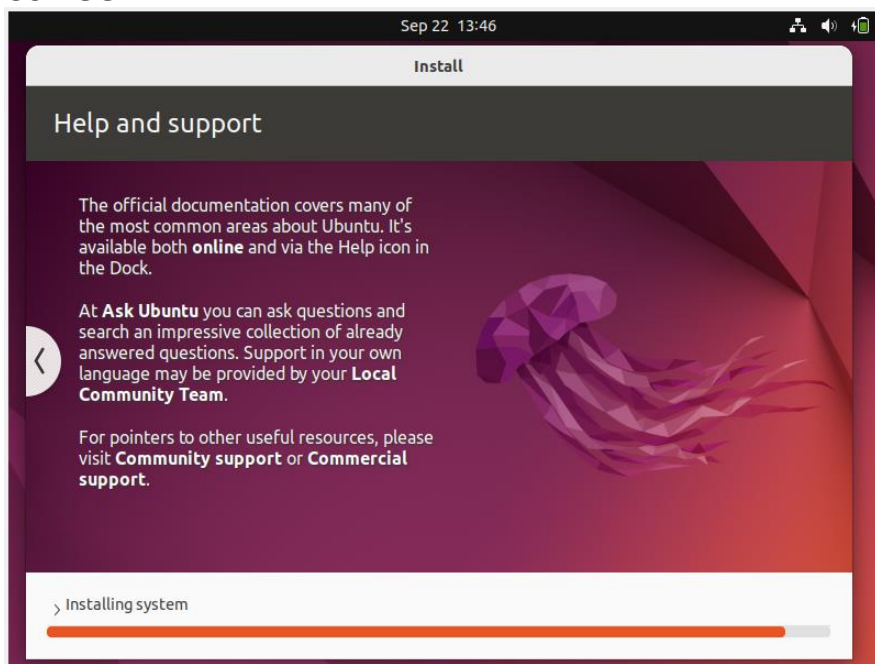
- Select your time zone



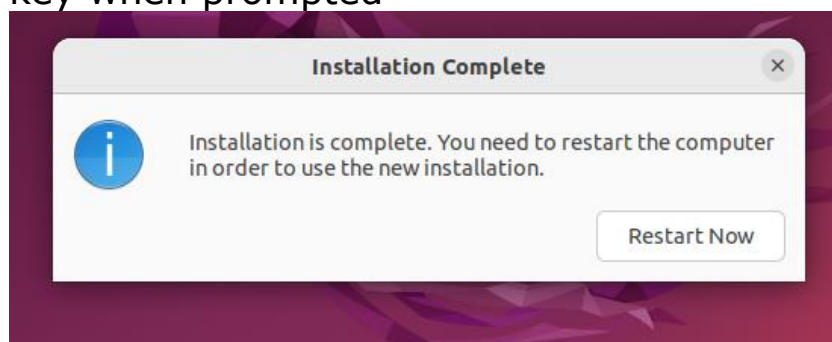
- On the Who are you ? screen, there's some elements to pay attention with :
 - Your name is something personal that won't show up
 - Your computer's name will show up in your local network, and will be used to identify your machine
 - The username and password will be used to log you in. DON'T LOOSE THEM !



- Wait until the system is installed. Time for a second cup of coffee...



- When it's done, click on Restart Now, then click on the Enter key when prompted





- Log in your session, and admire Ubuntu 😊 You can test some basic commands to make sure it's working

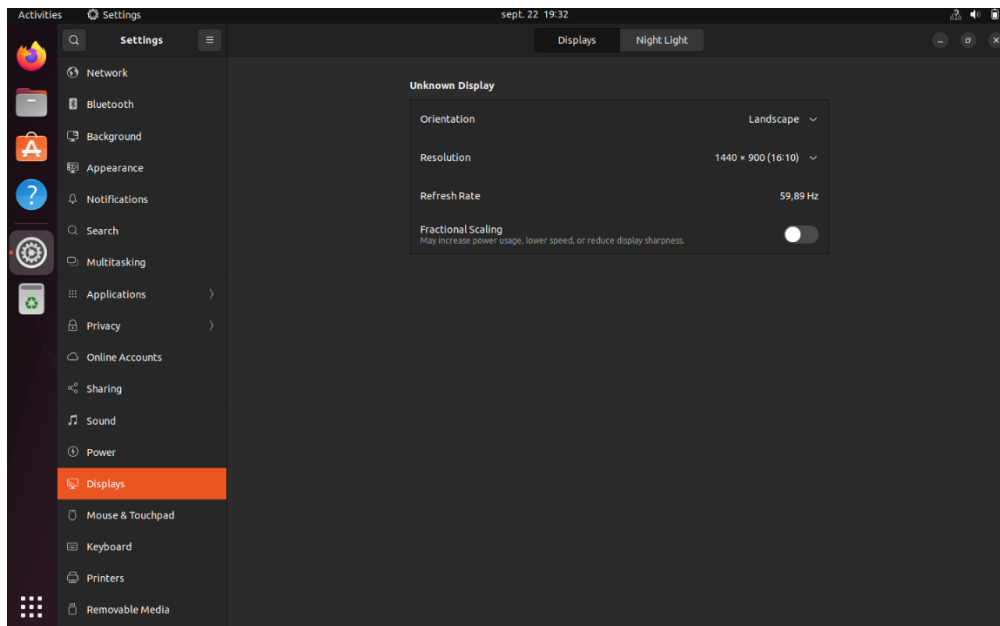
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To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

edm115@edm115-VirtualBox:~$ ls
Desktop Documents Downloads Music Pictures Public snap Templates Videos
edm115@edm115-VirtualBox:~$ mkdir test
edm115@edm115-VirtualBox:~$ cd test
edm115@edm115-VirtualBox:~/test$ touch a.txt
edm115@edm115-VirtualBox:~/test$ nano a.txt
edm115@edm115-VirtualBox:~/test$ ls
a.txt
edm115@edm115-VirtualBox:~/test$ cd ../Desktop && ls
edm115@edm115-VirtualBox:~/Desktop$
```

But there's one problem : the size is so tiny 😞 By default, all VirtualBox instances will have a resolution of 640×480. Here's how to solve it :

- Go in the applications panel (the 9 dots in bottom left corner)
- Scroll down to Display, then change the Resolution

You may be tempted to choose the *exact* resolution of your screen. However, it's not at all the right choice. Simply because it won't fit the screen, and you will have scrollbars. My experience showed that it's better to keep your monitor ratio (i.e. 16:9) and choose 2 resolutions under the one of your display. That way, it will fit as maximum as possible the window, but without scrollbars



- And that's all ! Ubuntu is installed inside your computer, without needing to buy another machine or create a dual-boot (*note : you can safely delete the 3,6 Gb .iso file. The system is stored in another place*)