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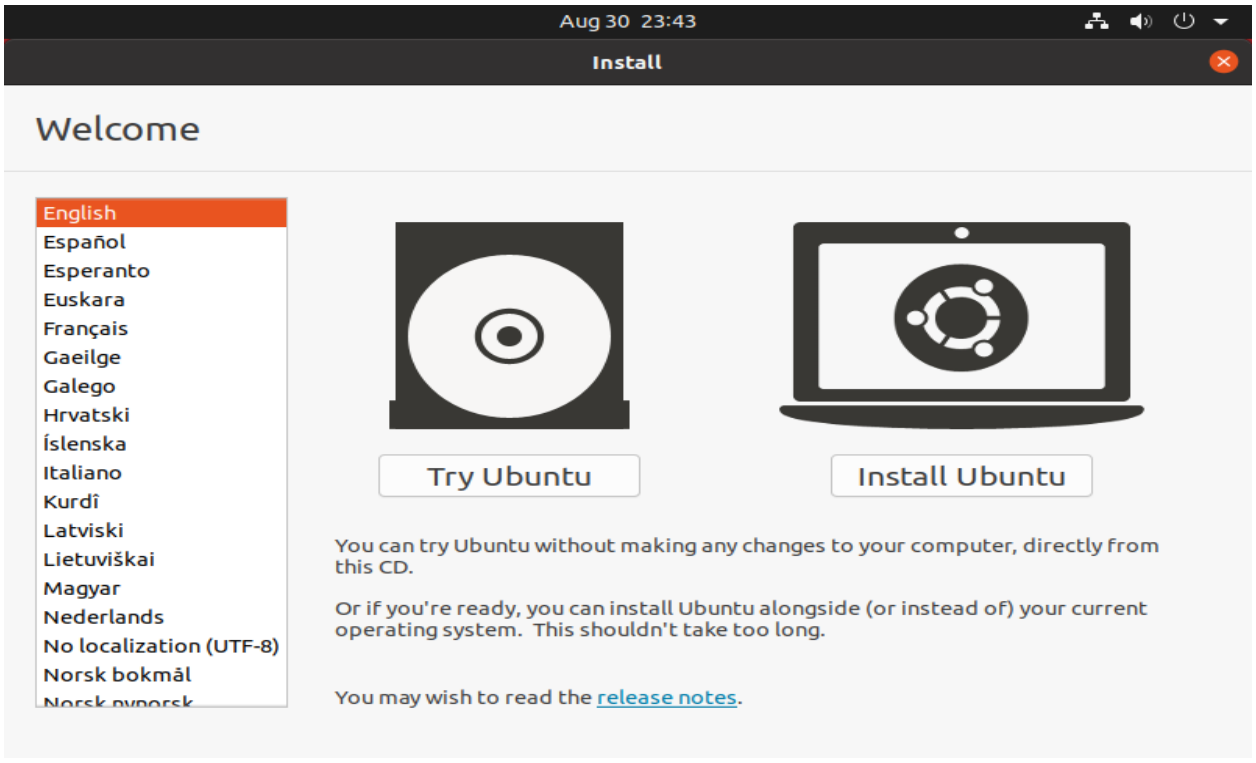
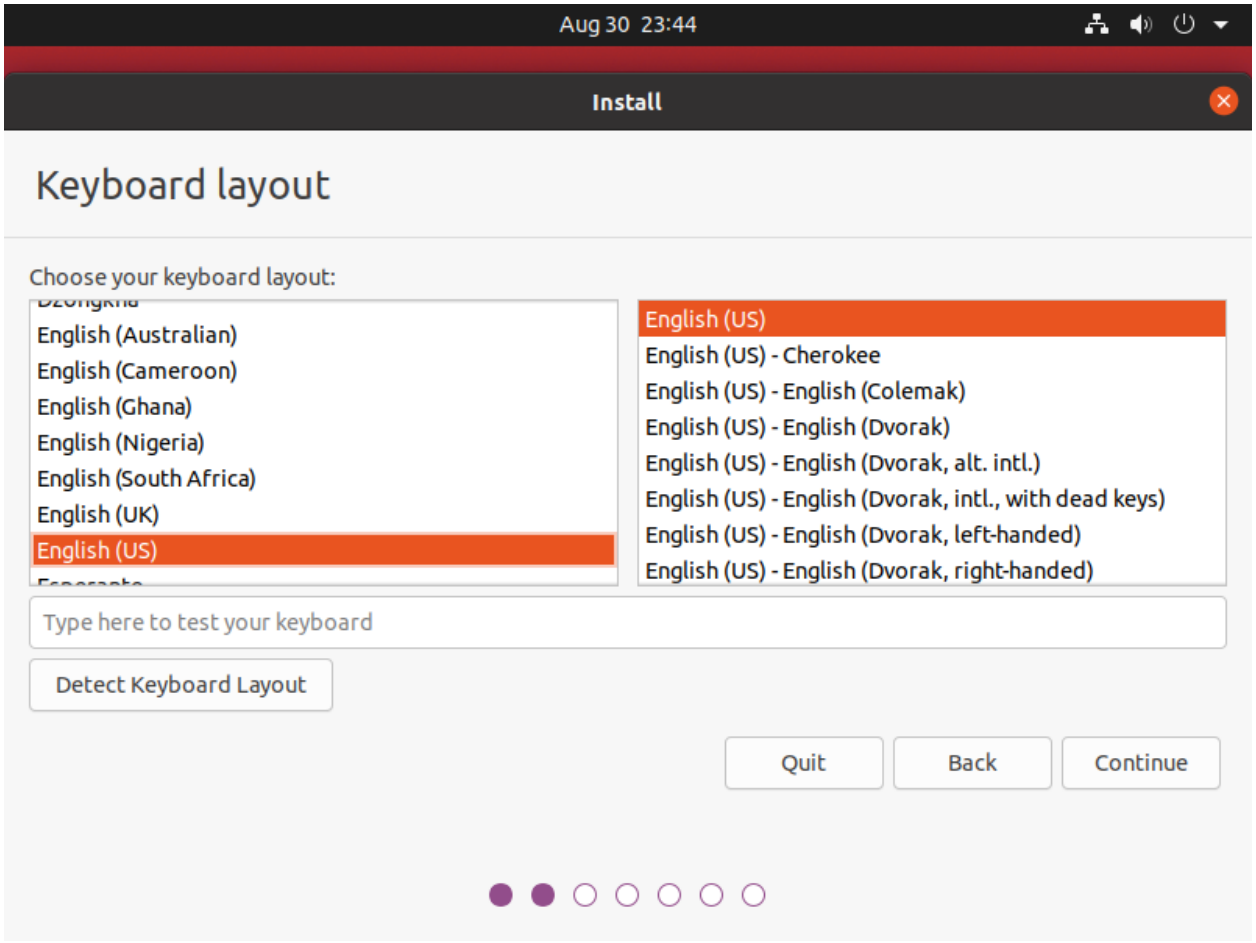
Abstract
Installing a Ubuntu OS via the Oracle VM VirtualBox Manager to show what can be done with the command ‘uname -a’ using the Command Line.

Introduction
The Oracle VM VirtualBox will be used to demonstrate the installation of the Ubuntu OS. The Ubuntu OS will be updated using the command ‘sudo apt-get update’ via Command Line. The purpose of the command ‘uname -a’ will be explained when the shorter command ‘uname’ is inputted into the Command Line.

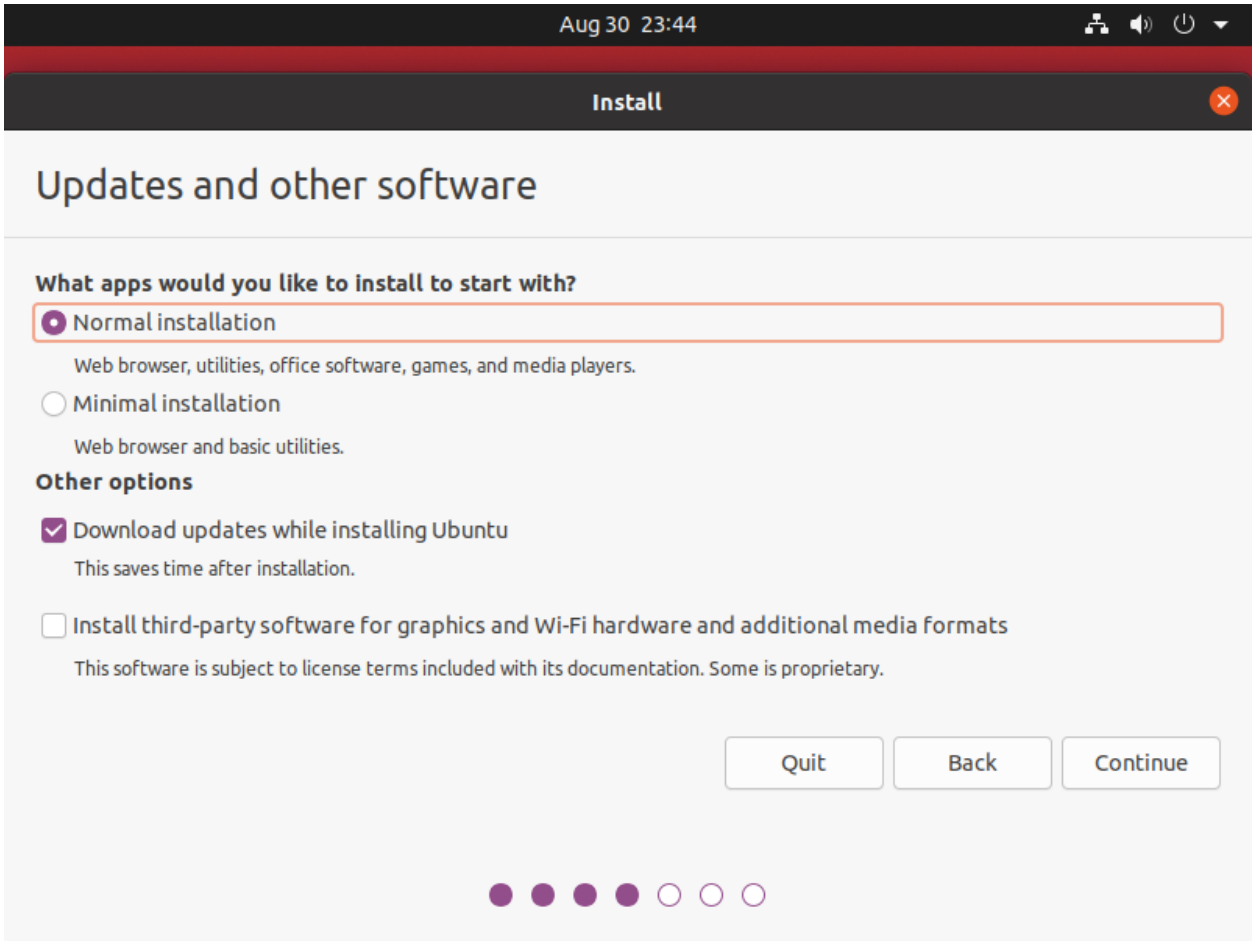
Summary of Results
On the VirtualBox manager, run the Ubuntu iso to install the Ubuntu operating system. Once loaded, you will be prompted to select the preferred language.



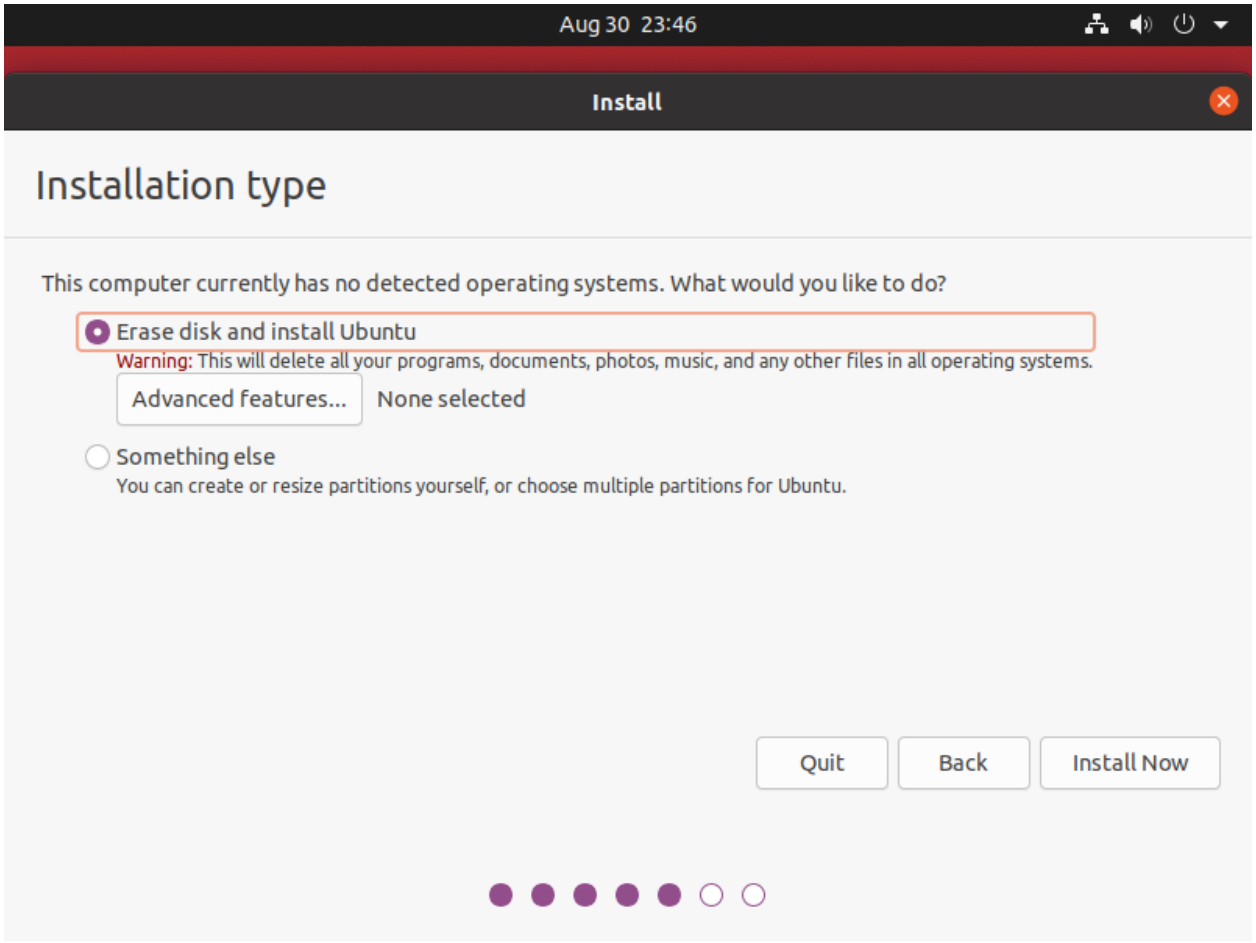
Select the preferred keyboard layout language.



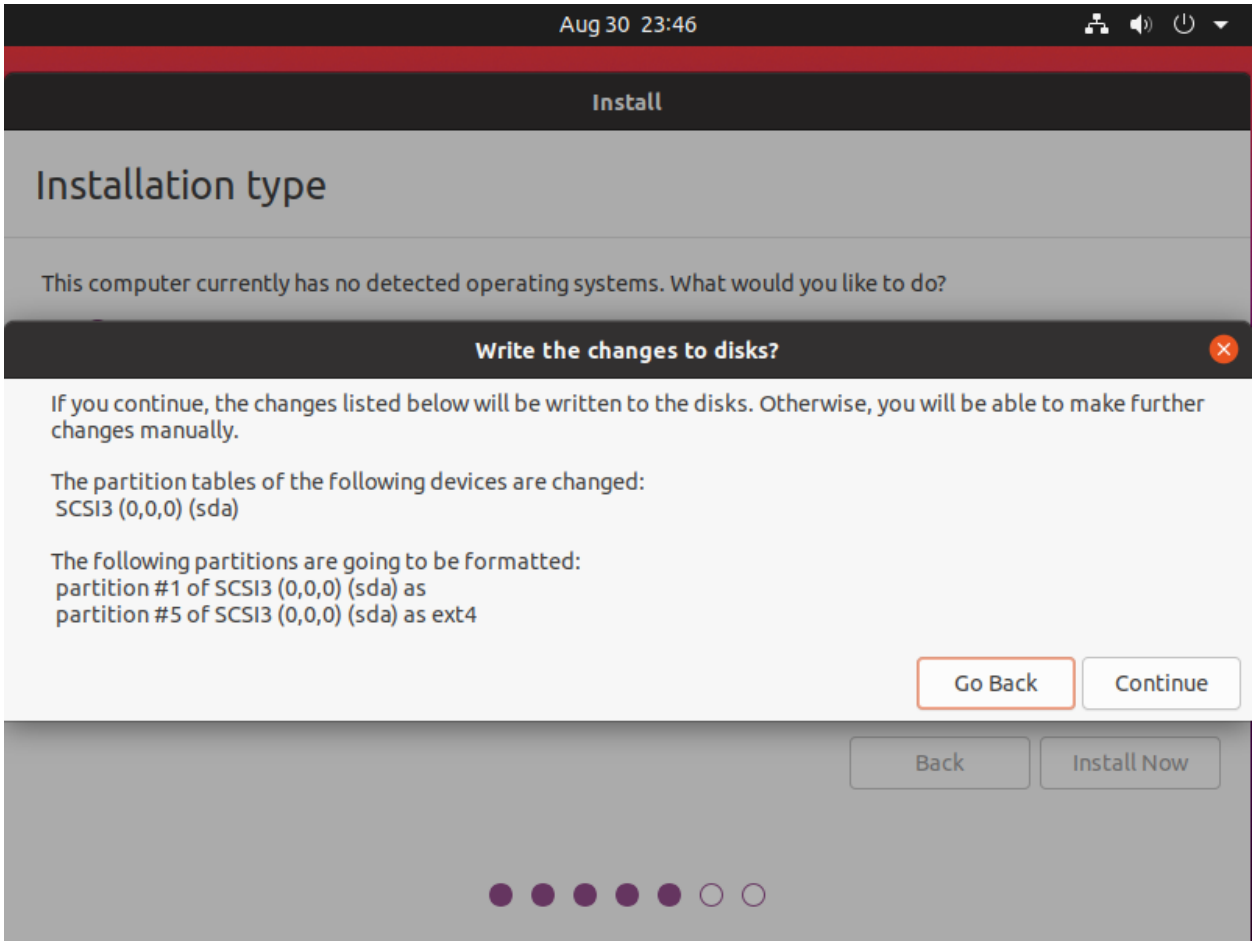
Select the installation preferred by the user, which in this case would be a “Normal installation”, as well as selecting the “Download updates while installing Ubuntu”, to make installation easier.



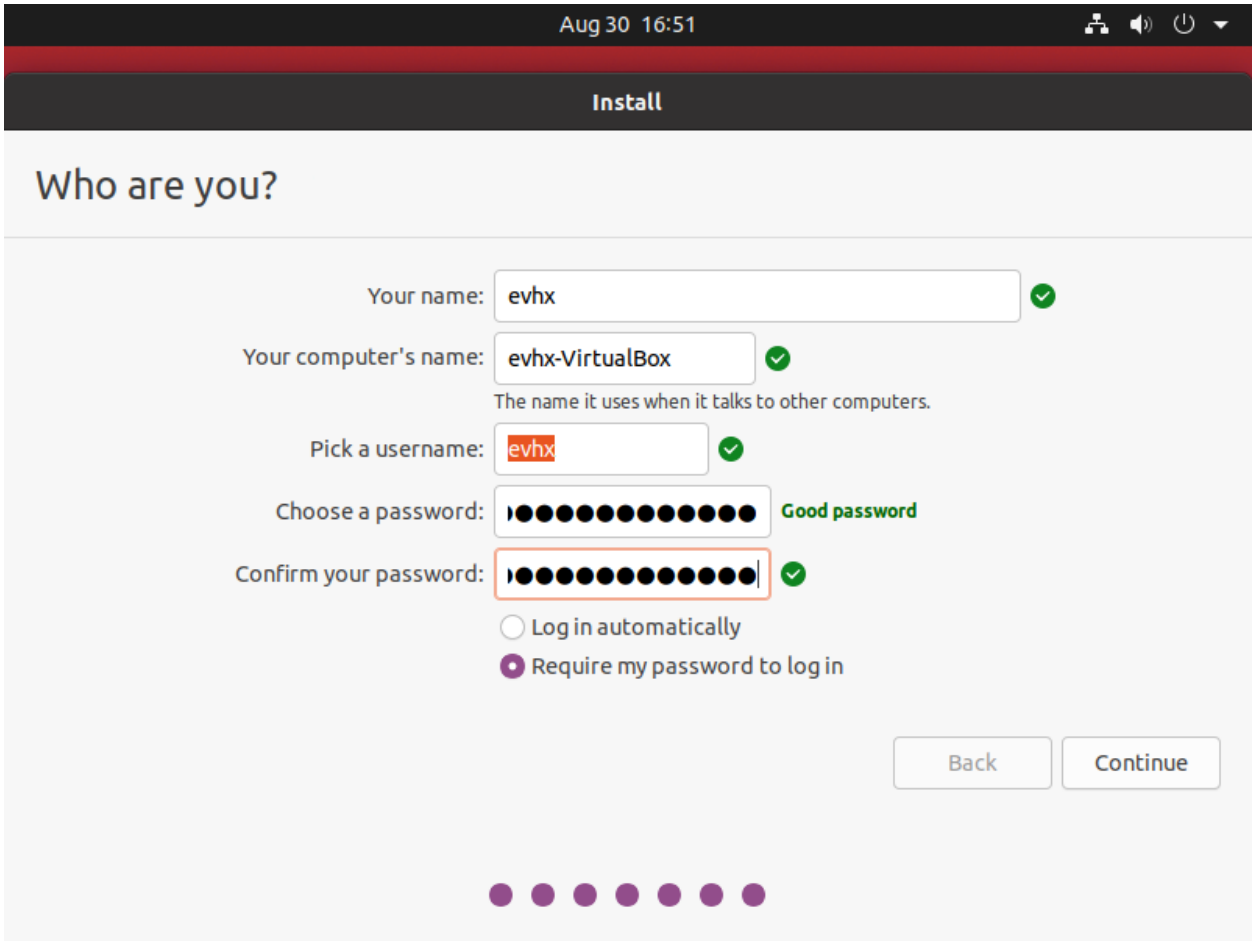
Choose “Erase disk and install Ubuntu” since this is using a Virtual Machine, it is not actually removing your computers files.



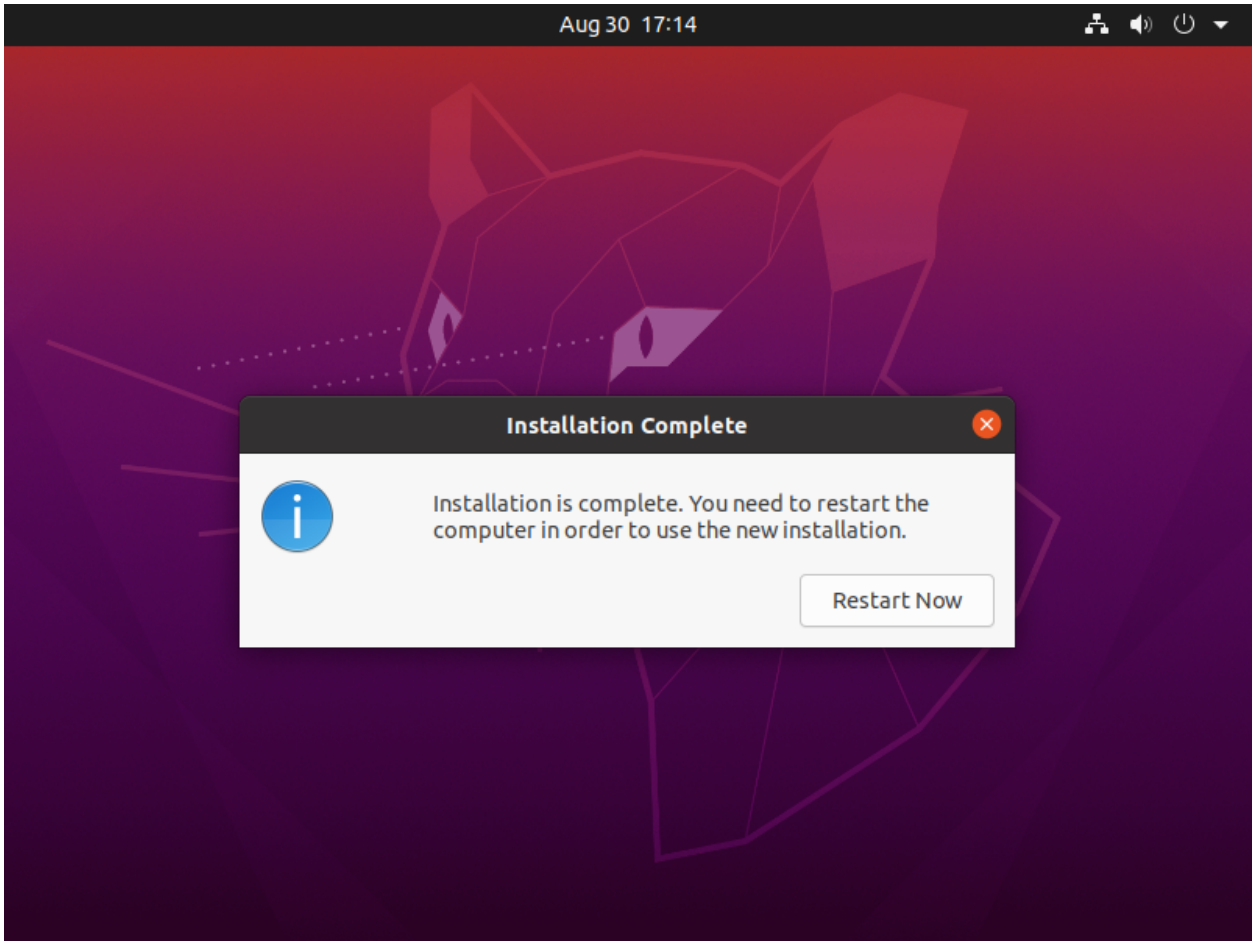
Agree to the changes made to the disk and click on ‘continue’ to continue the installation of the Ubuntu OS.



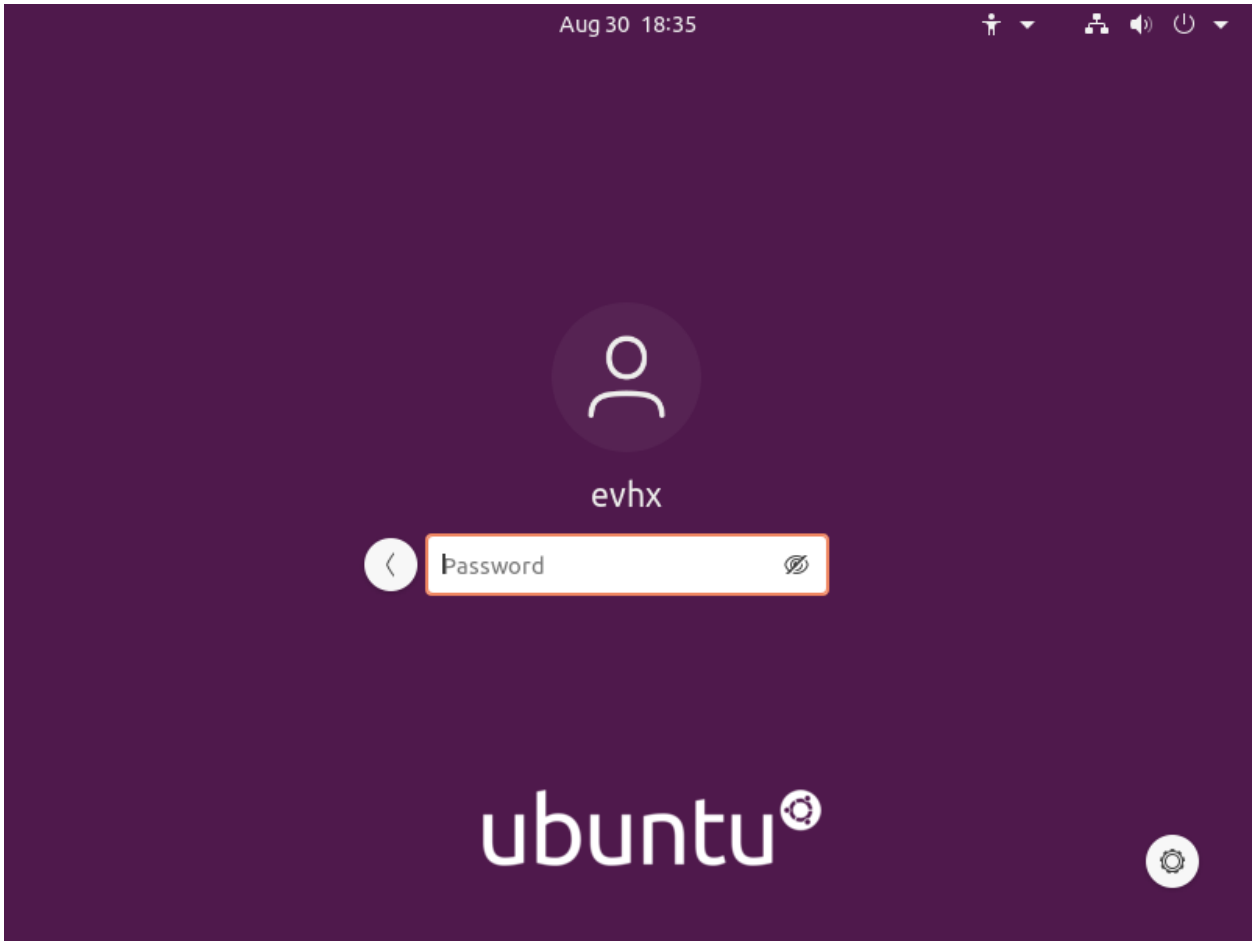
Fill in the prompted information.



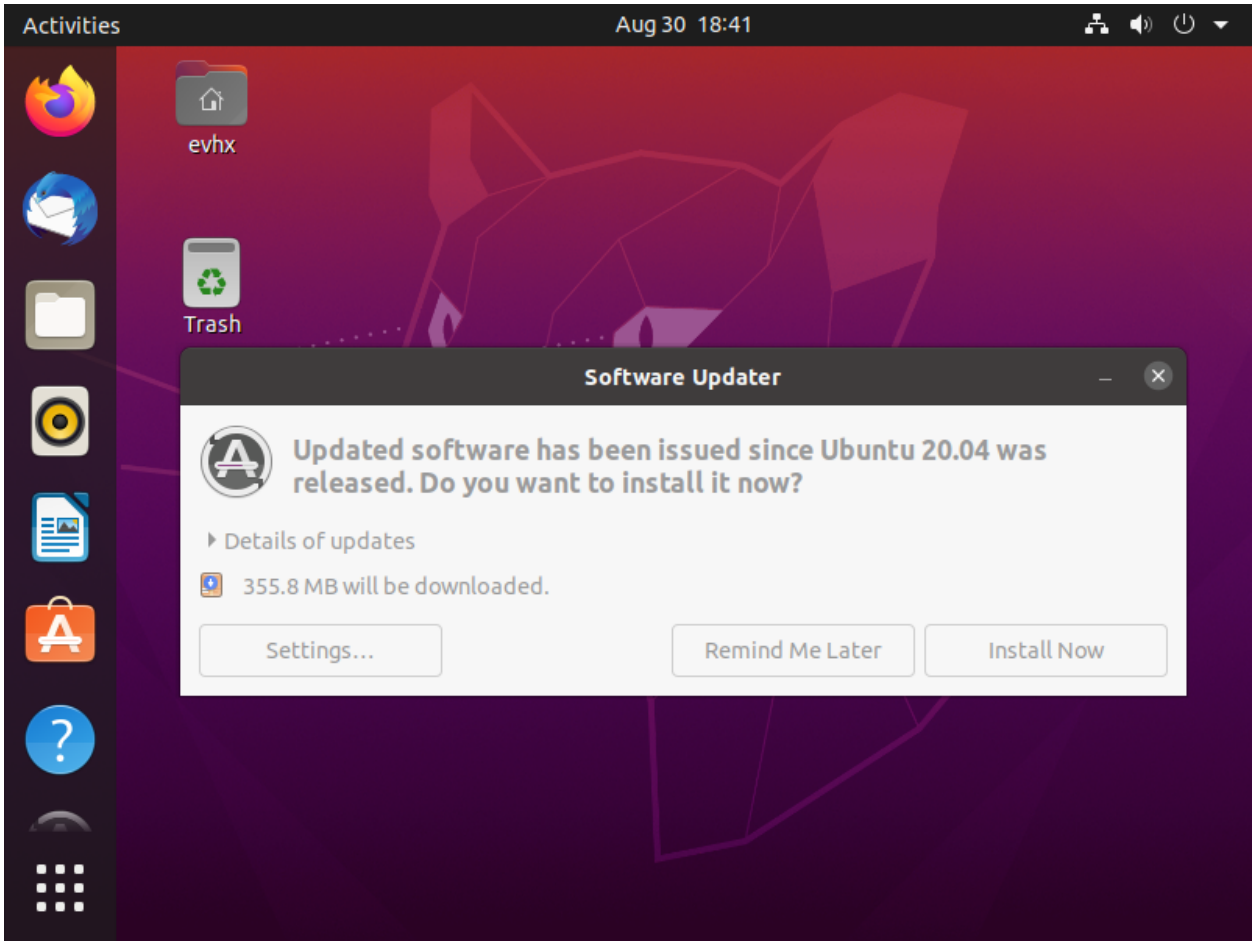
The installation is now complete, reboot the machine as prompted.



Input your password to log into the Virtual Machine.

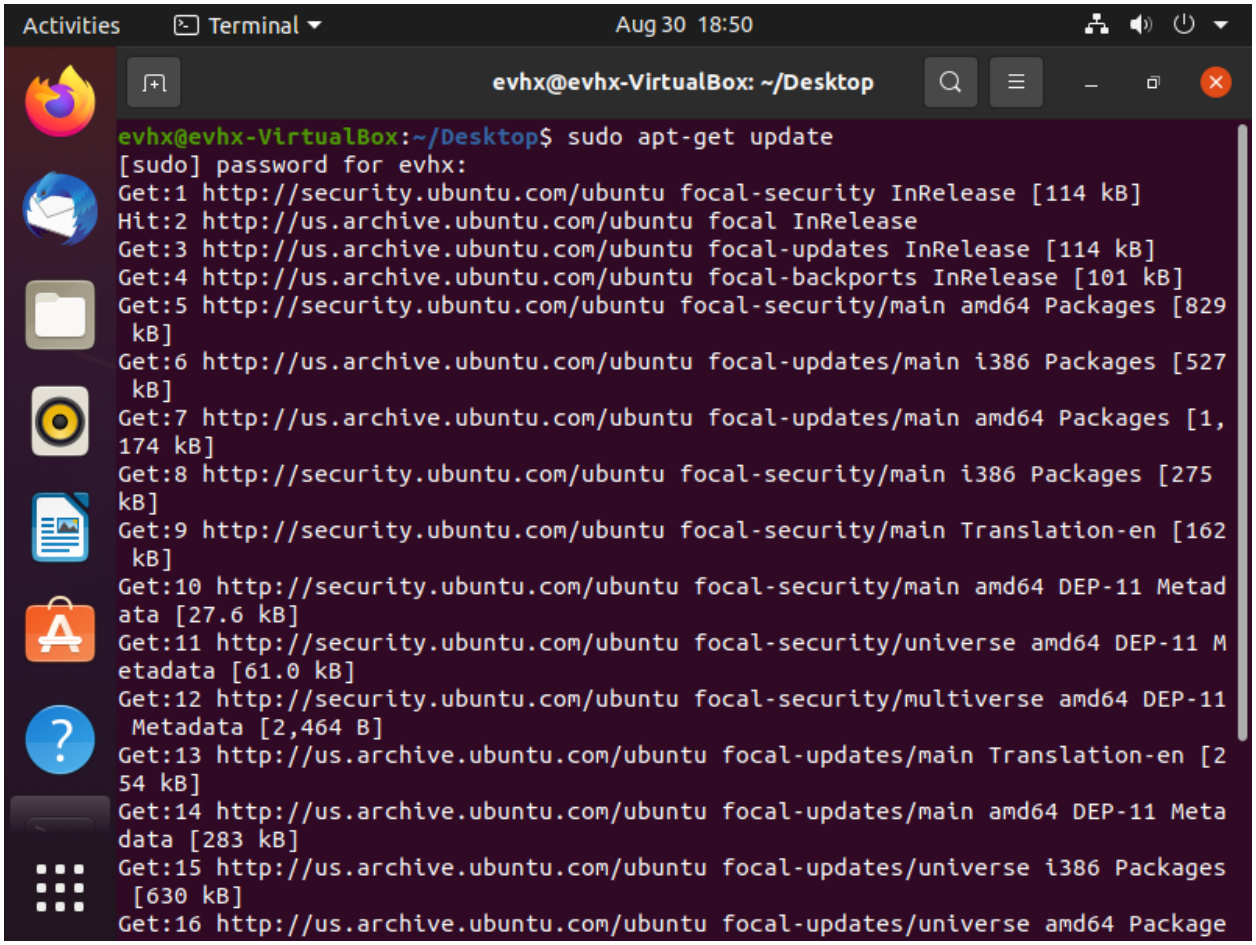


If the “Software Updater” asks to install updates, click “install now”, and then reboot Ubuntu.

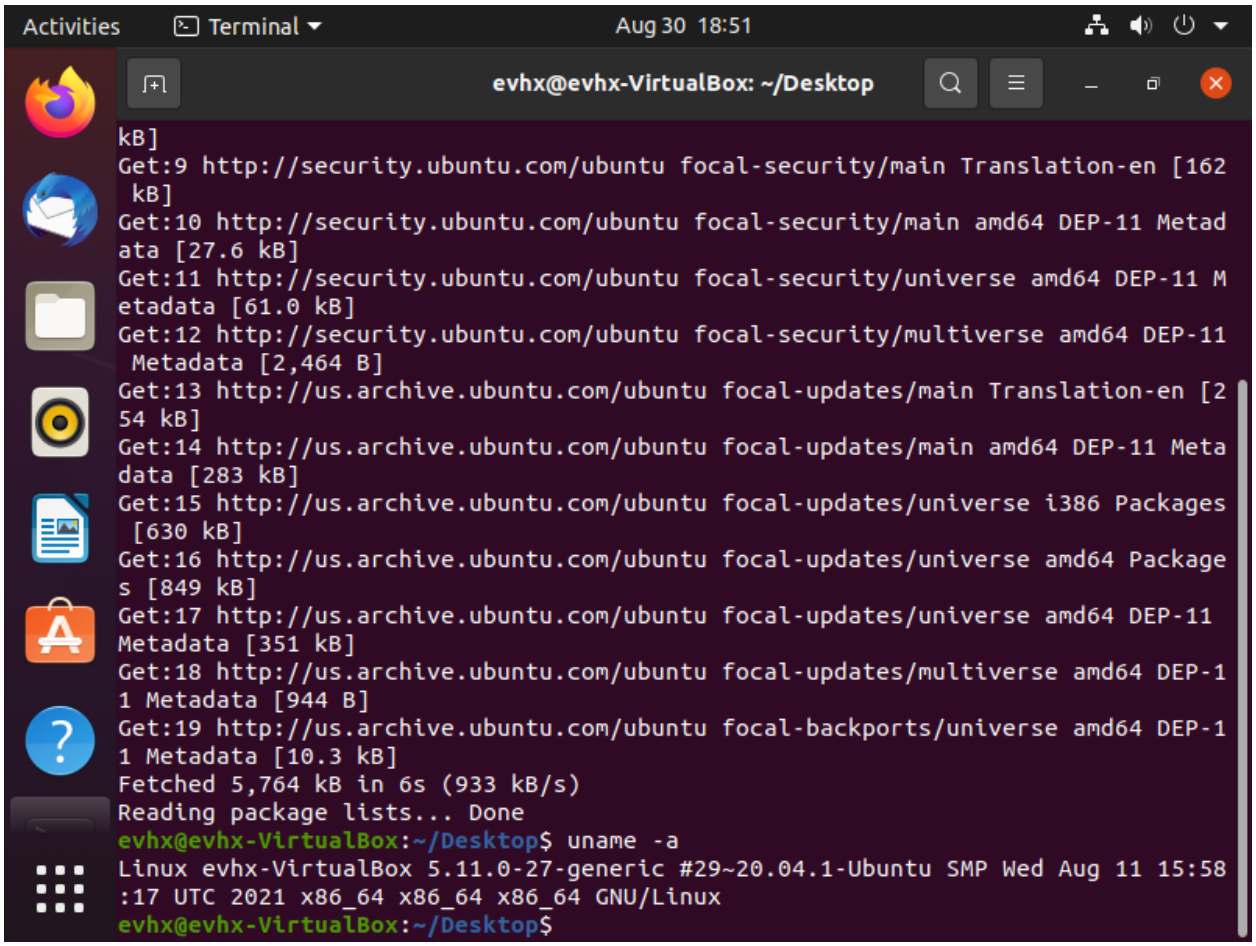


To update the Ubuntu OS once again, type in the command:

```
sudo apt-get update
```

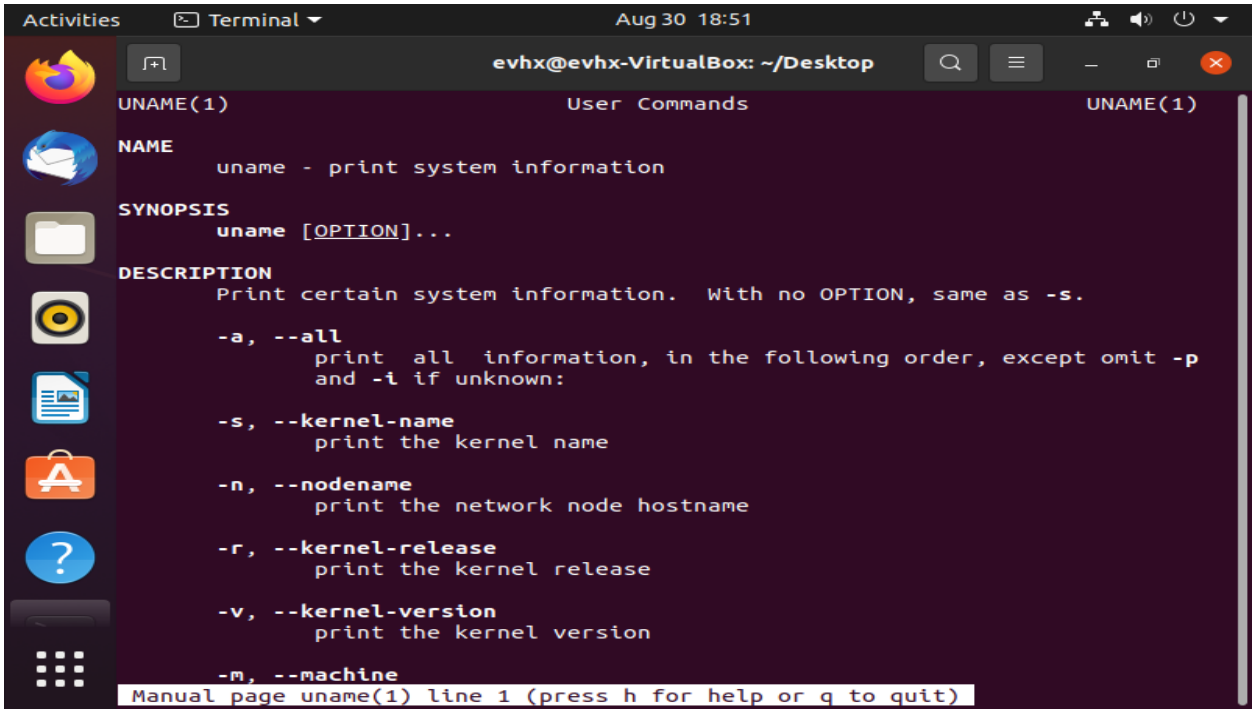


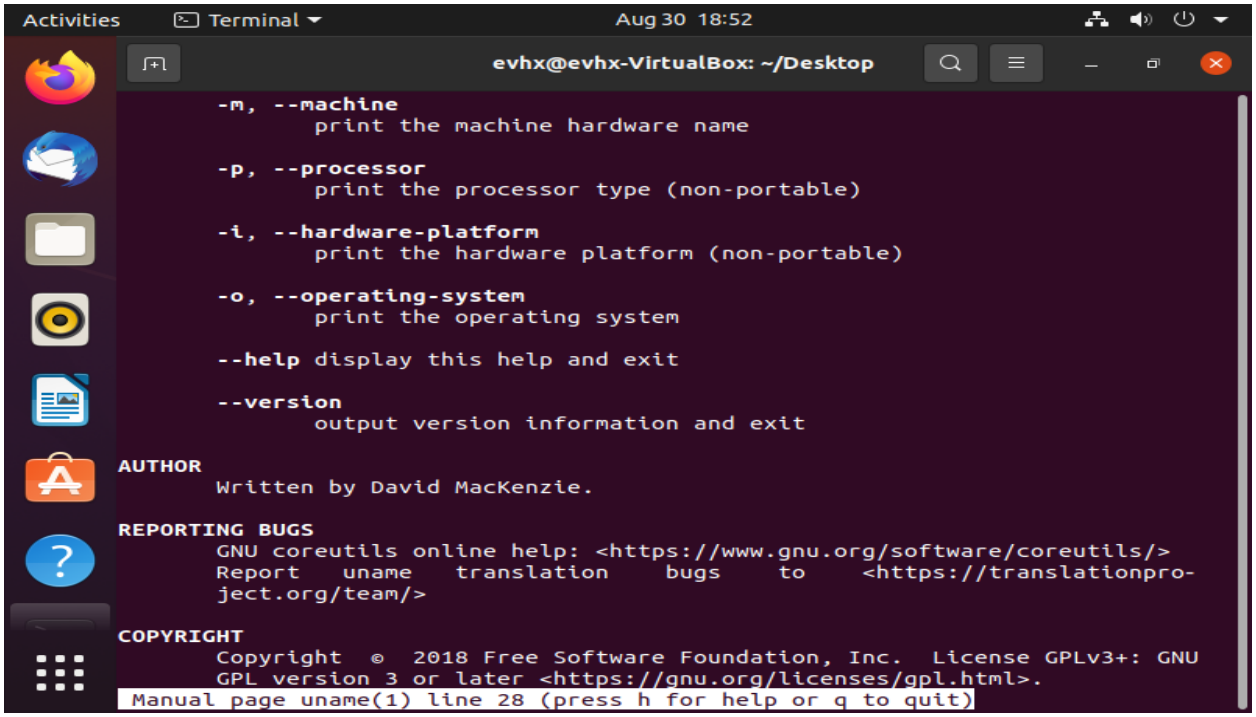
The `uname` command is used to print the system information. With adding the `-a` option, you can print out all the information, such as the:
Kernel name: Linux
Network Node Hostname: evhx-VirtualBox
5.11.0-27generic: Kernel Release
#29~20.04.1-Ubuntu SMP Wed Aug 11 15:58:17 UTC 2021: Kernel Version
x86_64: Machine hardware architecture of the system
x86_64: Processor architecture type of the system
GNU/Linux: Operating System being used.



To view the manual for the `uname` command, type in the command:

```
man uname
```

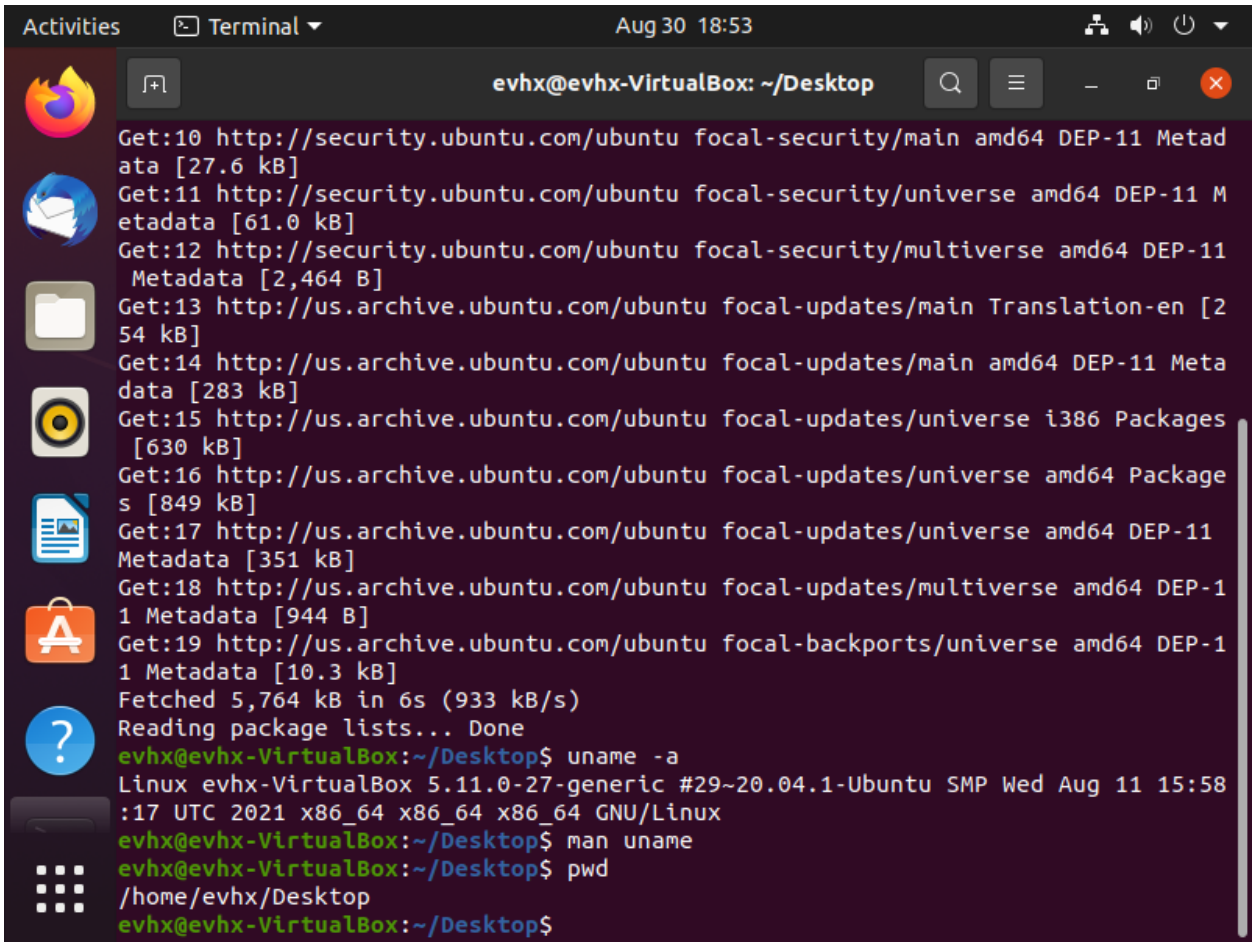




As seen in the previous images, the information displayed from using the command:

`uname -a`

gives the kernel name, network node hostname, kernel release, kernel version, machine's hardware name, the processor information, and the operating system being used.



Conclusion

Installing operating systems on virtual hard drives allows for the possibility of running multiple operating systems together at the same time, and having control over how the hardware being used is being divided, as well as being able to save specific instances of the operating system, overall being quite versatile.

While a live boot from a disc or a USB is similar in the sense where multiple operating systems could be booted, only one operating system could be run at a time. The ability to do a live boot is also only limited to some Linux distributions, such as Kali Linux, Linux Lite, Peppermint OS, Slax, and Puppy Linux to name a few.

A live boot would be useful when wanting to load an operating system directly onto any computer, which is a good wireless hacking method. While a virtual machine is useful for running multiple operating system environments that will not directly run on the host computer.