

## The software installation is a prerequisite to Chapter 4.

### About this document:

Welcome to the software installation guide for Apress book, “Introduction to Python Network Automation: The First Journey, 2<sup>nd</sup> Edition”. This guide has been created by the authors as a complementary material to the book, but it is not part of the actual book. Its purpose is to provide a clear and concise set of instructions to help you install the necessary software to follow along with the book's examples and exercises.

By following the steps outlined in this guide, you will be able to set up the required software for Python network automation and start exploring the practical concepts covered in the book. Please note that this guide is not intended to be a comprehensive resource on network automation or Python, but rather a focused guide to help you get started quickly and easily.

If you have any questions or issues during the installation process, please don't hesitate to reach out to the authors or consult the resources listed in the guide. We hope this guide proves helpful in your journey towards mastering Python network automation.

<b>Version:</b>	1.0
<b>Created:</b>	21/Mar/2023
<b>Last updated:</b>	N/A

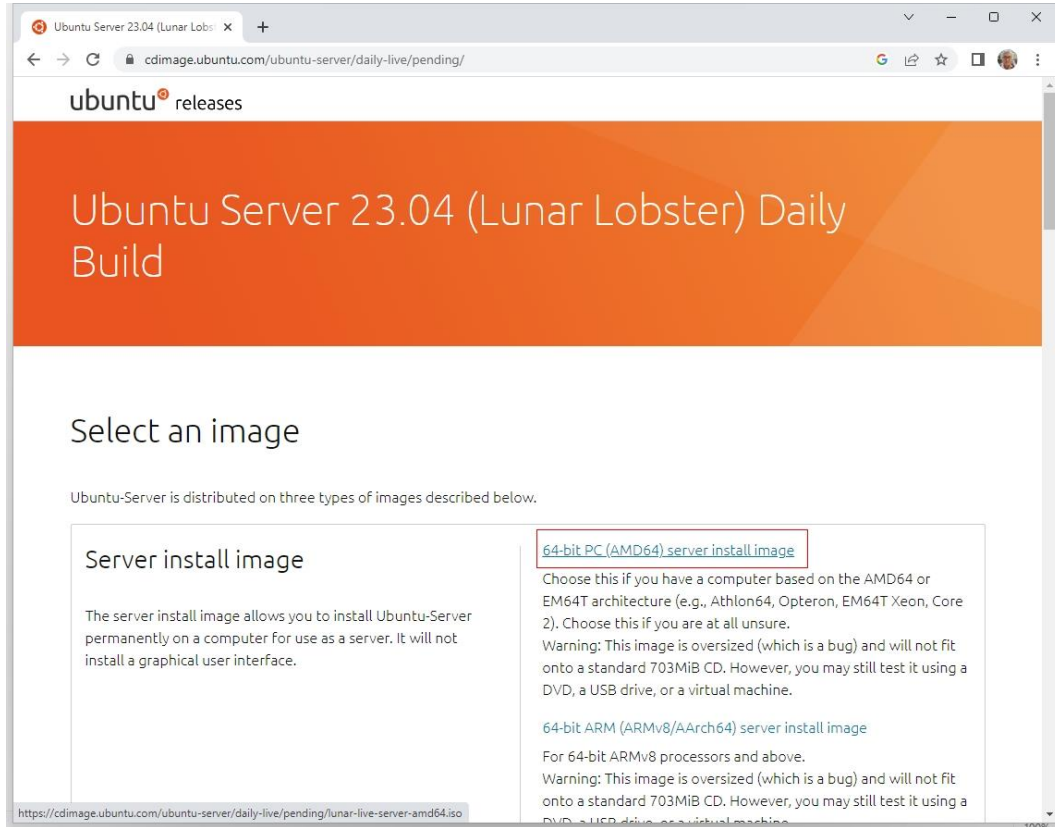
### What's required?

<b>Host OS:</b>	Windows 11
<b>Desktop Hypervisor:</b>	VMware Workstation 17 Pro
<b>File name:</b>	Ubuntu 23.04 Server
<b>Internet connection:</b>	Yes

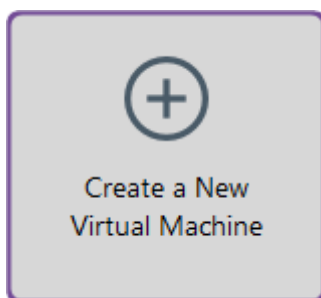
## Installation Steps:

Here is a guided installation steps to create a Ubuntu 23.04 virtual machine on VMware Workstation 17. We will name the server as “u23c1”.

1. First, you need to download the Ubuntu 23.04 ISO file from the official Ubuntu website.



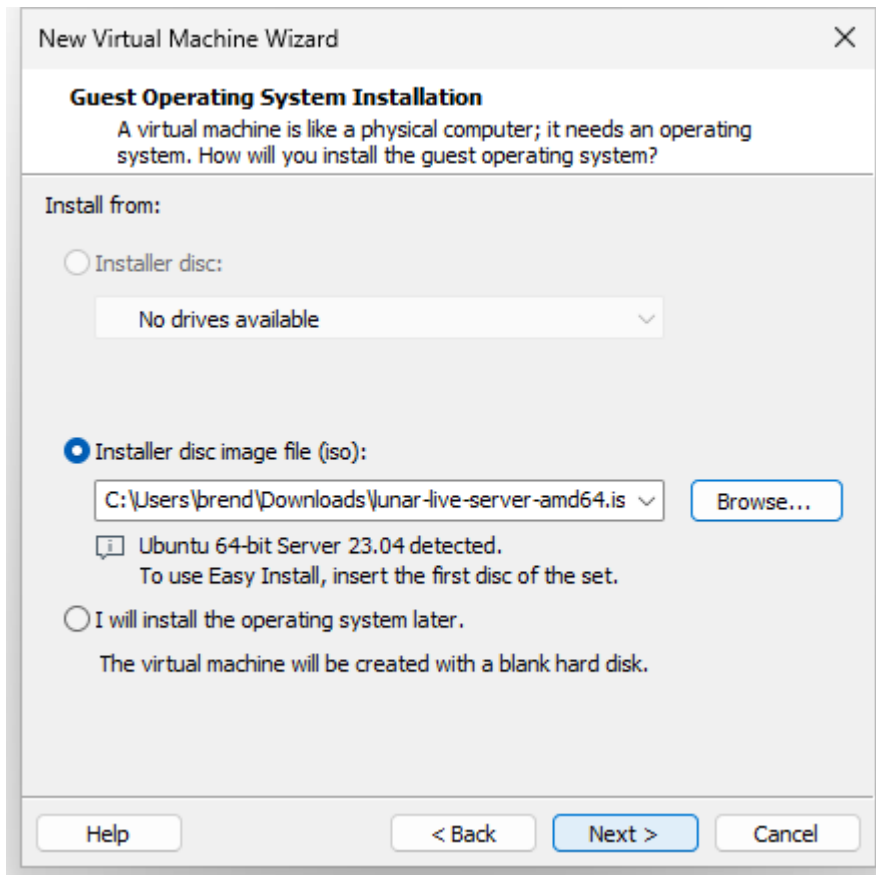
2. Open VMware Workstation 17 and click on "Create a New Virtual Machine" or go to File > New Virtual Machine.



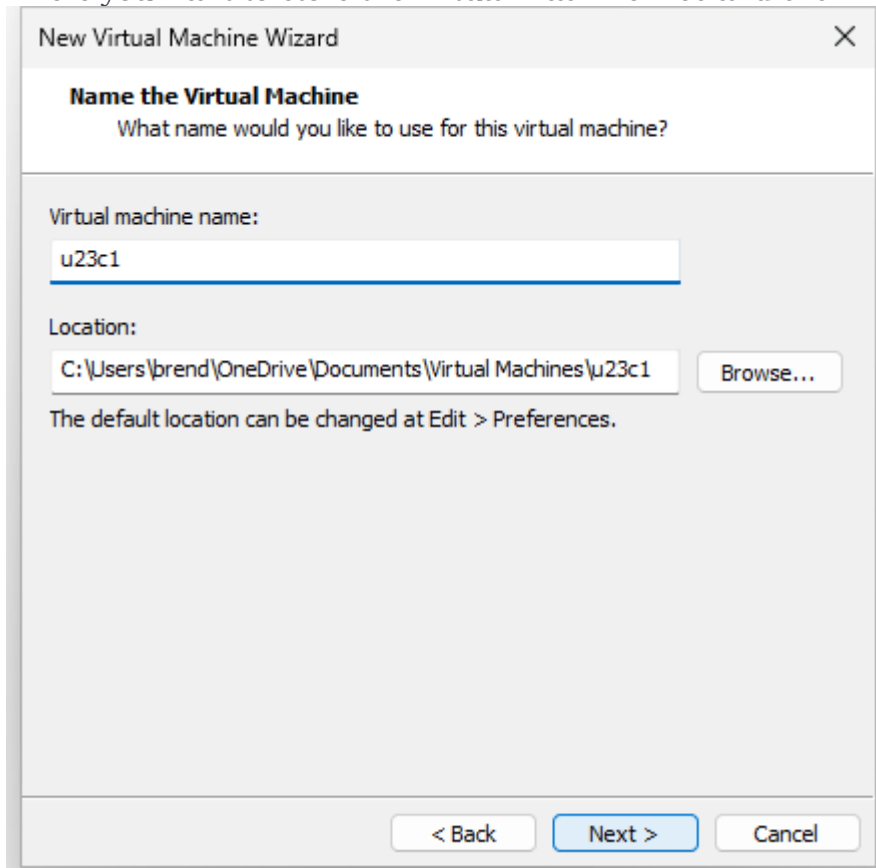
3. Select "Typical (recommended)" and click "Next".



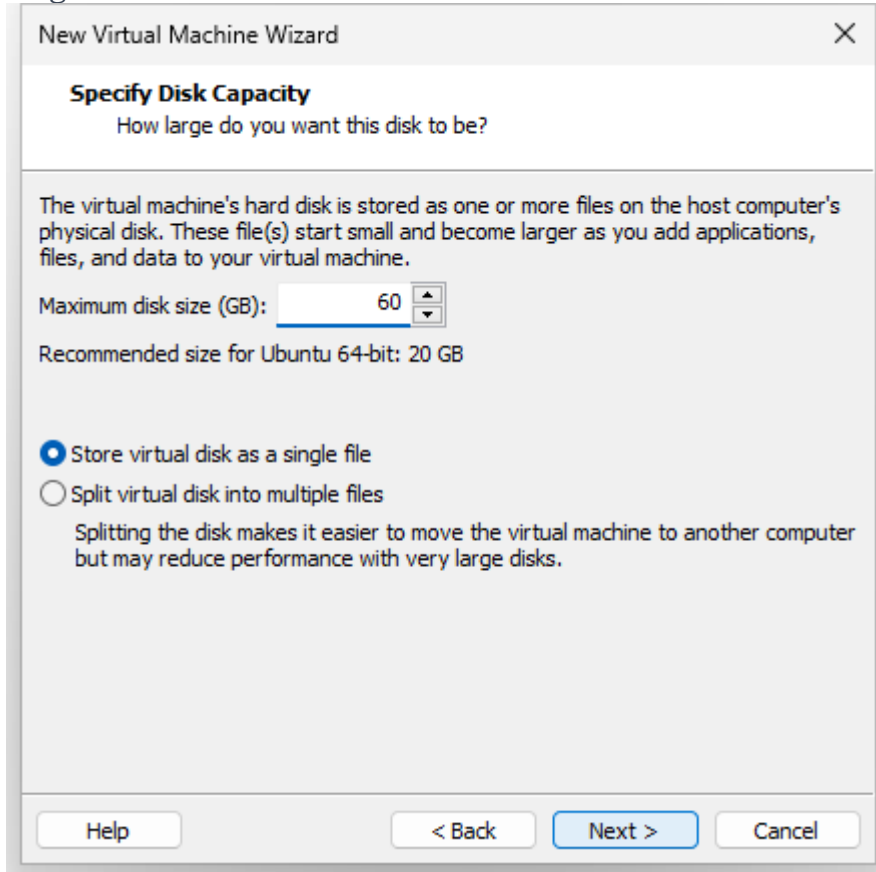
4. Choose the option "Installer disc image file (iso)" and click "Browse". Browse and select the Ubuntu 23.04 Server ISO file (lunar-live-server-amd64.iso) you downloaded earlier and click "Next".



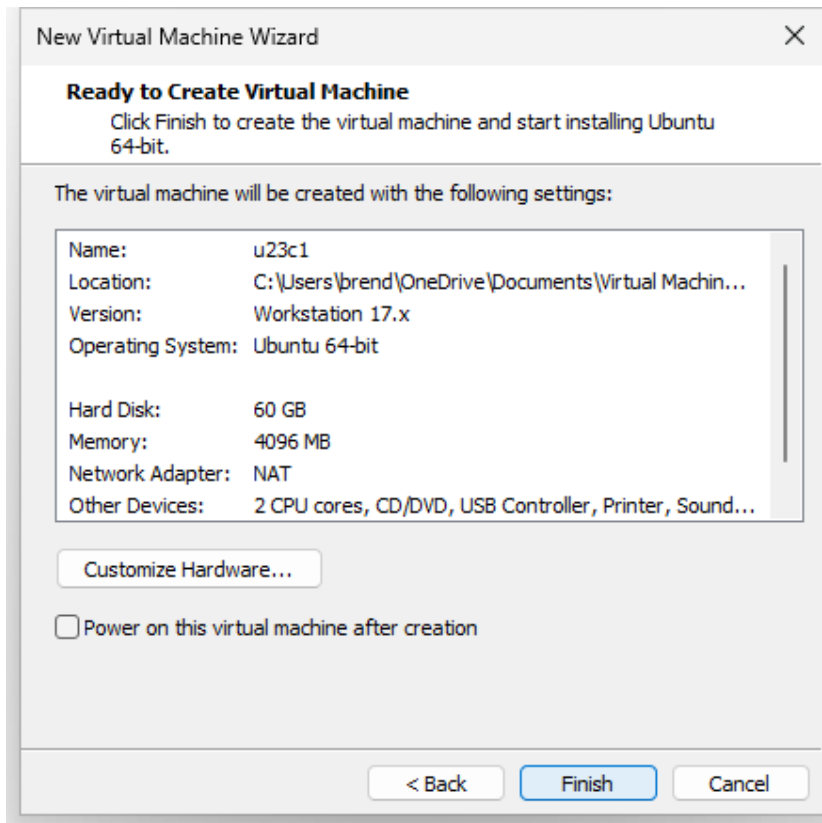
5. Click "Next" and enter the name of the virtual machine. Choose the location where you want to store the virtual machine files and click "Next".




- Set the maximum disk size for the virtual machine and click "Next". Since we are using thin provisioning, the disk space will not be pre-allocated to the maximum disk size. Increasing to 60GB and selected "Store virtual disk as a single file".



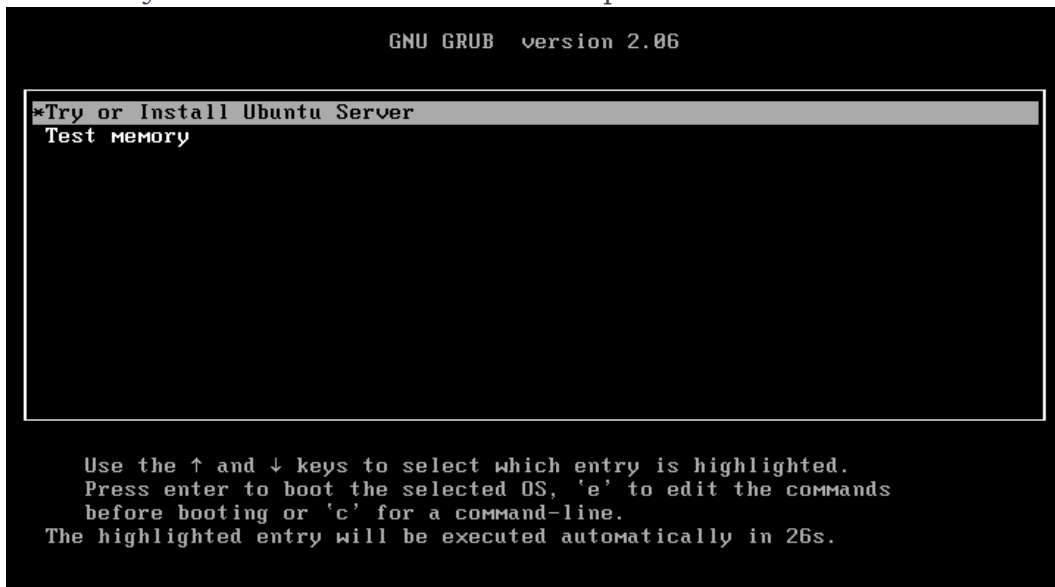
- Unselect "Power on this virtual machine after creation". Click "Finish" to create the virtual machine.



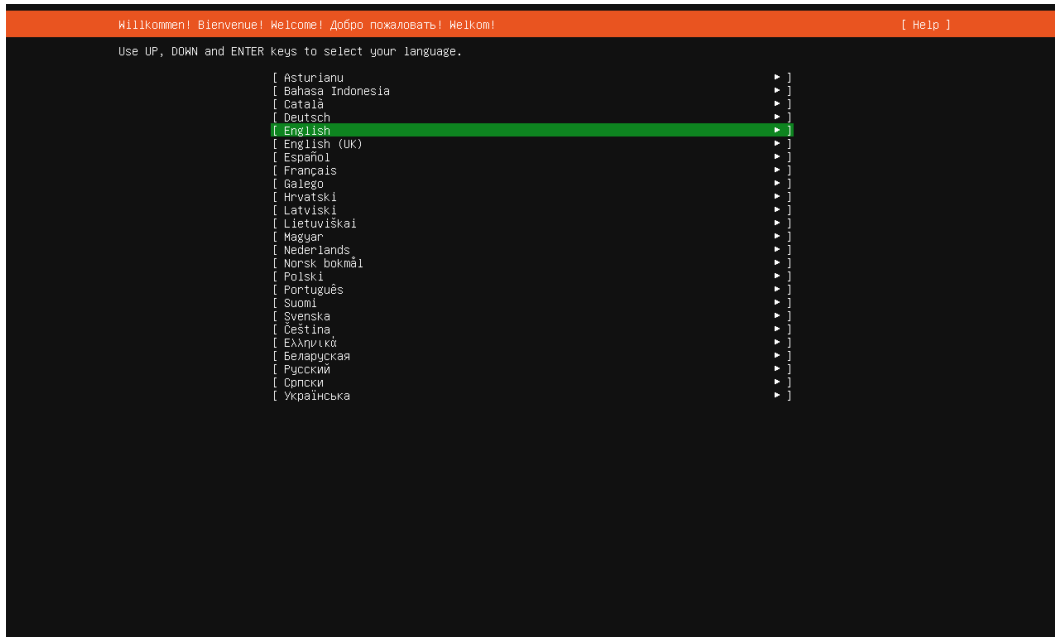
8. Power on the virtual machine and wait for the Fedora installation screen to appear.

 [Power on this virtual machine](#)

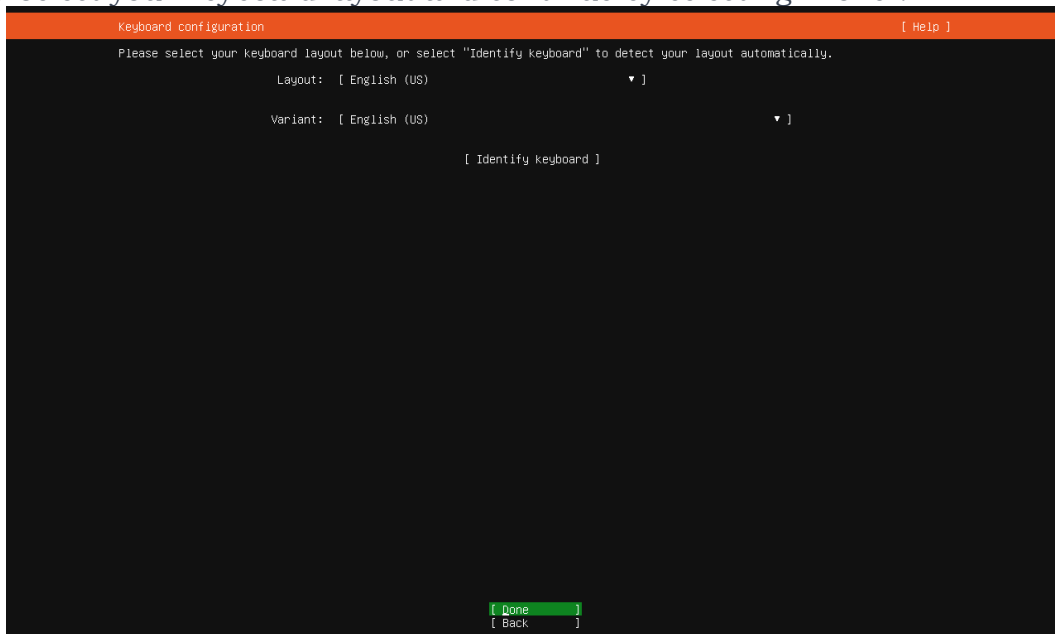
9. Select "Try or Install Ubuntu Server" and press Enter.



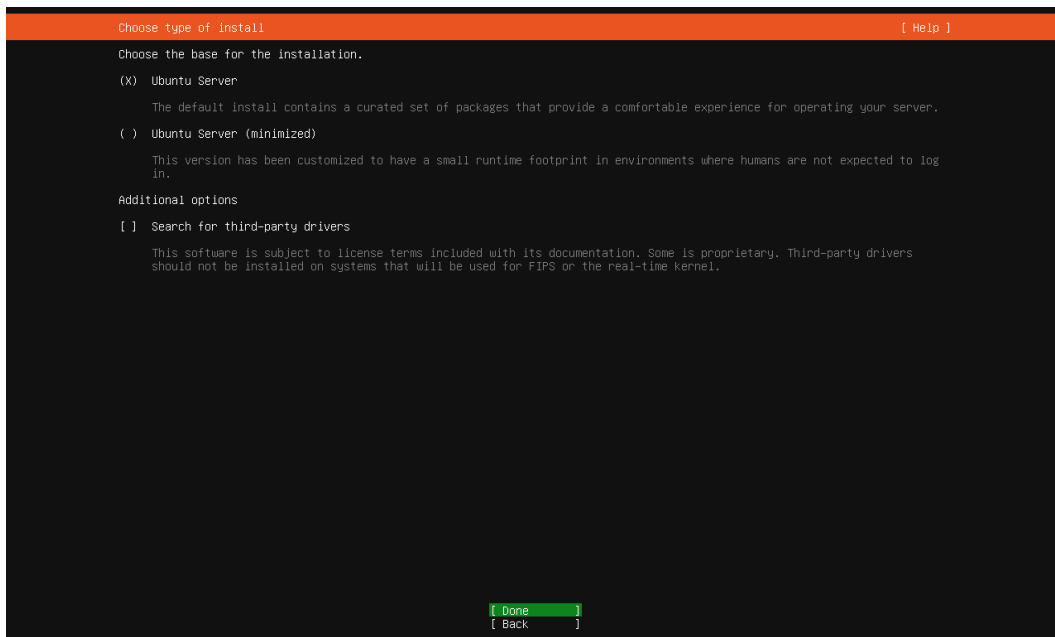
10. Choose the language using the Up/Down keys and press Enter key.



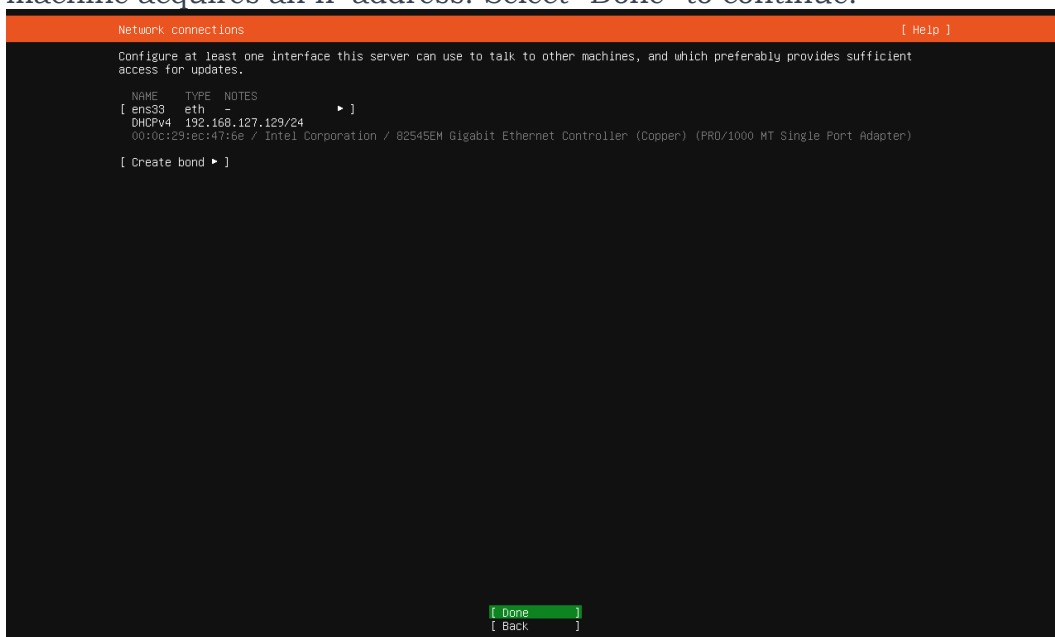
11. Select your keyboard layout and continue by selecting “Done”.



12. Leave Ubuntu Server selected and continue installation selecting “Done”.

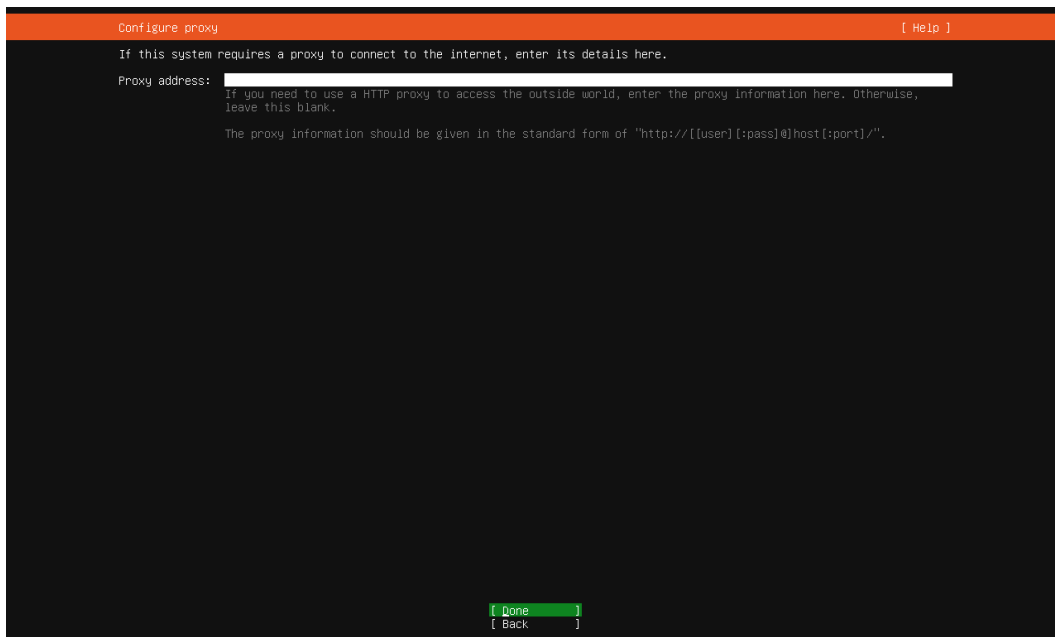


13. Leave the default setting for Network Connection for now so your virtual machine acquires an IP address. Select “Done” to continue.

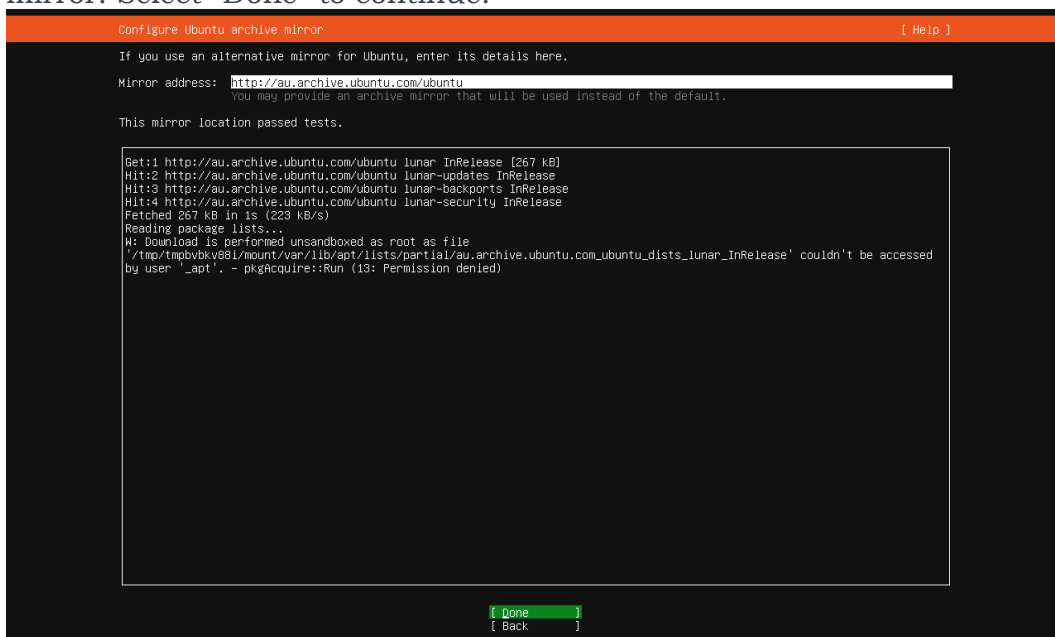


14. You do not need to configure proxy, so select “Done” to continue.

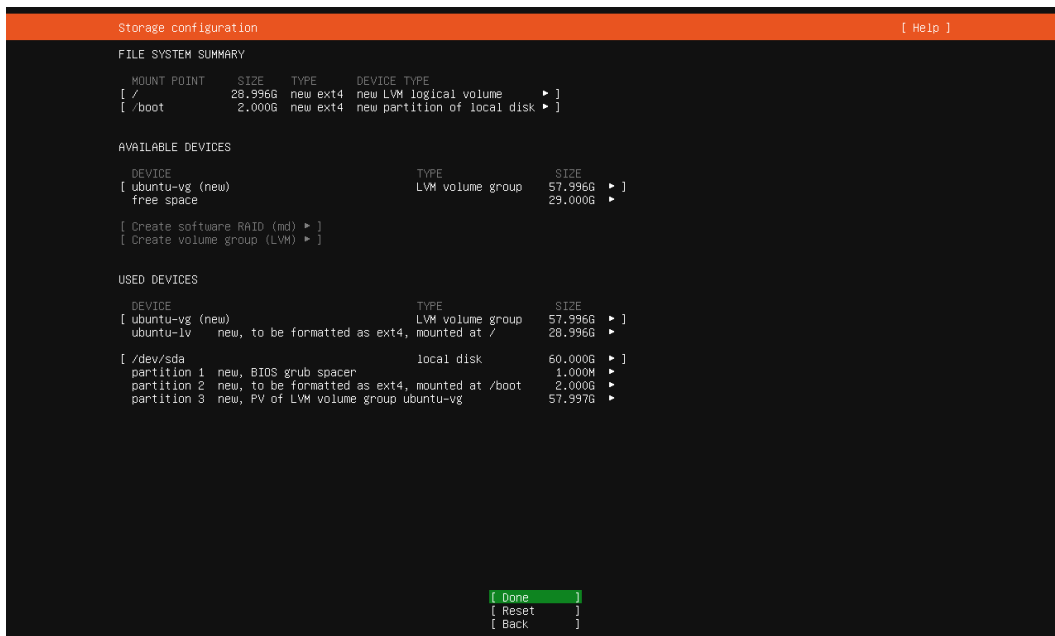
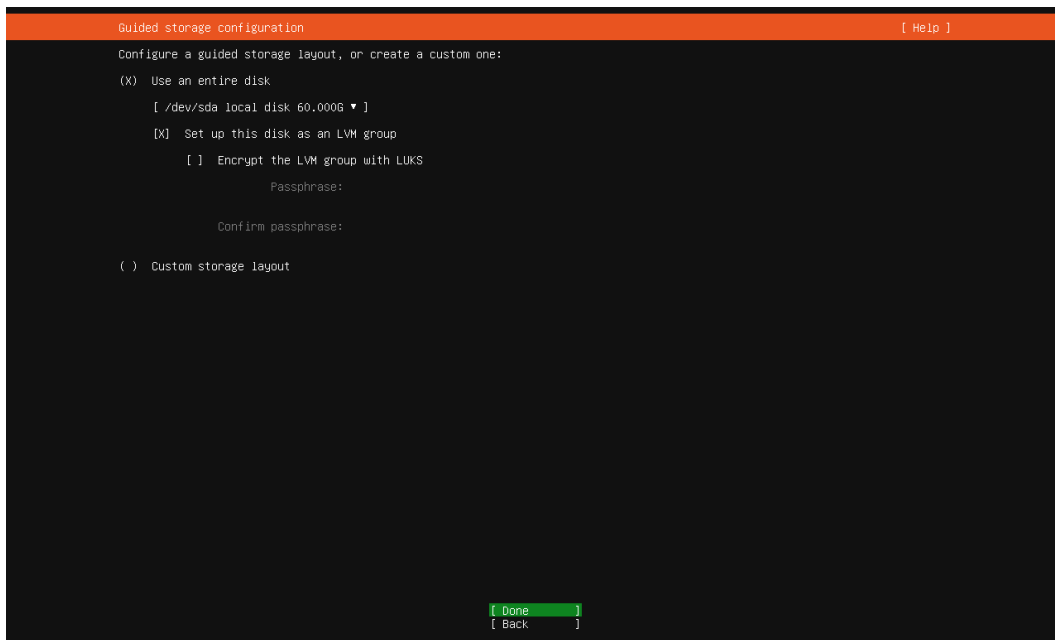




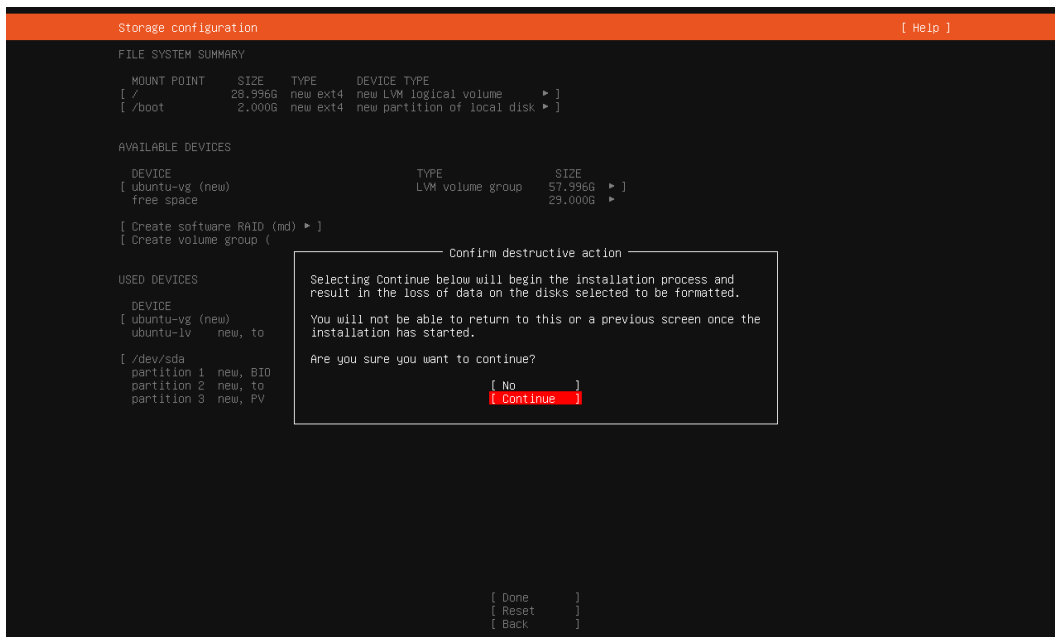
15. Don't worry about the Permission denied message for the Ubuntu archive mirror. Select "Done" to continue.



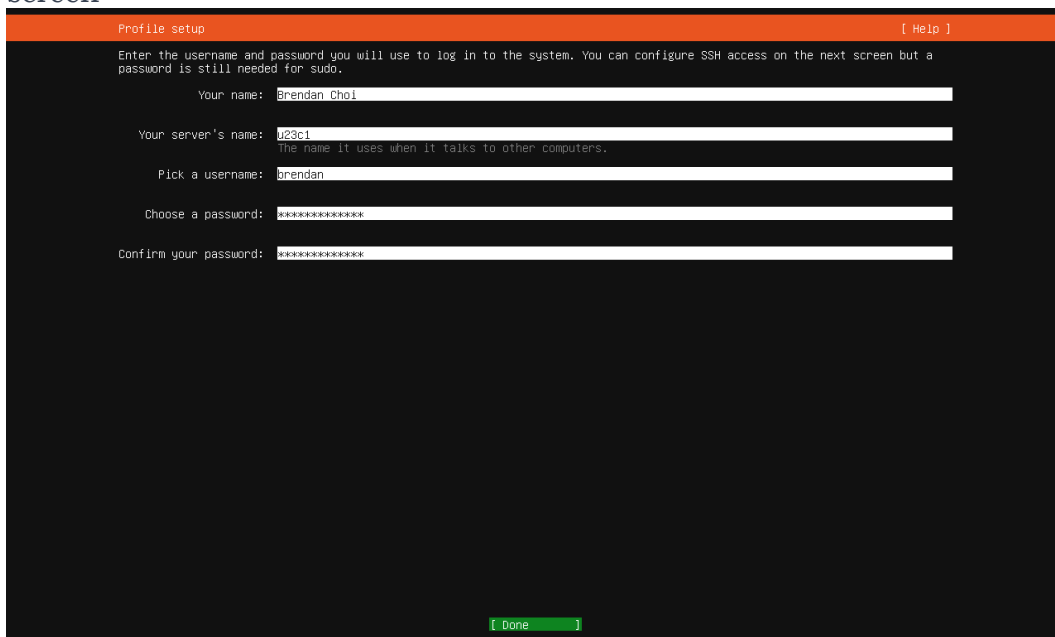
16. Leave the Guided storage configuration as is and continue.



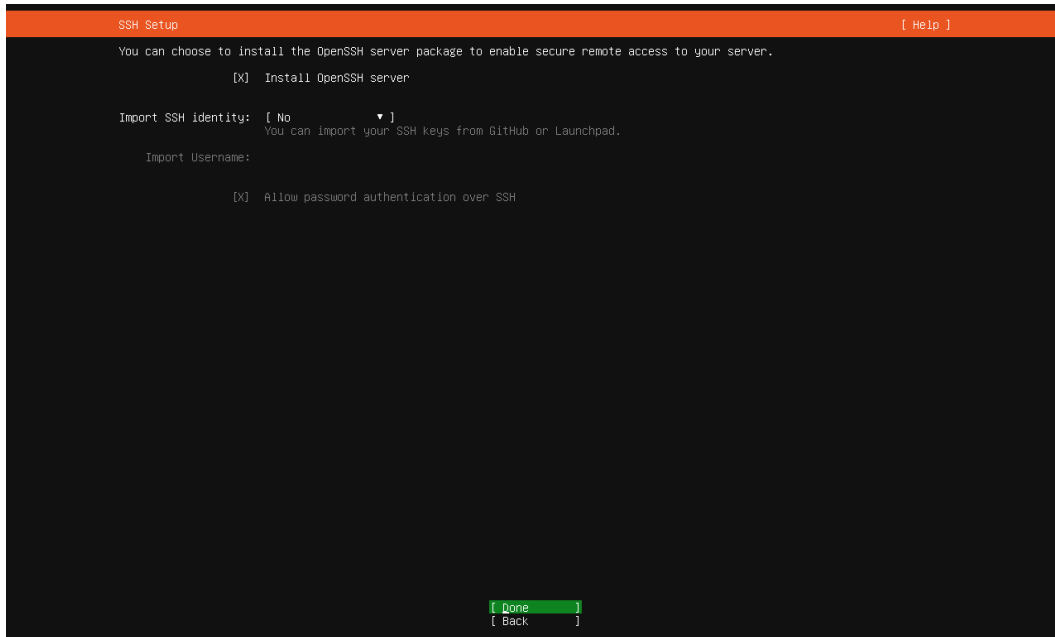
Continue to the next installation configuration screen.



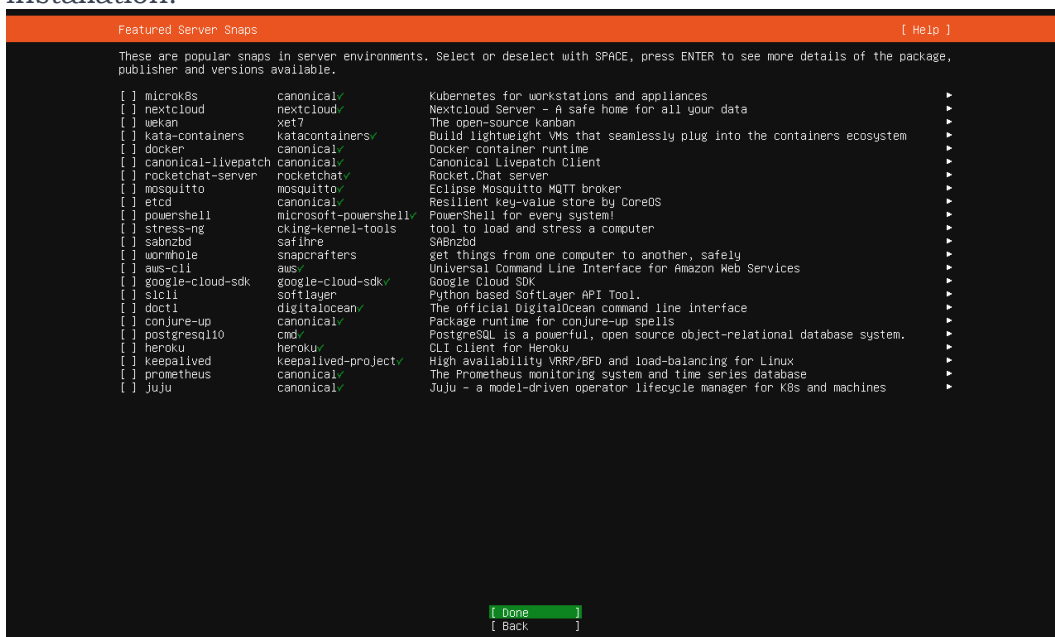
17. Enter profile information including your name, your server's name, username and a secure password. Click on “Done” to continue to the next screen



18. Select “Install OpenSSH server” under SSH Setup and select “Done” to continue.

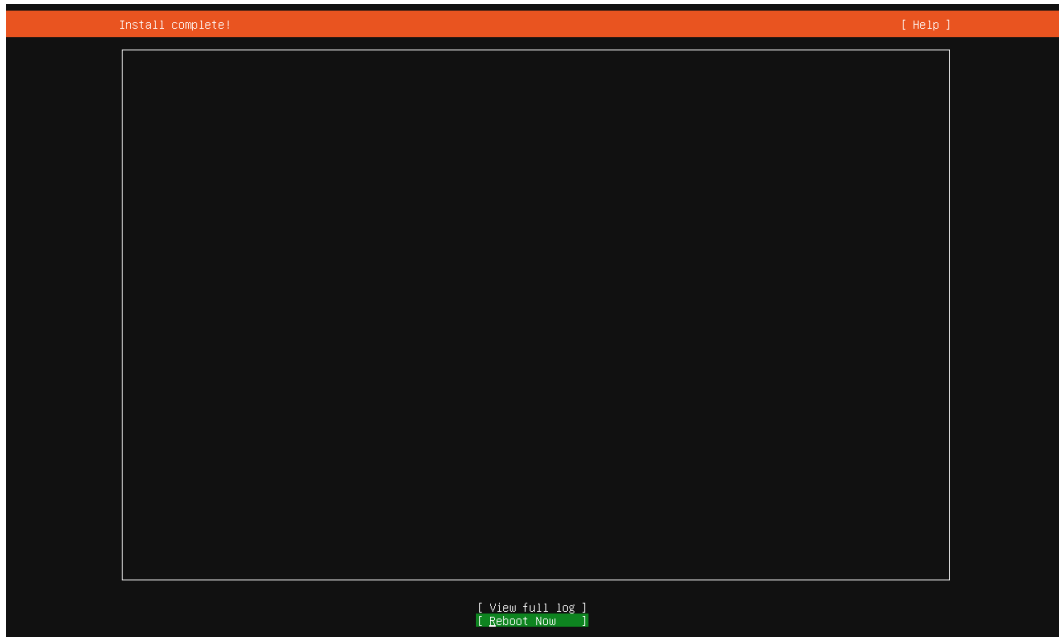


19. Leave everything unselected and click on “Done” to initialize Ubuntu server installation.

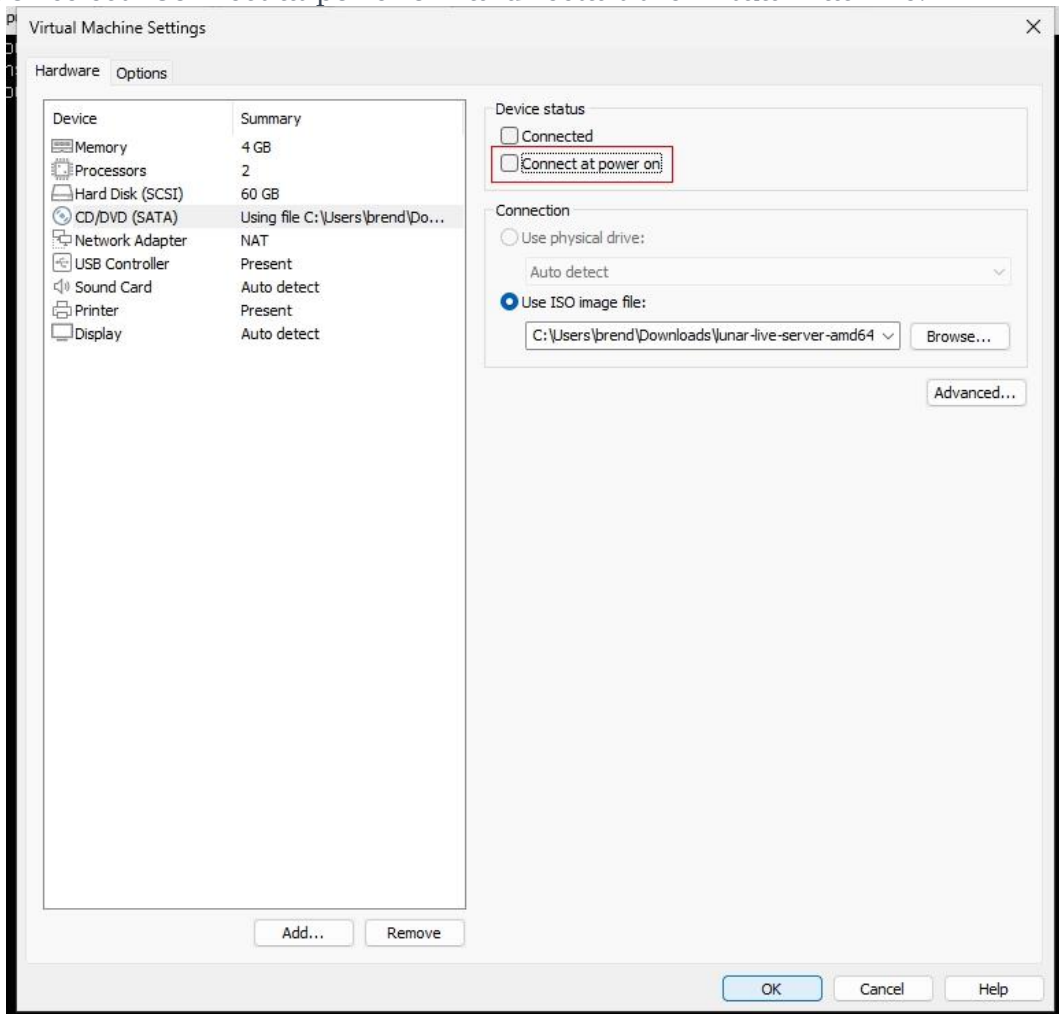


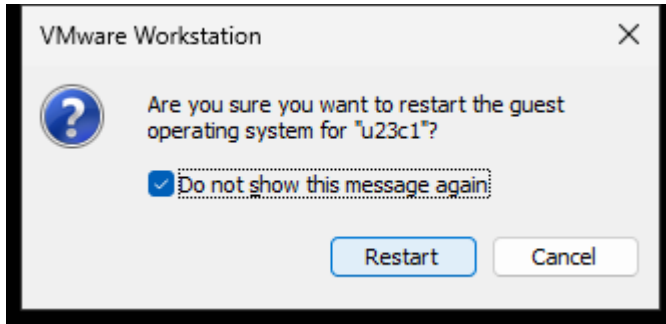
20. Wait for the installation to complete.

21. At the completion of the installation, select “Reboot now” to complete the installation.



22. Unselect “Connect at power on” and restart the virtual machine.





23. Once your first virtual machine is powered on. Login using your username and password.

```
(14) Mar 19 12:54:19 cloud-init: 1024 SHA256:EJC74152eV/+fTJ6mvdnCDu*2h16L6W+EXxpc5C8cSM root@u23c1 (DSA)
(14) Mar 19 12:54:19 cloud-init: 256 SHA256:x+h8NKK2Es80LzNSdtZsJGu9fe50vPImzQ1qfmZPY root@u23c1 (ECDSA)
(14) Mar 19 12:54:20 cloud-init: 256 SHA256:taZ7XCF3FaAlmp3Rk01uFrc+k1YD6bm3Ze+nZAXo6kE root@u23c1 (ED25519)
(14) Mar 19 12:54:20 cloud-init: 3072 SHA256:JuVMH93R5nV1lGjPac202Qev4c4C/RSS27V1lg1koi4 root@u23c1 (RSA)
(14) Mar 19 12:54:20 cloud-init: -----END SSH HOST KEY FINGERPRINTS-----
(14) Mar 19 12:54:20 cloud-init: *****
-----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoVTIibmlzdHAnYTYAAABImLzdHAnYTYAAABBBPvtalJn59g3g2qOrJPTpSaE29XfD0asaQNuAR6uytXXMk2WvA0hTUNZNRq1TXc2y9KN1J04L8aPW3UIX9fuIvD=
root@u23c1
ssh-ed25519 AAAAC3NzaC1l2DIINTESAAAAIC4dS2Kub0QcUKD1K9MKXGvZTLVFCxyI9x0jHh0b11 root@u23c1
ssh-rsa AAAAB3NzaC1l2EAAAADAQABAAQDA00Ebr0u1DOL+2bu+Rvyp680C89J960IK0MLTzJ/ElifnagUeMin9JIdpy+fq+7vW1HoF55eudkUAKfokvcofYtzhW2LU18mb0T9n/kkA7aNuC9EPE9Mux88
AA6KjJ14Lx80rpG18QhP11yVHRMMWn5Nm4278agLm2smKLVQeJfP0+q0z2hgTcb2Y/g60e81U7760HCK1VF6LYpntw+Ta1H9f80YKvsrDNaQJP2ZFIN6d+n7eQ0EhgzzaVu6200Pk0Bj1f749ca38F3PQWd
hN6XA9huh0fJnkg/ehzfnM6Gge+lmC8+Lhe0U8sc0XrULnw7AYJbp6kp69JBffz2qTXHj7M/9MHTL0e0R2mX8AdH7jCJovWp1TmrAX6J+1jMUV22gGu8r14N2gh/UUF+2h3FHBKhyJQH8Mvqu0ebqQELj+Ry
StsaCfIJRj/uEt0iucR8S1JIHizMcdktcgXlccE41dNJRvM43IoNCL9/b17BE6j1nsrsD8= root@u23c1
-----END SSH HOST KEY KEYS-----
[ 33.425991] cloud-init[1518]: Cloud-init v. 23.1.1-0ubuntu1 finished at Sun, 19 Mar 2023 12:54:20 +0000. DataSource DataSourceNone. Up 33.42 seconds
[ 33.426930] cloud-init[1518]: 2023-03-19 12:54:20.052 - cc_final_message.py(WARNING): Used fallback datasource

u23c1 login: brendan
Password:
Welcome to Ubuntu Lunar Lobster (development branch) (GNU/Linux 6.1.0-16-generic x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

System information as of Sun Mar 19 12:54:42 PM UTC 2023

System load:  0.84               Processes:    243
Usage of /:   23.7% of 28.37GB   Users logged in:  0
Memory usage: 12%              IPv4 address for ens33: 192.168.127.129
Swap usage:   0%

0 updates can be applied immediately.

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

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

brendan@u23c1:~$
```

24. If your username and password has worked properly. Now power off the virtual machine for now. We will continue our learning in the next chapter.

That's it! Once the installation is complete, you'll have a fully functional Ubuntu 23.04 virtual machine running on VMware Workstation 17. This virtual machine and previously created Fedora 38 virtual machine will be used for our Linux, Python and Network Automation studies.