4.4 Creating Ubuntu Virtual Machines

This task must be completed as part of Chapter 4 and before reading Chapter 5.

About this document:

Welcome to the software installation guide for Apress book, "Introduction to Ansible Network Automation: The Practical Primer, Volume 1". 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 Ansible 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 Ansible, 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 Ansible network automation.

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Created:	21/Mar/2023
Last updated:	N/A

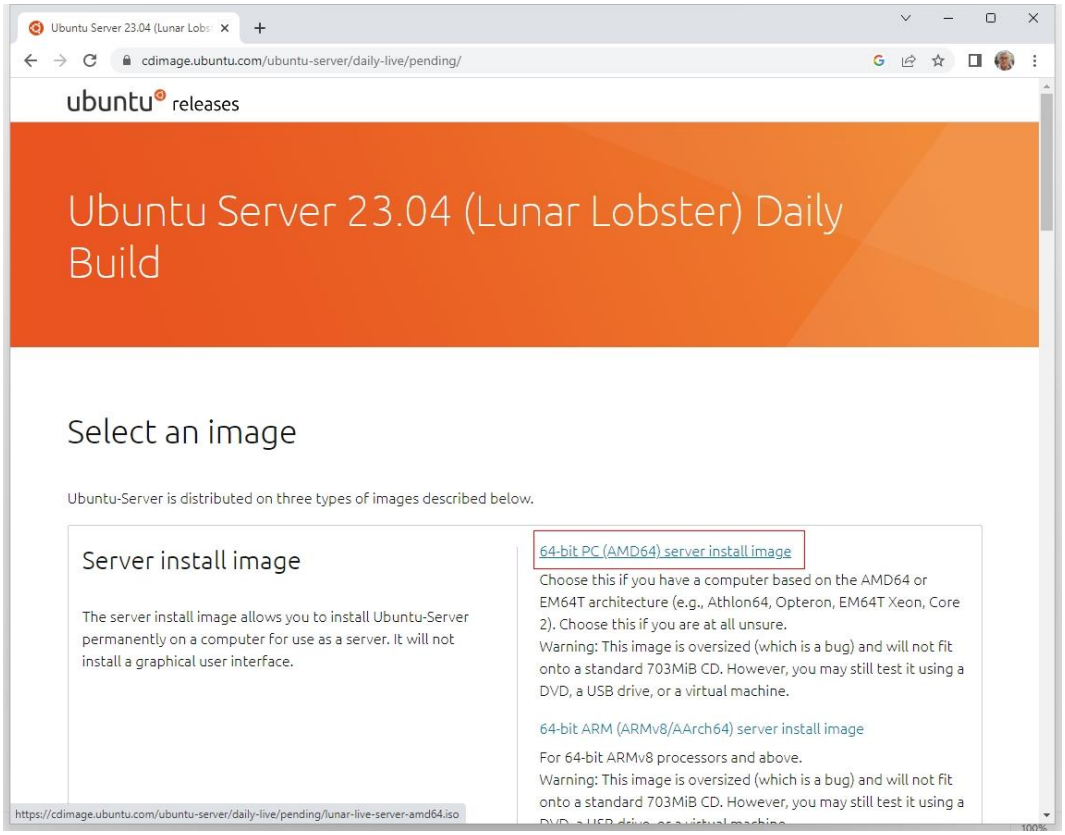
What's required?

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

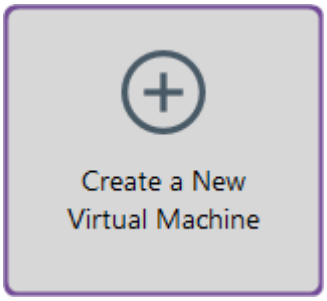
Installation Steps:

Here are the steps to create a virtual machine using VMware Workstation 17 for Ubuntu 23.04. Once we create the first machine (u23c1), we will clone it to create the second Ubuntu client machine called u23c2.

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

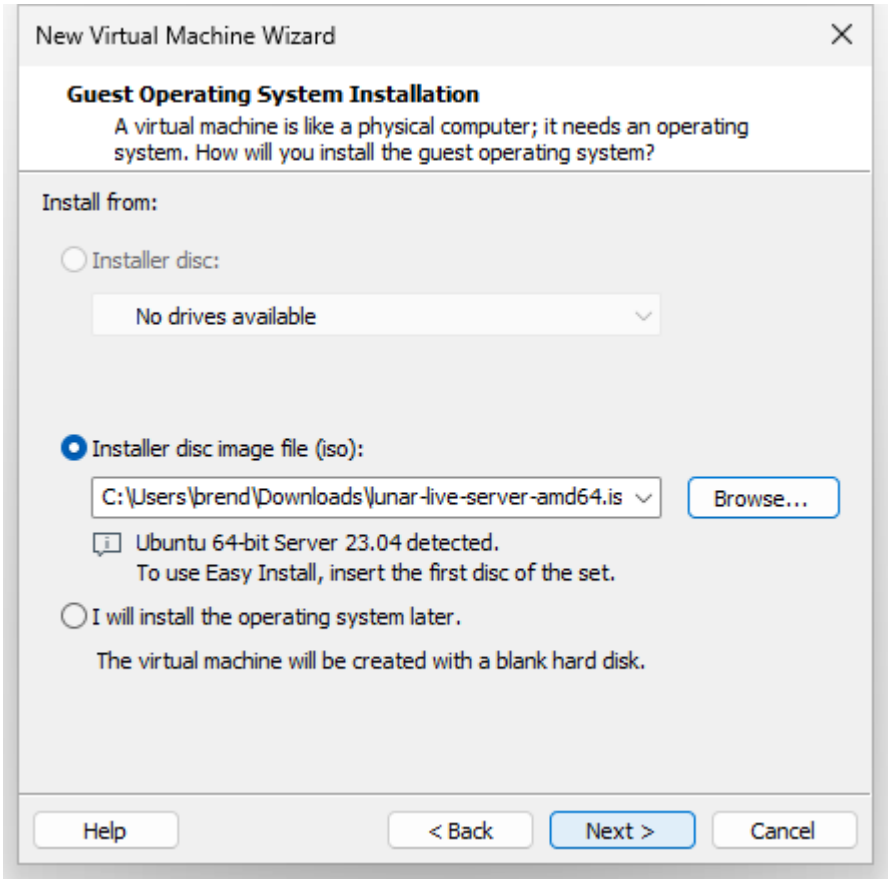


2. Open VMware Workstation 17 and click on "Create a New Virtual Machine" or go to File > New Virtual Machine.

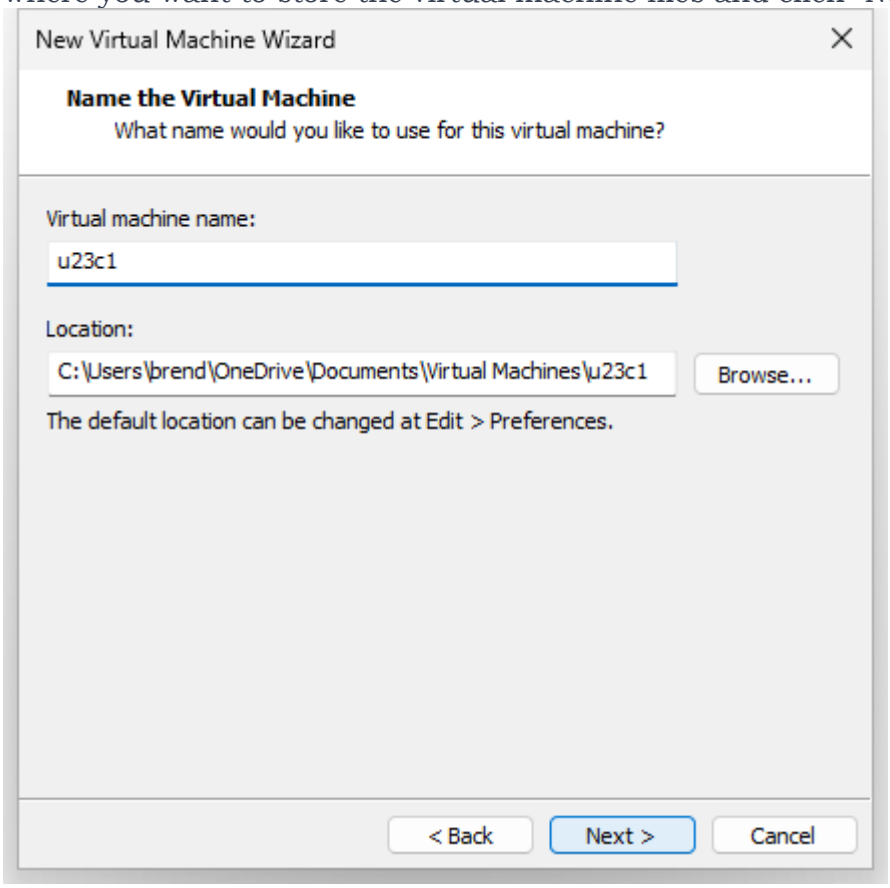


3. Select "Typical (recommended)" and click "Next".

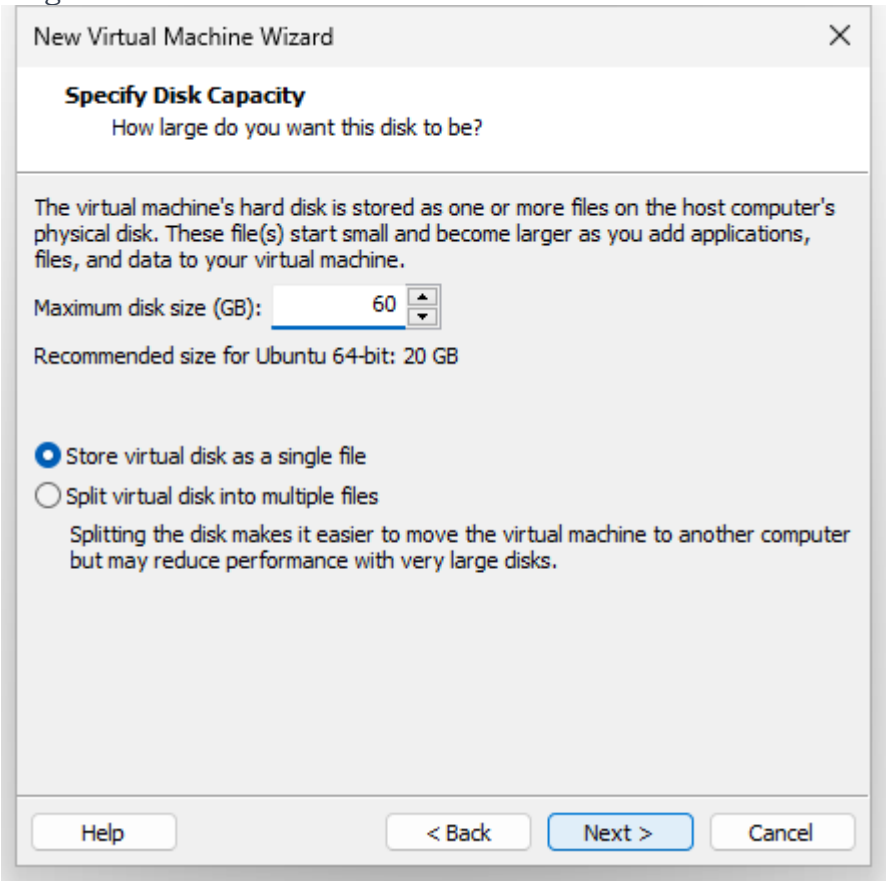
4. Choose the option "Installer disc image file (iso)" and click "Browse". Browse and select the Ubuntu 23.04 Server ISO file (lunar-live-server-amd64.iso) you downloaded earlier, and click "Next".



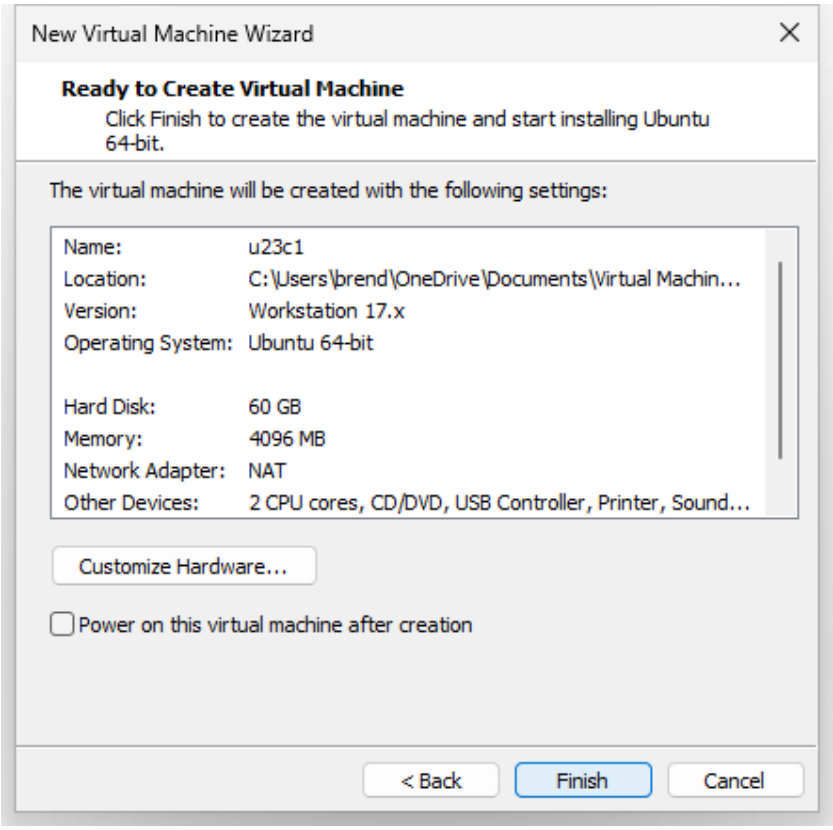
5. Click "Next" and enter the name of the virtual machine. Choose the location where you want to store the virtual machine files and click "Next".



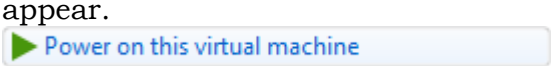
6. Set the maximum disk size for the virtual machine and click "Next". Since we are using think provisioning, the disk space will not be pre-allocated to the maximum disk size. Increasing to 60GB and selected “Store virtual disk as a single file”.



7. Unselect “Power on this virtual machine after creation”. Click "Finish" to create the virtual machine.

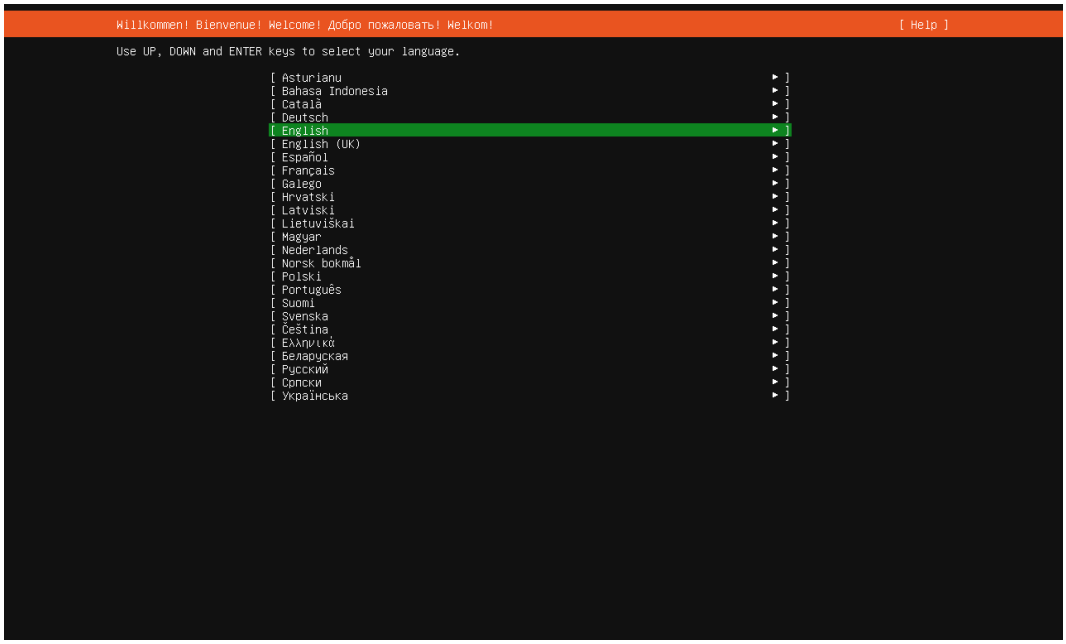


8. Power on the virtual machine and wait for the Fedora installation screen to appear.

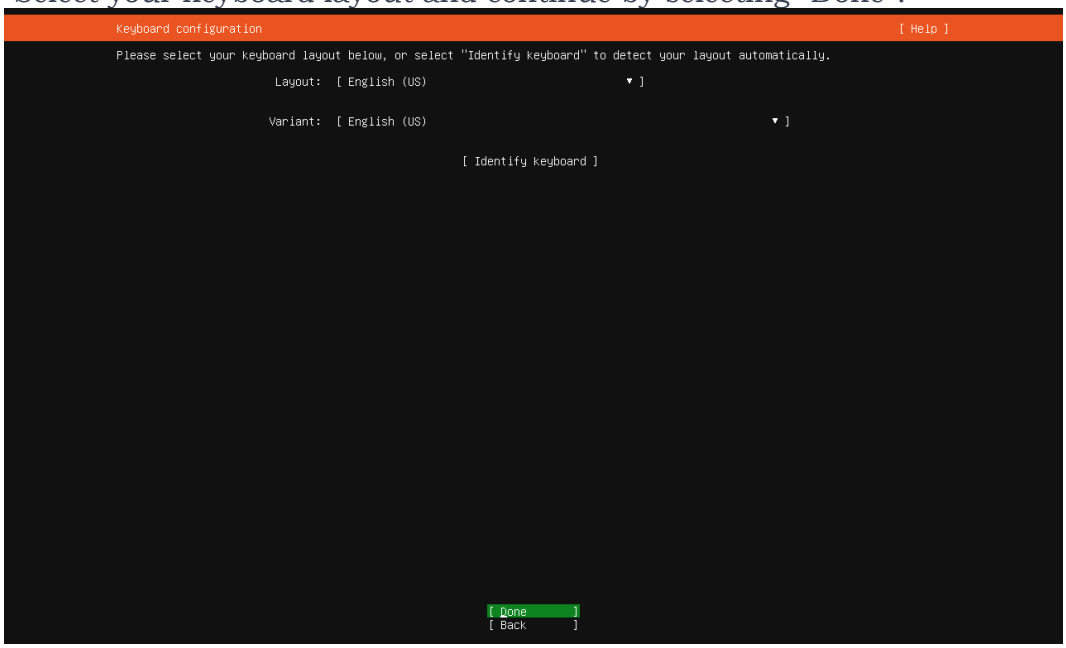


9. Select "Try or Install Ubuntu Server" and press Enter.

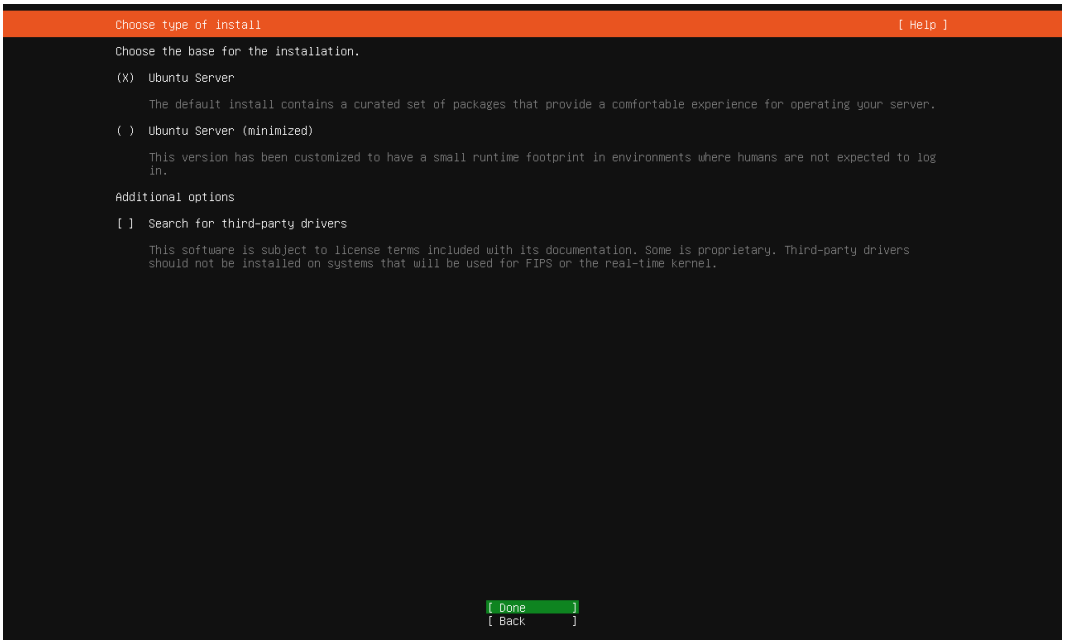
10. Choose the language using the Up/Down keys and press Enter key.



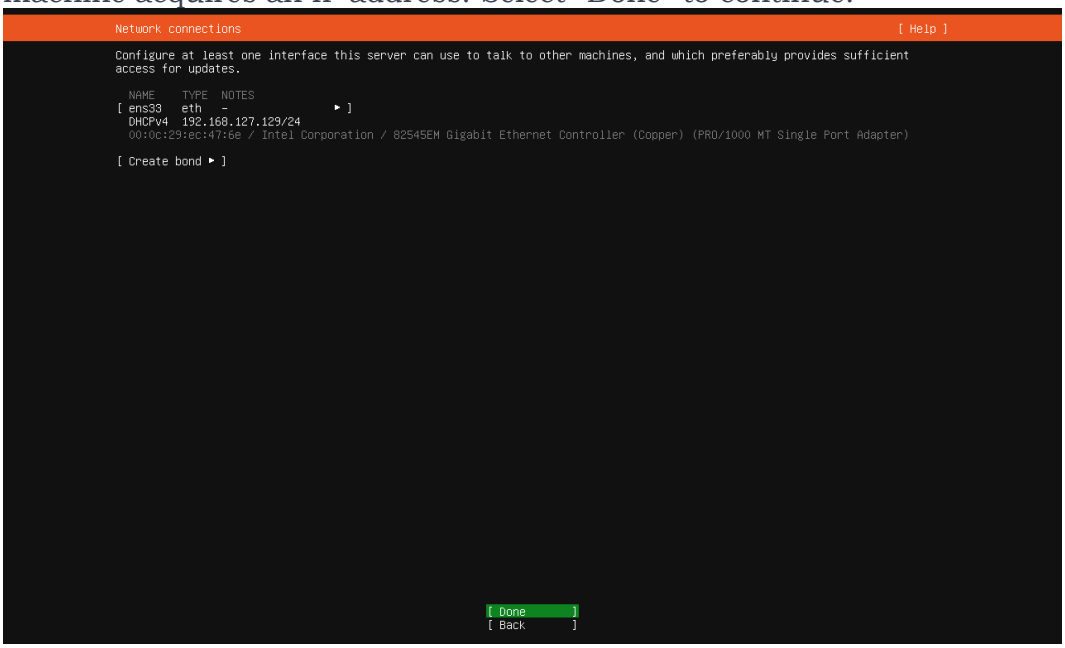
11. Select your keyboard layout and continue by selecting “Done”.



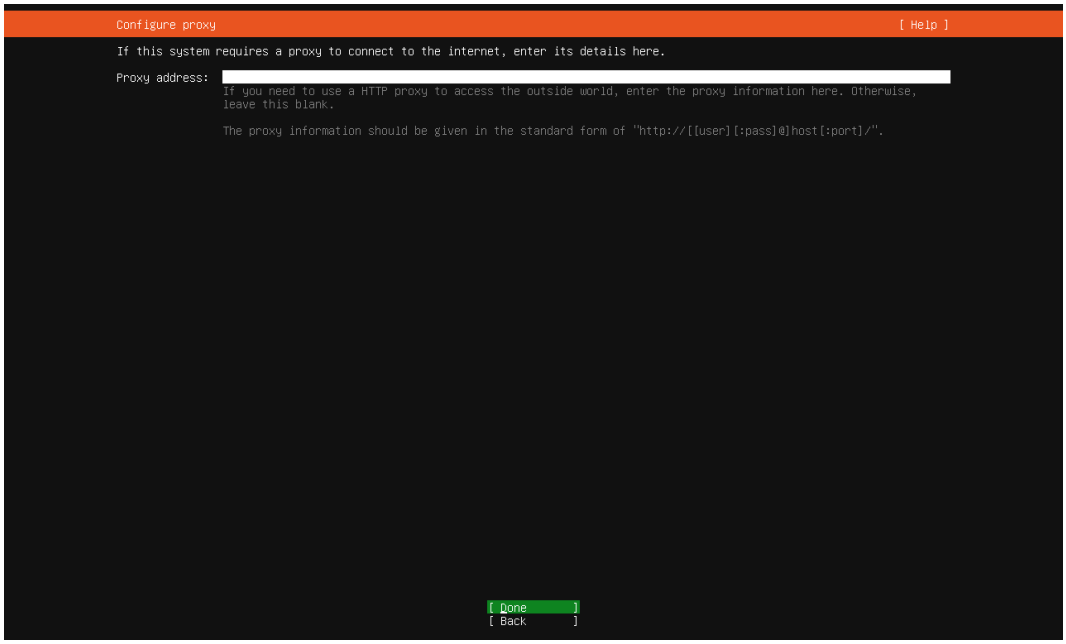
12. Leave Ubuntu Server selected and continue installation selecting “Done”.



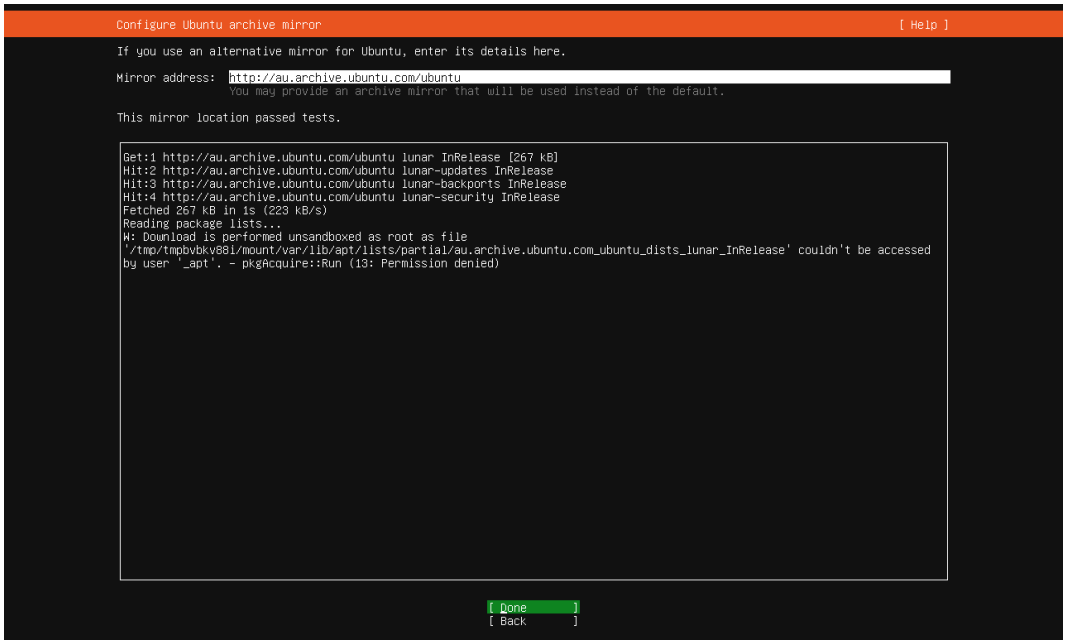
13. Leave the default setting for Network Connection for now so your virtual machine acquires an IP address. Select “Done” to continue.



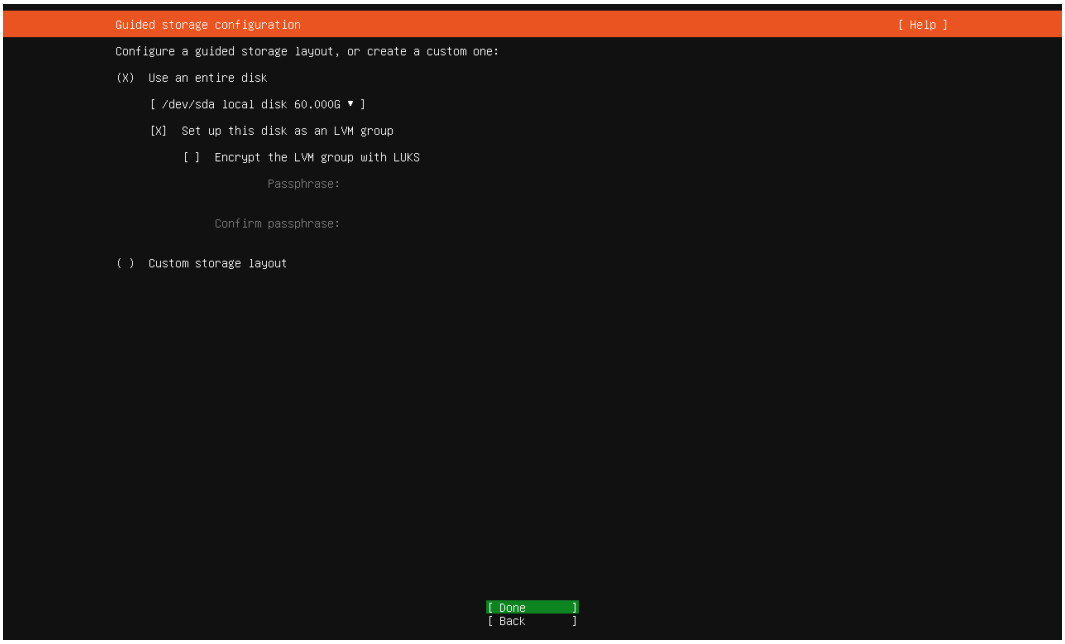
14. You do not need to configure proxy, so select “Done” to continue.

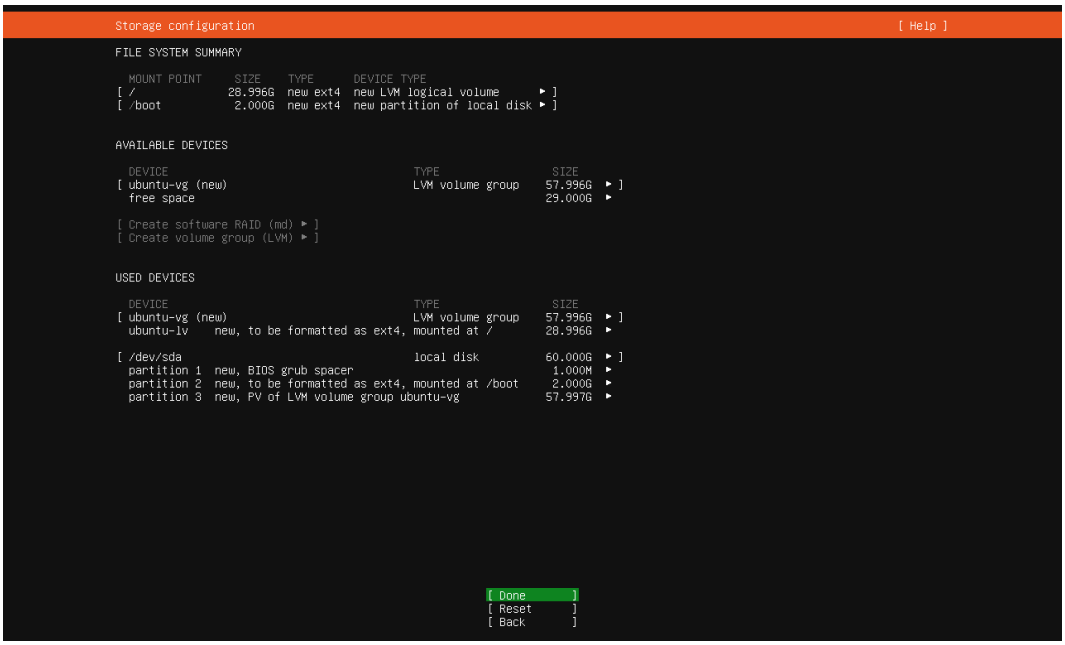


15. Don't worry about the Permission denied message for the Ubuntu archive mirror. Select "Done" to continue.

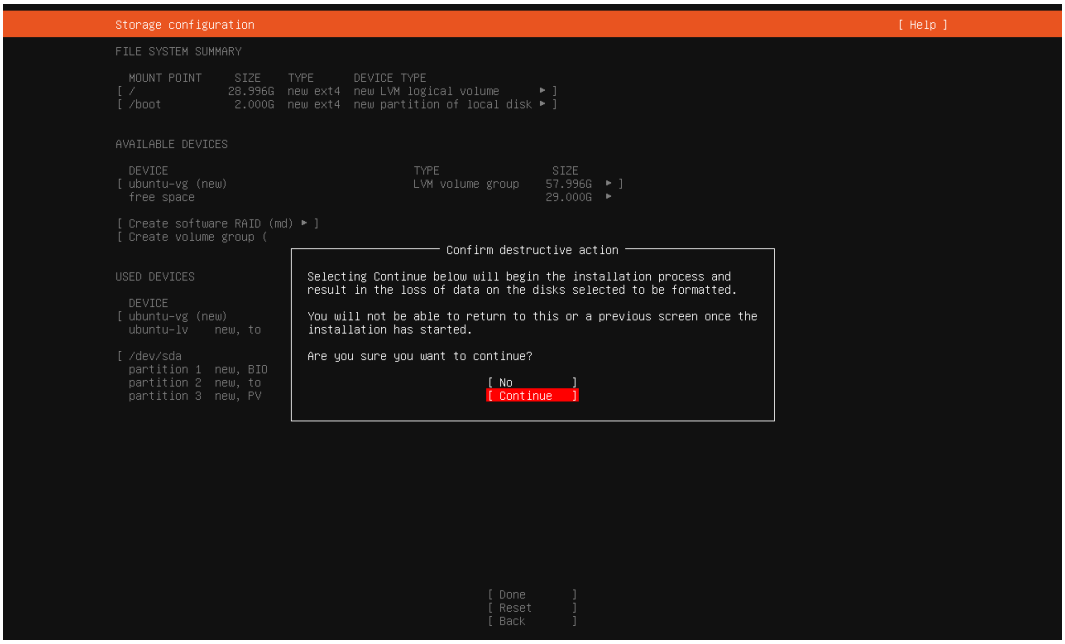


16. Leave the Guided storage configuration as is and continue.

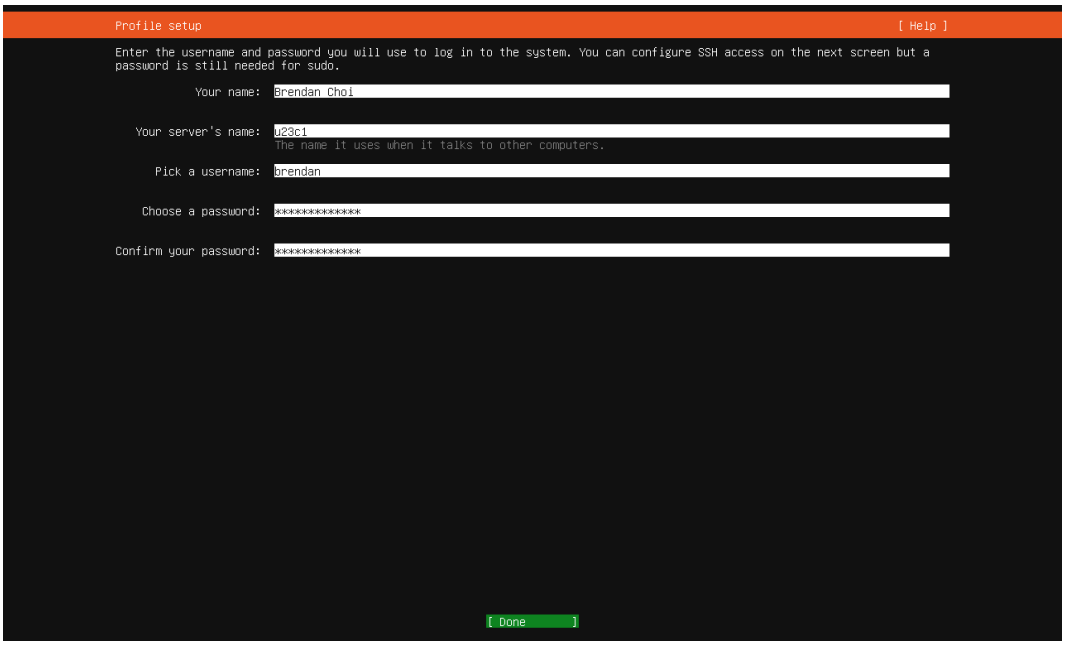




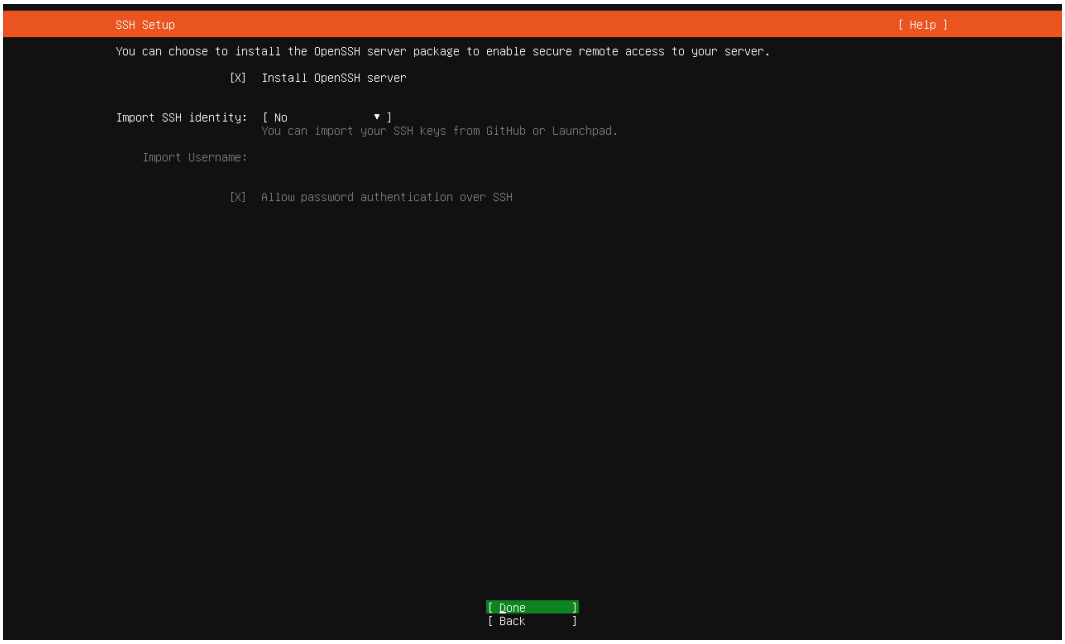
Continue to the next installation configuration screen.



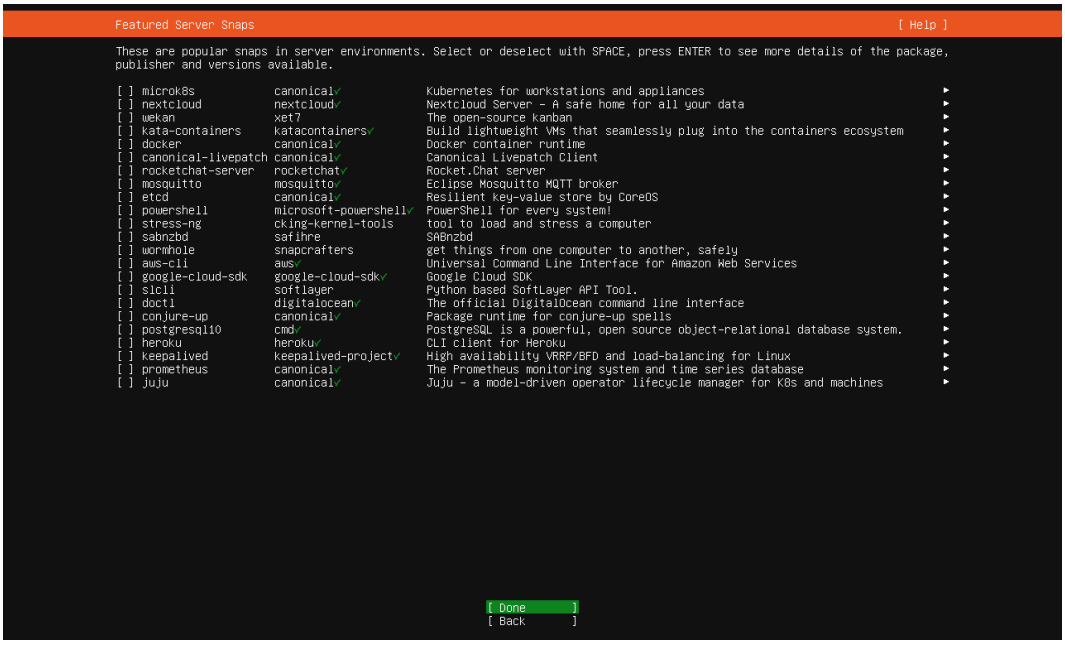
17. Enter profile information including your name, your server's name, username and a secure password. Click on "Done" to continue to the next screen



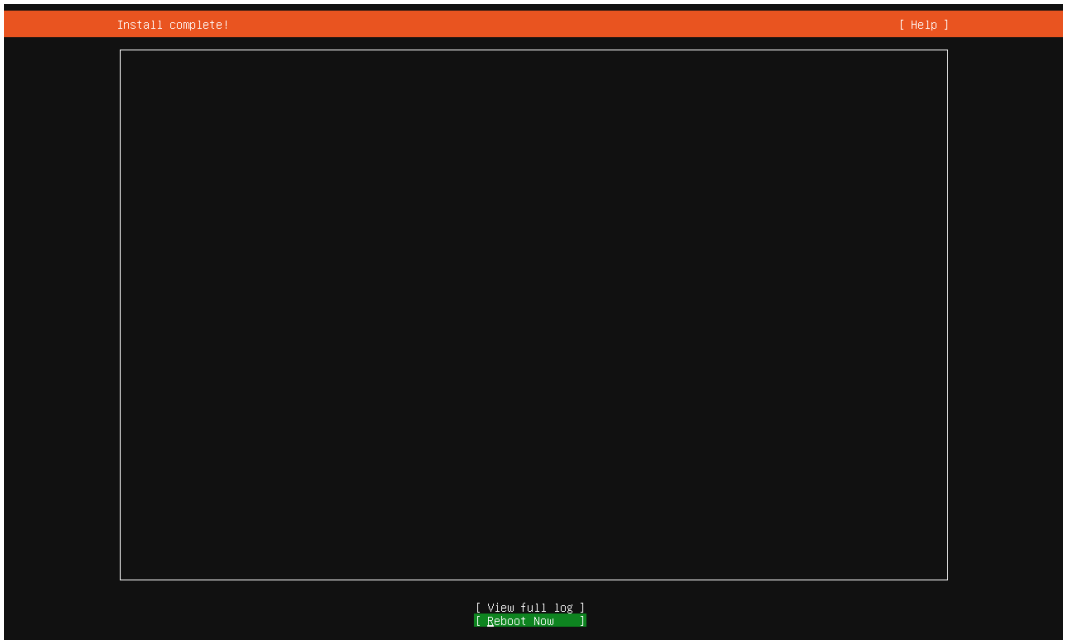
18. Select "Install OpenSSH server" under SSH Setup and select "Done" to continue.



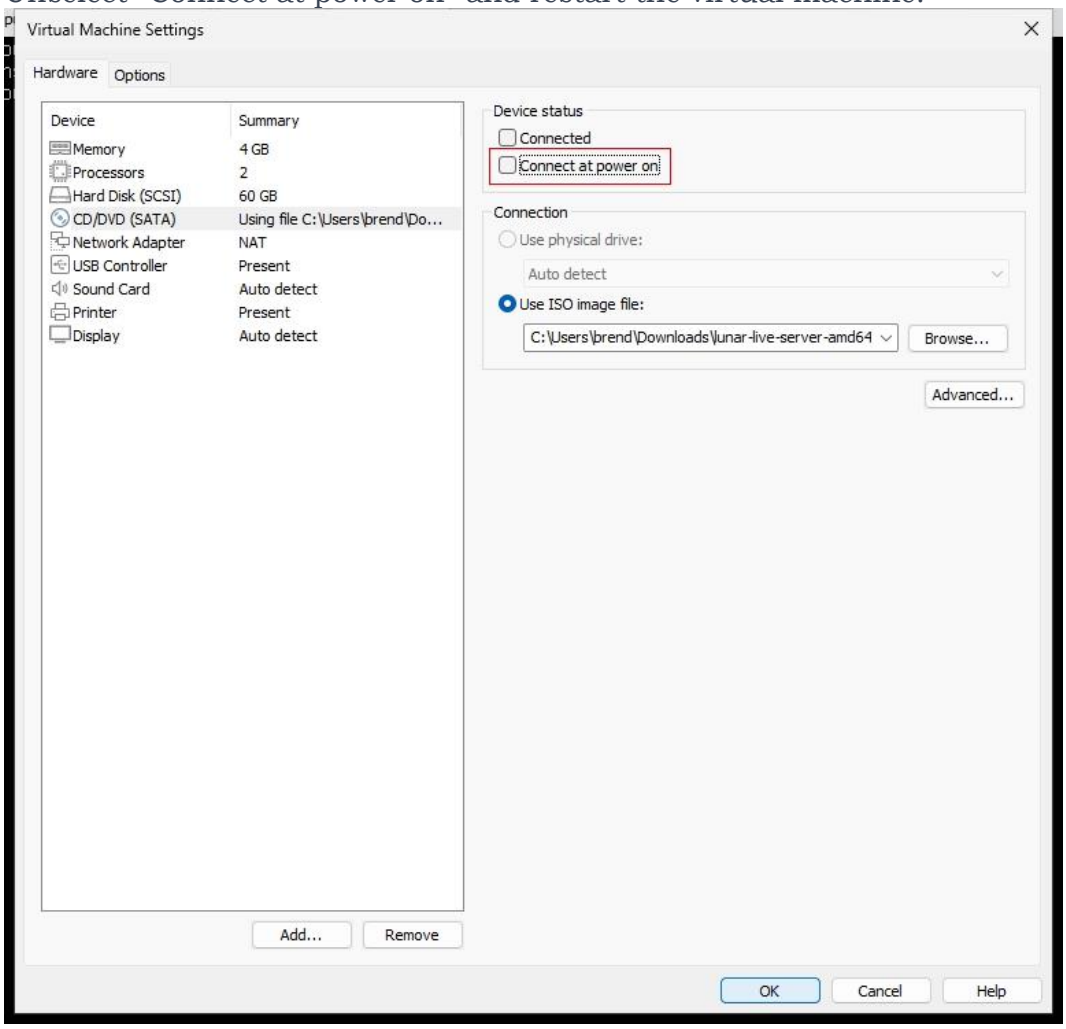
19. Leave everything unselected and click on “Done” to initialize Ubuntu server installation.

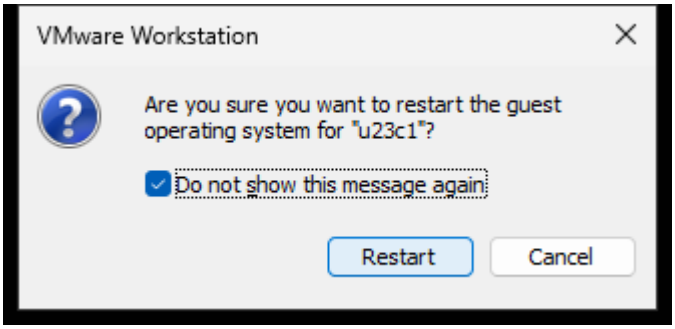


20. Wait for the installation to complete.
21. At the completion of the installation, select “Reboot now” to complete the installation.



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.

24. If your username and password has worked properly. Now power off the virtual machine so we can create the second Ubuntu client machine.

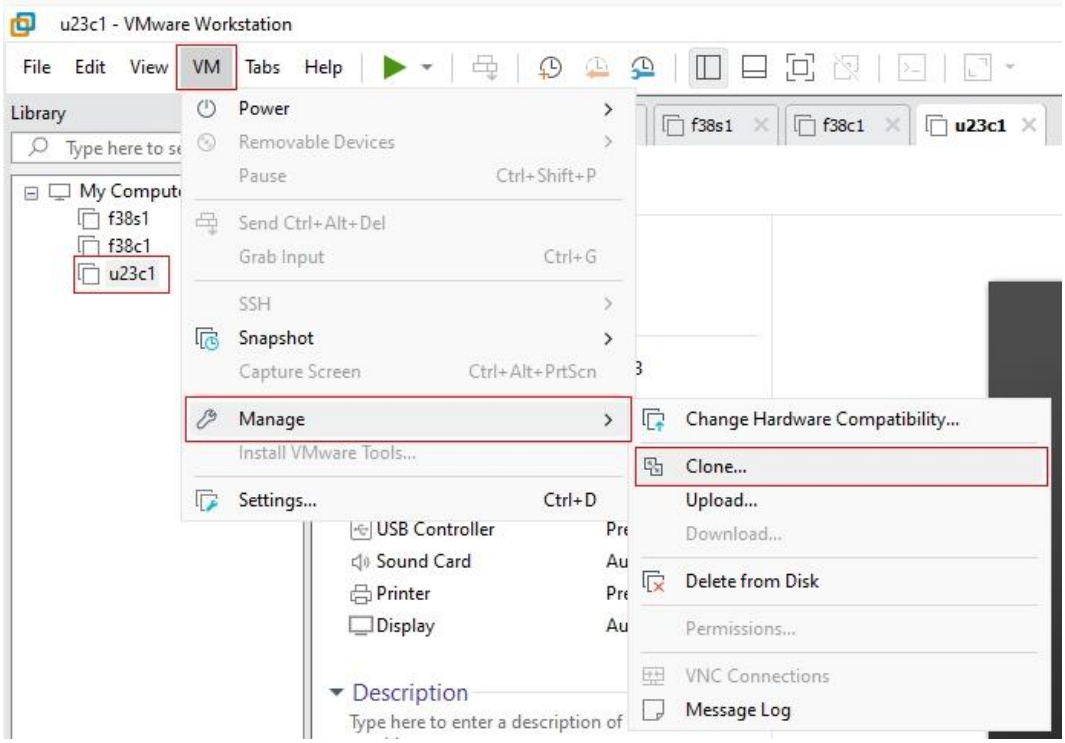
That's it! Once the installation is complete, you'll have a fully functional Ubuntu 23.04 virtual machine running on VMware Workstation 17.

Cloning a VM:

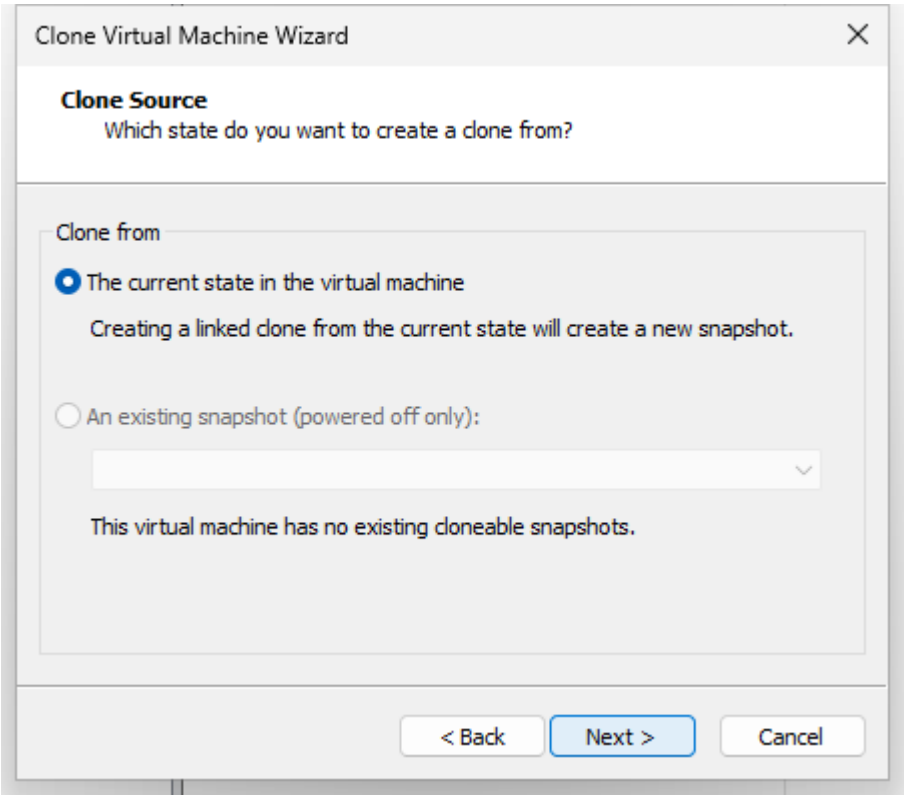
Here are the step-by-step instructions for cloning an Ubuntu client named u23c1 on VMware Workstation 17 and creating another client named u23c2:

1. Open VMware Workstation and select the Fedora server virtual machine named u23c1 from the list on the home screen.

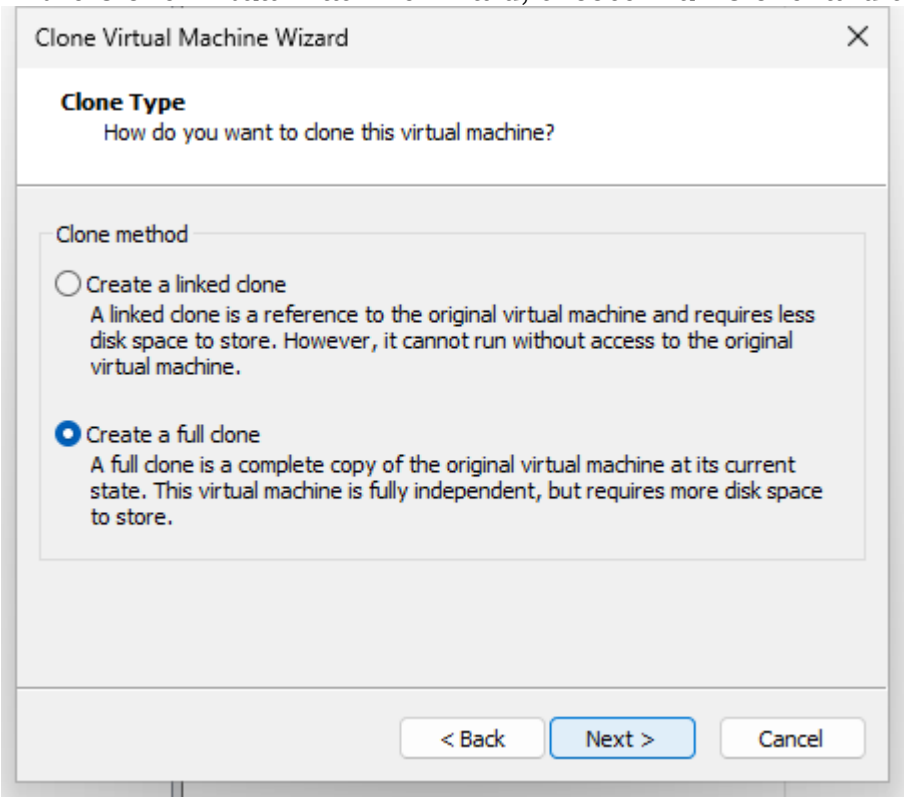
2. Select "u23c1", navigate to VM > Manage > Clone… to start VM cloning process.



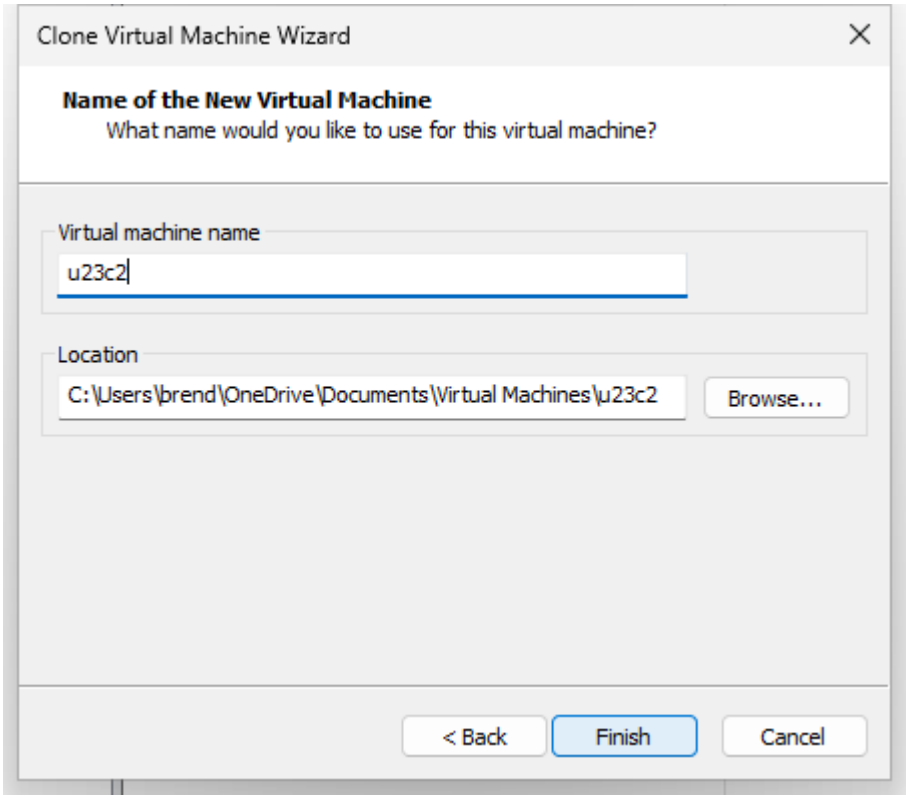
3. Choose "The current state in the virtual machine" as the Clone Source, and click on "Next".



4. In the Clone Virtual Machine wizard, choose "Full Clone" and click "Next".

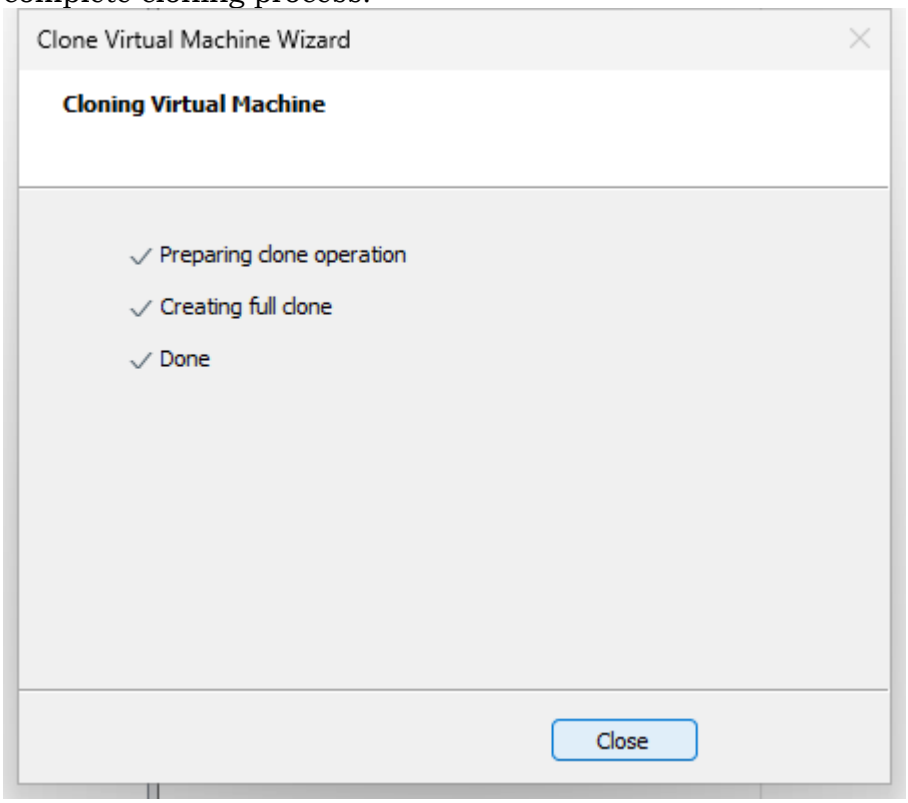


5. Specify a name and location for the new virtual machine. In this case, we'll name the new virtual machine " u23c1" and choose to store it in the same location as the original virtual machine. Click "Next".

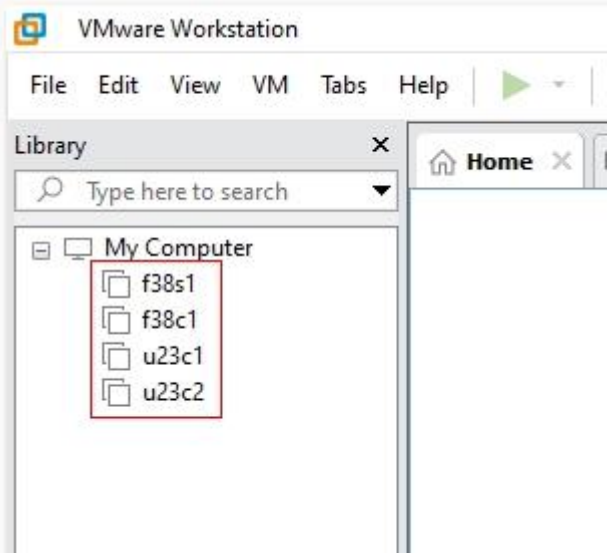


6. Click "Finish" to start the cloning process.

7. The cloning process may take some time, depending on the size of the virtual machine and the resources available on your computer. Close the Wizard to complete cloning process.



8. Once the cloning process is complete, the new virtual machine named u23c1 will appear in the virtual machine list in VMware Workstation. Now you should have 4 virtual machines on VMware Workstation.



9. **The next step would be to change the hostname and assign a static IP address on all virtual machines, which we will continue to cover in the book. So, please continue your reading of Chapter 4.**

Congratulations! You have completed the cloning process for an Ubuntu client named u23c1 and created another client named u23c2 using VMware Workstation 17. These machines will be used as our Ansible client machines for testing and development. Now, you should have four Linux virtual machines available from the Workstation 17 and ready to test drive Ansible and its concepts.