Linux Mint & Oracle VM VirtualBox v. 6.1.34 Installation Guide for Windows 10

Contents

Chapter 1. Overview: Linux Mint and Oracle VM VirtualBox v. 6.1.34..... 3

Chapter 2. Downloading the Linux Mint .ISO file..... 4

Chapter 3. Downloading & Installing Oracle VM VirtualBox v. 6.1.34 for Windows..... 5

Chapter 4. Creating a New Virtual Machine with VirtualBox..... 10

Chapter 5. Configuring Your Virtual Machine..... 17

Chapter 6. Booting Your Virtual Machine for the First Time..... 20

Chapter 7. Installing Linux Mint on your Virtual Machine..... 23

Chapter 8. Installing VirtualBox Guest Editions..... 31

Chapter 1. Overview: Linux Mint and Oracle VM VirtualBox v. 6.1.34

Linux Mint is a free of cost Ubuntu based operating system that comes fully equipped with out of the box capabilities for multimedia support, gaming, graphic design, web browsing, text editing, and more. It is a widely used alternative to Microsoft Windows and Mac OS X. Linux Mint provides a safe and reliable environment for all of your OS needs with minimal maintenance requirements.

A virtual machine is a platform that runs an emulated computer that utilizes the hardware and resources of your main computer in a virtual environment. One of the more popular virtualization platforms today is Oracle VM VirtualBox, a type-2 hypervisor developed by Oracle Corporation. It allows users to run multiple operating systems like Microsoft Windows, Mac OS X, and various Linux distributions in a virtualized environment using a single physical machine. The benefits of virtualization are immense. Segmenting a physical device into multiple virtual machines can lead to the faster provisioning of resources, reduced IT costs, improved security, and greater resiliency in recovery situations.

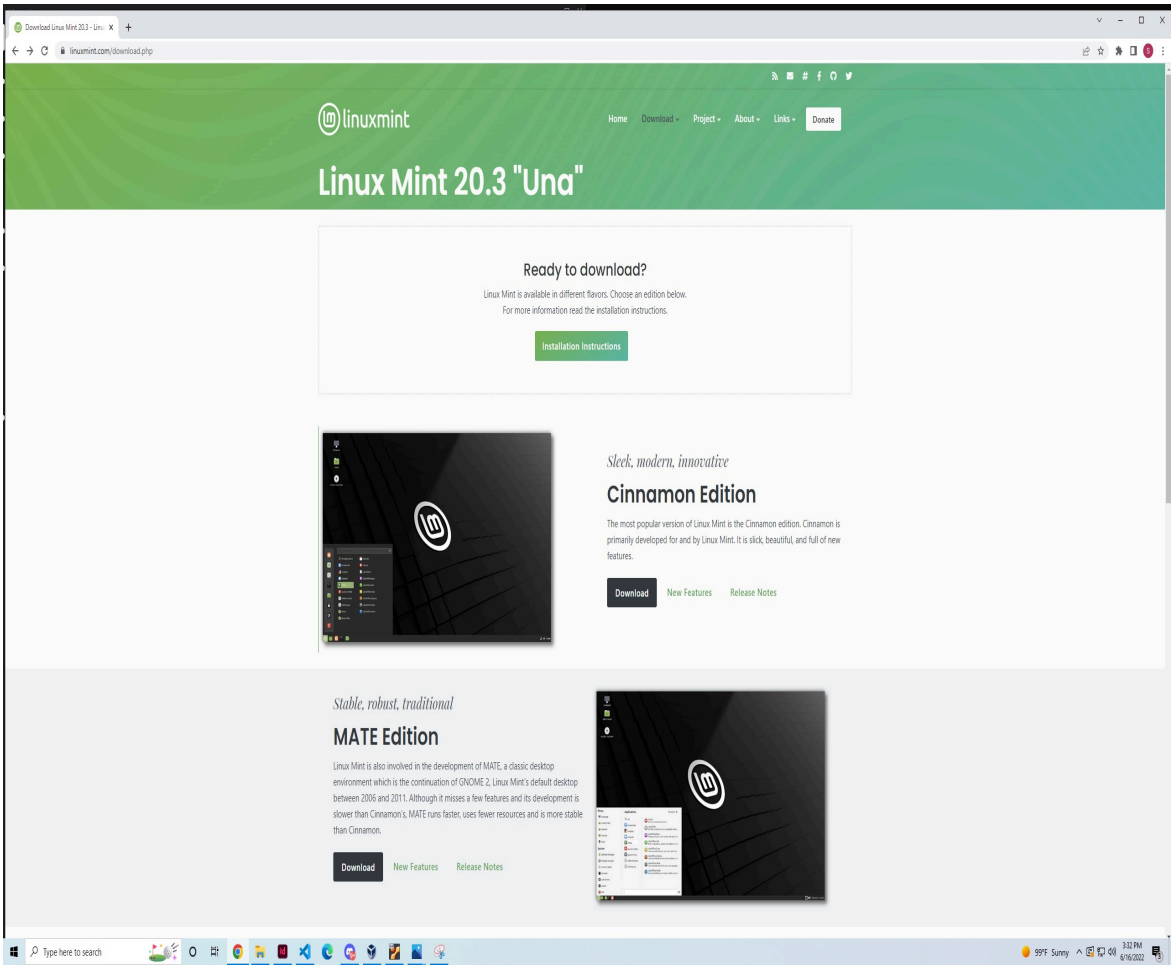
This guide will assist you with downloading and installing all of the necessary components to run Linux Mint in a virtualized environment using Oracle VM VirtualBox v. 6.1.34 for Windows. It is meant to be a supplement or alternative for those who prefer text-based instructions to the many video guides available for this setup process on the wider web.

Please follow the steps in order and refer to the screenshots in each section as needed.

Chapter 2. Downloading the Linux Mint .ISO file

This section will cover how to download Linux Mint.

1. Open up your preferred web browser (e.g. Chrome, Firefox, Microsoft Edge) and navigate to: https://www.linuxmint.com/download.php



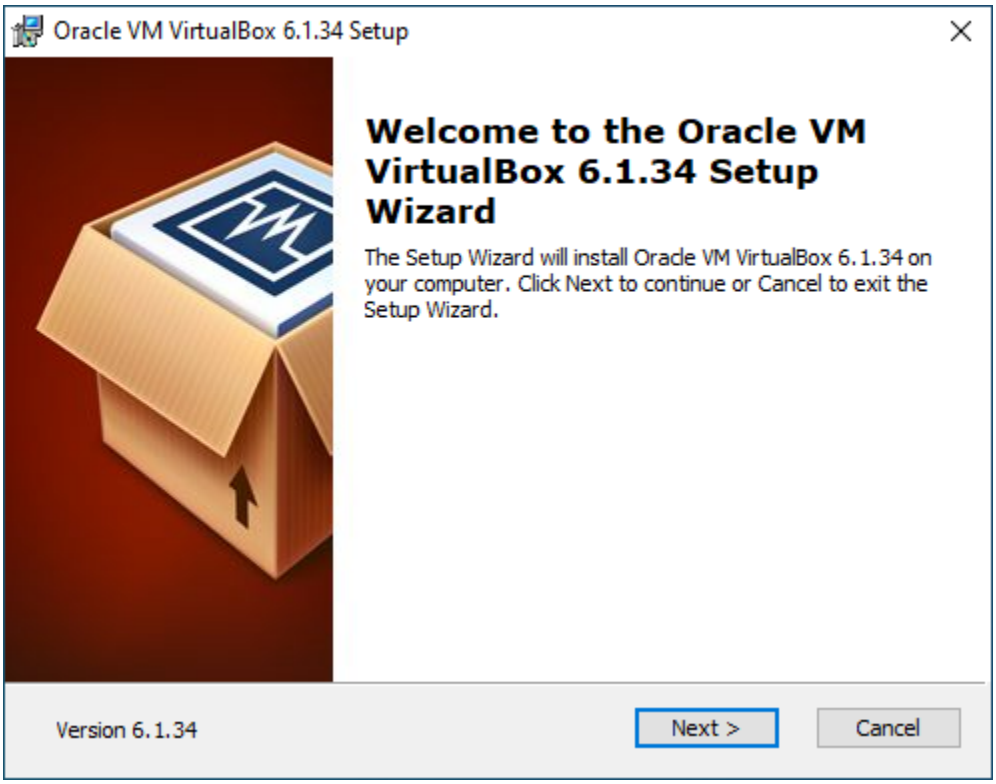
2. Select your preferred edition of Linux Mint. We recommend Cinnamon Edition for new users since it is the most commonly used version. Once you have chosen your preferred version, click the "Download" button under the version heading to proceed to the next page.
3. Under the "Download mirrors" heading, select a mirror closest to your geographic location to download the Linux Mint disk image file from. **Note the directory where you have saved this file - you will need to know its location later in the installation process.**

The Linux Mint .ISO file has now been successfully downloaded. Please proceed to the next section.

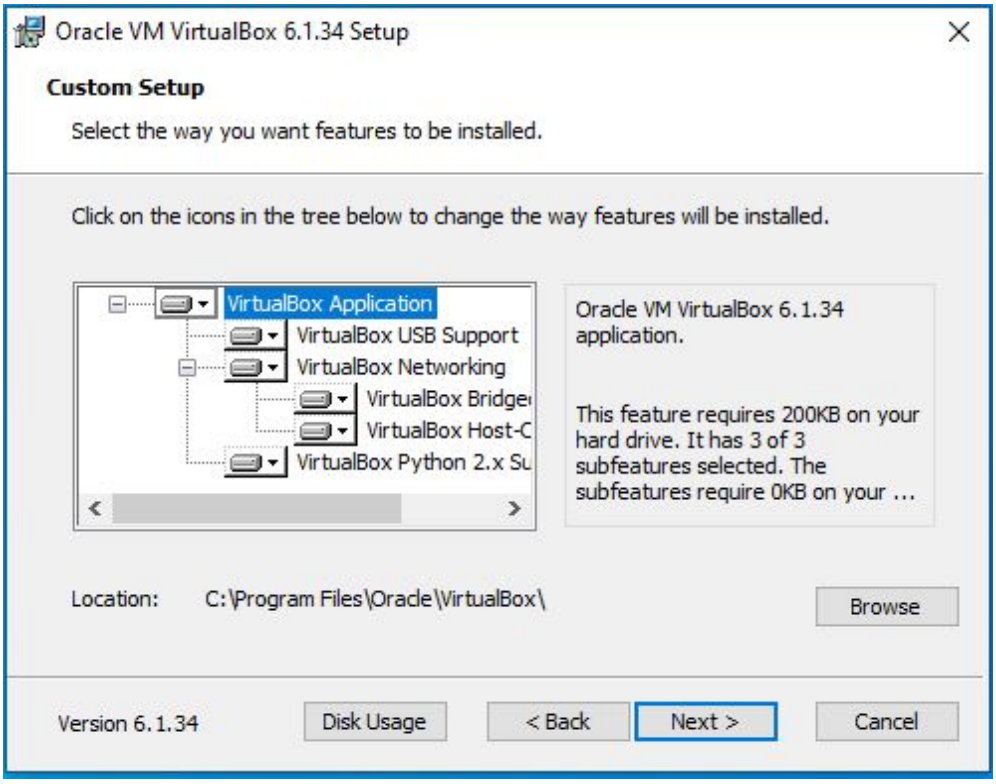
Chapter 3. Downloading & Installing Oracle VM VirtualBox v. 6.1.34 for Windows

This section will cover how to download and install Oracle VM VirtualBox for Windows.

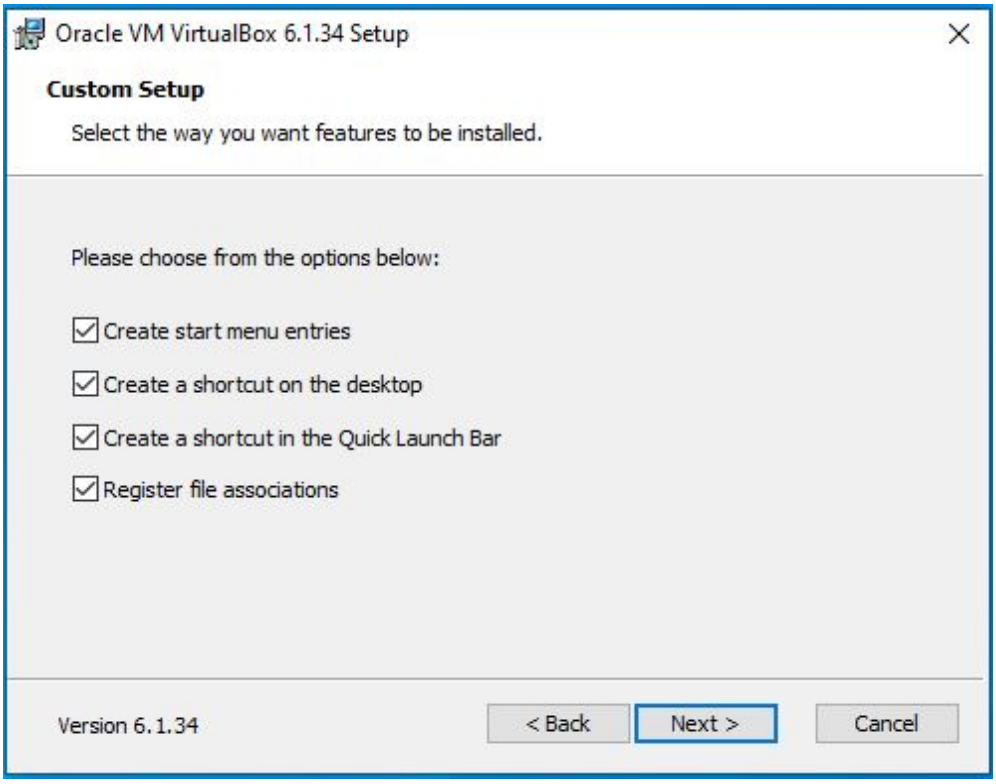
1. Open up your preferred web browser (e.g. Chrome, Firefox, Microsoft Edge) and navigate to: https://www.virtualbox.org/wiki/Downloads
2. Select "Windows hosts" under the "VirtualBox 6.1.2 platform packages" heading to begin downloading the installer (VirtualBox-6.1.34-150636-Win.exe).
3. Open VirtualBox-6.1.34-150636-Win.exe to start the installation..
4. Click Next on the Setup Wizard welcome screen.



5. Select the location on your host machine that this application will be installed to by clicking the Browse button. In this case, the default location is set to C:\Program Files\Oracle\VirtualBox as indicated in the image below. Leave the icon tree at the default settings and click Next.

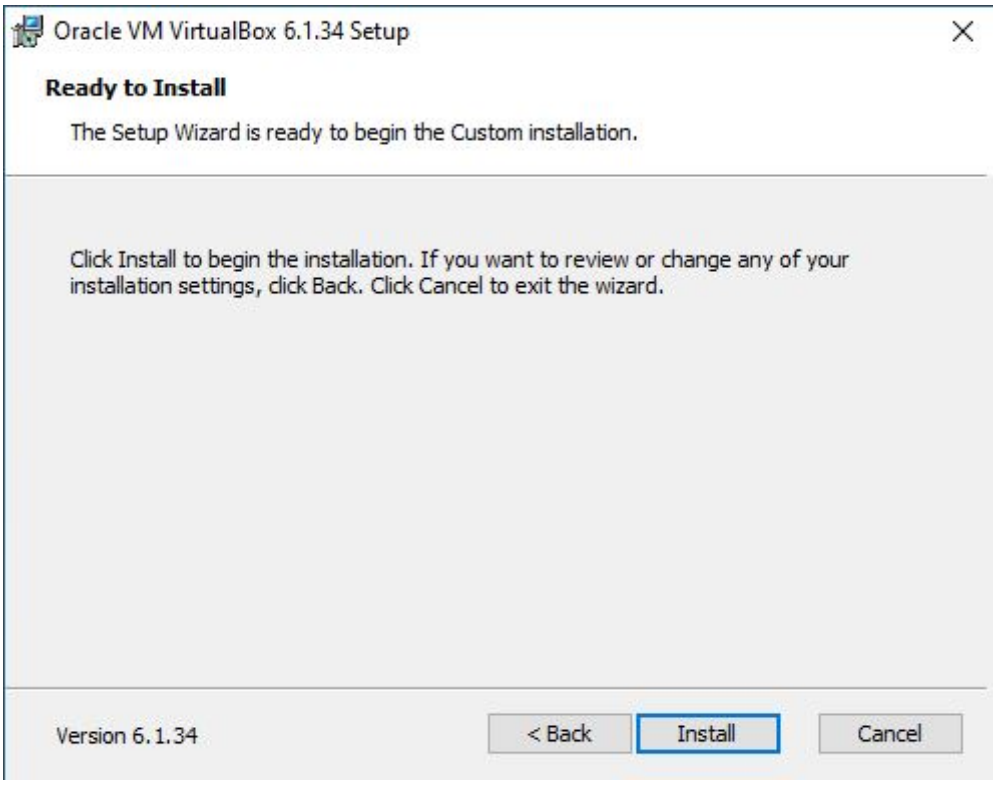


6. Select your shortcut preferences, leave the "Register file associations" option checked, then click Next.

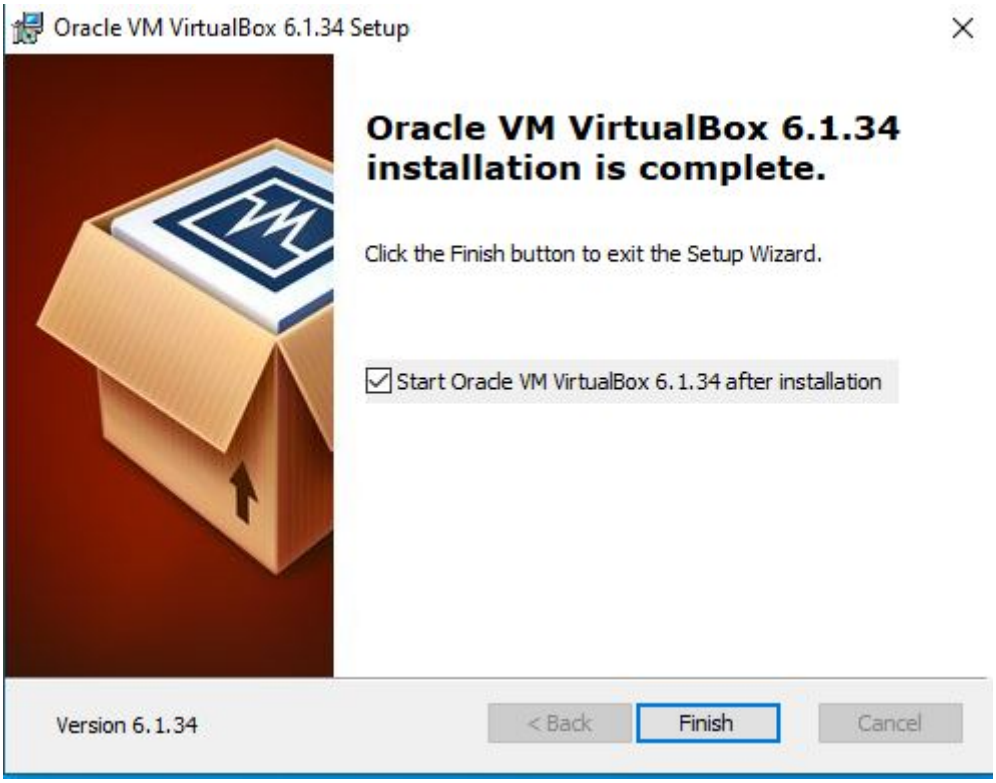


7. Read the warning indicating that your network connection will be temporarily interrupted upon proceeding. Click Yes when you are ready to continue.

8. Click Install to proceed with the installation. The process may take several minutes to complete.



9. When the installation has finished, you can select whether or not you'd like start the Oracle VM VirtualBox application upon exiting the Setup Wizard. Once you have chosen your preference, click Finish to exit the Setup Wizard.



Oracle VM VirtualBox should now be sucessfully installed. You are ready to proceed to the next step.

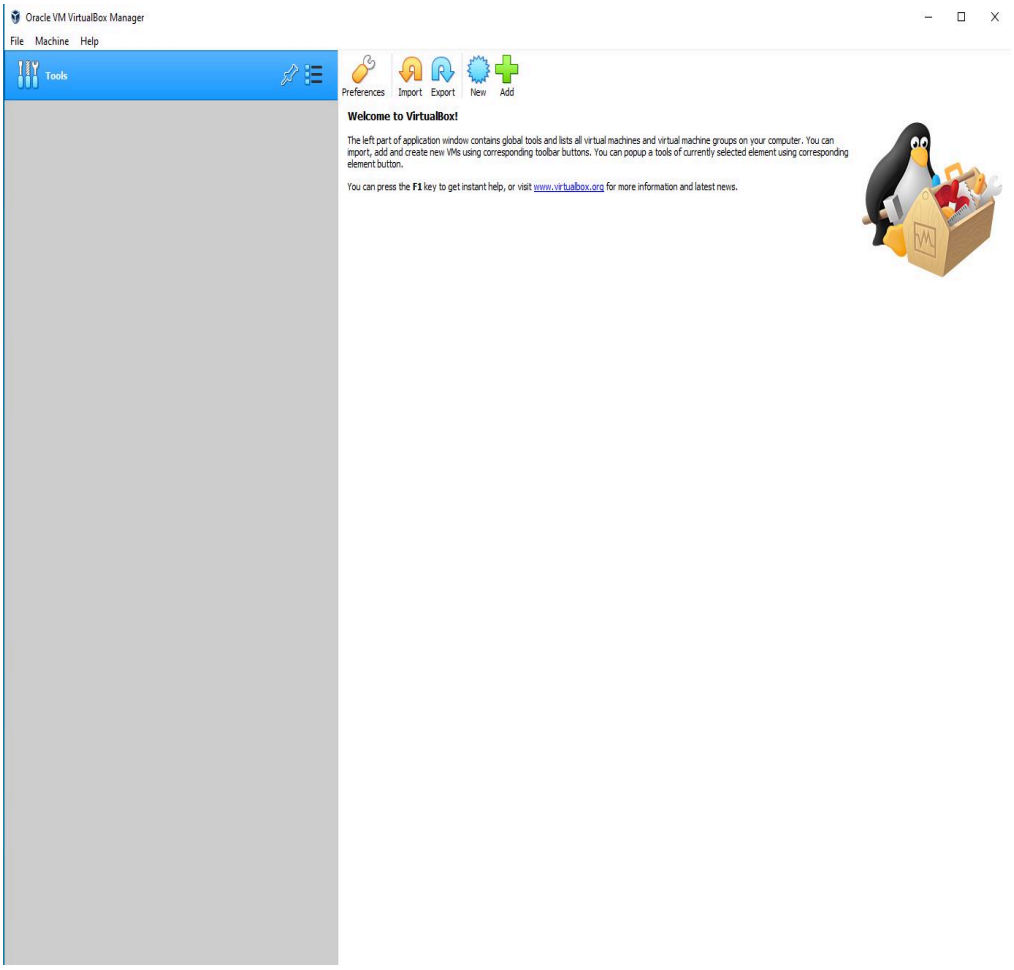
Chapter 4. Creating a New Virtual Machine with VirtualBox

This task will guide you through the process of setting up a new virtual machine using VirtualBox.

1. Open the VirtualBox application on your host machine.
2. From the main menu, click the

button at the top of the screen.

Figure 1. VirtualBox Main Menu



3. You will be prompted to select a name, destination folder, operating system type, associated version for the new virtual machine.

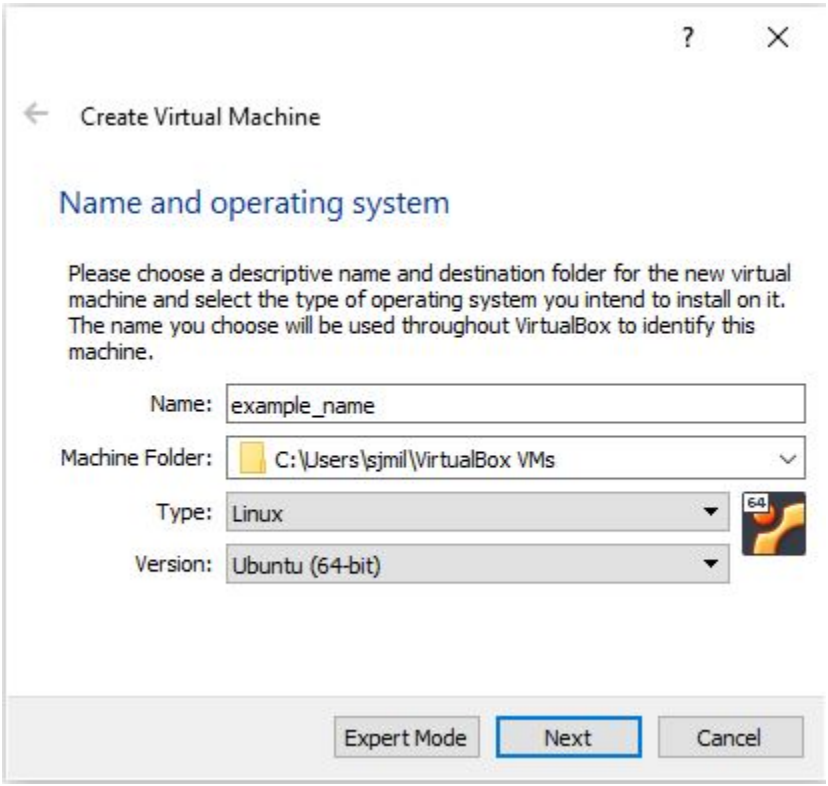
a. Enter Linux Mint in the Name field.

b. The Machine Folder field can be left at its default value. If preferred, you can select an alternative directory on your local machine as the destination folder.

c. By entering Linux Mint in the Name field, the Type field will already be populated with Linux as the default value. If it is not, select Linux from the drop-down list.

d. For the Version field, select Ubuntu (64-bit) from the drop-down list.

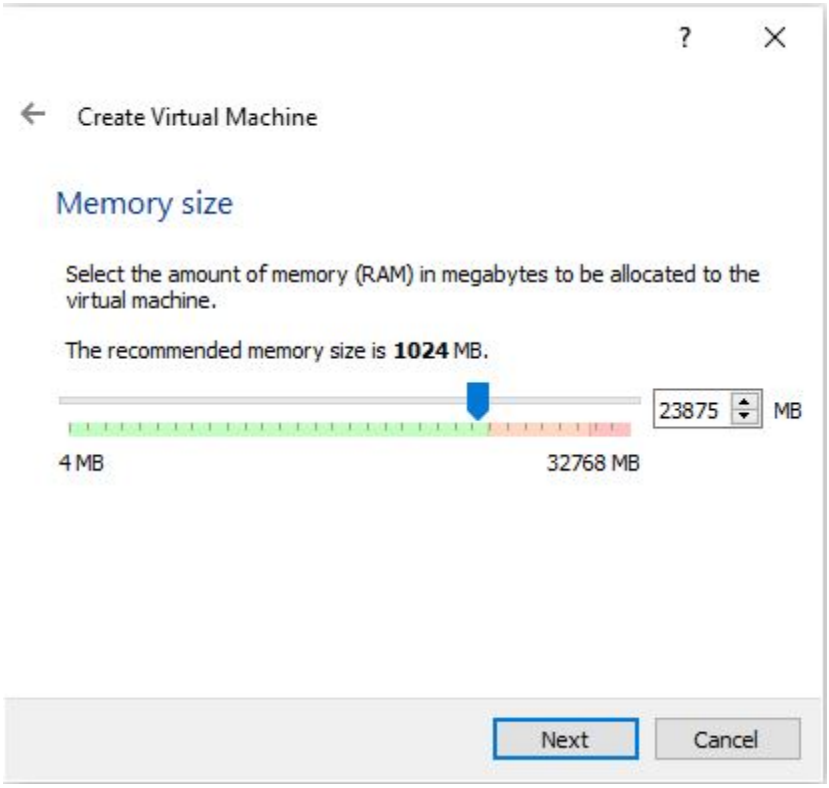
e. Click Next.



4. You will now be asked to select the amount of memory (RAM) to be allocated to the vritual machine.

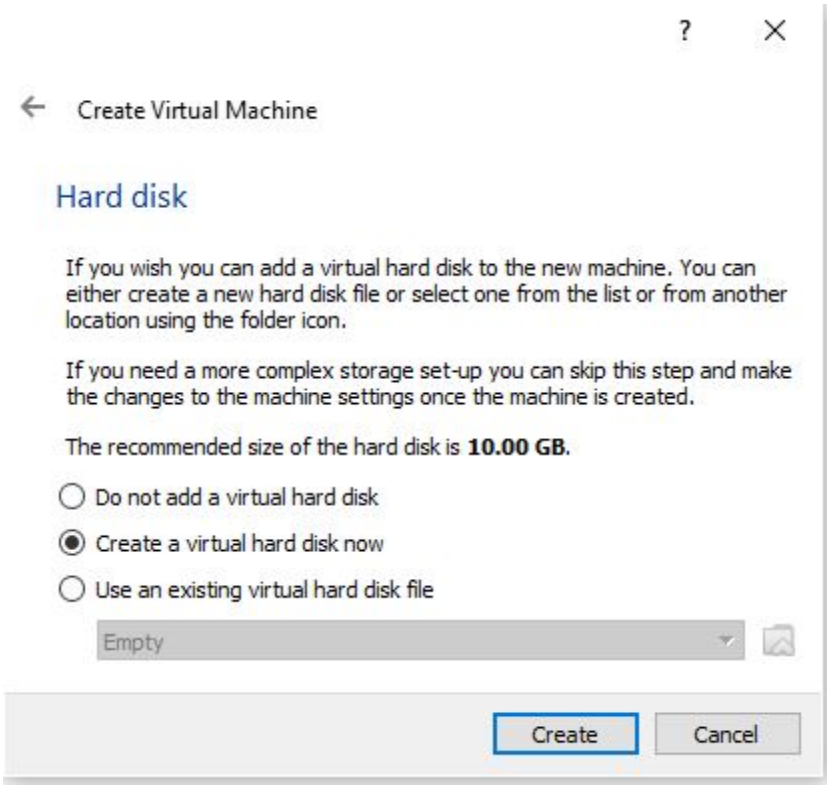
a. Select at least 2 gigabytes of memory using the slider. I recommend moving it towards the far end of the green portion of the slider. However, you will want to avoid moving the slider into the orange/red zone in order to prevent performance issues on your host machine. The

actual amount available will be dependent on your host machine's system specifications. Click Next when you are done.

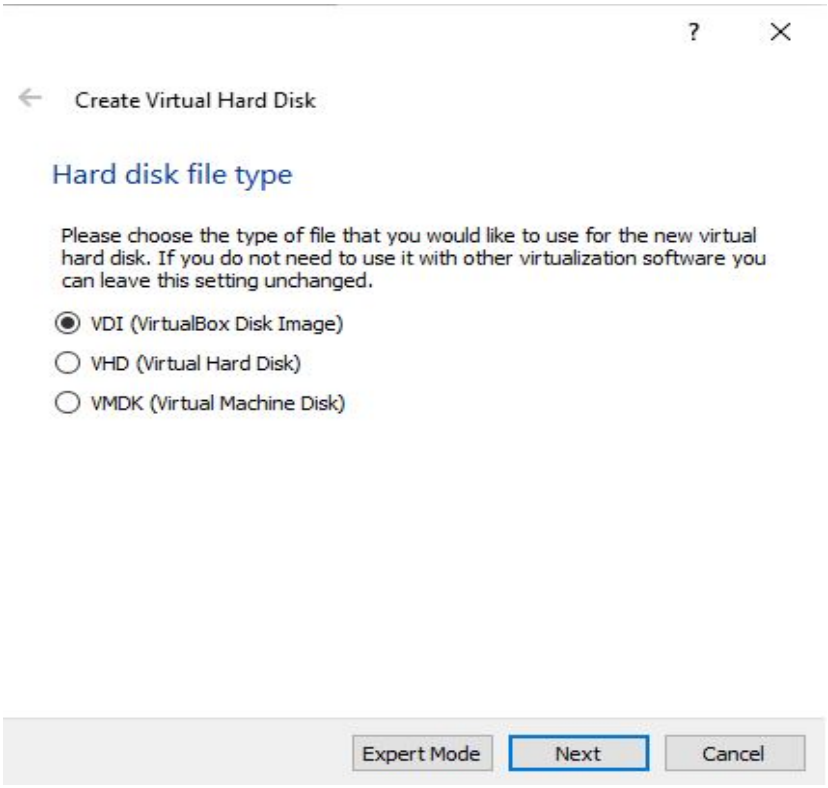


5. On the following screen, you will be asked to create and configure the new virtual hard disk file.

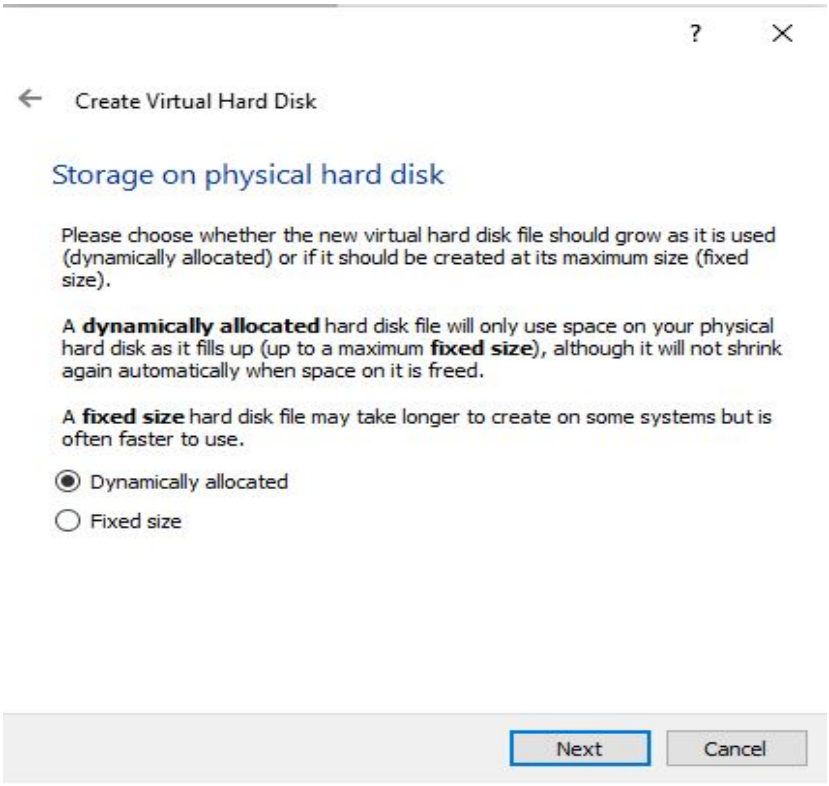
a. Leave the "Create a new virtual hard disk" option selected and click Create.



b. You will be prompted to select a hard disk file type. Leave the default value of VDI (VirtualBox Disk Image) selected and click Next.



c. Read the descriptions and make your selection based on your preferences. For the purposes of this guide, we recommend selecting the default value of Dynamically Allocated.



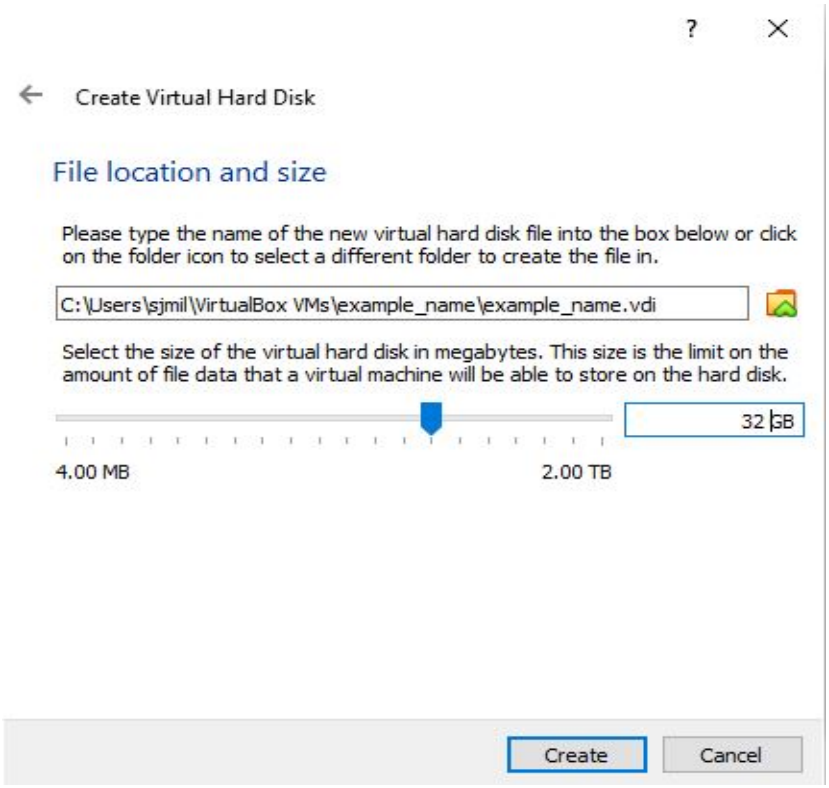
d. Click Next when you are done.

6. Choose the directory on your PC where the virtual hard disk file will be stored along with the size of the virtual hard disk.

    a. Click the folder icon to select a location.

    b. Using the slider, allocate at least 32 gigabytes of disk space to ensure that you will have enough available to run the operating system and store your data.

c. Click Create when you are done.



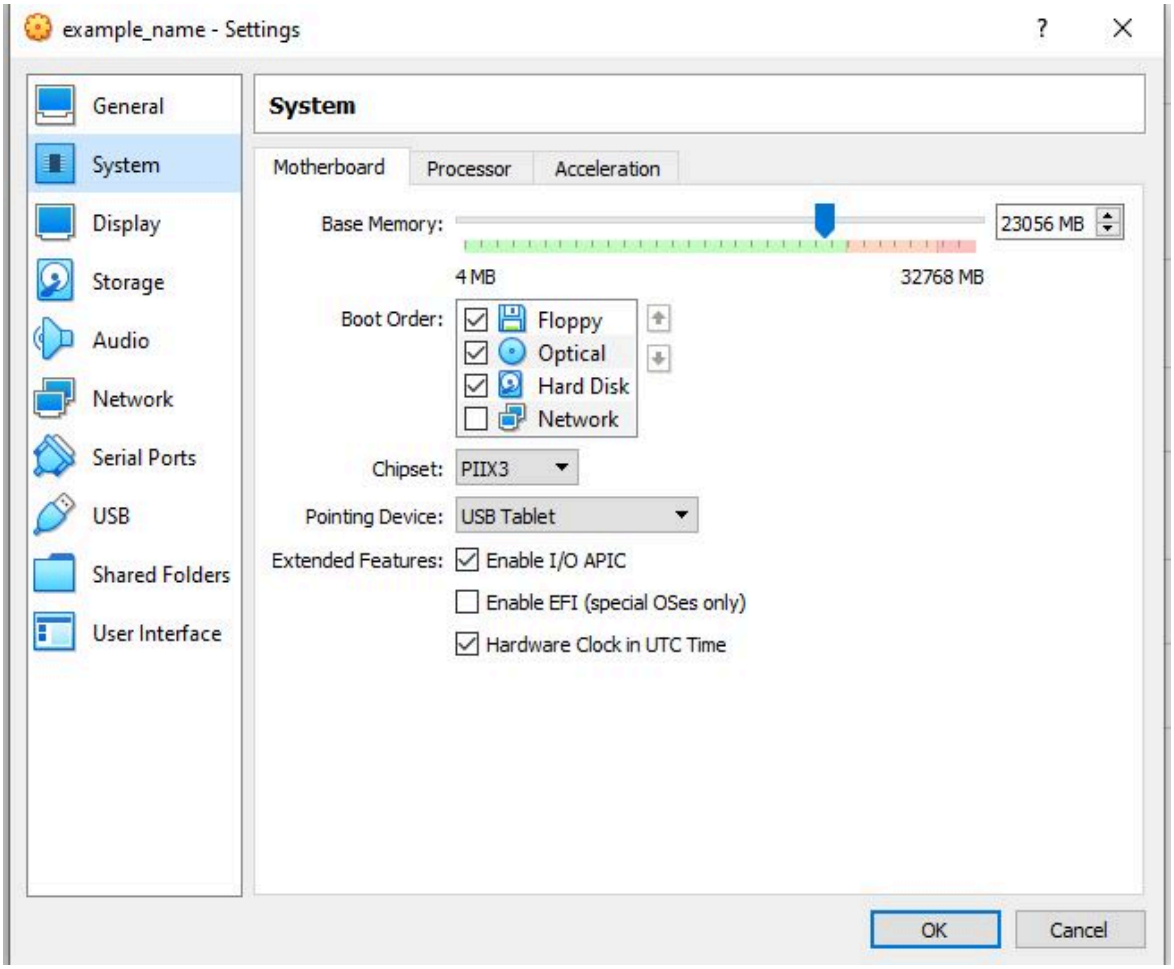
Your new virtual hard disk has been created and you are now ready to proceed to the next section of the guide.

Chapter 5. Configuring Your Virtual Machine

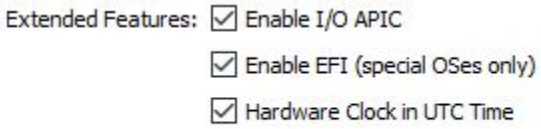
In this section, we will configure the settings of your virtual machine before booting it up for the first time.

1. Click the

icon at the top of the screen to open the Settings menu.
2. Select the System menu from the list on the left.

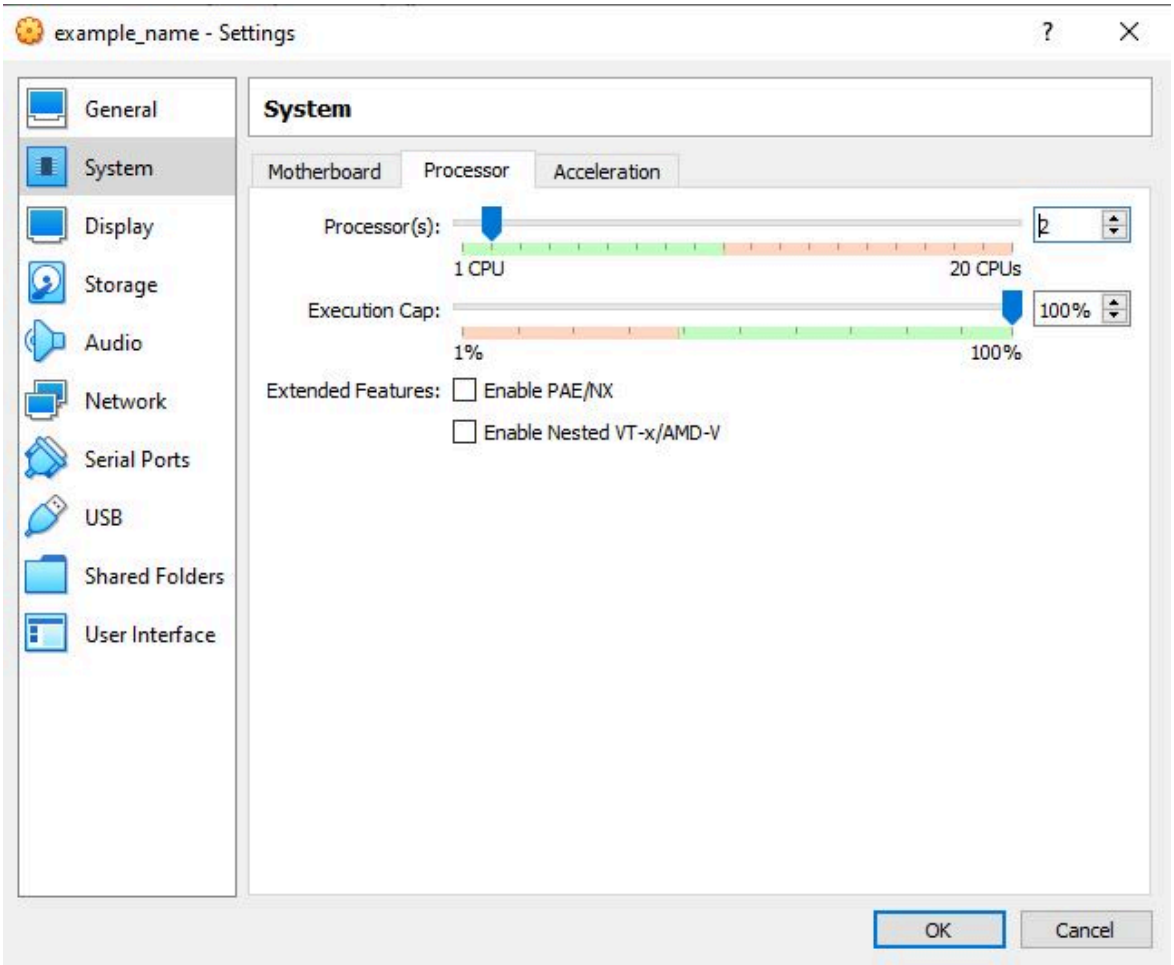


3. This will open directly to the Motherboard tab in the System menu. Check the box for "Enable EFI (special OSes only)" under the Extended Features section towards the bottom of the menu.

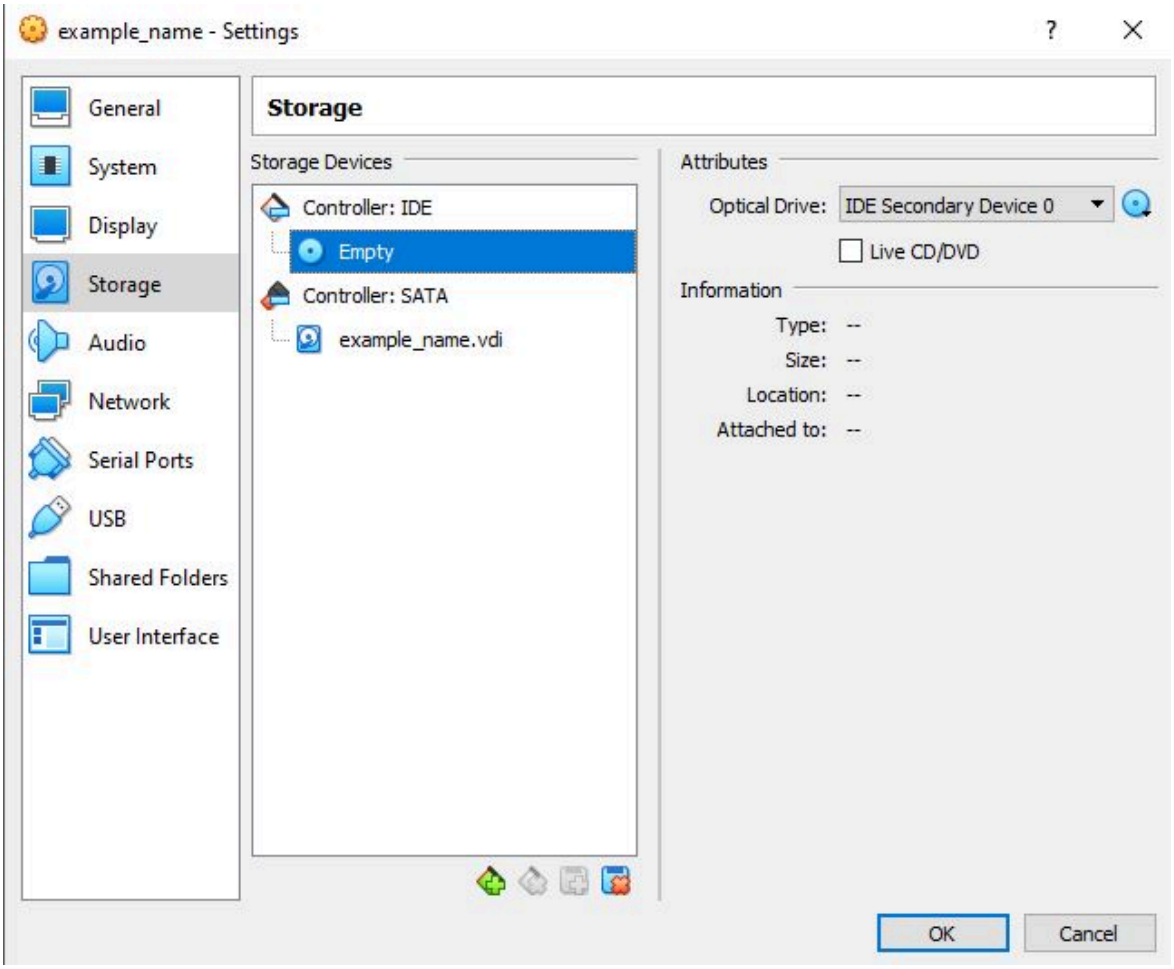


4. **Note:**
   Most newer computers come with an EFI BIOS, this will allow us to emulate running a new computer

   Click the Processor tab on the System menu.
5. Move the processor slider to the right to allocate 2 CPU cores for improved performance.



6. Select the Storage menu from the list on the left.
7. Select the icon labeled "Empty" under Controller: IDE.



8. Insert the Linux Mint disk image downloaded in the previous sections by clicking the icon under Attributes > Optical Drive on the right hand side of the menu.
    a. Select "Choose a disk file" from the dropdown menu and specify the location where you saved the Linux Mint disk image file.
    b. Click Open when you have specified the location
    c. Click OK back on the Storage tab to close Settings and return to the main screen.

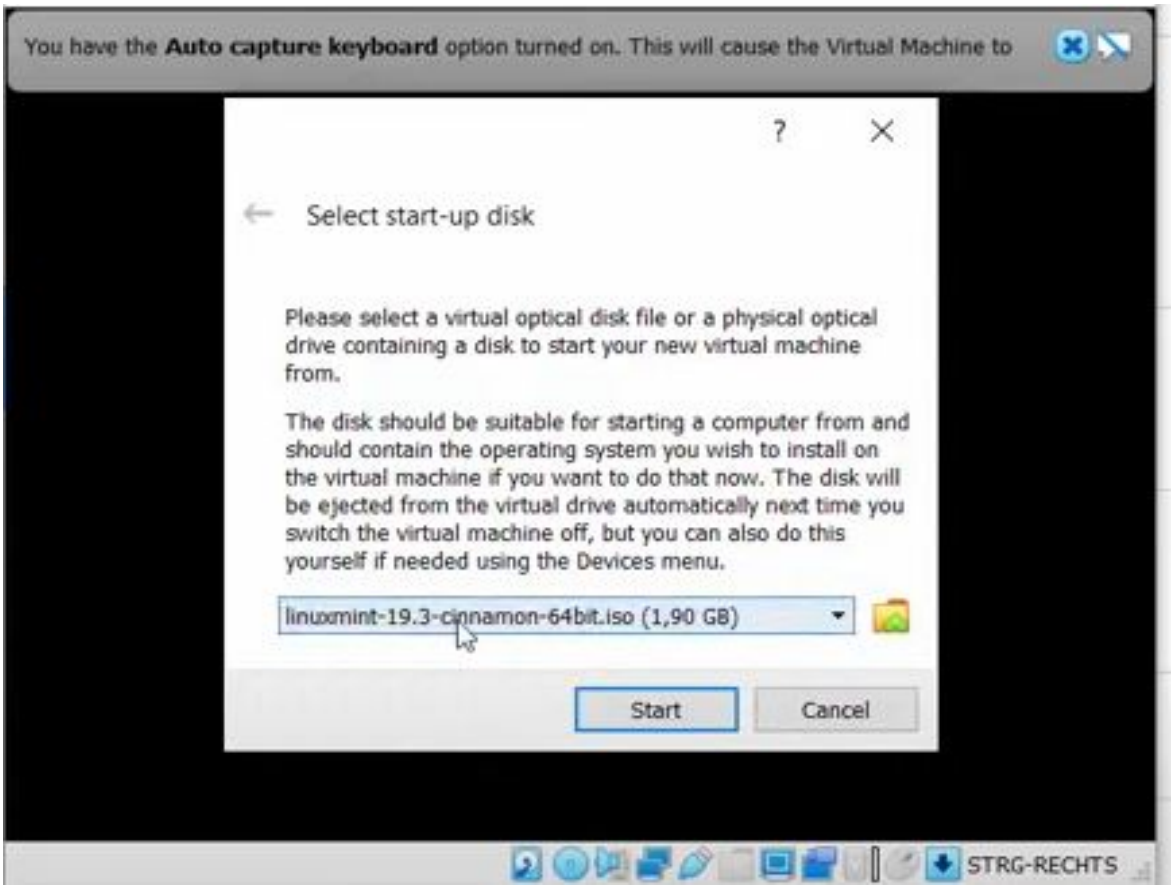
You are now ready to boot your virtual machine.

Chapter 6. Booting Your Virtual Machine for the First Time

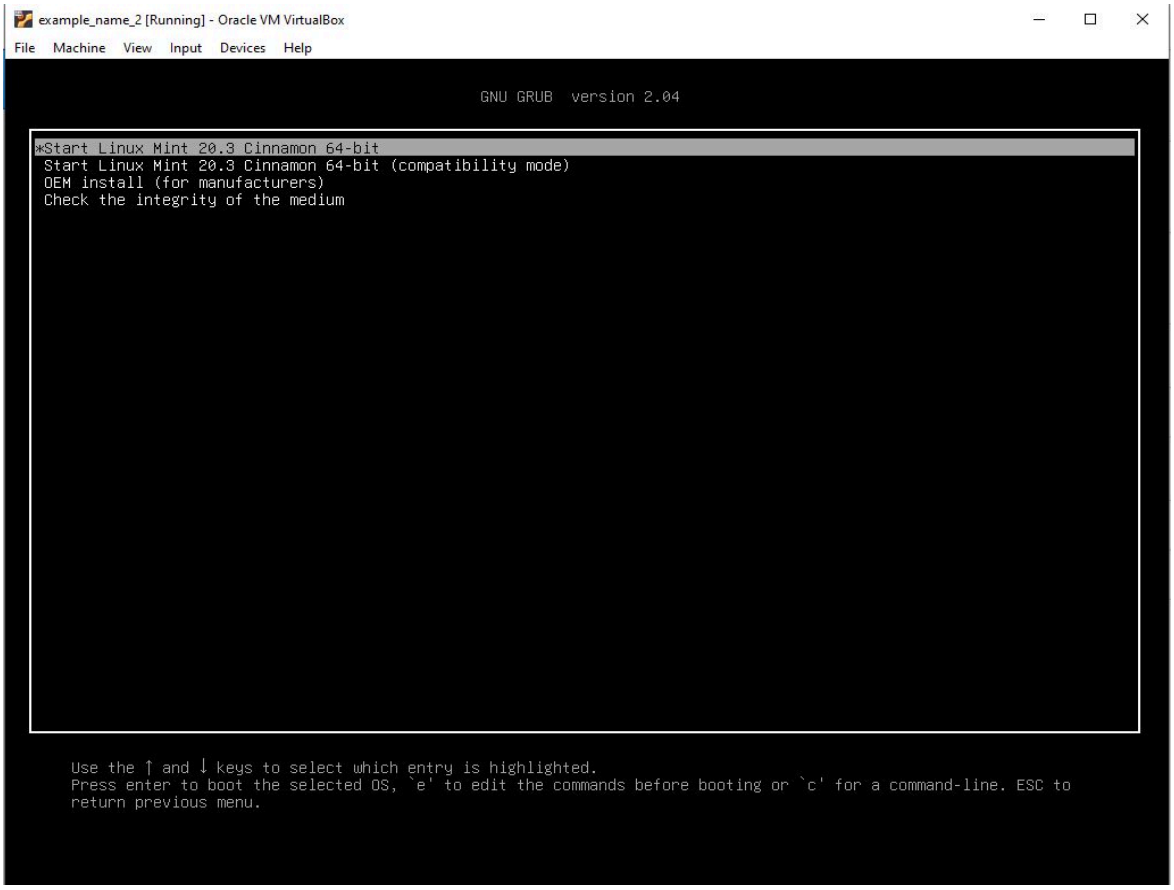
This section will guide you through the process of booting your virtual machine for the first time using Oracle VM VirtualBox.

1. From the VirtualBox main screen, click Linux Mint on the left-hand side to ensure you have the correct operating system selected.
2. Click the

button near the top of the screen.
3. A menu will appear prompting you to select a start-up disk. Using the dropdown menu, choose the Linux Mint .ISO file and click start.

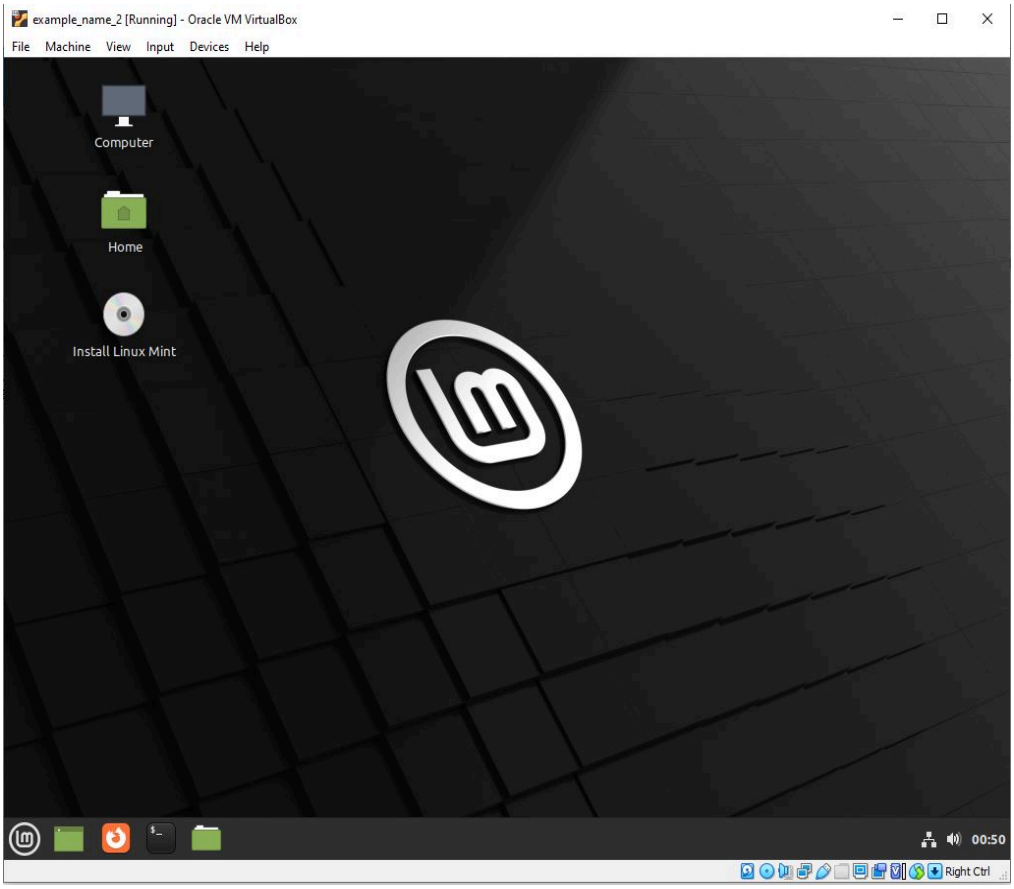


4. The automatic boot sequence will now begin. This may take a minute depending on your system specifications. During the process, you will be presented with the menu shown in the image below. Ensure that the "Start Linux Mint 20.3 Cinnamon 64-bit" option is selected and push the Enter key to proceed.


example_name_2 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
GNU GRUB version 2.04
*Start Linux Mint 20.3 Cinnamon 64-bit
Start Linux Mint 20.3 Cinnamon 64-bit (compatibility mode)
OEM install (for manufacturers)
Check the integrity of the medium
Use the ↑ and ↓ keys to select which entry is highlighted.
Press enter to boot the selected OS, `e' to edit the commands before booting or `c' for a command-line. ESC to return previous menu.

5. Once the boot sequence has finished, you will be brought to the desktop environment for Linux Mint.

Figure 2. Linux Mint Desktop

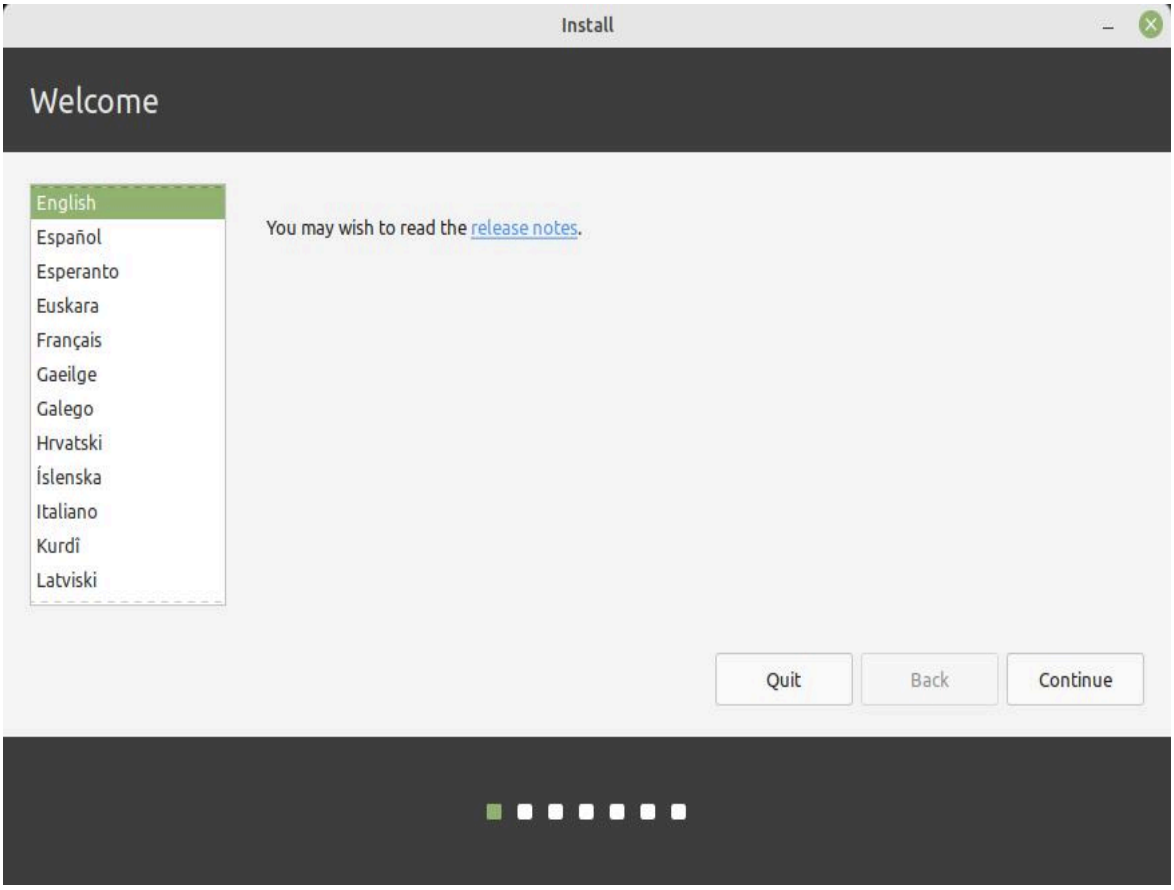


Your virtual machine has now been booted. You are ready to install Linux Mint as outlined in the next section.

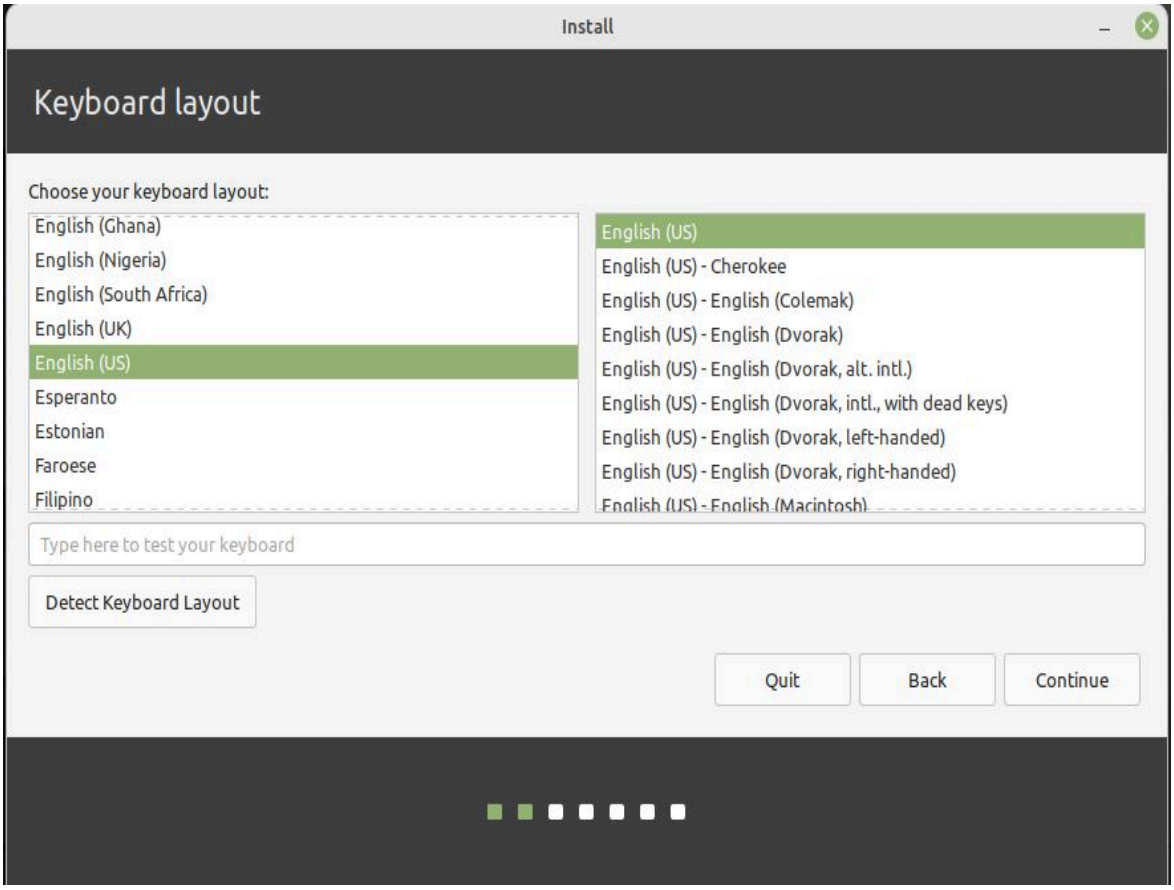
Chapter 7. Installing Linux Mint on your Virtual Machine

In this section, you will be guided through the process of installing Linux Mint on your newly created Virtual Machine.

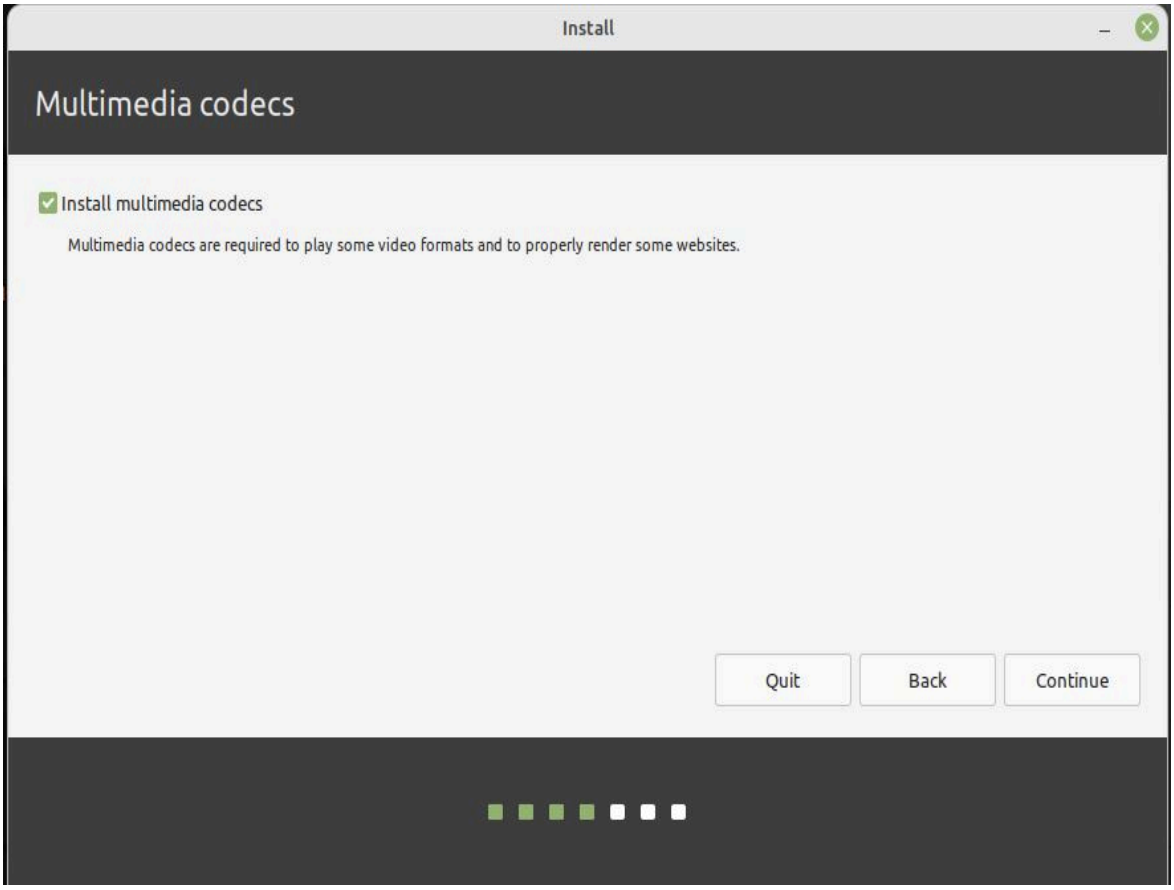
1. On your virtual machine's desktop, double click the icon labeled "Install Linux Mint" to begin the installation.
2. On the Welcome screen, select your language of choice and click Continue.



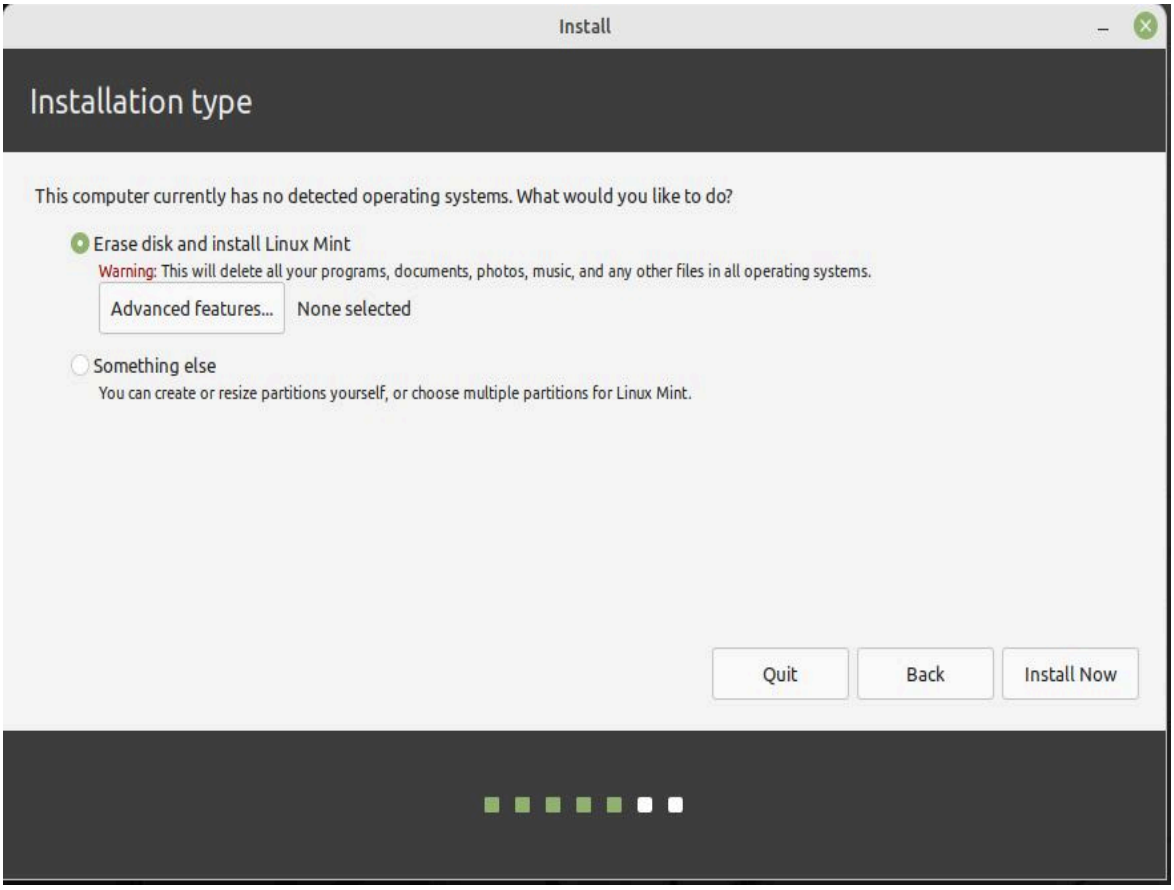
3. You will be tasked to choose your keyboard layout depending on your language preferences and region. Click Continue when you are finished.



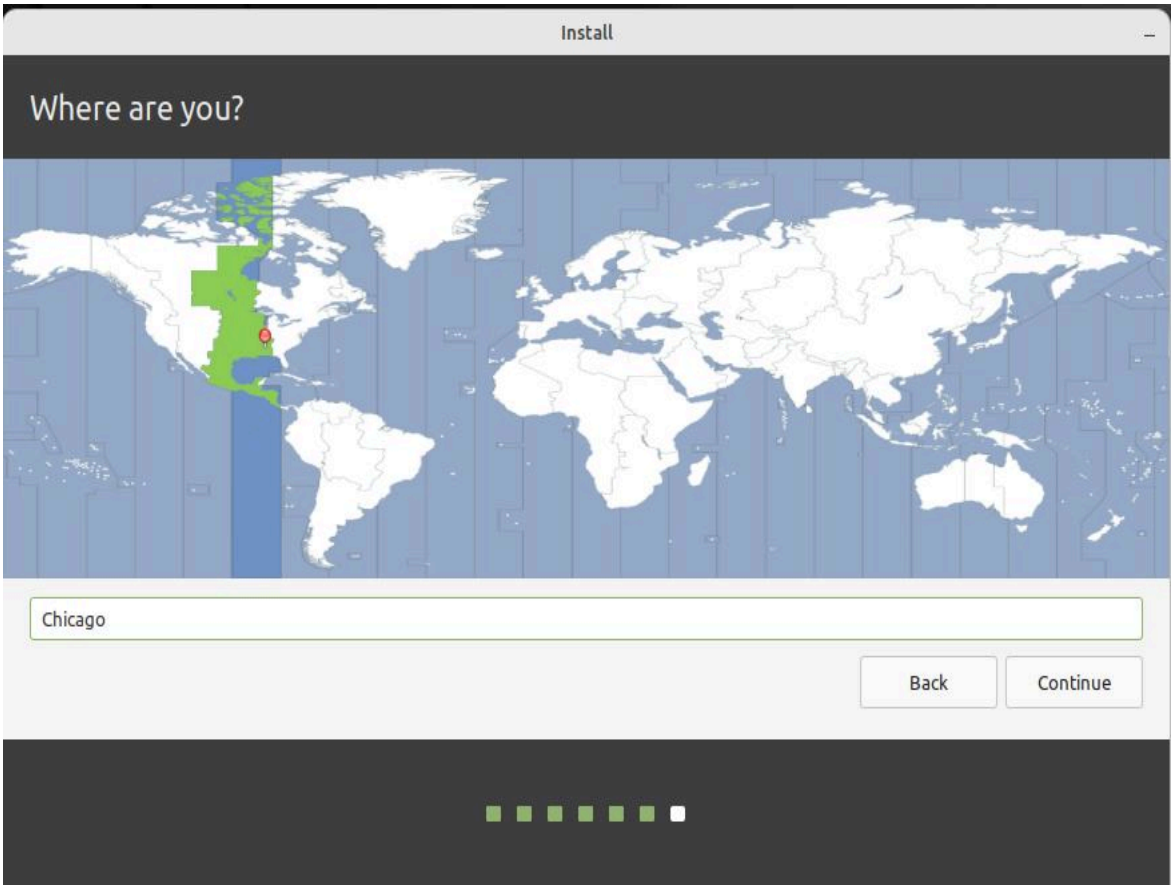
4. On the following screen, ensure that the checkbox for installing multimedia codecs is selected.



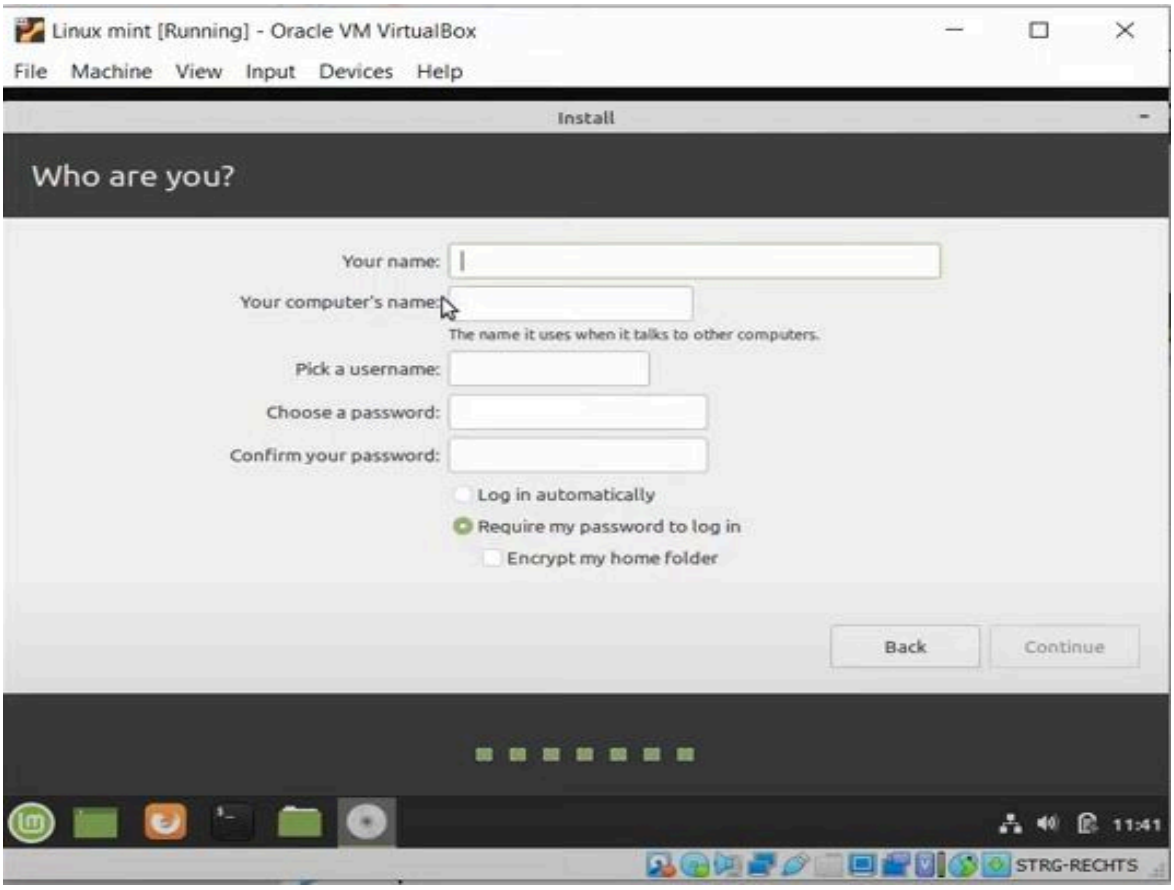
5. On the next WIndow, choose the installation type. Select "Erase disk and install Linux Mint" and click Install Now. You will be asked if you want to write the changes to the disks. Click Continue to proceed.



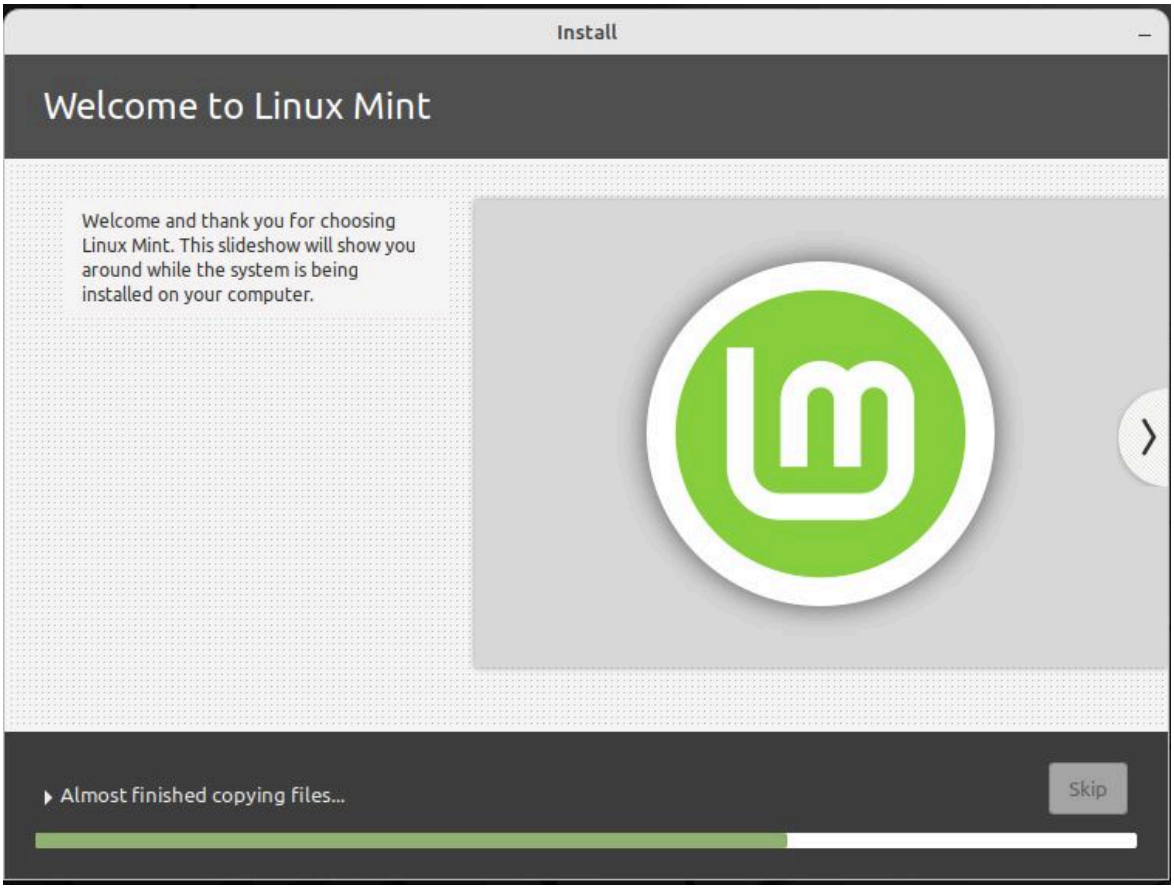
6. Select your region by clicking on your location on the map or entering the name of your city into text field. Click Continue when you are ready to proceed.



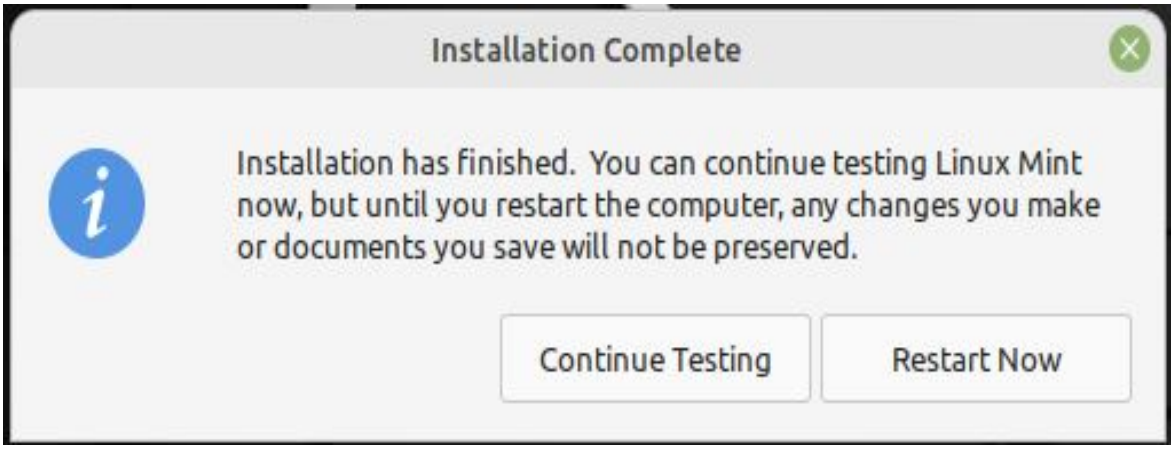
7. The following screen contains fields to enter your name, your computer's name, your username/ login ID, and your password. Fill in these fields with your preferred information and click Continue.



8. The installation will now begin. Wait for the process to complete.

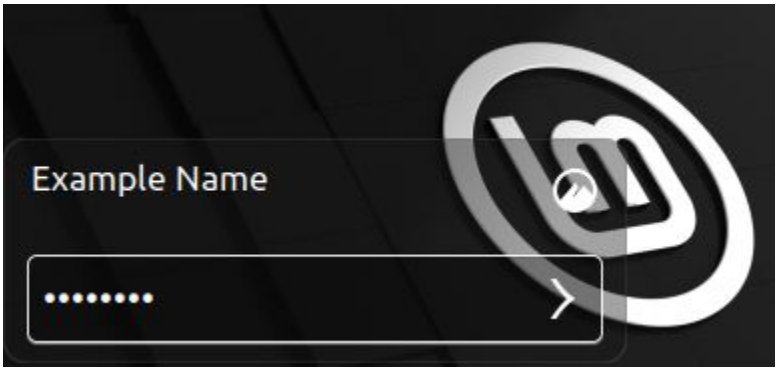


9. When the installation has finished, a message will appear indicating its success. You will be prompted to choose between continuing to test your settings, or restarting your virtual machine. Press the Restart Now button to restart your virtual machine and finish the rest of the process.



10. A message will appear on screen requesting that you remove the installation medium and press ENTER. Press ENTER to proceed.

11. You will be brought to the login screen and asked to enter your login information. Enter your password to login.

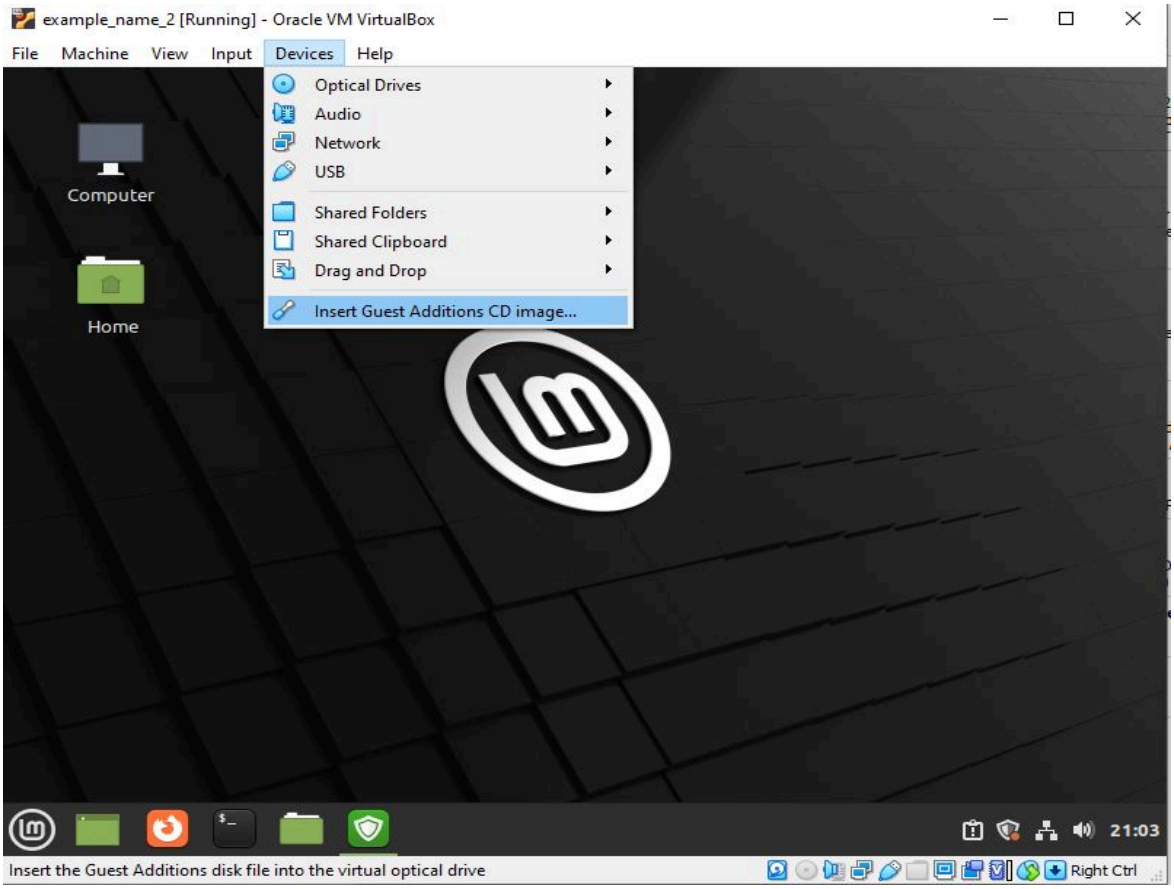


You have now finished installing Linux Mint on your virtual machine.

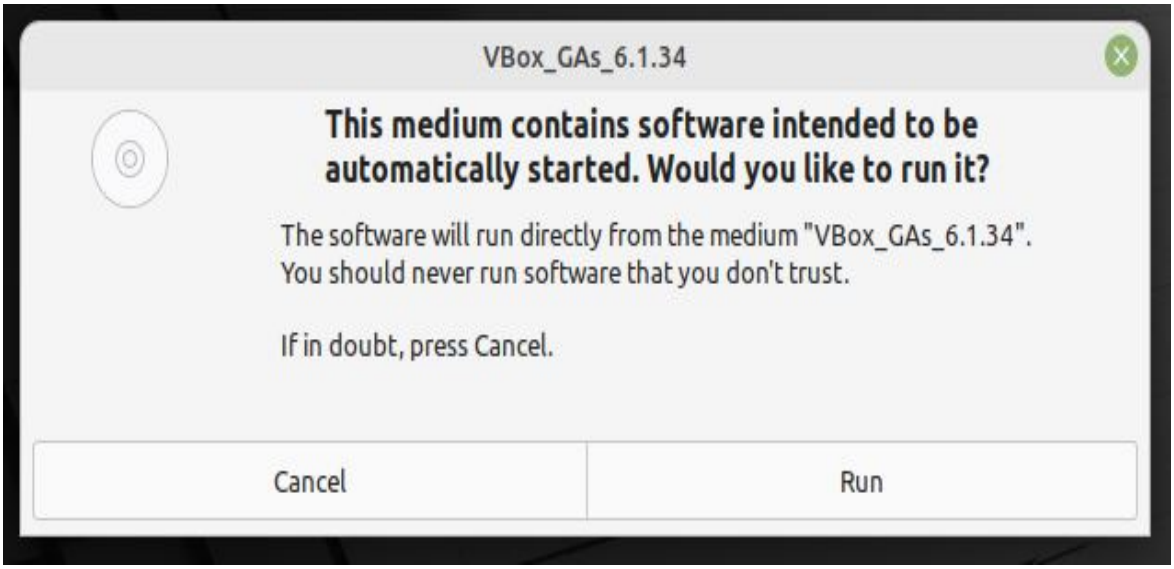
Chapter 8. Installing VirtualBox Guest Editions

You may find that you are unable to get the virtual machine's display window in VirtualBox to take up the entirety of your host machine's screen. As a result, the content in the VirtualBox window may be hard to view due to the low resolution and relative size of the screen. To resolve this, we will need to install VirtualBox Guest Editions. This section will walk you through the process.

1. Open the Oracle VM VirtualBox application.
2. Click on Devices at the top of the screen to bring up a dropdown menu, then click Insert Guest Editions CD Image.

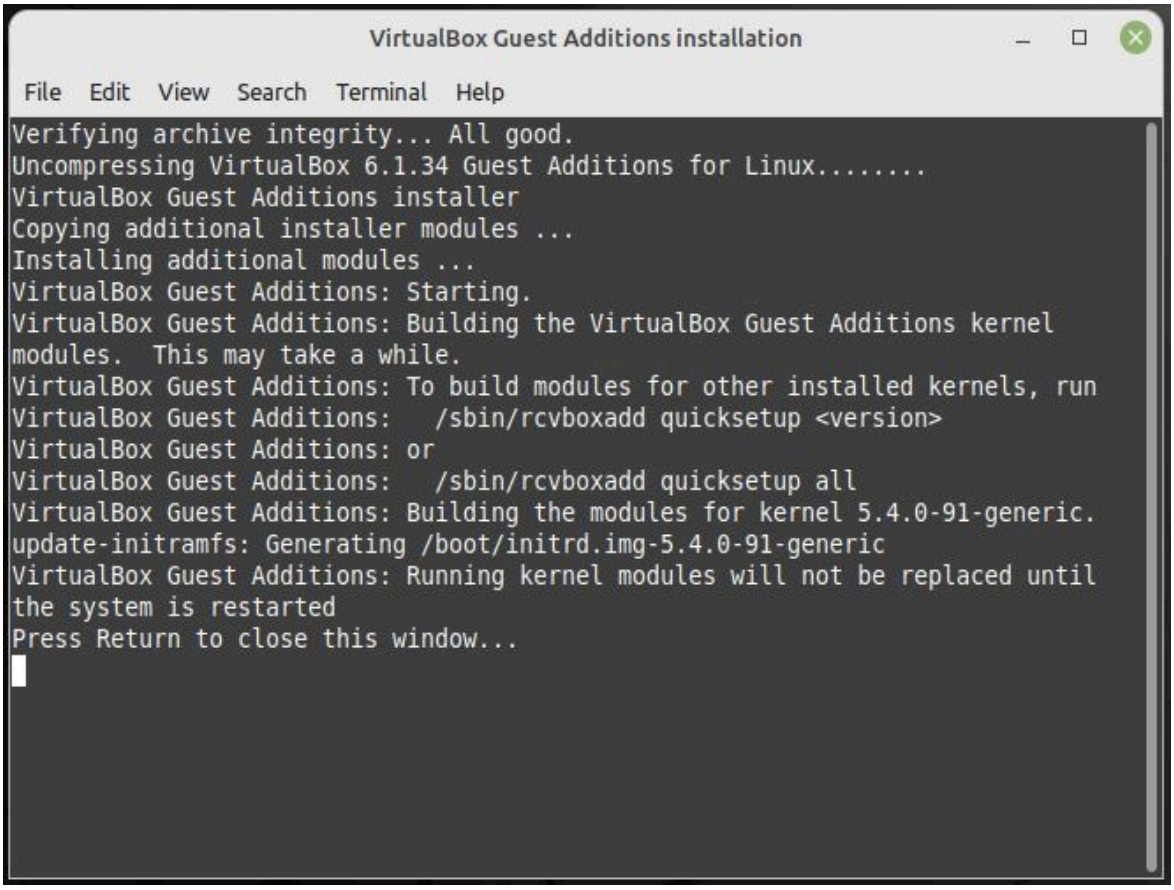


3. Click the Run button on the popup window that appears.



4. You will then be prompted to enter login password that was setup in the previous section. Enter it click and Authenticate.

5. The installation of the VirtualBox Guest Editions will now begin. A terminal window will display the installation processes. Allow the installation to run until it finishes. When the installation is done, you should receive the message "Press Return to close this window." Press Enter/Return to close the terminal.



6. The virtual machine must now be shutdown and restarted.
    a. Click the button in the lower lefthand corner of your virtual machine's desktop display.
    b. Click the button.
    c. Click Shutdown to turn off your virtual machine to return to the Oracle VM VirtualBox main menu.
    d. Click the

at the top of the screen to reboot your virtual machine.

VirtualBox Guest Editions is now fully installed. Your virtual machine's display window should now be able to produce a proper full screen display to match your host machine's display.