



Is Ubuntu for me?

Part 1: Boot Linux from a USB drive



*a do-it-yourself guide
from Iffy Books*



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Ubuntu is a free operating system that can run on almost any computer.

Ubuntu is reliable, easy to install and use, and has a good reputation for being secure. Here are some reasons you might want to use Ubuntu:

- ▶ You need a new laptop and your budget is closer to \$150 than \$1500.
- ▶ Your computer is old and/or low-end, and it's running like molasses.
- ▶ Your laptop is being repaired and you're using an old computer for a few weeks.
- ▶ You want to fix an unused computer for someone who can use it, but it won't boot or you can't log in.
- ▶ You're a web developer and you want your local environment to match your servers.
- ▶ You want to give as little money as possible to Apple/Microsoft.

For this tutorial you'll need:

- a blank USB flash drive (at least 4 GB)
- a computer (Windows or Mac)
- an internet connection

This zine will teach you to download an Ubuntu installer file and use it to create a bootable USB flash drive. Then you'll boot Ubuntu directly from the USB drive, letting you test it out without affecting your regular files. In the next zine, you'll learn to install Ubuntu on your computer in a few different ways.

Ubuntu is fun, useful, and almost as user-friendly as macOS or Windows. Even if you don't need it now, knowing how to install Ubuntu might come in handy down the road.

What is Linux?

The term "Linux" (also called "GNU/Linux") refers to a family of computer operating systems that are free to use, share, and modify. There are many varieties of Linux, known as distributions, designed for different purposes and different types of users.

The name "Linux" is a variation on "Unix," a family of operating systems that trace their lineage to Bell Labs in the 1970s. Bell Labs shared the original Unix source code with academics and let them make modifications, which led to many different versions of Unix throughout the 1980s and beyond. But Unix was proprietary software, not available to the public.

In 1983, members of the GNU project started developing a direct copy of Unix that would be free for anyone to use. They cloned lots of Unix components successfully, but by the early '90s they were still missing the kernel (the central piece of an OS, which orchestrates running processes). The Linux kernel, first developed by Linus Torvalds in the early '90s, filled the gap and made it possible to run a completely free OS on your computer.

In the early days, using Linux was complicated. You'd need to compile and install every program manually, and one piece of software might rely on dozens of other programs that you'd have to find and install first. To make the process easier, users started sharing preconfigured bundles of Linux software called **distributions**.

Every Linux distribution has many contributors at many levels. Some developers are volunteers, contributing code as a hobby. Others are paid by a company or nonprofit to work on a particular project.

→ **How is Ubuntu different from other Linux distributions?**

Ubuntu is designed to be easy-to-use, reliable, and secure for everyday people and businesses. It runs beautifully on a wide range of hardware, including computers that strain under the weight of Windows. It uses the Aptitude package manager, which makes installing new programs easy.

Ubuntu's development is primarily maintained by Canonical, a British for-profit company. The Ubuntu operating system builds on a Linux distribution called Debian, which is currently run by a nonprofit group called Software in the Public Interest. While new versions of Debian are released on an irregular schedule, Ubuntu releases major updates every six months. That makes Ubuntu more reliable for everyday users and businesses.

→ **What applications are available for Ubuntu?**

Probably more than you think! Here are a few programs that run well on Ubuntu, some of which you've probably used before:

Atom* (text editor)

Audacity* (audio recording and editing)

Blender* (3D modeling)

Calibre* (ebook reader/editor)

DaVinci Resolve (video editor)

Discord (group chat)

Filezilla* (FTP client)

Firefox* (web browser)

GIMP* (photo editor)

Kdenlive* (video editor)

LibreOffice* (word processing, spreadsheets, presentations)

OBS Studio* (video recording and streaming)

Okular* (PDF reader)

Reaper (audio editor)
Scribus* (desktop publishing)
Signal for Desktop (private chat)
Slack (group chat)
Spotify (music streaming)
Steam (video games)
Sublime Text (text editor)
Transmission* (BitTorrent client)
VLC* (media player)
Zoom (video chat)

* free/open source software

If you use a VPN and/or password manager, there's a good chance they're available for Linux too.

Some popular applications, such as those made by Adobe and Microsoft, aren't available for Linux. If you need to use Adobe Creative Cloud on a daily basis (such as for work), Ubuntu may not be a good choice for your primary operating system.

Download Ubuntu installer ISO

Visit the following URL and click the first "Download" link to get the Ubuntu installer ISO file. The file will be around 3 GB, so it may take several minutes to download.

<https://ubuntu.com/download/desktop>

An ISO file is known as an optical disk image, i.e., a collection of files originally intended to be burned to a CD or DVD. You can still run Ubuntu from a DVD (if your computer has an optical drive), but these days it's more common to write an ISO file to a USB drive.

❑ If your download gets interrupted, try restarting it in your browser's download manager. Or click the "Download" link again to restart the download.

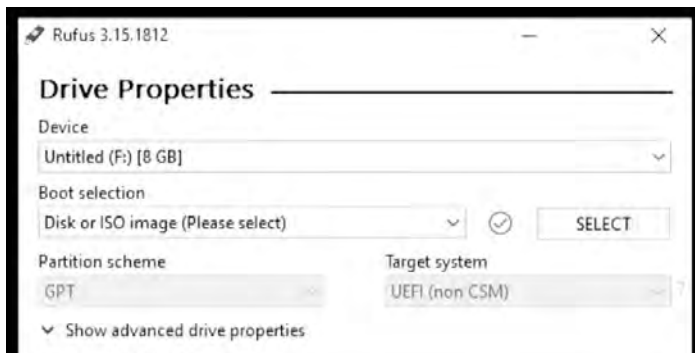
➔ Write Ubuntu ISO to a USB drive (PC)

❑ You'll use a program called **Rufus** to write your Ubuntu ISO file to a bootable USB drive. First, visit the following URL and download the latest version of Rufus.

<http://rufus.ie>

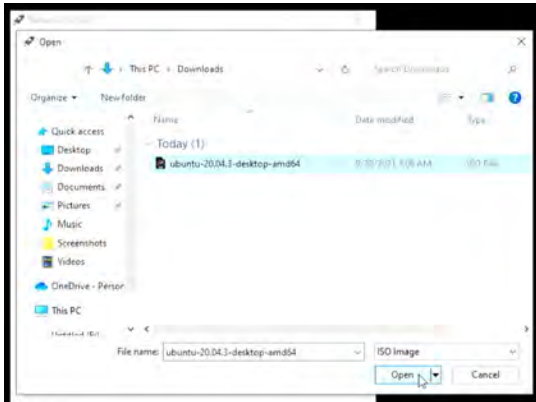
❑ Find the .exe file you just downloaded and double click it to launch Rufus.

❑ Insert your USB drive. Rufus should automatically update the **Device** field to the drive you just inserted. If the wrong drive is displayed, you can use the dropdown menu to select the correct one.

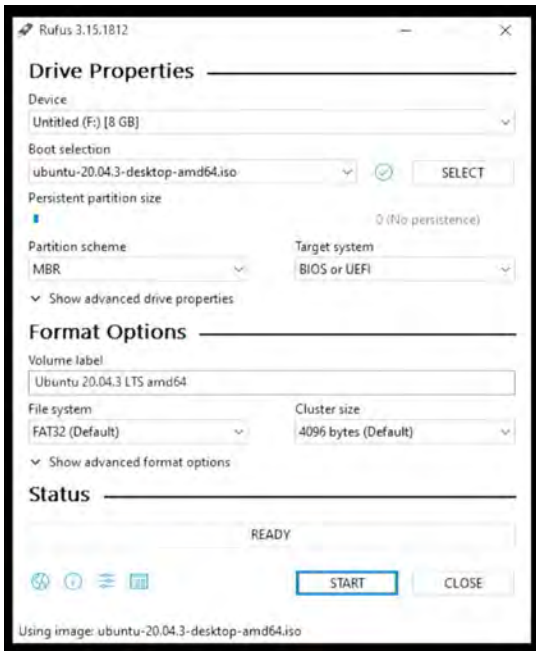


❑ Under the **Boot Selection** field, choose **FreeDOS** (which means we want the drive to be bootable). Leave the **Partition scheme** and **Target system** values unchanged.

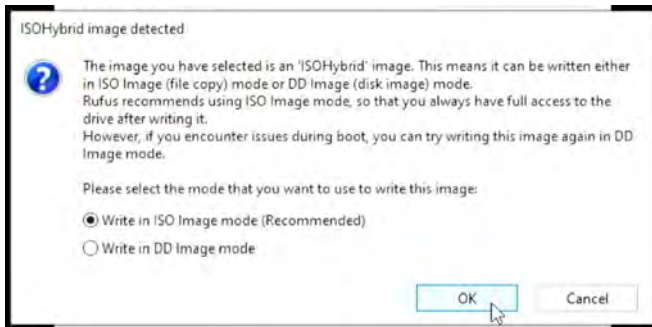
❑ Click **SELECT** (next to **Boot selection**). In the window that pops up, navigate to the Ubuntu ISO file you downloaded earlier (most likely in your Downloads folder). Select the ISO file and click **Open**. The **Volume label** field will update to reflect the name of the ISO file.



❑ Click **START** to begin writing to the disk.



❑ In the next dialog box, keep **Write in ISO Image mode** selected and click **OK**.



❑ You may see another dialog box that says Rufus needs to download additional files before writing to the USB drive. Click **Yes** to continue.

❑ Finally, Rufus will warn you that all the data on your USB drive will be destroyed. Double check that you're writing to the correct drive and click **OK** to continue.



❑ Rufus will now write the ISO file to the USB drive, displaying a progress bar as it goes. It should take around 10 minutes finish.

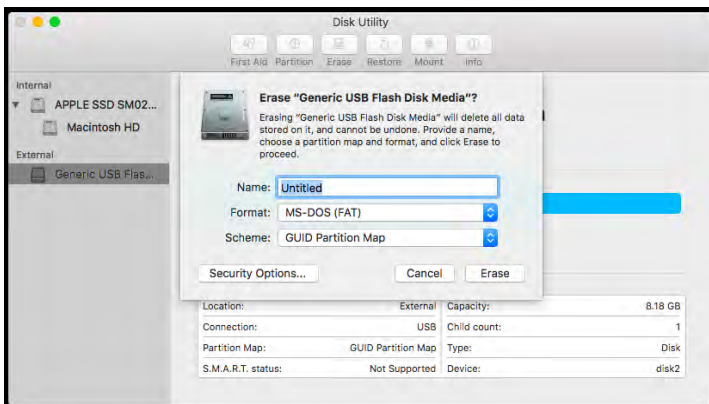
❑ Nice work! You just created a bootable Ubuntu installation disk.

→ Write Ubuntu ISO to aUSB drive (Mac)

- ❑ Insert a blank USB drive into your computer.
- ❑ In order to boot Ubuntu from a USB drive on an Apple computer, you'll first need to reformat the drive using macOS. Launch **Disk Utility**, which you can find in the directory **/Applications/Utilities/** or by pressing **command+space** and searching for "Disk Utility."
- ❑ Click on the name of your USB drive in the left column to select it. Then click the **Erase** icon at the top of the window.



- ❑ Change the format to **MS-DOS (FAT)** and set the scheme to **GUID Partition Map**. Then click **Erase**.



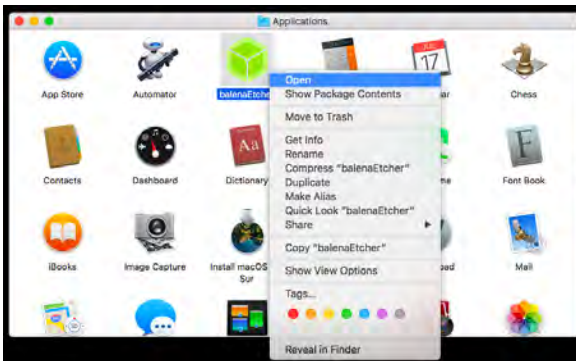
❑ When Disk Utility is finished erasing the drive, click **Done**

❑ Next you'll use a program called **balenaEtcher** to write the Ubuntu ISO file to your USB drive. Visit the following URL and click "Download for MacOS" to download balenaEtcher.

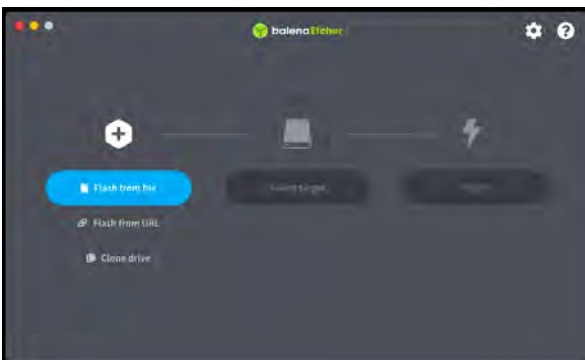
<https://www.balena.io/etcher/>

❑ Launch the .dmg file you just downloaded and move **balenaEtcher** to the **Applications** folder.

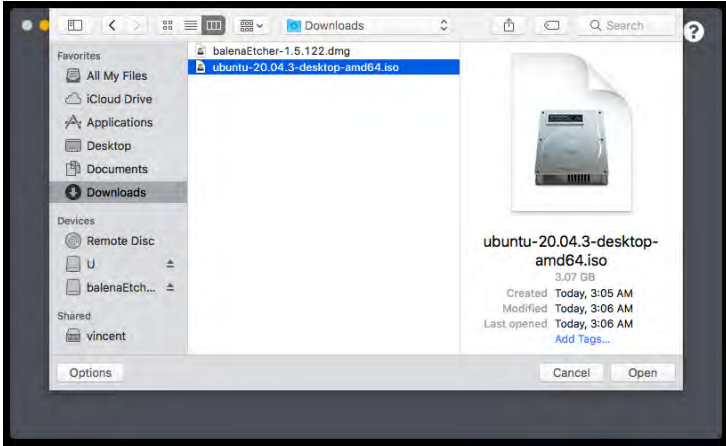
❑ Find **balenaEtcher** in your **Applications** folder and try to open it. If it won't launch, right-click the application and select **Open** from the dropdown menu. You might need to click through one or two prompts to give your computer permission to run the program.



❑ On the left side of the **balenaEtcher** window, click **Flash from file**

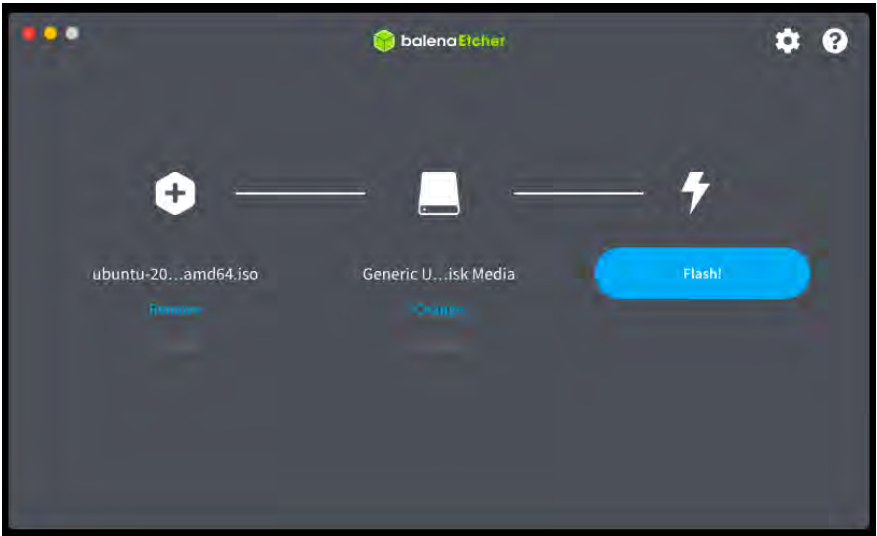


❑ In the window that pops up, find the ISO file you just downloaded (most likely in your Downloads folder). Select the file and click **Open**.

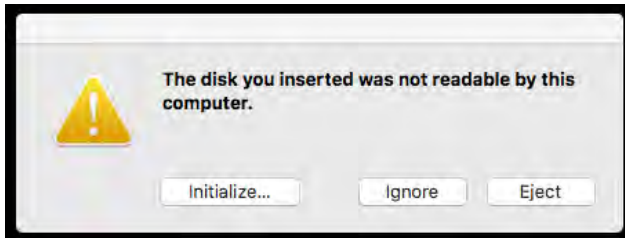


❑ Next, click **Select target** and choose the USB drive you want to write to.

❑ Click **Flash!** to start writing to the USB flash drive. You'll be prompted to enter your administrator password before proceeding.



❑ Writing the Ubuntu ISO to your USB drive should take 10 minutes or so. When balenaEtcher finishes, you may see an alert window like the one below. Just click **Ignore** and disregard it. If you initialize the disk by mistake, you'll need to flash the USB drive again.

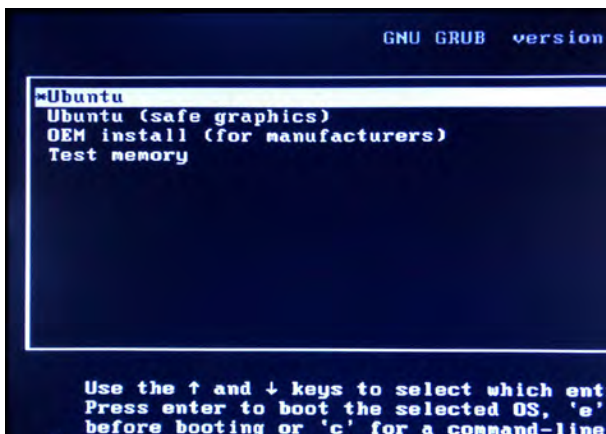


❑ Nice work! You just created a bootable Ubuntu installation disk.

➔ **Boot Ubuntu from a USB flash drive (PC)**

❑ Shut down your computer, then insert your bootable flash drive into any USB port.

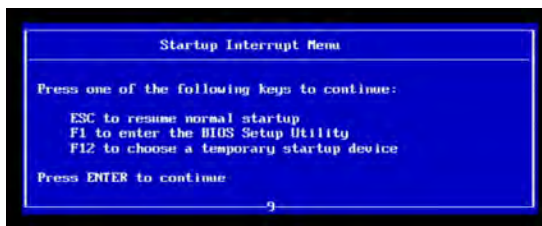
❑ To access the boot menu, you'll need to press a specific key while turning your computer on. First, try pressing **Escape** while powering on. If **Escape** is the correct key to boot from a USB drive, you'll see a GNU GRUB boot screen like the one below. Press **Enter** to launch Ubuntu.



❑ If pressing the **Escape** key at startup doesn't work, turn your computer off and start it again while pressing a different key. The table below lists frequently used boot menu keys for several PC manufacturers.

Brand	Boot Menu Key
Acer	F12
Asus	Esc or F8
Dell	F12
HP	Esc or F9
Lenovo	F12, F8, or F10

❑ Each PC manufacturer has a different type of boot menu. On a Lenovo PC, for example, you can press **Enter** immediately after startup to launch the **Startup Interrupt Menu**. Then press **F12** to get to the **Startup Device Menu**.



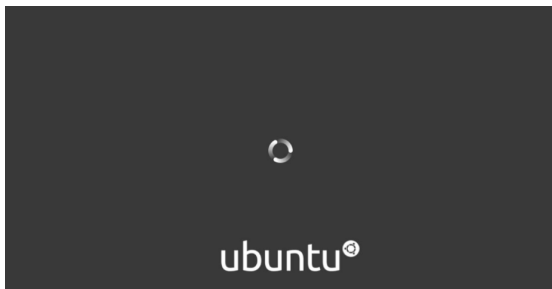
Use the arrow keys to select your USB drive in the Startup Device Menu, then press **Enter** to boot from it.



❑ If you still can't access the boot menu, do a web search for the phrase "boot menu" plus the make and model of your computer. You'll probably find the answer quickly.

❑ Once you're in the boot menu, **Ubuntu** should be highlighted by default. Press **Enter** to start booting Ubuntu. (Don't be alarmed if the boot menu disappears before you press Enter. The default boot option may be selected after a certain number of seconds.)

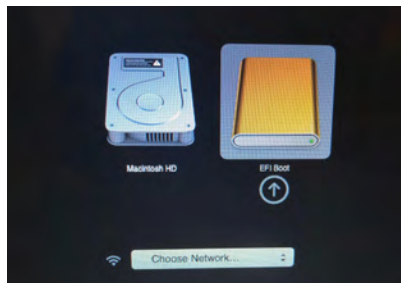
❑ When you see a startup screen like the one below, you'll know Ubuntu is launching successfully. Great job!



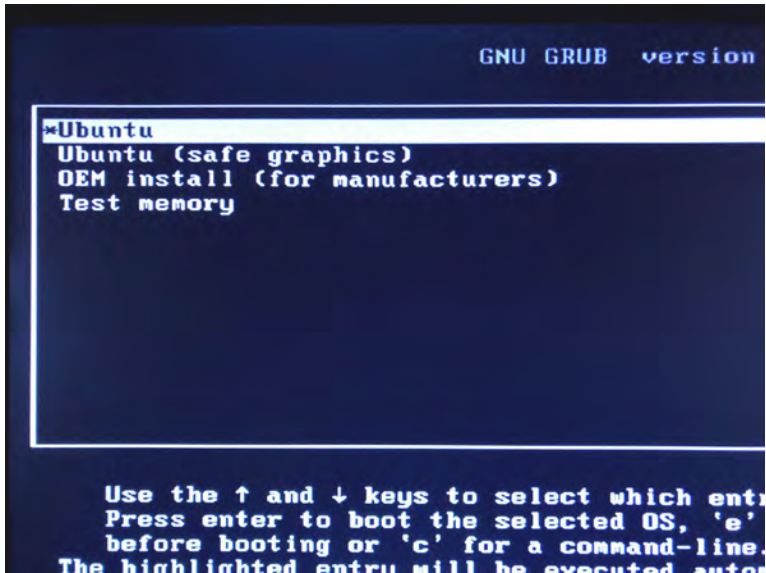
➔ **Boot Ubuntu from a USB flash drive (Mac)**

❑ Shut down your computer, then insert your bootable flash drive into any USB port.

❑ To access the **Startup Manager** menu, hold down the **Option (alt)** key while turning on your computer. You should see a screen like the one below.

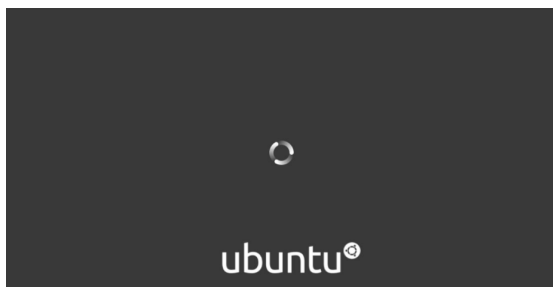


❑ In the **Startup Manager** (above), you can use the arrow keys to select which volume to boot from. Select the volume called **EFI Boot**, which represents your USB drive. Then press **Enter**.



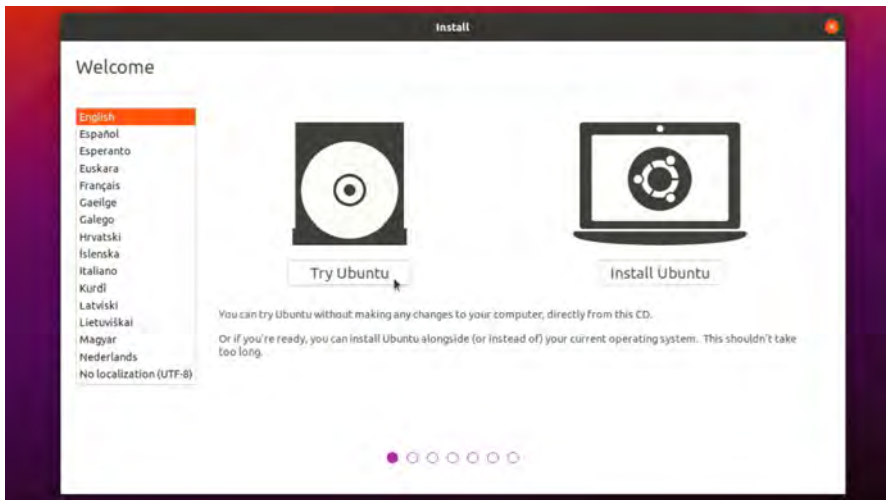
❑ In the next boot menu, **Ubuntu** should be highlighted by default. Press **Enter** to start booting Ubuntu. (Don't be alarmed if the boot menu disappears before you press Enter. The default boot option may be selected after a certain number of seconds.)

❑ When you see the startup screen below, you'll know Ubuntu is launching successfully. Great job!

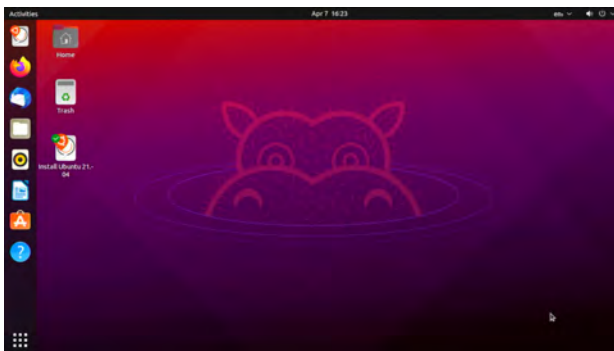


→ Try Ubuntu!

- ❑ Once you've successfully booted from an Ubuntu installer USB drive, click **Try Ubuntu**. This will launch the Ubuntu operating system from your USB drive, without affecting the files on your regular hard drive.



- ❑ Welcome to the Ubuntu desktop! Take a look around the interface. What feels familiar? What feels unfamiliar?



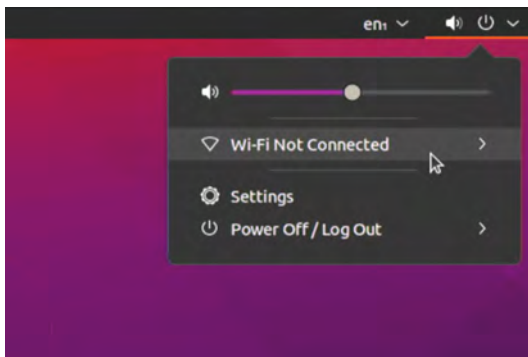
- ❑ Since you're running Ubuntu from a USB drive, any programs you install or files you create won't be saved. Next time you use this USB drive to boot Ubuntu, everything will go back to square one.

If you want to save a file you've created, you can transfer it to another USB drive or use the browser to email it to yourself from the browser.

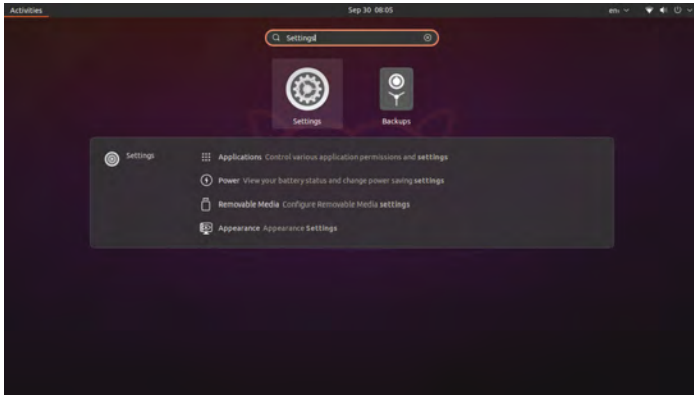
- ❑ Click the Files icon in the left column and you'll see your home directory, which contains some familiar system folders: Desktop, Documents, Downloads, Pictures, etc.



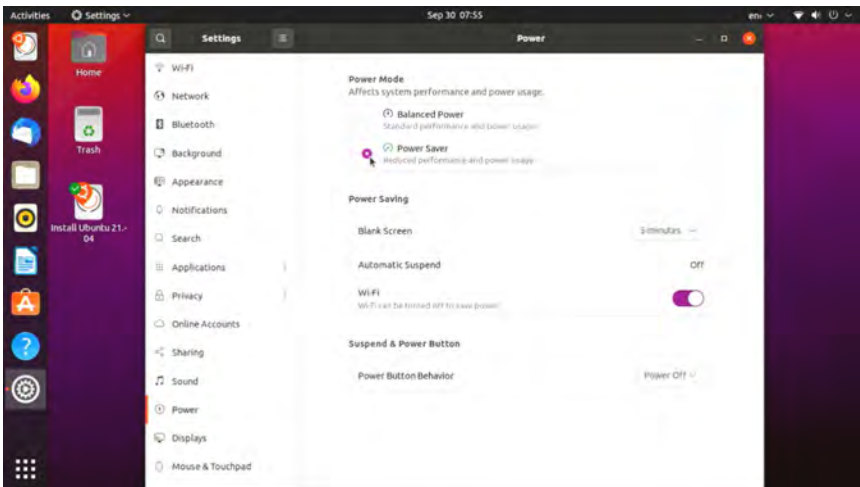
- ❑ To connect to a wi-fi network, click the down arrow icon in the top right corner of the screen. Click **Wi-Fi Not Connected** and select your network.



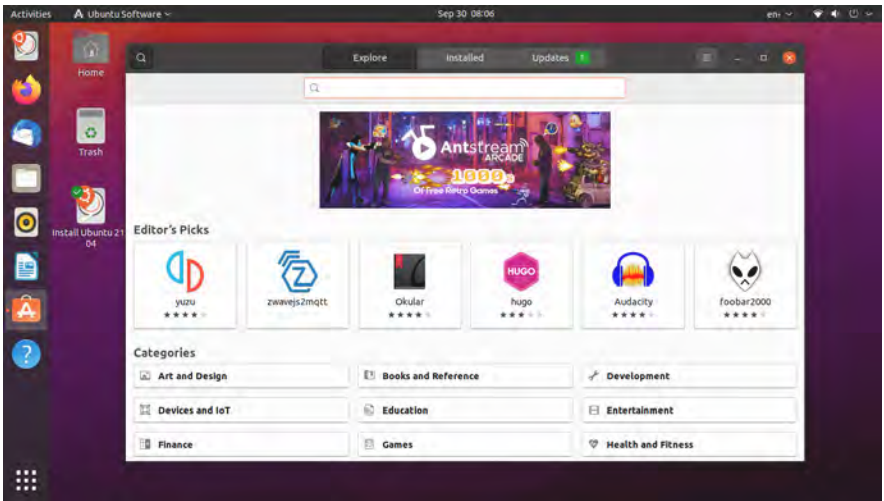
❑ In the search box, type "Settings." Click on the gear icon to open Ubuntu's **Settings** panel.



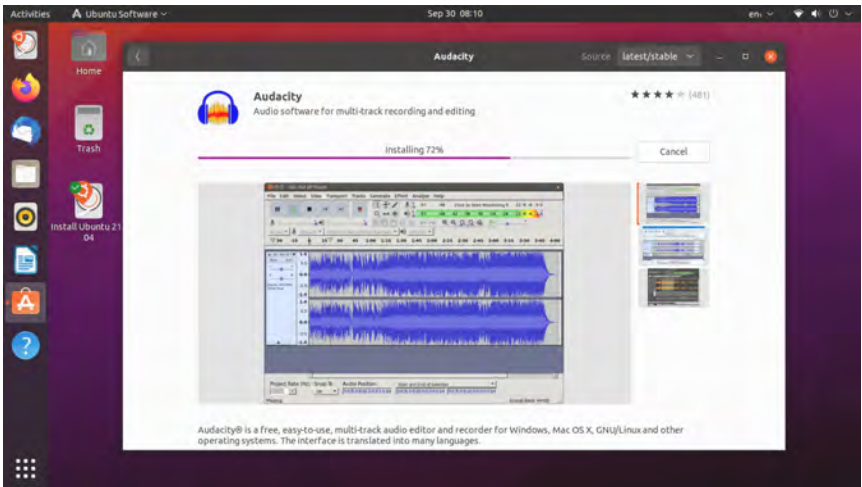
❑ In the **Power** section, you can turn on **Power Saver** mode to limit your electricity use. If you're using an old tower computer (which tend to consume a lot of energy), consider turning it off when you aren't using it.



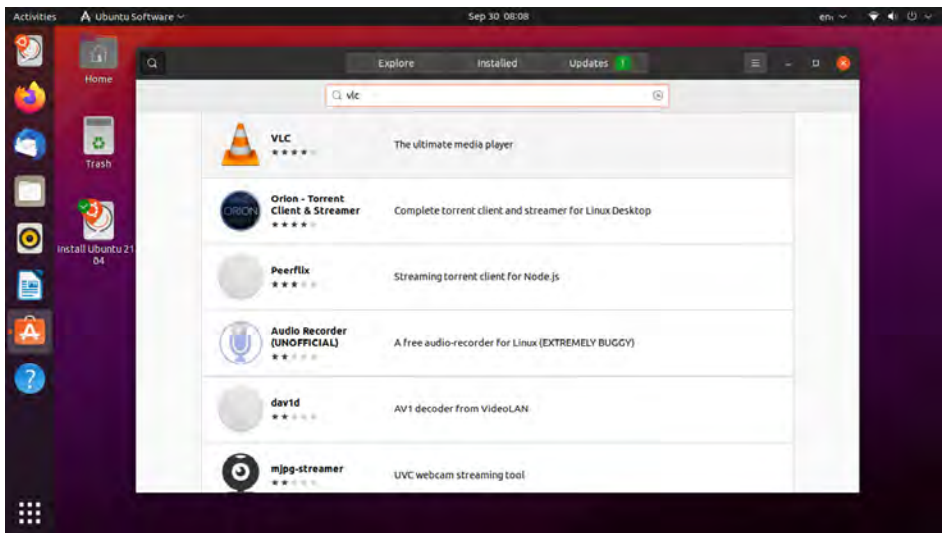
❑ In the Launcher bar on the left side of the screen, click the orange icon with an "A" on it to launch the Ubuntu application browser.



❑ Explore the available applications and download some if you're curious.

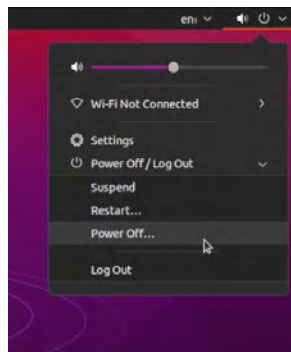


❑ If you don't see an application you're looking for, you can use the search bar to find it.

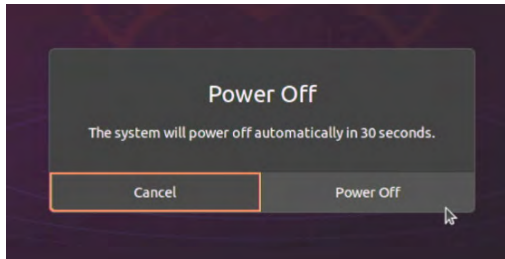


❑ Try to be patient as you learn to use Ubuntu! It's similar to Windows and macOS in many ways, but there's a learning curve when you're first getting started. You probably won't be able to get things done as fast as you do in your current OS, and you may end up troubleshooting things that feel like they should be obvious. But that's OK.

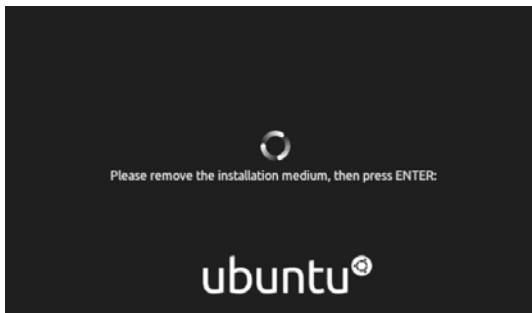
❑ To turn off your computer, click the power icon in the top right corner of your screen. Click on **Power Off/Log Off**, then click **Power Off...**



- ❑ Click **Power Off** to continue.



- ❑ At the following prompt, remove your Ubuntu USB drive and press **Enter**.



➔ **To be continued ...**

- ❑ You've completed part one of the tutorial *Is Ubuntu for me?*
Nice work!

In part two, you'll learn to install Ubuntu on your computer in two different ways. First you'll learn how to install Ubuntu on a new partition, letting you dual boot Ubuntu or Windows. (Unfortunately, dual booting Ubuntu on an Apple is more trouble than it's worth.) The second option will be to do a clean install of Ubuntu, overwriting your computer's entire hard drive.

Thanks for reading!

**Published October 2021
at Iffy Books**

Version 0.3



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