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7 Best Linux distributions for you



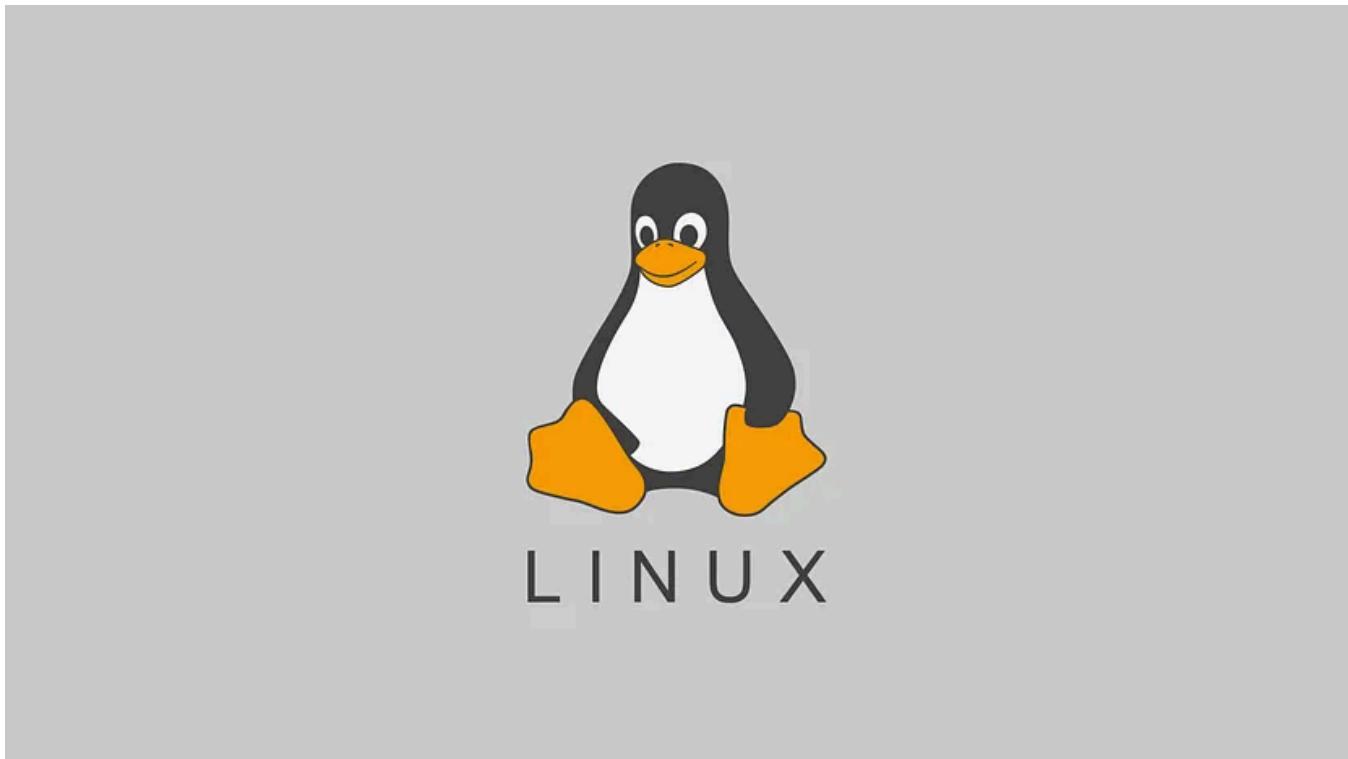
Najm Eddine Zaga · [Follow](#)

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What is Linux ?

Linux is an operating system. Just like Windows, Mac OS and iOS... But, Linux is the most popular of them all in the world. Android is powered by Linux OS.

What is an operating system ?

An Operating System (**OS**) is a software responsible of managing and handling computer / machine hardware components. And without one, hardware will never function.

Pieces that Linux OS comprises

- **Bootloader** — The software that manages the boot process of your computer. For most users, this will simply be a splash screen that pops up and eventually goes away to boot into the operating system.
- **Kernel** — This is the one piece of the whole that is actually called ‘**Linux**’. The kernel is the core of the system and manages the CPU, memory, and peripheral devices. The kernel is the lowest level of the OS.
- **Init system** — This is a sub-system that bootstraps the user space and is charged with controlling daemons. One of the most widely used init systems is **systemd**, which also happens to be one of the most controversial. It is the init system that manages the boot process, once the initial booting is handed over from the bootloader (i.e., **GRUB** or **G**Rand Unified Bootloader).
- **Daemons** — These are background services (printing, sound, scheduling, etc.) that either start up during boot or after you log into the desktop.
- **Graphical server** — This is the sub-system that displays the graphics on your monitor. It is commonly referred to as the **X server** or just **X**.
- **Desktop environment** — This is the piece that the users actually interact with. There are many desktop environments to choose from (**GNOME**, **Cinnamon**, **Mate**, **Pantheon**, **Enlightenment**, **KDE**, **Xfce**, etc.). Each desktop environment includes built-in applications (such as file managers, configuration tools, web browsers, and games).
- **Applications** — Desktop environments do not offer the full array of apps. Just like Windows and macOS, Linux offers thousands upon thousands of high-quality software titles that can be easily found and installed. Most modern Linux distributions (more on this below) include App Store-like tools that centralize and simplify application installation. For example, Ubuntu Linux has the Ubuntu Software Center (a rebrand of **GNOME Software**) which allows you to quickly search among the thousands of apps and install them from one centralized location.

Linux Distributions

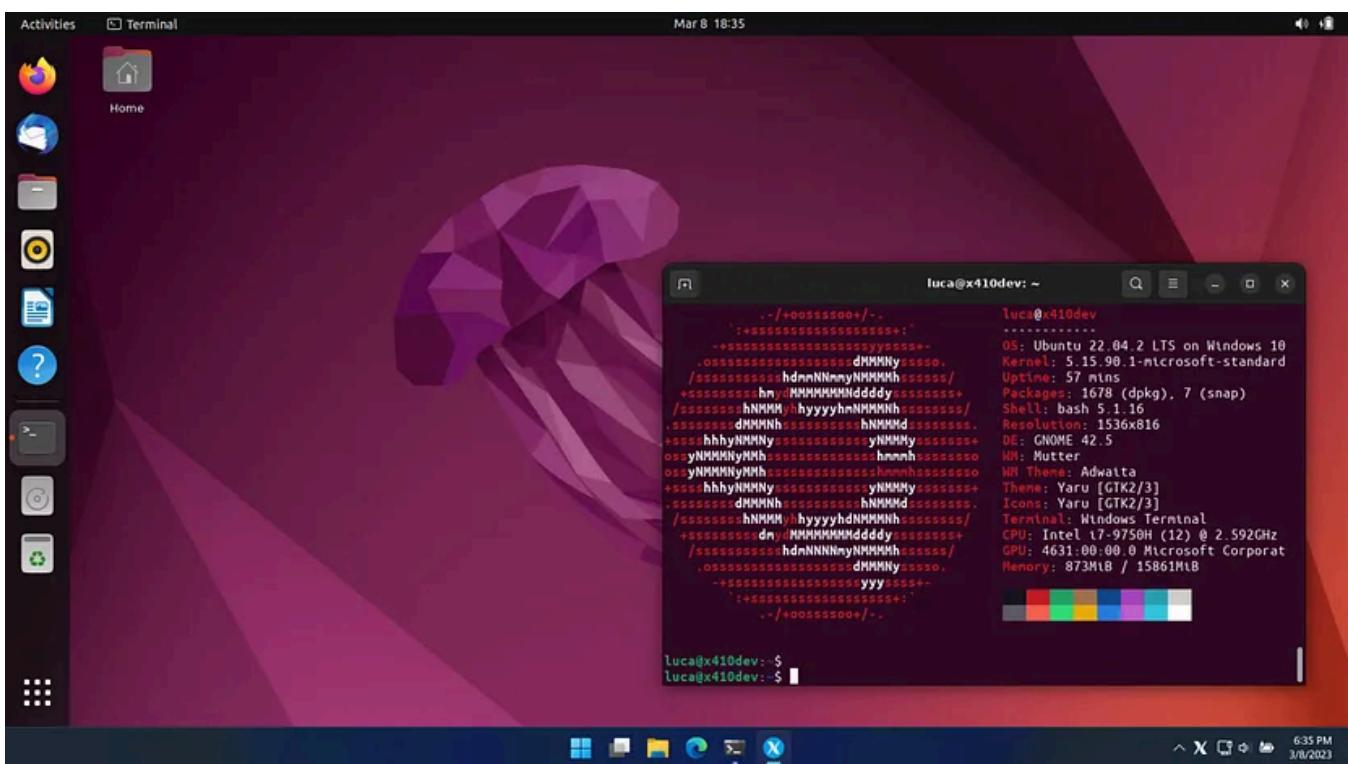
Linux has numerous distributions, making it challenging to find one that satisfies your specific needs and revitalizes your computer. Unlike singular operating systems like Windows or Mac, Linux offers hundreds of distributions, each with unique appearances and specializations. Development teams for these distributions regularly unveil new releases and updates worldwide to cater to diverse user preferences and requirements.

If you're a Windows or Mac user looking to switch or explore Linux, this story is tailored for you. For seasoned Linux users, you probably know the ropes, but feel free to read and provide feedback on the mentioned distros or others not covered that you've experienced.

Here, I will discuss the top Linux distributions ever used, considering both the distribution's popularity and its compatibility with various laptop capacities.

PS: This is not a ranking, the first one doesn't mean it's the best and so on.

1—Ubuntu



Ubuntu distribution is considered as the complete or integrated OS. It's simple and smooth. Therefore... It's the best distro for those who prefer to use such a perfect OS that can be used in almost everything. Ubuntu can partially replace Windows and Mac. But still... there are several programs and applications created for Windows and Mac, and not for Linux such as Adobe products and some other video editing bad a\$\$ programs.

Ubuntu has its own app store, and it supports a vast number of open source programs.

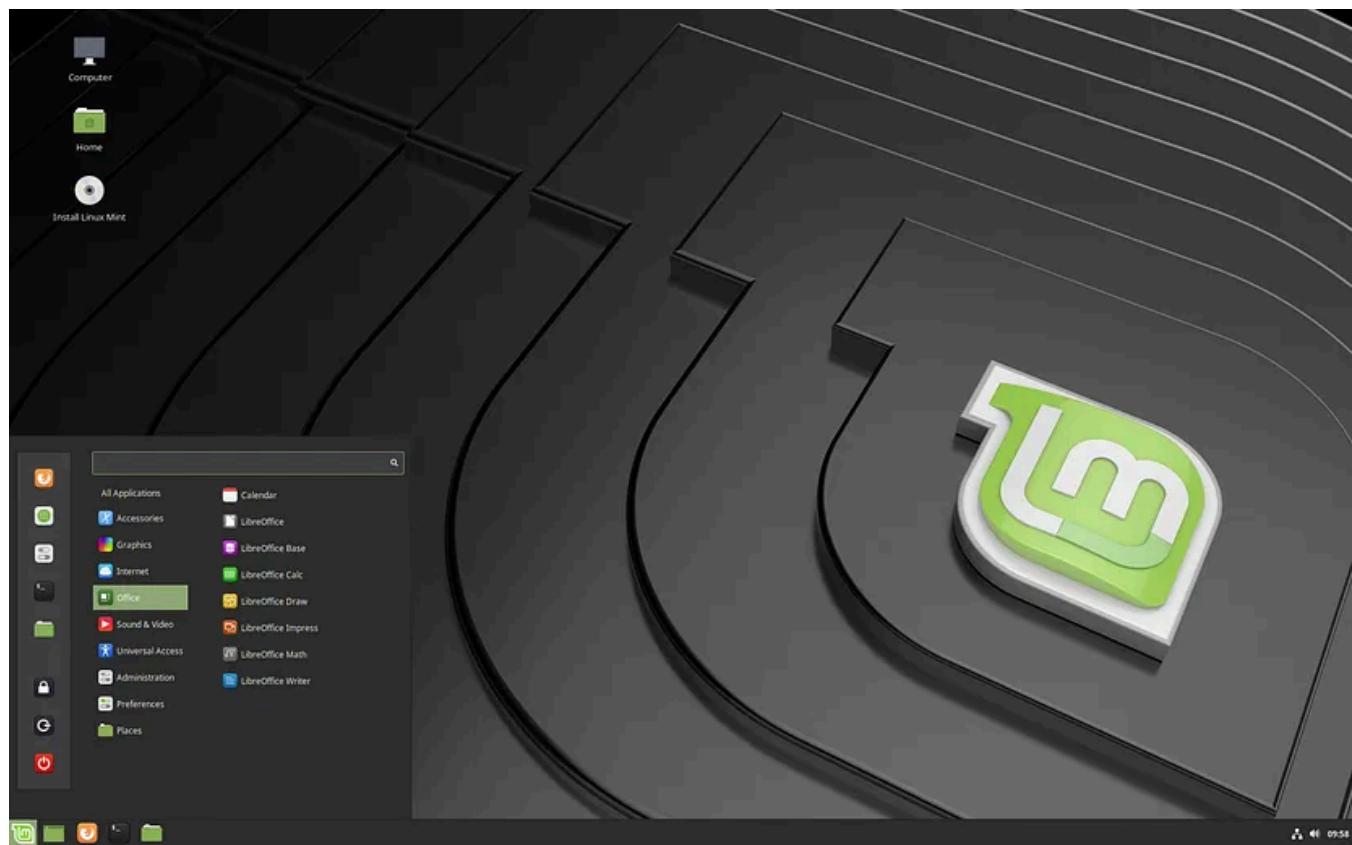
Ubuntu is a free operating system that can easily be installed thanks to its simple process.

Ubuntu is built upon **Debian Linux**.

If you are new in Linux world, Ubuntu is considered good for you.

Download Ubuntu

2 — Linux Mint



Linux Mint is a free lightweight distribution. It can be installed on a minimal requirements computer. Its User Interface is almost like Windows.

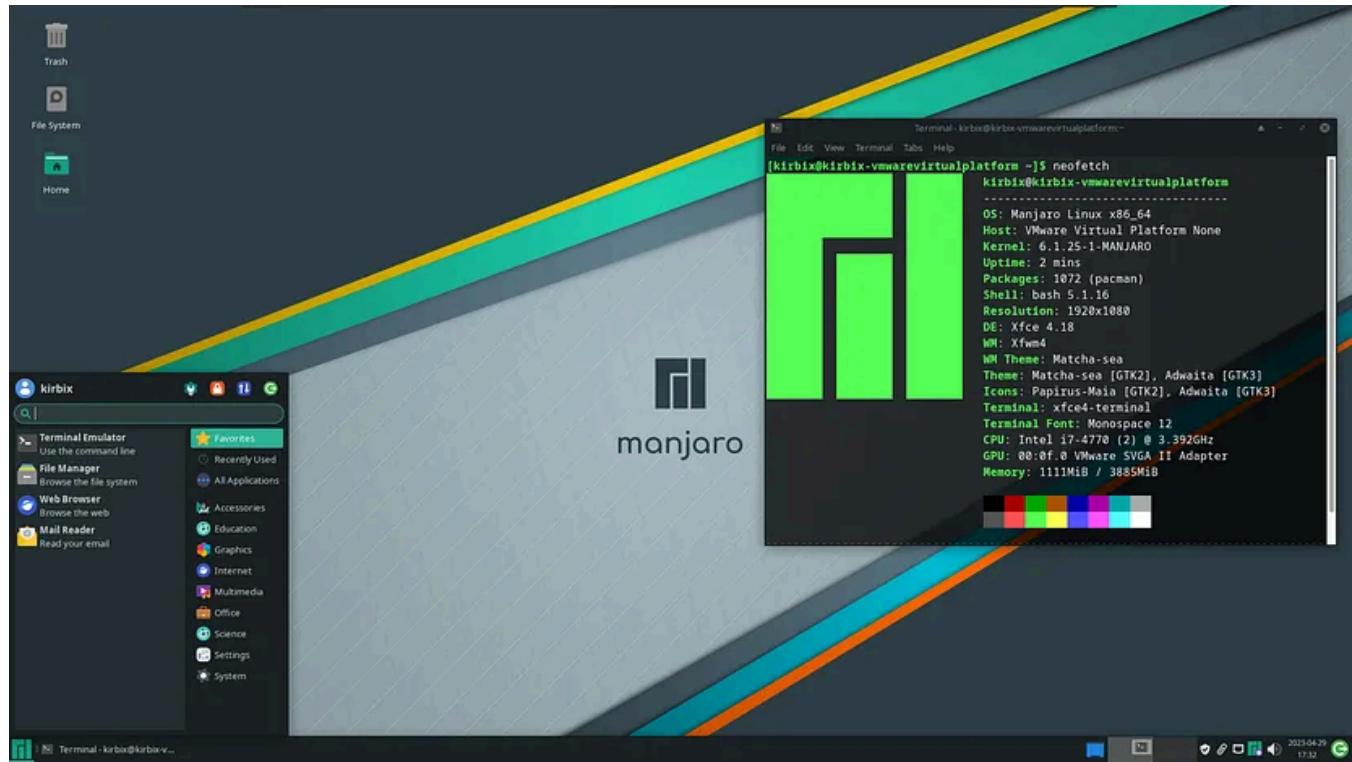
Good for personal and desktop usage. It comes with the **Xfce** Graphic Interface, which provides easy usage for new Linux users during the daily use such as surfing the net or exploring files in the system itself.

You can install apps and programs from the official store in the system or using the **CLI** (Command Line Interface).

Linux Mint is built upon **Debian Linux**.

[Download Linux Mint](#)

3 — Manjaro



Manjaro is a free distribution built upon **Arch-Linux** distro which follows the rolling release model.

Unlike other distros, Manjaro do not suffer from the **PPA** (Personal Package Archives) Repositories issues. As mentioned before... Since Manjaro depends on

Arch-Linux distro, it scarcely deals with damaged packages.

As it's a stable distribution, in Manjaro you can easily switch the kernel.

Easy installation and an elegant Graphic Interface with a great Desktop experience you can switch between environments such as **Gnome**, **XFCE** and **KDE**. Each comes with lots of customizable options. All polished and beautiful.

Download Manjaro

4 — Pop OS

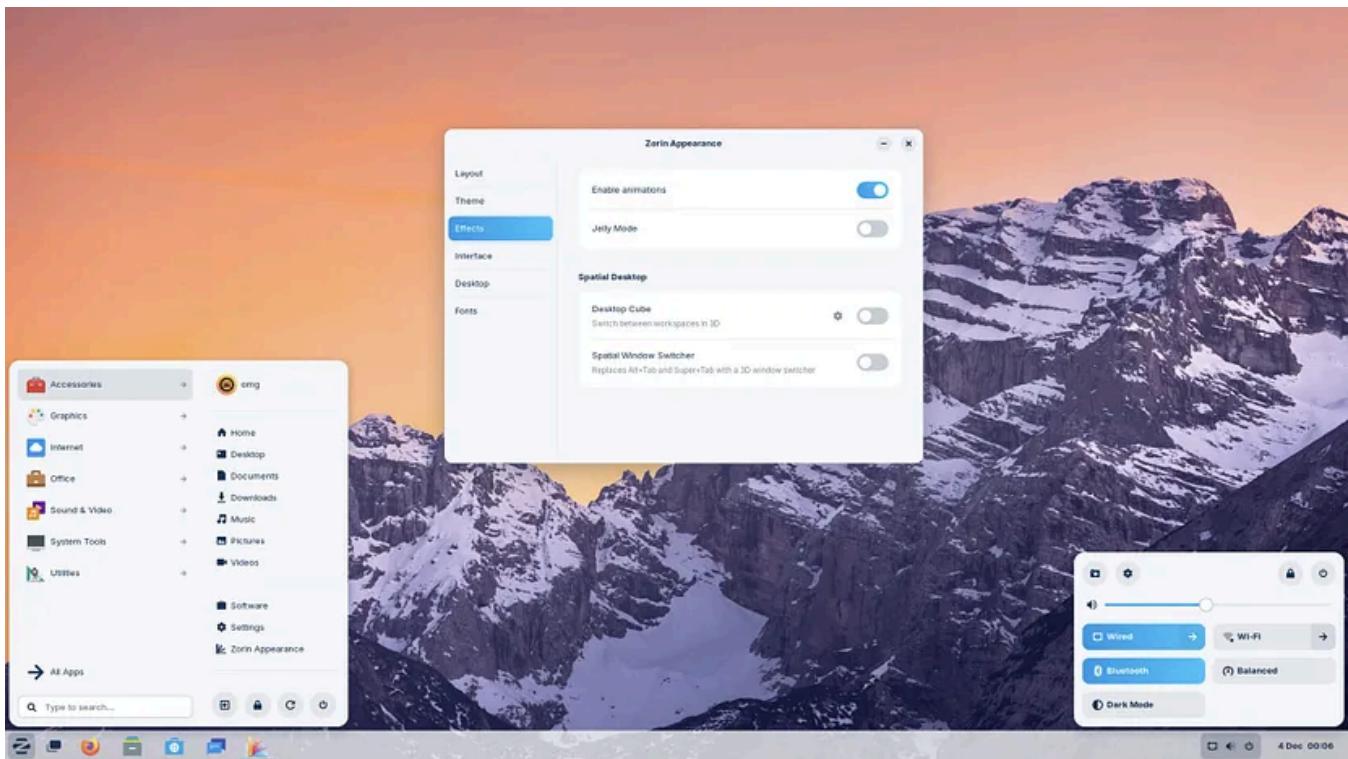


Or... Pop!_OS. By trying it for the first time you'll notice that it's different from other distros. Developed by **System76** with continuous releases and updates to the system.

The usage of Pop OS can vary from one user to another, and since the system is customizable according to the user's needs, you can use it for any purpose: development, programming, daily normal use, desktop use, and more. I would like to inform that the system is secure, reliable, and of course, open source, and most importantly, it is free.

Download Pop OS

5 — Zorin OS



Zorin OS may not be the perfect distribution for all users, but it has a unique advantage that other distributions do not possess, which is the ability to run the system on very low-end computers.

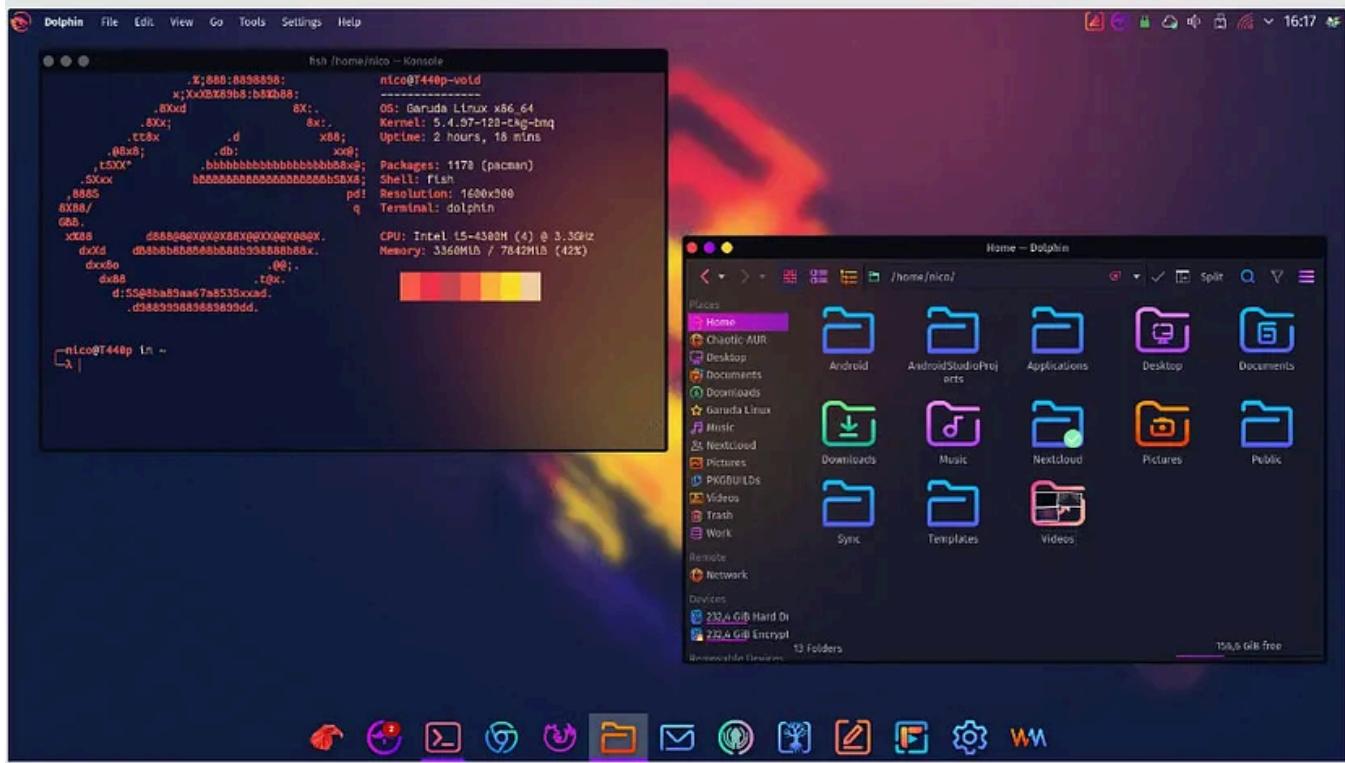
As you can see, modern operating systems often require a set of hardware specifications that are no longer compatible with older computers, and this is where Zorin OS comes in to revitalize old computers due to its minimal hardware requirements.

In addition to this feature, it has a beautiful, professional, and modern interface. Even if your computer is old, with this system, it becomes remarkably new and up-to-date.

Zorin OS system is also easy to install, free, and very lightweight.

[Download Zorin OS](#)

6 — Garuda Linux



Garuda Linux is one of the best Linux distribution when it comes to style and beauty. The first edition wasn't that good, weak and slow when it comes to performance. However, the latest updates provided a solid experience and many fixes.

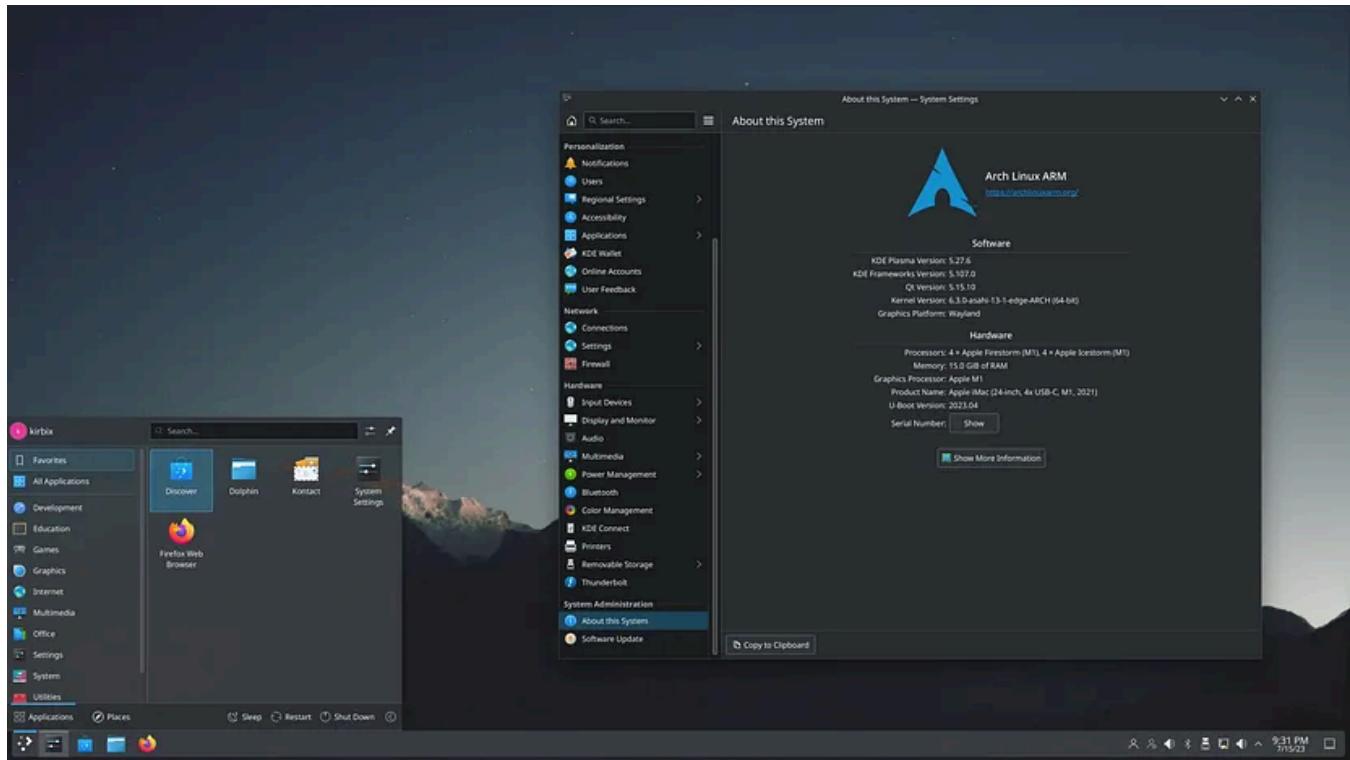
This distro provides a pack of themes, a set of cool animations and smooth colors ready for you to try.

Garuda Linux is built and based on **Arch-Linux**, and that makes it strong and solid with a great performance and supports lots of apps and programs.

This distribution can be used for desktop use and even for penetration testing.

[Download Garuda Linux](#)

7 — Arch-Linux



Arch-Linux is considered the **(Only for professionals)** or **(Power User Linux Distro)** distribution. So, if you're new to Linux I recommend to avoid it until you skip the newbie phase... Otherwise, you'll face lots difficulties in the installation process more than using it.

An ultimate, lightweight, powerful and super advanced. It doesn't give that much of importance to the Graphic Interface, and it gives the best performance experience and services.

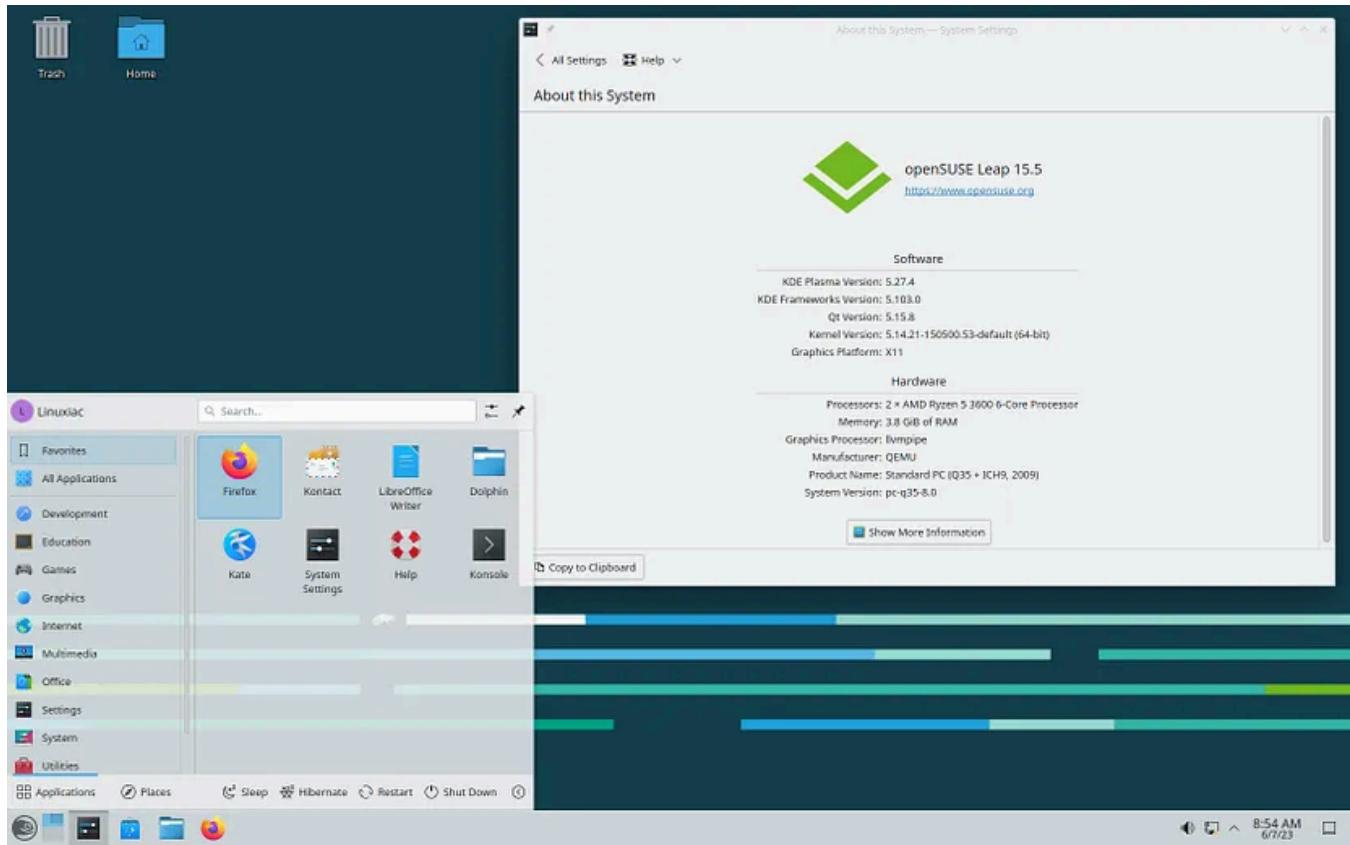
Arch-Linux is considered the **“All in One”** distro, and it can be used in almost everything.

Arch-Linux uses **PACMAN** as package manager.

Arch-Linux is the most used distro for the professionals.

Download Arch-Linux

8 — OpenSUSE Leap



OpenSUSE Leap is considered one of the best Linux distributions and one of the most popular.

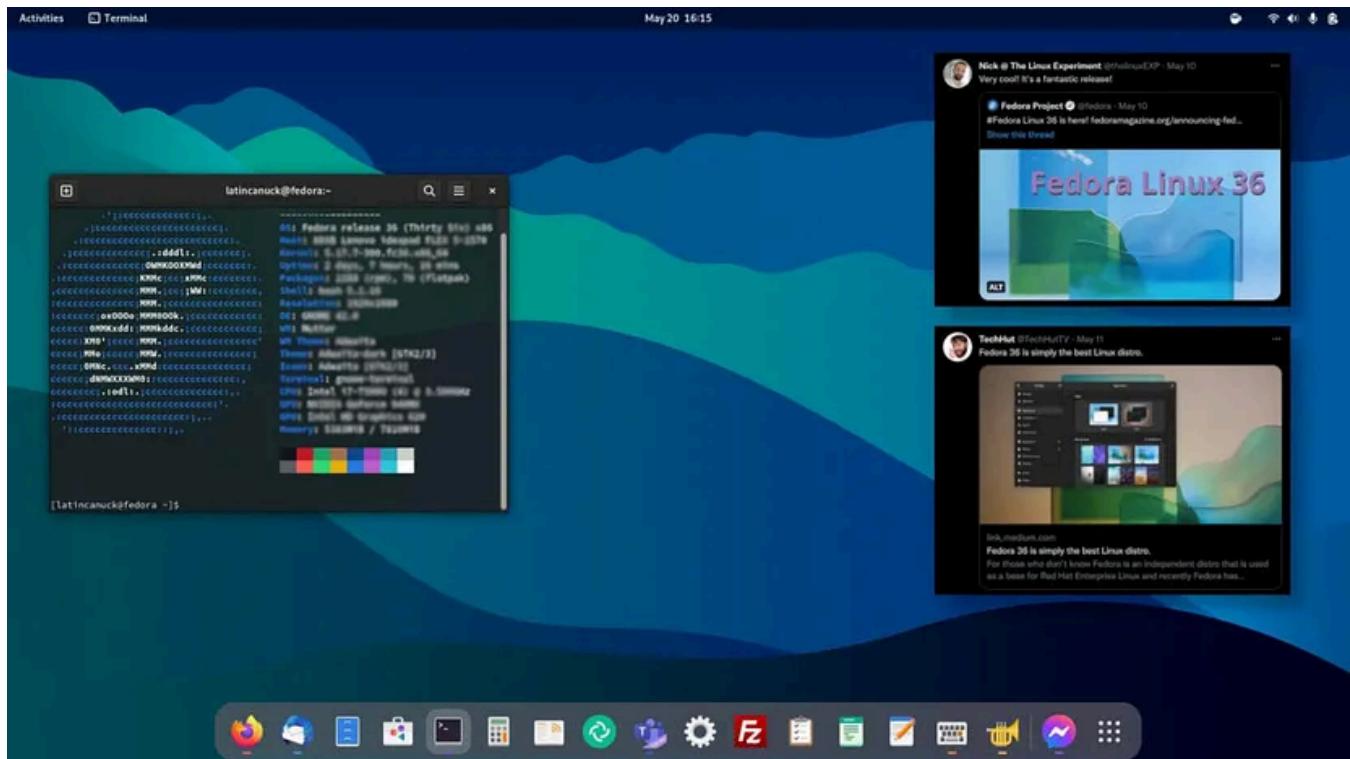
The distribution is developed and maintained by a group of contributors, and supported by **Novell**.

Easy to use and solid the way it was developed.

The System can automatically recognize a various number of computers hardware components such as CPU's, GPU's, etc... And that gives you the ability to not install drivers and use the default used drivers without issues.

[Download OpenSUSE Leap](#)

9 — Fedora OS



Fedora OS is a beautiful and solid open source distribution that is supported by the community and sponsored by **Red Hat**.

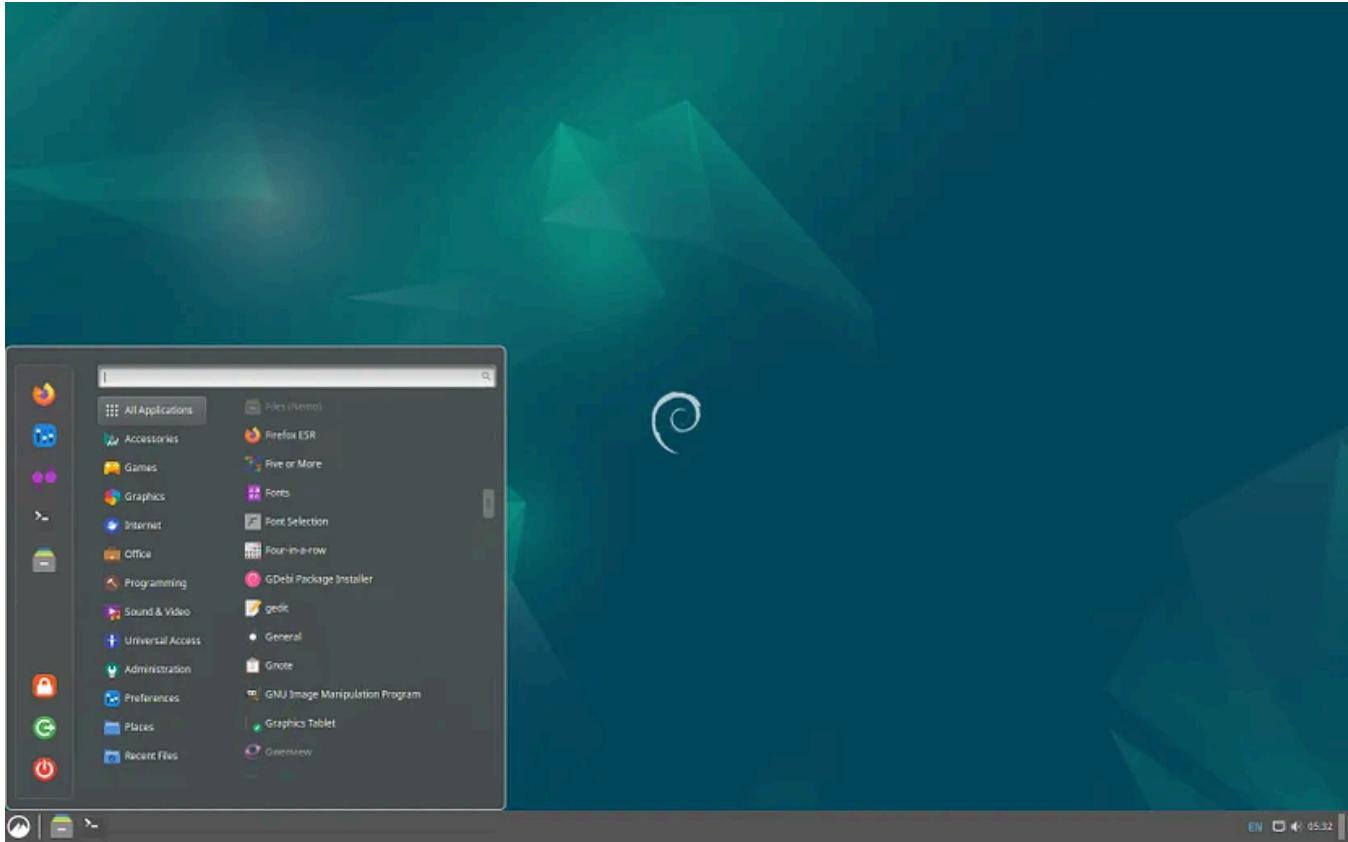
This distribution targets both Linux advanced and new users.

Fedora uses **RPM** (Red Hat Package Manager) to install packages.

Easy to install, with a simple GUI installer.

[Download Fedora OS](#)

10 — Debian



Debian is an open source Linux distribution, vastly known among users around the world.

Debian is a base distribution for many other distributions such as: **Ubuntu**, **Kali Linux**, **Elementary OS** and **Linux Mint**.

Debian is one of the well known, stable distribution, provides a various number of apps and programs.

Unlike Fedora, Debian and it's related distributions use **APT** (Advanced Package Tool) as a package manager.

11 — Elementary OS



And finally... The most beautiful distribution in my opinion. If you're a Mac lover, you'll find this distribution just like it's running with Mac OS.

Elementary OS has built a place for itself among other solid distributions at the top of Linux distributions. This distribution has focused on performance and elegance at the same time.

Elementary OS is built upon **Debian**, which makes it a good distribution to use and if it has some flaws, they will be fixed at the end of the day... I hope.

It comes with its own app store, which contains a various number of apps and tools for you to explore and use.

Beautifully streamline, with saturated fancy colors... Elementary OS is considered the most elegant distribution.

The installation process is simple and easy.

[Download Elementary OS](#)

Those were some distros for you to consider using in the future between being a newbie and pro in Linux world.

- You can read about more distros via [wikipedia](#).
- Check [Linux](#) website to see popular Linux distributions.
- Check [distrowatch](#) website for more options.

Conclusion

You cannot tell what distribution is better than the other, until you read more about every one. Of course, you needs and use will be a crucial for you to pick a target distribution.

Thank you for reading this article, and if you're already a Linux user let me know about your experience with distros in the comment section.

Long live Linux

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Written by **Najm Eddine Zaga**

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Sonny Rodgers

Aug 6, 2024 (edited)

...

Linux Mint does have a version, LMDE, based on Debian “to ensure Linux Mint can continue to deliver the same user experience if Ubuntu was ever to disappear”, but Xfce, MATE, and the main version, Cinnamon , are Ubuntu based. Of course, Ubuntu being... [more](#)



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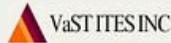
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```

26 func (l *Listener) listenToQueue(ctx context.Context, topic string, queue MessageQueue)
27 {
28     // set the callback function for this event to commit the message to kafka
29     wrapper.SetCallback(func(c context.Context) {
30         commitToKafka(c, queue, msg)
31     })
32 }
33
34 l.workerPool.Submit(func() {
35     if err := l.eventHandler.HandleEvent(cctx, wrapper); err != nil {
36         log.Error(cctx, "Error handling event", log.Tags{"topic": topic,
37             "error": err})
38         wrapper.DoCallback() // commit the message to kafka
39     }
40 }
41 )
42 }
43
44
45 // Wait for an OS signal to exit
46 sigchan := make(chan os.Signal, 1)
47 signal.Notify(sigchan, syscall.SIGINT, syscall.SIGTERM)
48 <-sigchan
49
50 log.Info(ctx, "Received signal, shutting down...", log.Tags{"topic": topic})

```

I added this code block but copied it blindly from the example given in the segmentio/kafka-go docs. Is this the correct way to handle this? Or is there a better way?

The signal handling code you've added is problematic in its current location. It's inside the `listenToQueue` method which runs as a goroutine for each queue, meaning you'll have multiple signal handlers competing with each other. Additionally, this signal handling should be at a higher level in your application.

Here's how to fix it:

```

@@ listen.go
func (l *Listener) Run(ctx context.Context) error {
    for topic, queue := range l.queues {
        go l.listenToQueue(ctx, topic, queue)
    }
    <-ctx.Done()
    return nil
}

func (l *Listener) listenToQueue(ctx context.Context, topic string, queue MessageQueue) {
    defer queue.Close()

    for {

```

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