



TECNOLÓGICO
NACIONAL DE MÉXICO

TECNOLOGICO DE ESTUDIOS SUPERIORES DE CHALCO INGENIERÍA INFORMÁTICA



“Two Operating Systems In A Pc”

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FIFTH SEMESTER.

GRUP: 6501.

OBJECT SCHOOL: OPERATING SYSTEMS II.

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Chalco Estado de México, april 11, 2024.

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INTRODUCTION

The operating system, a fundamental component in the operation of any computing device, is the piece of software that coordinates and manages all the activities and resources of the system. From managing memory to controlling peripherals, the operating system acts as an intermediary between the user and the hardware, allowing efficient and fluid interaction with the machine. In this text, we will explore in detail what an operating system is, the different types that exist and some notable examples in the world of technology today.

DEVELOPMENT

WHAT IS AN OPERATING SYSTEM?

They are programs that work together to manage different components, such as: memory and peripherals, as well as the computer keyboard, mouse, printer, etc.

The operating system manages memory, since within the memory it places different programs which are designed to perform a specific task, they are arranged hierarchically.

In other words, we can give the operating system orders to do what we ask.

TYPES OF OPERATING SYSTEMS

There are several types of operating systems, for example:

- Desktop operating systems: Computer use.
- Mobile operating systems: Designed for smartphones and tablets.
- Server operating systems: Designed for servers and networks such as Windows Server, Linux and FreeBSD.
- Embedded operating systems: Designed for GPS navigation systems and smart appliances.

OPERATING SYSTEMS EXAMPLES

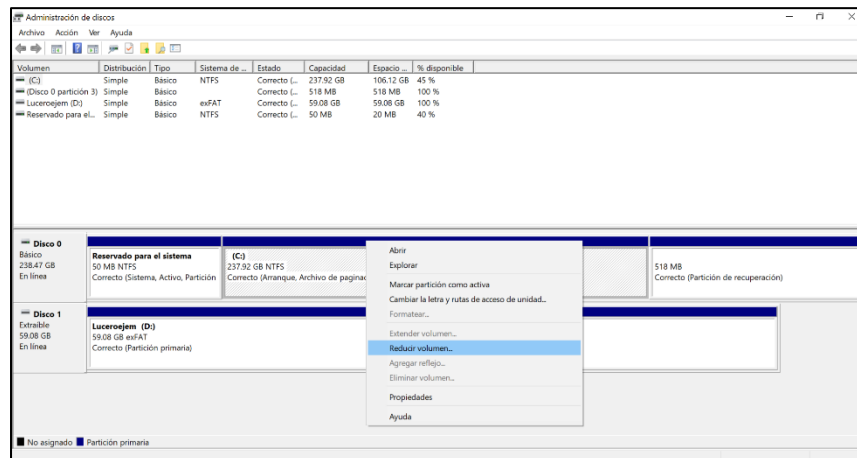
- Windows: Developed by Microsoft
- macOS: Developed by Apple
- Linux
- Android: Developed by Google
- iOS: Developed by Apple

It is possible that more than one operating system can be installed on a computer.

This project consists of installing two operating systems, which are: Zorin and Ubuntu.

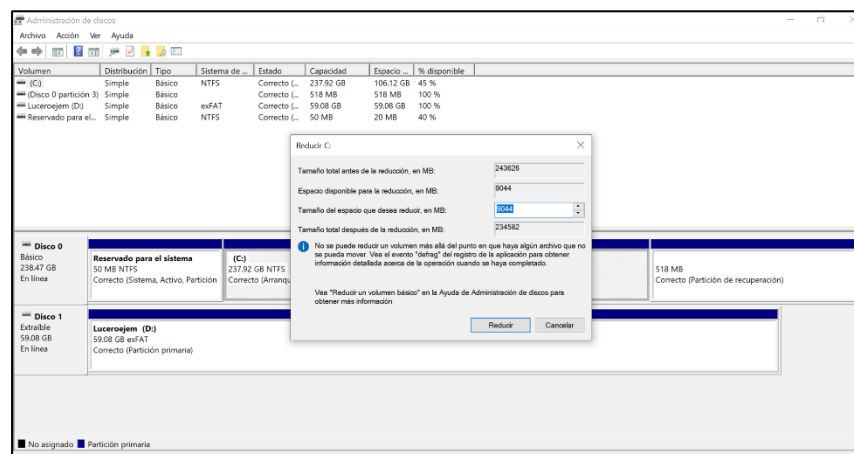
DISK PARTITION

1. One of the most important steps is to have a hard drive of a minimum size of 120GB prepared, this must be free.
2. Later, the appropriate partitions will be made on the hard drive, in this case two will be made so that in each one we can integrate an operating system. (See object 1).



Object 1. Disk partition.

3. The value to make the change is in MB, you can use a converter from MB to GB or vice versa to get an idea of the space you want to assign to each hard drive partition. (See object 2).

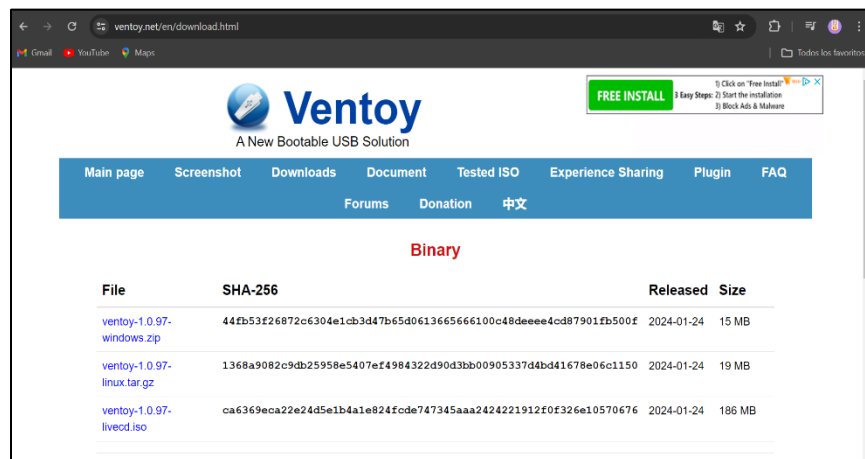


Object 2. Disk partition.

4. Click "reduce". Right click on the new partition and select the "new simple volume" option.
5. A new window is displayed in which the steps will be followed, the only changes to be made will be to select a letter and the name that the partition will have.
6. This entire process is carried out once again so that there is space for the installation of the other operating system.

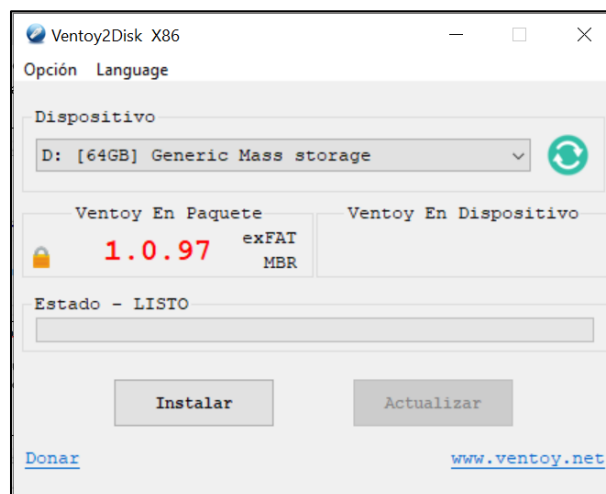
MULTIBOOTABLE MEMORY

1. To create a multibootable USB device the following program was used: (See object 3). <https://www.ventoy.net/en/index.html>



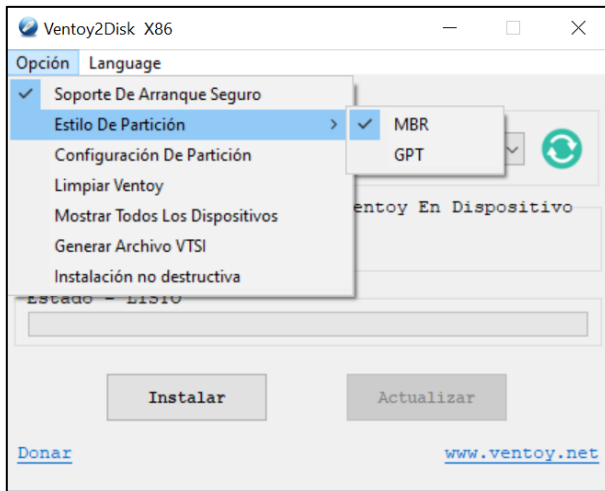
Object 3. Ventoy.

2. Execute as an administrator. When it opens it automatically selects the USB. (See object 4).



Object 4. Ventoy

3. The language and partition style are configured. (See object 5 and 6).



Object 5. Partition style.

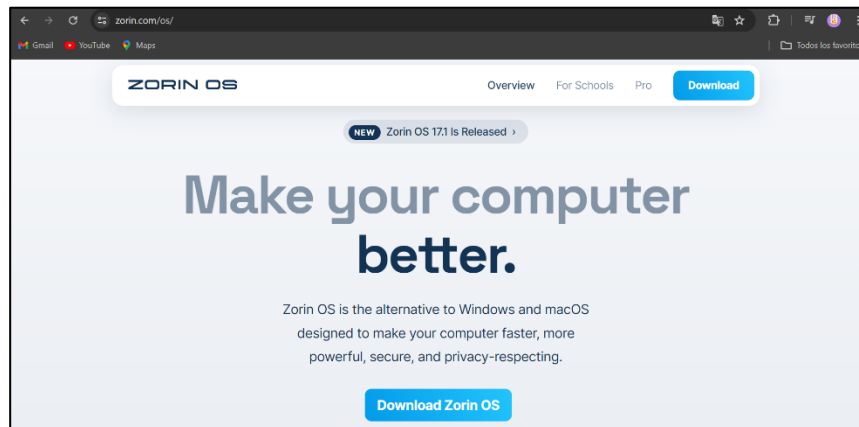


Object 6. Language.

4. Installation selection.

5. Download Zorin OS. (See object 7).

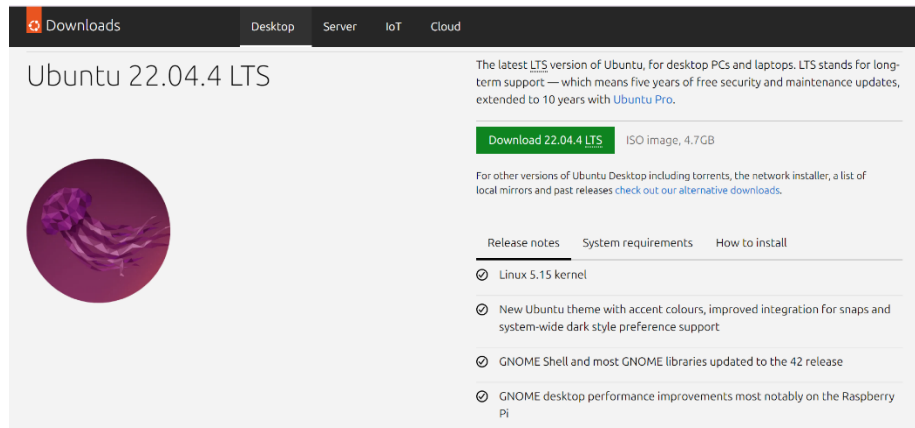
<https://zorin.com/os/>



Object 7. Download Zorin OS.

6. Download Ubuntu. (See object 8).

<https://ubuntu.com/download/desktop/thank-you?version=22.04.4&architecture=amd64>

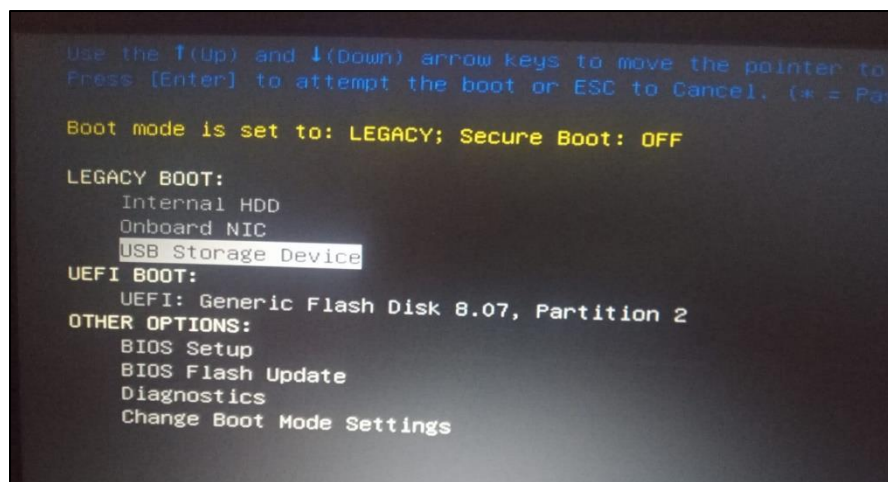


Object 8. Download Ubuntu.

7. Copy and paste the ISO images into multiboot memory.

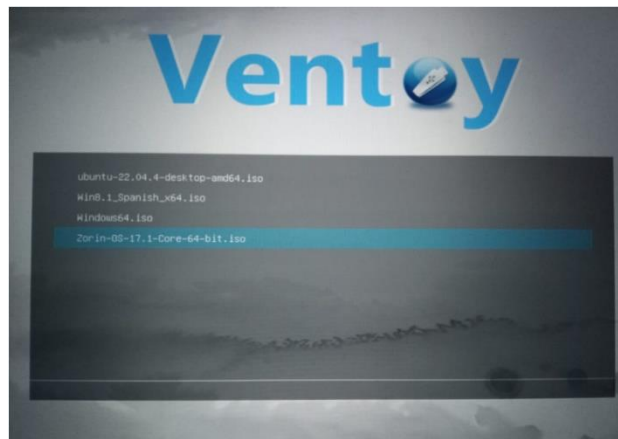
ZORIN INSTALLATION

1. The hard drive is placed in the computer, in this case the laptop.
2. Before turning on the laptop, we insert the USB.
3. Before it turns on completely, we enter the BIOS.
4. We enter "Boot" mode and select boot from the USB boot. (Object 9).



Object 9. Boot mode.

5. When you enter it will look something like this. (See object 10).



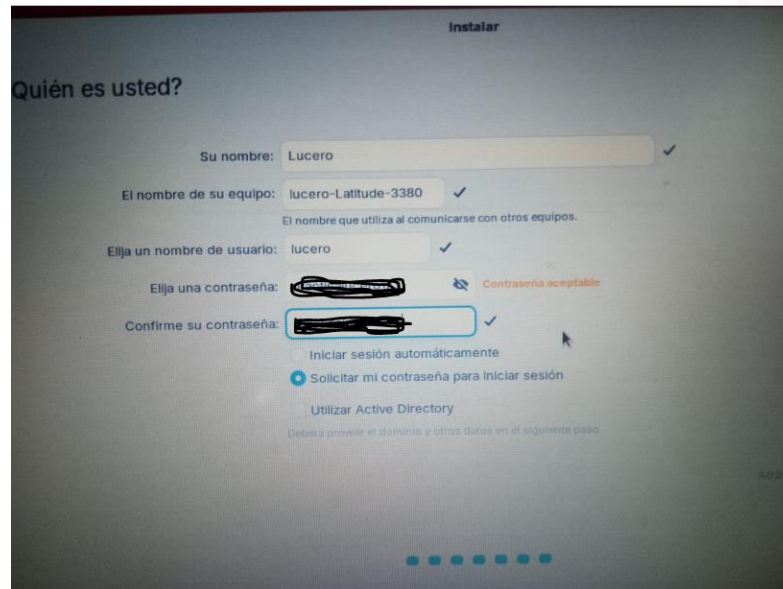
Object 10. Ventoy.

6. We select Zorin and select the partition that we had intended for it. (See object 11).



Object 11. Partition.

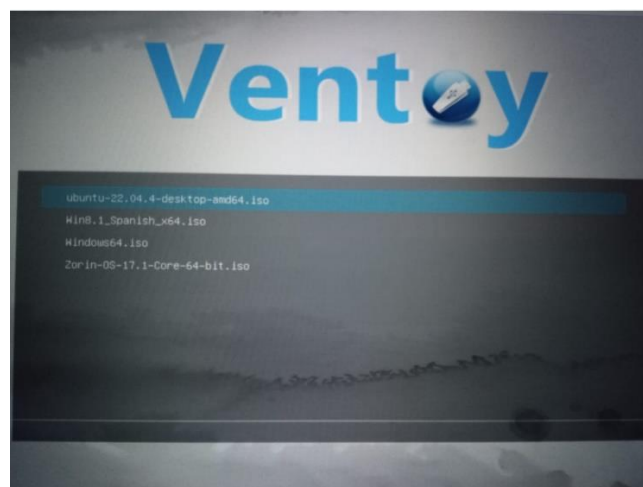
7. It progresses as you do what it asks of you and before finishing it asks you for a username and password. (See object 12).



Object 12. User and password.

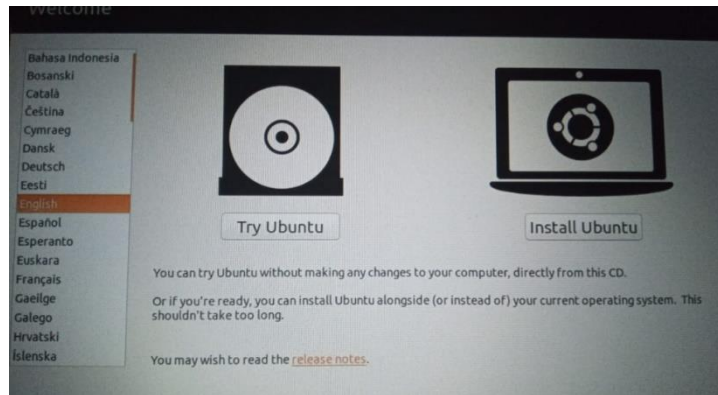
UBUNTU INSTALLATION

1. We turn the computer off and on and return to Ventoy and instead of selecting Zorin we select Ubuntu. (See object 13).



Object 13. Ventoy.

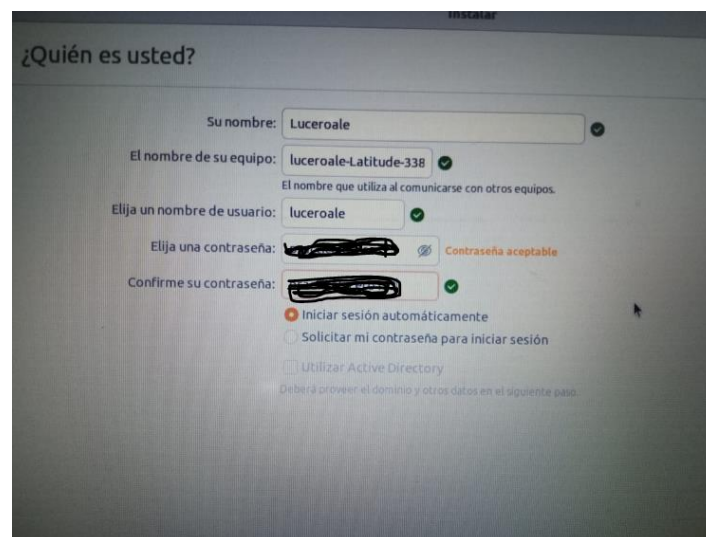
2. it installs. (See object 14).



Object 14. Install Ubuntu.

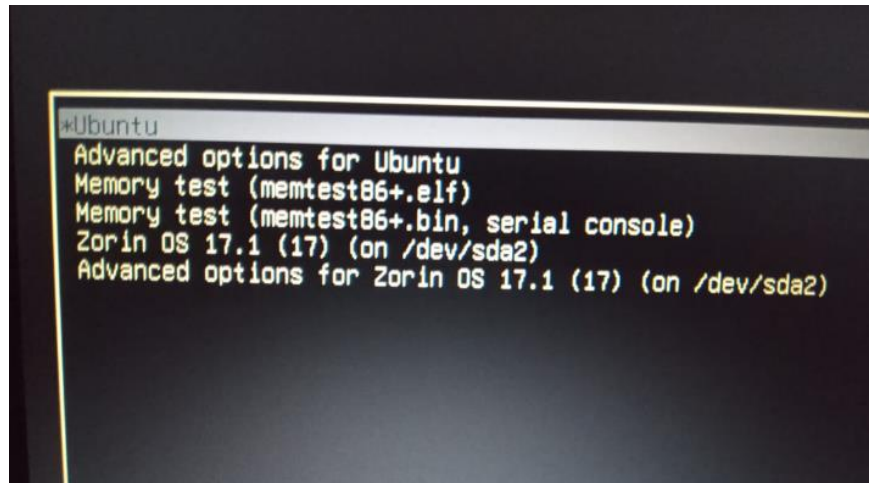
3. We install it in the previously designated space.

4. Likewise, it asks for a username and password. (See object 15).



Object 15. User and password.

5. When the entire process is finished, turn off the computer and turn it on, a screen will appear, in which you can choose which operating system to run.
(See object 16).



Object 16. Operating system to run.

Keywords

Operating system, administrator, components, memory, peripherals, hierarchically, types, desk, mobile phones, servers, embedded, examples, Windows, macOS, Linux, Android, iOS, Installation, disk partition, multibootable, USB, BIOS, startup, Zorin, Ubuntu, Ventoy.

CONCLUSION

In conclusion, an operating system is a set of programs designed to manage the various components of a computing device, such as memory and peripherals, facilitating the interaction between the user and the hardware. From desktop systems to mobile, servers and even systems embedded in specific devices, there are different types of operating systems adapted to different environments and needs.

In this specific project, the process of installing two operating systems, Zorin and Ubuntu, on the same computer has been explored by creating partitions on the hard drive and using multibootable memory. This process involves detailed steps, from preparing the hard drive to configuring booting from a USB stick and installing each operating system on designated partitions.

In summary, the installation of multiple operating systems on the same computer allows you to take advantage of the unique characteristics of each one to satisfy various usage needs, providing flexibility and versatility to the end user.