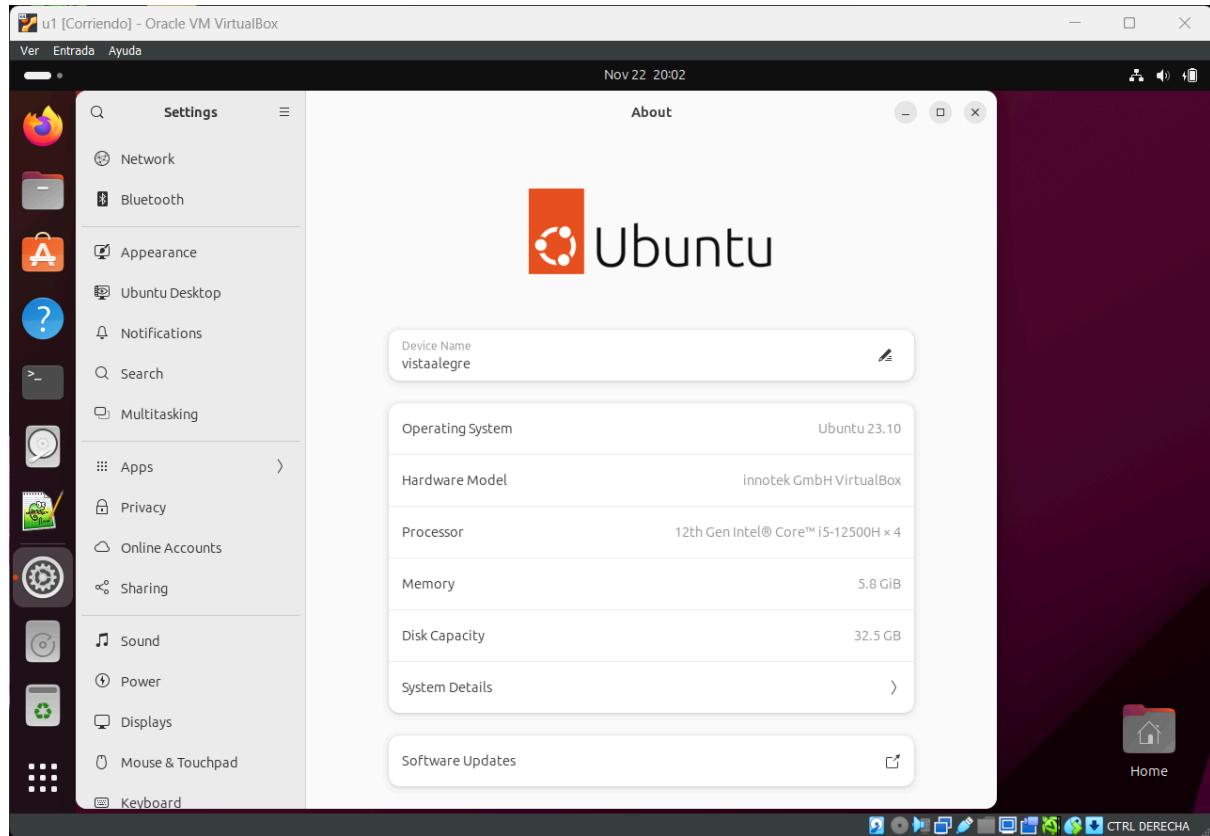


Vamos a hacerle unas pruebas de rendimiento a nuestra máquina virtual con Ubuntu. Éstas son sus características:



- Si ponemos el comando de “cat /etc/lsb-release”, podemos comprobar la versión de Ubuntu.
- Si ponemos “uname -a” nos dice para cuantos bits la tenemos instalada, en la nuestra está en 64.
- Si ponemos “free -mh” nos dice la memoria que tiene nuestro disco duro.

A screenshot of a Linux desktop environment showing a terminal window. The terminal window title is "root@vistaalegre:/home/jorge". The terminal content shows the user switching to root using "sudo su", checking for "lsb-release" files, displaying system distribution details, and running "free -mh" and "df -mh" commands to show memory and disk usage. The desktop background is dark, and the taskbar at the bottom has icons for various applications like a file manager, browser, and system tools.

```
jorge@vistaalegre:~$ sudo su
[sudo] password for jorge:
vistaalegreSorry, try again.
[sudo] password for jorge:
root@vistaalegre:~/jorge# cat/etc/lsb-release
bash: cat/etc/lsb-release: No such file or directory
root@vistaalegre:~/jorge# cat /etc/lsb-release
DISTRIB_ID=Ubuntu
DISTRIB_RELEASE=23.10
DISTRIB_CODENAME=mantic
DISTRIB_DESCRIPTION="Ubuntu 23.10"
root@vistaalegre:~/jorge# uname -a
Linux vistaalegre 6.5.0-10-generic #10-Ubuntu SMP PREEMPT_DYNAMIC Fri Oct 13 13:49:38 UTC 2023 x86_64 x86_64 x86_64 GNU/Linux
root@vistaalegre:~/jorge# free -mh
total        used        free      shared   buff/cache   available
Mem:      5.8Gi       922Mi     4.3Gi      34Mi      809Mi      4.9Gi
Swap:      3.8Gi        0B      3.8Gi
root@vistaalegre:~/jorge# df -mh
Filesystem      Size  Used Avail Use% Mounted on
tmpfs          592M   1.4M  591M   1% /run
/dev/sda2        30G   13G   16G  44% /
tmpfs          2.9G     0  2.9G   0% /dev/shm
tmpfs          5.0M   8.0K   5.0M   1% /run/lock
tmpfs          592M  100K  592M   1% /run/user/1000
root@vistaalegre:~/jorge#
```

Para la siguiente prueba nos descargamos el Inxi con el comando "sudo apt inxi":

A screenshot of a terminal window showing the command "apt install inxi" being run. The terminal output shows the package lists being read, dependencies being built, and state information being checked. It also lists additional packages that will be installed: lm-sensors, mesa-utils, mesa-utils-bin, and tree. The terminal window has a dark background and a blue icon in the top-left corner.

```
root@vistaalegre:~/jorge# apt install inxi
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  lm-sensors mesa-utils mesa-utils-bin tree
Suggested packages:
```

Con el comando "inxi -Fc0" te enseña infinidad de datos de tu máquina virtual:

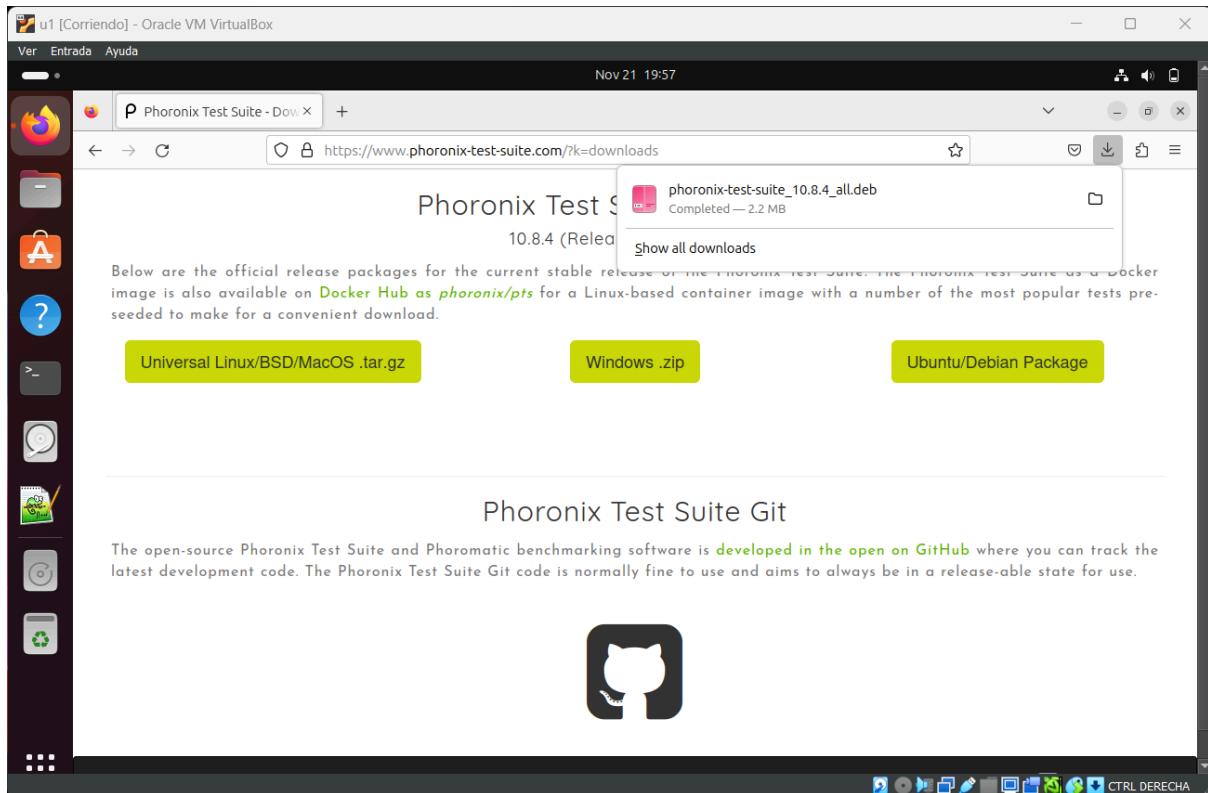
```
root@vistaalegre:/home/jorge# inxi -Fc0
System:
    Host: vistaalegre Kernel: 6.5.0-10-generic arch: x86_64 bits: 64
          Desktop: GNOME v: 45.0 Distro: Ubuntu 23.10 (Mantic Minotaur)
Machine:
    Type: Virtualbox System: innotek GmbH product: VirtualBox v: 1.2 serial: N/A
          MoBo: Oracle model: VirtualBox v: 1.2 serial: N/A BIOS: innotek GmbH
          v: VirtualBox date: 12/01/2006
Battery:
    ID-1: BAT0 charge: 50.0 Wh (100.0%) condition: 50.0/50.0 Wh (100.0%)
          volts: 10.0 min: 10.0
CPU:
    Info: quad core model: 12th Gen Intel Core i5-12500H bits: 64 type: MCP
          cache: L2: 8 MiB
          Speed (MHz): avg: 3110 min/max: N/A cores: 1: 3110 2: 3110 3: 3110 4: 3110
Graphics:
    Device-1: VMware SVGA II Adapter driver: vmwgfx v: 2.20.0.0
    Display: server: X.Org v: 1.23.2 with: Xwayland v: 23.2.0 driver:
              dri: swrast gpu: vmwgfx resolution: 1280x800-60Hz
    API: OpenGL v: 4.5 Mesa 23.2.1-1ubuntu3 renderer: llvmpipe (LLVM 15.0.7
          128 bits)
Audio:
    Device-1: Intel 82801AA AC97 Audio driver: snd_intel8x0
    API: ALSA v: k6.5.0-10-generic status: kernel-api
Networks:
    Device-1: Intel 82540EM Gigabit Ethernet driver: e1000
    IF: enp0s3 state: up speed: 1000 Mbps duplex: full mac: 08:00:27:18:92:f4
    Device-2: Intel 82371AB/EB/MB PIIX4 ACPI type: network bridge
              driver: piix4_smbus
Drives:
    Local Storage: total: 30.29 GiB used: 12.18 GiB (40.2%)
    ID-1: /dev/sda vendor: VirtualBox model: VBOX HARDDISK size: 30 GiB
    ID-2: /dev/sdb vendor: VirtualBox model: VBOX HARDDISK size: 300 MiB
```

Nuestra máquina virtual carece de sensor de temperatura, por lo que no podemos realizar esa prueba.

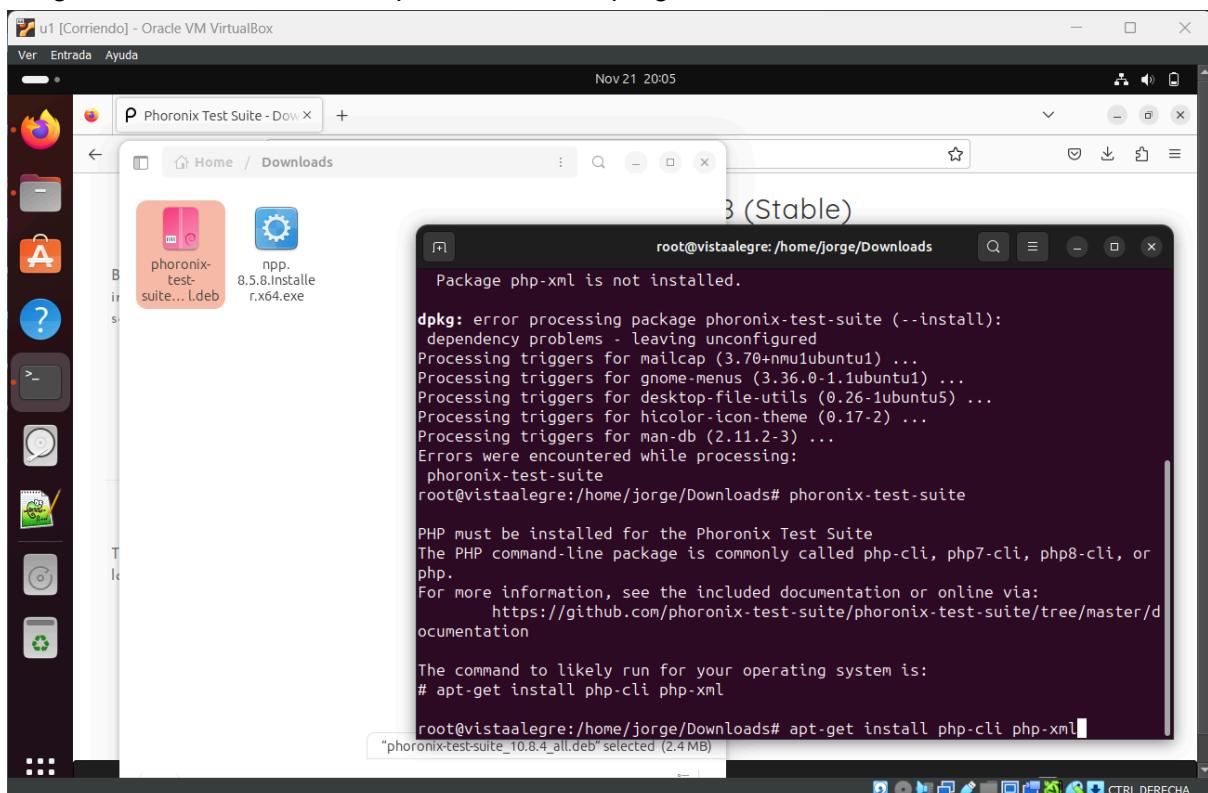
El Intel core i5 tiene una velocidad de 3110 Mhz:

```
Partition:
    ID-1: / size: 29.36 GiB used: 12.18 GiB (41.5%) fs: ext4 dev: /dev/sda2
Swap:
    ID-1: swap-1 type: file size: 3.8 GiB used: 0 KiB (0.0%) file: /swap.img
Sensors:
    Src: lm-sensors+/sys Message: No sensor data found using /sys/class/hwmon
          or lm-sensors.
Info:
    Processes: 200 Uptime: 32m Memory: total: 6 GiB available: 5.78 GiB
    used: 1.06 GiB (18.4%) Shell: Bash inxi: 3.3.29
root@vistaalegre:/home/jorge#
```

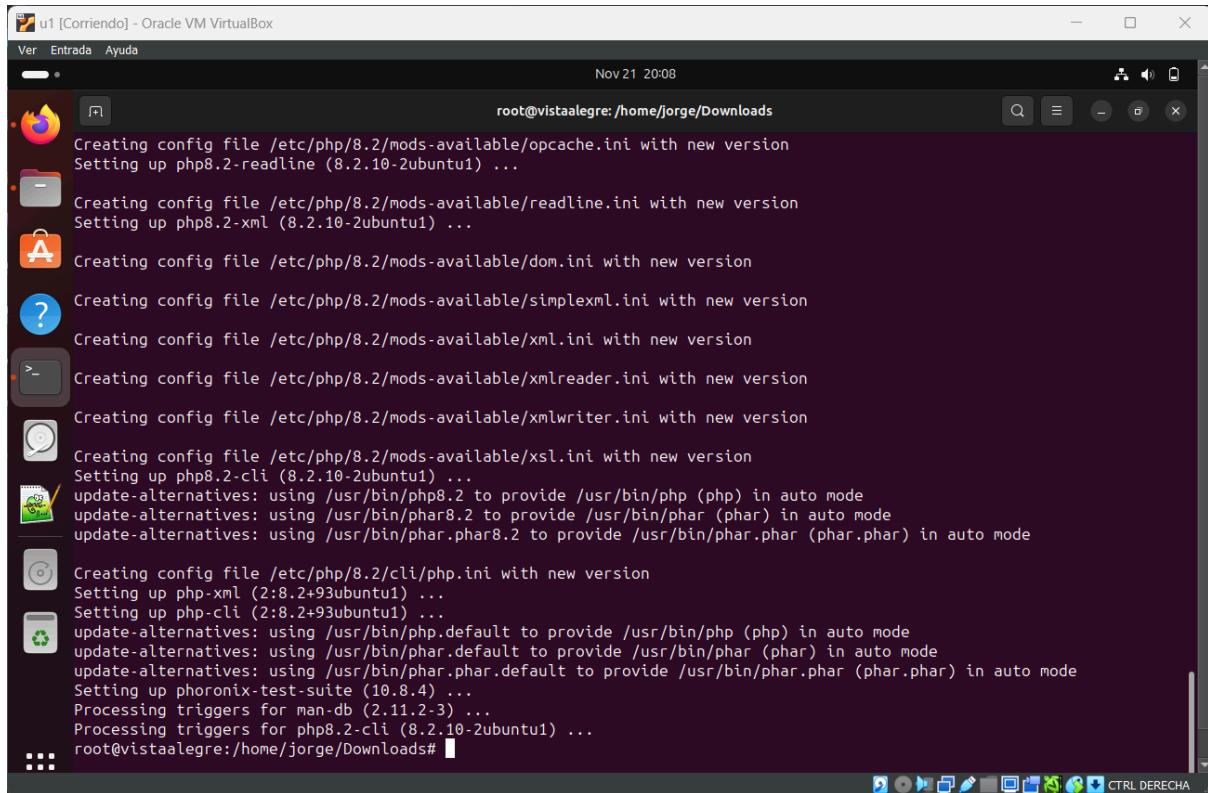
Nos descargamos el tester desde mozilla firefox:



Luego nos instalamos el PHP para arrancar el programa de Phoronix:

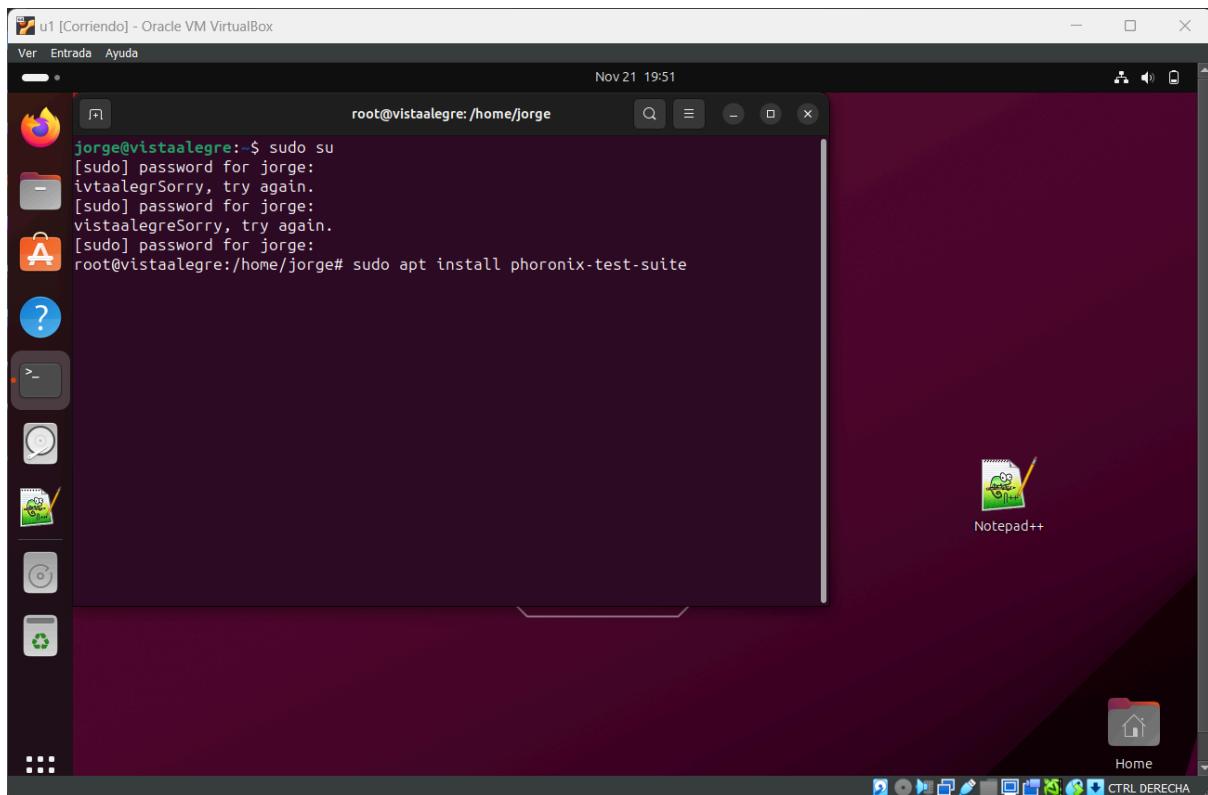


Como el PHP me lo descarga dañado, lo tengo que arreglar, desde el mismo CMD:



```
Creating config file /etc/php/8.2/mods-available/opcache.ini with new version
Setting up php8.2-readline (8.2.10-2ubuntu1) ...
Creating config file /etc/php/8.2/mods-available/readline.ini with new version
Setting up php8.2-xml (8.2.10-2ubuntu1) ...
Creating config file /etc/php/8.2/mods-available/dom.ini with new version
Creating config file /etc/php/8.2/mods-available/simplexml.ini with new version
Creating config file /etc/php/8.2/mods-available/xml.ini with new version
Creating config file /etc/php/8.2/mods-available/xmlreader.ini with new version
Creating config file /etc/php/8.2/mods-available/xmlwriter.ini with new version
Creating config file /etc/php/8.2/mods-available/xsl.ini with new version
Setting up php8.2-cli (8.2.10-2ubuntu1) ...
update-alternatives: using /usr/bin/php8.2 to provide /usr/bin/php (php) in auto mode
update-alternatives: using /usr/bin/phar8.2 to provide /usr/bin/phar (phar) in auto mode
update-alternatives: using /usr/bin/phar.phar8.2 to provide /usr/bin/phar.phar (phar.phar) in auto mode
Creating config file /etc/php/8.2/cli/php.ini with new version
Setting up php-xml (2:8.2+93ubuntu1) ...
Setting up php-cli (2:8.2+93ubuntu1) ...
update-alternatives: using /usr/bin/php.default to provide /usr/bin/php (php) in auto mode
update-alternatives: using /usr/bin/phar.default to provide /usr/bin/phar (phar) in auto mode
update-alternatives: using /usr/bin/phar.phar.default to provide /usr/bin/phar.phar (phar.phar) in auto mode
Setting up phoronix-test-suite (10.8.4) ...
Processing triggers for man-db (2.11.2-3) ...
Processing triggers for php8.2-cli (8.2.10-2ubuntu1) ...
root@vistaalegre:/home/jorge/Downloads#
```

1) Hay que instalar el programa que hace las pruebas, poniendo esta línea de comando en el cmd:



```
jorge@vistaalegre:~$ sudo su
[sudo] password for jorge:
vistaalegreSorry, try again.
[sudo] password for jorge:
vistaalegreSorry, try again.
[sudo] password for jorge:
root@vistaalegre:/home/jorge# sudo apt install phoronix-test-suite
Notepad++
```

Ya lo tenemos instalado

```
root@vistaalegre:/home/jorge# sudo apt install phoronix-test-suite
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
phoronix-test-suite is already the newest version (10.8.4).
```

con el comando “Inxi -Fc0” nos dará características del ordenador:

```
phoronix@vistaalegre:~$ inxi -Fc0
System:
  Host: vistaalegre Kernel: 6.5.0-10-generic arch: x86_64 bits: 64
    Desktop: GNOME v: 45.0 Distro: Ubuntu 23.10 (Mantic Minotaur)
  Machine:
    Type: Virtualbox System: innoteck GmbH product: VirtualBox v: 1.2 serial: N/A
      Mobo: Oracle model: VirtualBox v: 1.2 serial: N/A BIOS: innoteck GmbH
        v: VirtualBox date: 12/01/2006
  Battery:
    ID-1: BAT0 charge: 50.0 Wh (100.0%) condition: 50.0/50.0 Wh (100.0%)
      volts: 10.0 min: 10.0
  CPU:
    Info: quad core model: 12th Gen Intel Core i5-12500H bits: 64 type: MCP
      cache: L2: 5 MiB
    Speed (MHz): avg: 3110 min/max: N/A cores: 1: 3110 2: 3110 3: 3110 4: 3110
  Graphics:
    Device-1: VMware SVGA II Adapter driver: vmwgfx v: 2.20.0.0
    Display: server: X.Org v: 1.23.2 with: Xwayland v: 23.2.0 driver:
      dri: swrast gpu: vmwgfx resolution: 1280x800-60Hz
    API: OpenGL v: 4.5 Mesa 23.2.1-1ubuntu3 renderer: llvmpipe (LLVM 15.0.7
      128 bits)
  Audio:
    Device-1: Intel 82801AA AC97 Audio driver: snd_intel8x0
    API: ALSA v: k6.5.0-10-generic status: kernel-api
  Network:
    Device-1: Intel 82540EM Gigabit Ethernet driver: e1000
      If: enp0s3 state: up speed: 1000 Mbps duplex: full mac: 08:00:27:18:92:f4
    Device-2: Intel 82371AB/EB/MB PIIX4 ACPI type: network bridge
      driver: piix4_smbus
  Drives:
    Local Storage: total: 30.29 GiB used: 12.19 GiB (40.3%)
      ID-1: /dev/sda vendor: VirtualBox model: VBOX HARDDISK size: 30 GiB
      ID-2: /dev/sdb vendor: VirtualBox model: VBOX HARDDISK size: 300 MiB
  Partition:
    ID-1: / size: 29.36 GiB used: 12.19 GiB (41.5%) fs: ext4 dev: /dev/sda2
  Swap:
    ID-1: swap-1 type: file size: 3.8 GiB used: 0 KiB (0.0%) file: /swap.img
  Sensors:
    Src: lm-sensors+/sys Message: No sensor data found using /sys/class/hwmon
      or lm-sensors.
  Info:
    Processes: 200 Uptime: 9m Memory: total: 6 GiB available: 5.78 GiB
      used: 1010 MiB (17.1%) Shell: Bash inxi: 3.3.29
root@vistaalegre:/home/jorge#
```

Testeo del rendimiento y características de Ubuntu 22.04:

Usamos algunos benchmarks, empezando por los scripts especializados en servidores **sbc-bench.sh**.

Para eso, lo instalamos desde github con éste enlace: <https://github.com/ThomasKaiser/sbc-bench>, y nos aseguramos de que tenga todos los permisos.

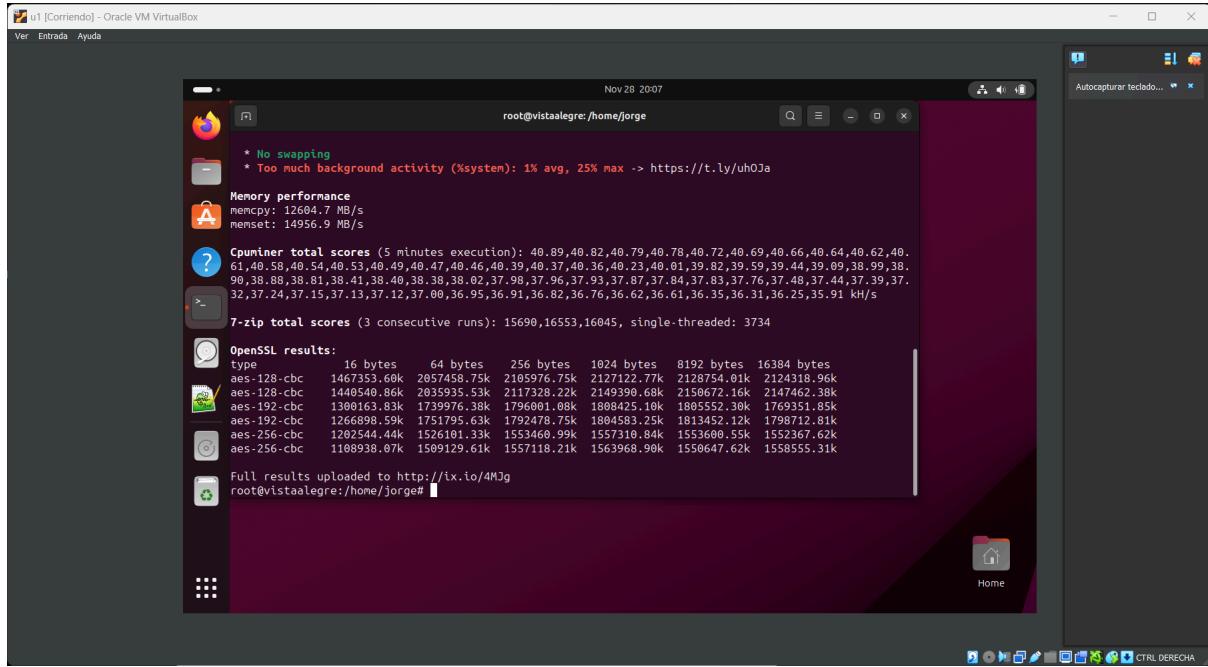
Para ponerla en marcha, introducimos el comando “sudo ./sbc-bench.sh -c”

Luego nos instalamos el Geekbench con éste enlace: <https://www.geekbench.com/download/linux/>.

```
jorge@vistaalegre:~$ wget https://www.geekbench.com/download/linux/
--2023-11-28 19:34:21-- https://www.geekbench.com/download/linux/
Resolving www.geekbench.com (www.geekbench.com)... 107.170.77.193
Connecting to www.geekbench.com (www.geekbench.com)|107.170.77.193|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 10052 (9.8K) [text/html]
Saving to: 'index.html'

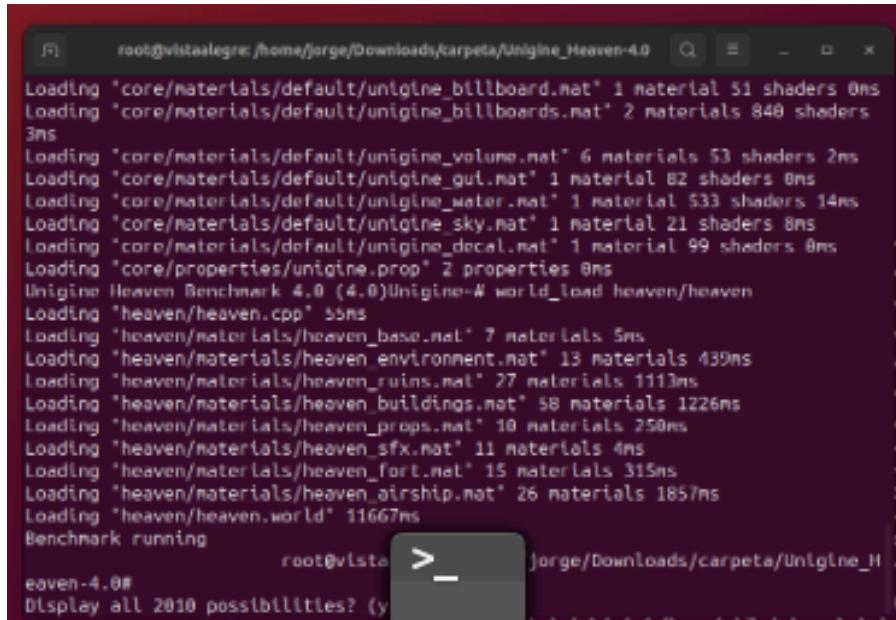
index.html    100%[=====]  9.82K  ---KB/s   in 0s
2023-11-28 19:34:27 (66.4 MB/s) - 'index.html' saved [10052/10052]
```

los resultados son:

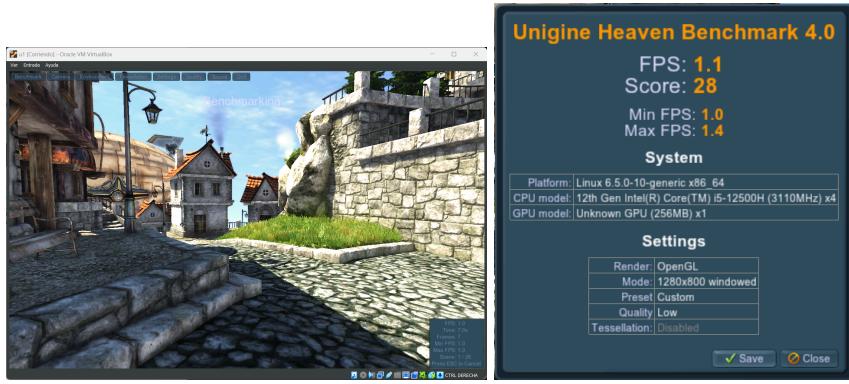


Habiendo testeado el rendimiento del CPU con el Geekbench, vamos a testear el rendimiento del GPU con el Unigine Heaven Benchmark , nos lo descargamos desde el siguiente enlace:
<https://benchmark.unigine.com/heaven>

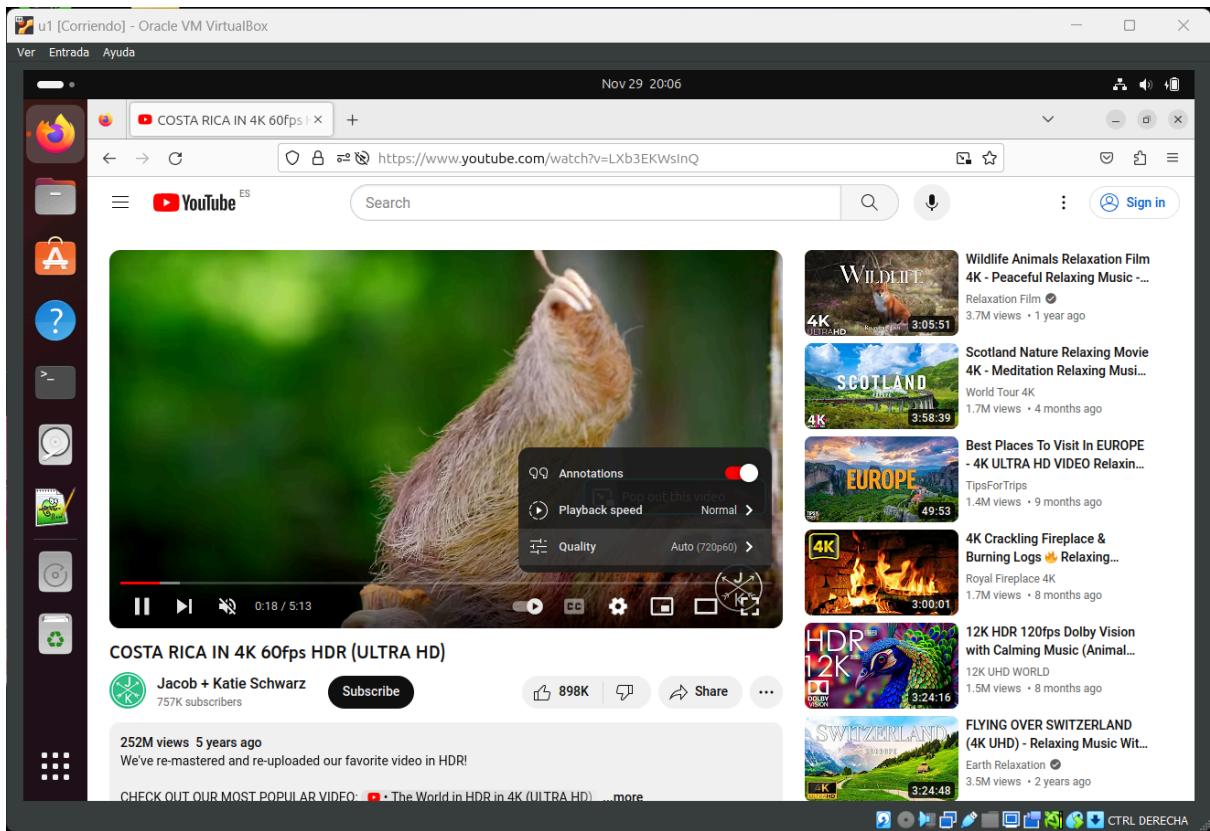
y le damos todos los permisos con “chmod +x Unigine_Heaven-4.0.run”
después para iniciarla ponemos”./Unigine_Heaven-4.0.run”



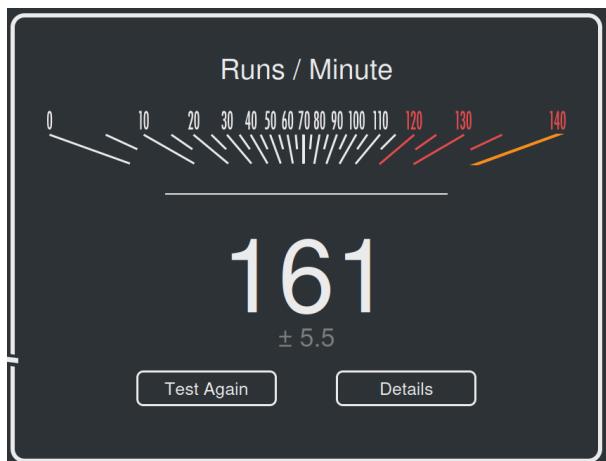
Lo prueba procesando un videojuego, y tengo el siguiente resultado:



Y para testear la GPU en un entorno real, he puesto un video de youtube.
La máxima resolución que alcanza es 720x60.



Para saber a qué velocidad se puede buscar en la web, he usado Speedometer 2.0



Iozone 3: Lo instalamos y hacemos las pruebas:

```
jorge@vistaalegre: ~ sudo su
[sudo] password for jorge:
root@vistaalegre:~/home/jorge# sudo apt-get install -y iozone3
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  iozone3
0 upgraded, 1 newly installed, 0 to remove and 41 not upgraded.
Need to get 424 kB of archives.
After this operation, 739 kB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu mantic/multiverse amd64 iozone3 amd64 489-1 [424 kB]
Fetched 424 kB in 1s (404 kB/s)
Selecting previously unselected package iozone3.
(Reading database ... 201431 files and directories currently installed.)
Preparing to unpack .../iozone3_489-1_amd64.deb ...
Unpacking iozone3 (489-1) ...
Setting up iozone3 (489-1) ...
Processing triggers for man-db (2.11.2-3) ...
root@vistaalegre:~/home/jorge#
```

```
root@vistaalegre:~/home/jorge# iozone -e -I -a
Iozone: Performance Test of File I/O
Version SRevision: 3.489 $
Compiled for 64 bit mode.
Build: linux-AMD64

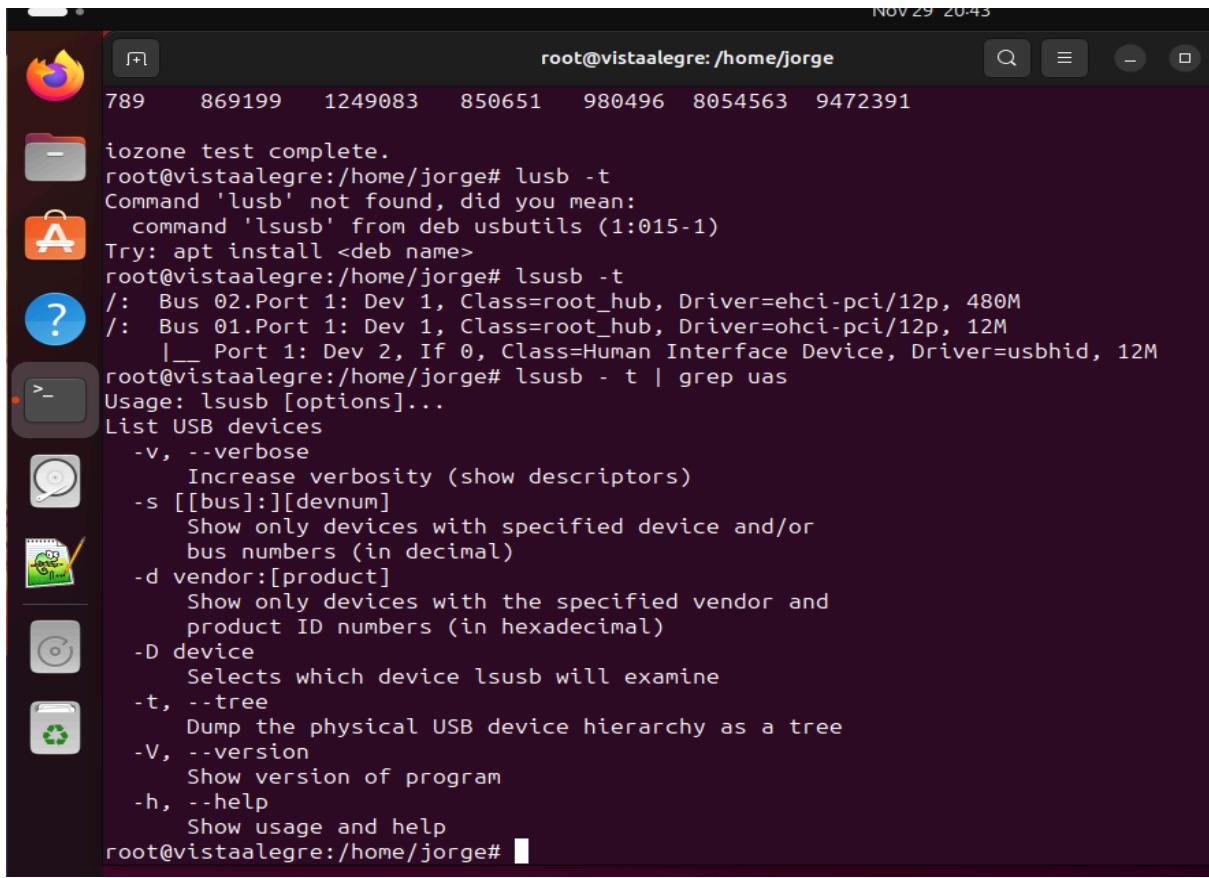
Contributors:William Norcott, Don Capps, Isom Crawford, Kirby Collins
Al Slater, Scott Rhine, Mike Wisner, Ken Goss
Steve Landherr, Brad Smith, Mark Kelly, Dr. Alain CYR,
Randy Dunlap, Mark Montague, Dan Milliron, Gavin Brebner,
Jean-Marc Zucconi, Jeff Blomberg, Benny Halevy, Dave Boone,
Erik Habbinga, Kris Strecker, Walter Wong, Joshua Root,
Fabrice Bacchella, Zhenghua Xue, Qin Li, Darren Sawyer,
Vangel Bojaxhi, Ben England, Vikentsi Lapa,
Alexey Skidanov, Sudhir Kumar.

Run began: Wed Nov 29 20:28:57 2023

Include fsync in write timing
O_DIRECT feature enabled
Auto Mode
Command line used: iozone -e -I -a
Output is in kBytes/sec
Time Resolution = 0.000001 seconds.
Processor cache size set to 1024 kbytes.
Processor cache line size set to 32 bytes.
File stride size set to 17 * record size.

      random    random      b
kwd   record   stride
        kB  reclen     write  rewrite   read   reread   read   write   r
ead   rewrite    read   fwrite frewrite   fread  freread
```

Para averiguar la velocidad de nuestros conectores USB, en el cmd ponemos los siguientes comandos: "lsusb -t" y "lsusb -t | grep uas", pero nos dice que no tenemos conectores. Ésto es porque estamos trabajando en una máquina virtual, y no tiene puertos de conexión reales.

A screenshot of a Linux desktop environment, likely Ubuntu, showing a terminal window. The terminal window has a dark background and contains the following text:

```
root@vistaalegre:/home/jorge# lsusb -t
789    869199  1249083  850651  980496  8054563  9472391

iozone test complete.

root@vistaalegre:/home/jorge# lsusb -t
Command 'lsusb' not found, did you mean:
  command 'lsusb' from deb usbusutils (1:015-1)
Try: apt install <deb name>
root@vistaalegre:/home/jorge# lsusb -t
/: Bus 02.Port 1: Dev 1, Class=root_hub, Driver=ehci-pci/12p, 480M
/: Bus 01.Port 1: Dev 1, Class=root_hub, Driver=ohci-pci/12p, 12M
  |__ Port 1: Dev 2, If 0, Class=Human Interface Device, Driver=usbhid, 12M
root@vistaalegre:/home/jorge# lsusb -t | grep uas
Usage: lsusb [options]...
List USB devices
  -v, --verbose
    Increase verbosity (show descriptors)
  -s [[bus:]][devnum]
    Show only devices with specified device and/or
    bus numbers (in decimal)
  -d vendor:[product]
    Show only devices with the specified vendor and
    product ID numbers (in hexadecimal)
  -D device
    Selects which device lsusb will examine
  -t, --tree
    Dump the physical USB device hierarchy as a tree
  -V, --version
    Show version of program
  -h, --help
    Show usage and help
root@vistaalegre:/home/jorge#
```

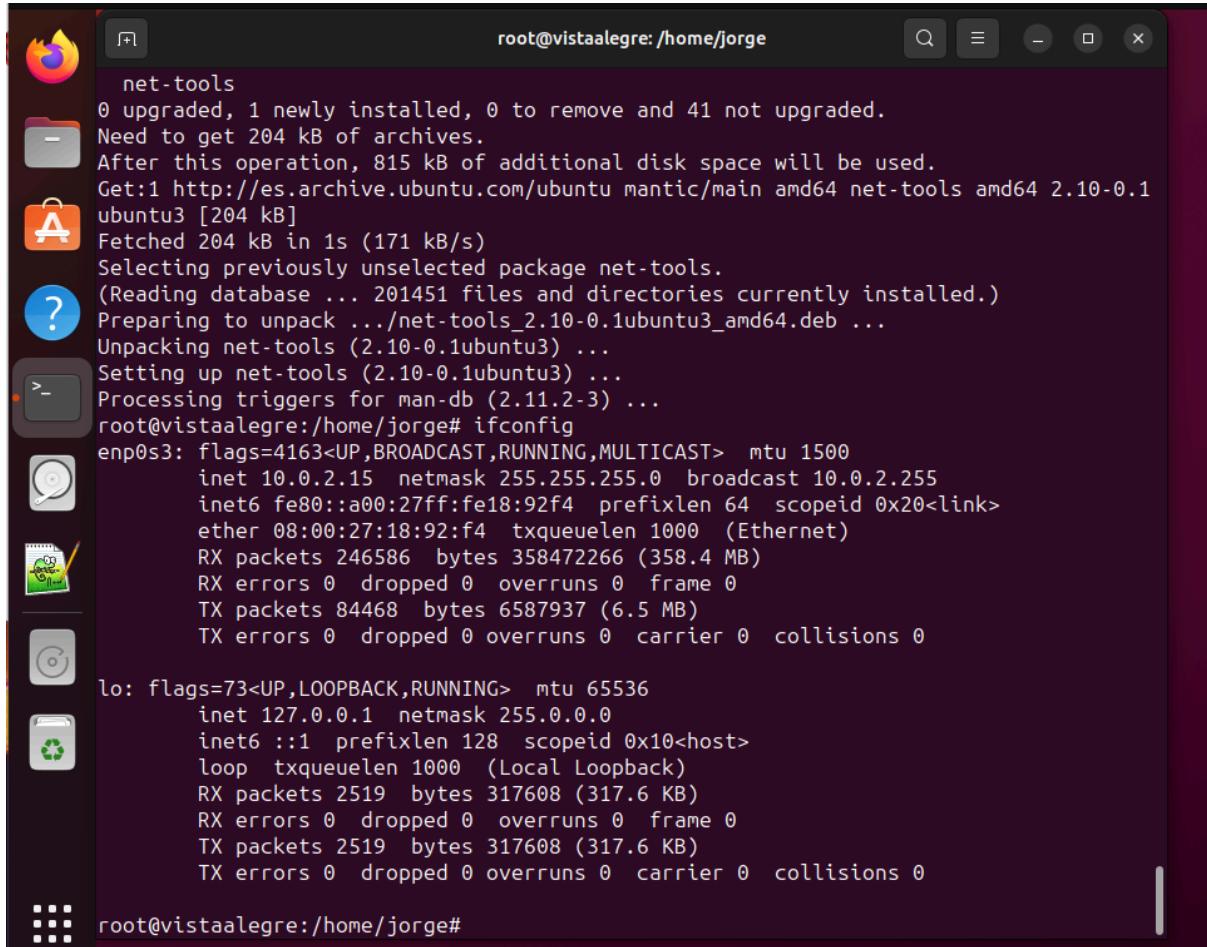
Para saber la ip de nuestro ordenador, escribimos el comando “apt install net-tools”, y después “ifconfig”. Aparece al lado de donde pone “inet”.

u1 [Corriendo] - Oracle VM VirtualBox

Ver Entrada Ayuda

Nov 29 20:47

```
root@vistaalegre:/home/jorge# lsusb
Show only devices with the specified vendor and
product ID numbers (in hexadecimal)
-D device
    Selects which device lsusb will examine
-t, --tree
    Dump the physical USB device hierarchy as a tree
-V, --version
    Show version of program
-h, --help
    Show usage and help
root@vistaalegre:/home/jorge# apt install net-tools
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  net-tools
0 upgraded, 1 newly installed, 0 to remove and 41 not upgraded.
Need to get 204 kB of archives.
After this operation, 815 kB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu mantic/main amd64 net-tools amd64 2.10-0.1
ubuntu3 [204 kB]
Fetched 204 kB in 1s (171 kB/s)
Selecting previously unselected package net-tools.
(Reading database ... 201451 files and directories currently installed.)
Preparing to unpack .../net-tools_2.10-0.1ubuntu3_amd64.deb ...
Unpacking net-tools (2.10-0.1ubuntu3) ...
Setting up net-tools (2.10-0.1ubuntu3) ...
Processing triggers for man-db (2.11.2-3) ...
root@vistaalegre:/home/jorge#
```



A screenshot of a Linux desktop environment, likely Ubuntu, showing a terminal window with a dark theme. The terminal window has a title bar with the text "root@vistaalegre:/home/jorge". The window contains the following text:

```
net-tools
0 upgraded, 1 newly installed, 0 to remove and 41 not upgraded.
Need to get 204 kB of archives.
After this operation, 815 kB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu mantic/main amd64 net-tools amd64 2.10-0.1
ubuntu3 [204 kB]
Fetched 204 kB in 1s (171 kB/s)
Selecting previously unselected package net-tools.
(Reading database ... 201451 files and directories currently installed.)
Preparing to unpack .../net-tools_2.10-0.1ubuntu3_amd64.deb ...
Unpacking net-tools (2.10-0.1ubuntu3) ...
Setting up net-tools (2.10-0.1ubuntu3) ...
Processing triggers for man-db (2.11.2-3) ...
root@vistaalegre:/home/jorge# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
        inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
        inet6 fe80::a00:27ff:fe18:92f4 prefixlen 64 scopeid 0x20<link>
          ether 08:00:27:18:92:f4 txqueuelen 1000 (Ethernet)
            RX packets 246586 bytes 358472266 (358.4 MB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 84468 bytes 6587937 (6.5 MB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
        inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
          loop txqueuelen 1000 (Local Loopback)
            RX packets 2519 bytes 317608 (317.6 KB)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 2519 bytes 317608 (317.6 KB)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
root@vistaalegre:/home/jorge#
```

Aunque metamos la ip bien, no funciona:

```
root@vistaalegre:/home/jorge# iperf3 -t 60 -c 127.0.0.1 -i 10
iperf3: error - unable to connect to server - server may have stopped running or use
a different port, firewall issue, etc.: Connection refused
root@vistaalegre:/home/jorge#
```

```
Selecting previously unselected package iperf3.
Preparing to unpack .../iperf3_3.14-1_amd64.deb ...
Unpacking iperf3 (3.14-1) ...
Setting up libsctp1:amd64 (1.0.19+dfsg-2) ...
Setting up libiperf0:amd64 (3.14-1) ...
Setting up iperf3 (3.14-1) ...
Processing triggers for ufw (0.36.2-1) ...
Processing triggers for man-db (2.11.2-3) ...
Processing triggers for libc-bin (2.38-1ubuntu6) ...
root@vistaalegre:/home/jorge# iperf3 -t 60 -c 127.0.0.1 -i 10
iperf3: error - unable to connect to server - server may have stopped running or use
a different port, firewall issue, etc.: Connection refused
root@vistaalegre:/home/jorge# apt install stress
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  stress
0 upgraded, 1 newly installed, 0 to remove and 41 not upgraded.
Need to get 18.1 kB of archives.
After this operation, 52.2 kB of additional disk space will be used.
Get:1 http://es.archive.ubuntu.com/ubuntu mantic/universe amd64 stress amd64 1.0.7-1
 [18.1 kB]
Fetched 18.1 kB in 0s (88.4 kB/s)
Selecting previously unselected package stress.
(Reading database ... 201521 files and directories currently installed.)
Preparing to unpack .../stress_1.0.7-1_amd64.deb ...
Unpacking stress (1.0.7-1) ...
Setting up stress (1.0.7-1) ...
Processing triggers for man-db (2.11.2-3) ...
root@vistaalegre:/home/jorge#
```

Test de estrés y temperatura de la CPU:

```
jorge@vistaalegre:~$ sudo su
[sudo] password for jorge:
root@vistaalegre:/home/jorge# apt install stress
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
stress is already the newest version (1.0.7-1).
0 upgraded, 0 newly installed, 0 to remove and 41 not upgraded.
root@vistaalegre:/home/jorge# stress -c 16 -t 1200
stress: info: [2170] dispatching hogs: 16 cpu, 0 io, 0 vm, 0 hdd
```

Para obtener los gráficos de temperatura, nos tenemos que descargar el PSensor, mediante el enlace <https://www.imaginelinux.com/install-psensor-application-ubuntu/>

Nos dice que hagamos lo siguiente:

- 1) Instalar los sensores

```
jorge@vistaalegre: ~$ sudo su  
[sudo] password for jorge:  
root@vistaalegre:/home/jorge# apt install lm-sensors  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
lm-sensors is already the newest version (1:3.6.0-7ubuntu1).  
0 upgraded, 0 newly installed, 0 to remove and 41 not upgraded.  
root@vistaalegre:/home/jorge# sensors-detect  
# sensors-detect version 3.6.0  
# System: innotek GmbH VirtualBox [1.2]  
# Board: Oracle Corporation VirtualBox  
# Kernel: 6.5.0-13-generic x86_64  
# Processor: 12th Gen Intel(R) Core(TM) i5-12500H (6/154/3)  
  
This program will help you determine which kernel modules you need  
to load to use lm_sensors most effectively. It is generally safe  
and recommended to accept the default answers to all questions,  
unless you know what you're doing.  
  
Some south bridges, CPUs or memory controllers contain embedded sensors.  
Do you want to scan for them? This is totally safe. (YES/no):
```

```
u1 [Corriendo] - Oracle VM VirtualBox  
Ver Entrada Ayuda  
Dec 5 19:19  
root@vistaalegre:/home/jorge  
Do you want to scan for them? This is totally safe. (YES/no): YES  
Module cpuid loaded successfully.  
Silicon Integrated Systems SIS5595... No  
VIA VT82C68B Integrated Sensors... No  
VIA VT8231 Integrated Sensors... No  
AMD K8 thermal sensors... No  
AMD Family 10h thermal sensors... No  
AMD Family 11h thermal sensors... No  
AMD Family 12h and 14h thermal sensors... No  
AMD Family 15h thermal sensors... No  
AMD Family 16h thermal sensors... No  
AMD Family 17h thermal sensors... No  
AMD Family 15h power sensors... No  
AMD Family 16h power sensors... No  
Hygon Family 18h thermal sensors... No  
Intel digital thermal sensor... No  
Intel AMB FB-DIMM thermal sensor... No  
Intel 5500/5520/X58 thermal sensor... No  
VIA C7 thermal sensor... No  
VIA Nano thermal sensor... No  
  
Some Super I/O chips contain embedded sensors. We have to write to  
standard I/O ports to probe them. This is usually safe.  
Do you want to scan for Super I/O sensors? (YES/no):
```

```
u1 [Corriendo] - Oracle VM VirtualBox  
Ver Entrada Ayuda  
Dec 5 19:19  
root@vistaalegre:/home/jorge  
Intel 5500/5520/X58 thermal sensor... No  
VIA C7 thermal sensor... No  
VIA Nano thermal sensor... No  
  
Some Super I/O chips contain embedded sensors. We have to write to  
standard I/O ports to probe them. This is usually safe.  
Do you want to scan for Super I/O sensors? (YES/no): YES  
Probing for Super-I/O at 0x2e/0x2f  
Trying family 'National Semiconductor/ITE'... No  
Trying family 'SMSC'... No  
Trying family 'VIA/Winbond/Nuvoton/Fintek'... No  
Trying family 'ITE'... No  
Probing for Super-I/O at 0x4e/0x4f  
Trying family 'National Semiconductor/ITE'... No  
Trying family 'SMSC'... No  
Trying family 'VIA/Winbond/Nuvoton/Fintek'... No  
Trying family 'ITE'... No  
  
Some systems (mainly servers) implement IPMI, a set of common interfaces  
through which system health data may be retrieved, amongst other things.  
We first try to get the information from SMBIOS. If we don't find it  
there, we have to read from arbitrary I/O ports to probe for such  
interfaces. This is normally safe. Do you want to scan for IPMI  
interfaces? (YES/no):
```

```
Some systems (mainly servers) implement IPMI, a set of common interfaces through which system health data may be retrieved, amongst other things. We first try to get the information from SMBIOS. If we don't find it there, we have to read from arbitrary I/O ports to probe for such interfaces. This is normally safe. Do you want to scan for IPMI interfaces? (YES/no): YES
Probing for 'IPMI BMC KCS' at 0xca0... No
Probing for 'IPMI BMC SMIC' at 0xca8... No
```

```
We have to write to arbitrary I/O ports to probe them. This is usually safe though. Yes, you do have ISA I/O ports even if you do not have any ISA slots! Do you want to scan the ISA I/O ports? (YES/no): YES
Probing for 'National Semiconductor LM78' at 0x290... No
Probing for 'National Semiconductor LM79' at 0x290... No
Probing for 'Winbond W83781D' at 0x290... No
Probing for 'Winbond W83782D' at 0x290... No

Lastly, we can probe the I2C/SMBus adapters for connected hardware monitoring devices. This is the most risky part, and while it works reasonably well on most systems, it has been reported to cause trouble on some systems.
Do you want to probe the I2C/SMBus adapters now? (YES/no): YES
Using driver 'i2c-piix4' for device 0000:00:07.0: Intel 82371AB PIIX4 ACPI

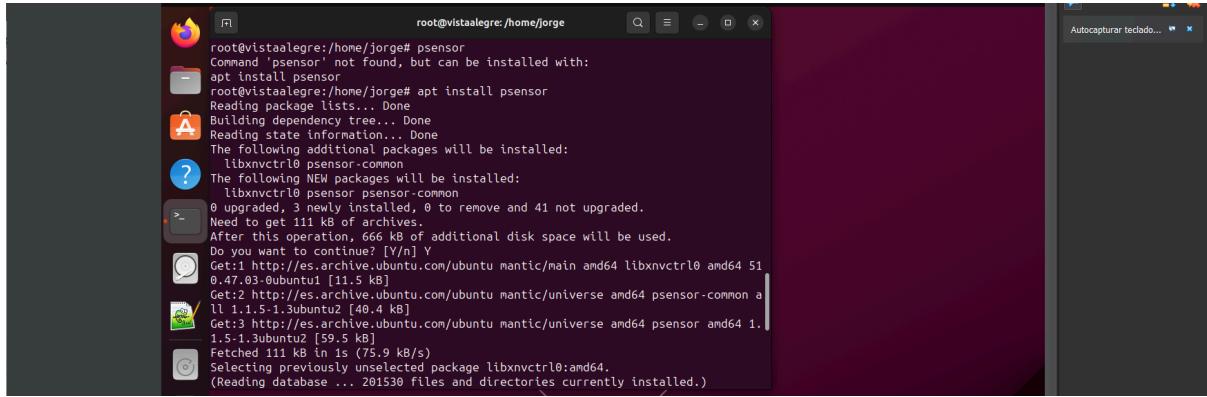
Next adapter: SMBus PIIX4 adapter at 4100 (i2c-0)
Do you want to scan it? (YES/no/selectively): YES

Sorry, no sensors were detected.
Either your system has no sensors, or they are not supported, or they are connected to an I2C or SMBus adapter that is not supported. If you find out what chips are on your board, check https://hwmon.wiki.kernel.org/device_support_status for driver status.
```

Al instalarlos los sensores, nos da error en todos, y no nos los detecta (como he remarcado en la última captura en color blanco). Ésto se debe a que, como es una máquina virtual, aunque los hayamos instalado, no existen físicamente.

```
root@vistaalegre:/home/jorge# psensor
Command 'psensor' not found, but can be installed with:
apt install psensor
root@vistaalegre:/home/jorge# apt install psensor
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
libxnvctrl0 psensor-psensor-common
The following NEW packages will be installed:
libxnvctrl0 psensor psensor-psensor-common
0 upgraded, 3 newly installed, 0 to remove and 41 not upgraded.
Need to get 111 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://es.archive.ubuntu.com/ubuntu mantic/main amd64 libxnvctrl0 amd64 51
0.47.0-0ubuntu1 [11.5 kB]
Get:2 http://es.archive.ubuntu.com/ubuntu mantic/universe amd64 psensor-psensor-common a
ll 1.1.5-1.3ubuntu2 [40.4 kB]
Get:3 http://es.archive.ubuntu.com/ubuntu mantic/universe amd64 psensor amd64 1.
1.5.1-3.3ubuntu2 [59.5 kB]
Fetched 111 kB in 1s (75.9 kB/s)
Selecting previously unselected package libxnvctrl0:amd64.
(Reading database ... 201530 files and directories currently installed.)
```

Luego, nos instalamos el PSensor con el siguiente comando "apt install psensor"



```
root@vistaalegre:/home/jorge# psensor
Command 'psensor' not found, but can be installed with:
apt install psensor
root@vistaalegre:/home/jorge# apt install psensor
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
libxnvctrl0 psensor-common
The following NEW packages will be installed:
libxnvctrl0 psensor psensor-common
0 upgraded, 3 newly installed, 0 to remove and 41 not upgraded.
Need to get 111 kB of archives.
After this operation, 666 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://es.archive.ubuntu.com/ubuntu mantic/main amd64 libxnvctrl0 amd64 51
0.47.0-0ubuntu1 [11.5 kB]
Get:2 http://es.archive.ubuntu.com/ubuntu mantic/universe amd64 psensor-common a
ll 1.1.5-1.3ubuntu2 [48.4 kB]
Get:3 http://es.archive.ubuntu.com/ubuntu mantic/universe amd64 psensor amd64 1.
1.5-1.3ubuntu2 [59.5 kB]
Fetched 111 kB in 1s (75.9 kB/s)
Selecting previously unselected package libxnvctrl0:amd64.
(Reading database ... 201530 files and directories currently installed.)
```

Abrimos el Psensor, simplemente escribiendo el mismo nombre en minúsculas

Nos instalaremos el con el comando “`apt install stress` ” y despues lo utilizaremos con el comando “`stress -c 16 -t 1200`”.

