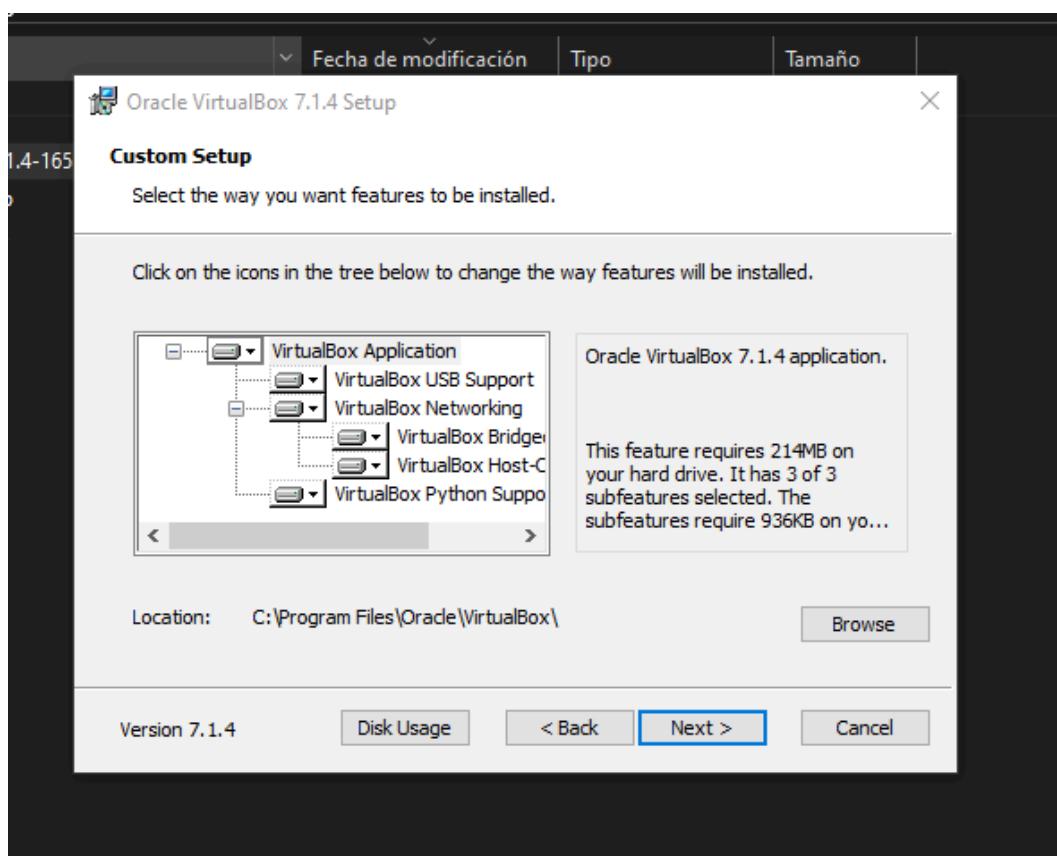


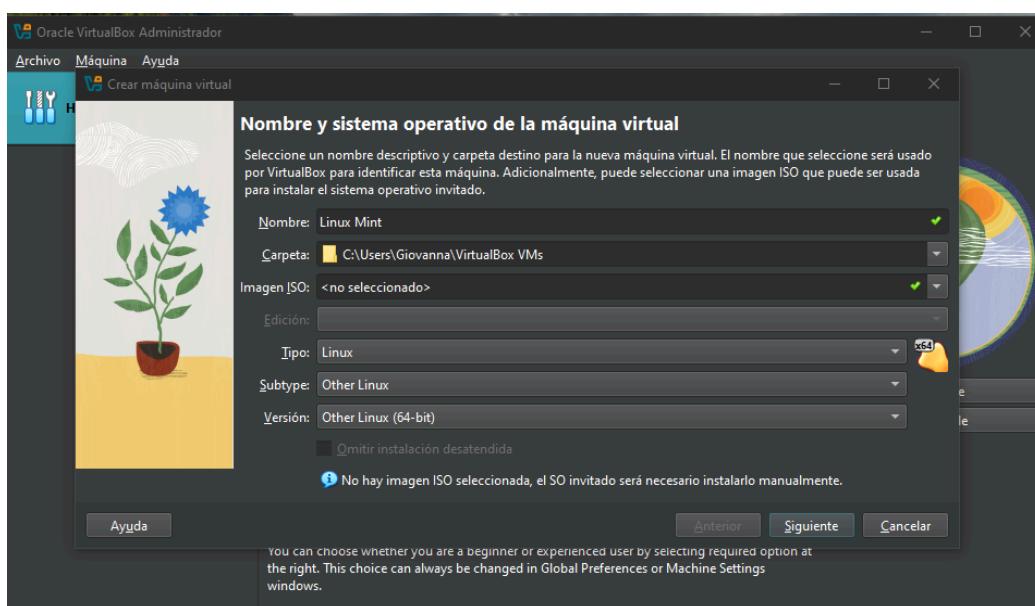
Participante: Giovanna Yapu Cruz

Práctica 1

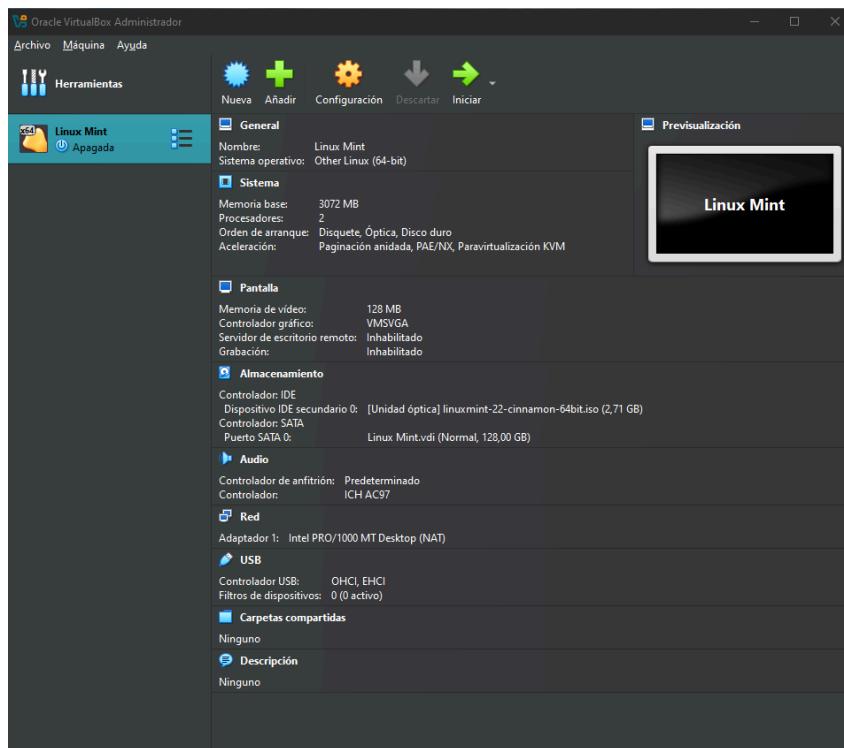
Instalación Virtual Box:



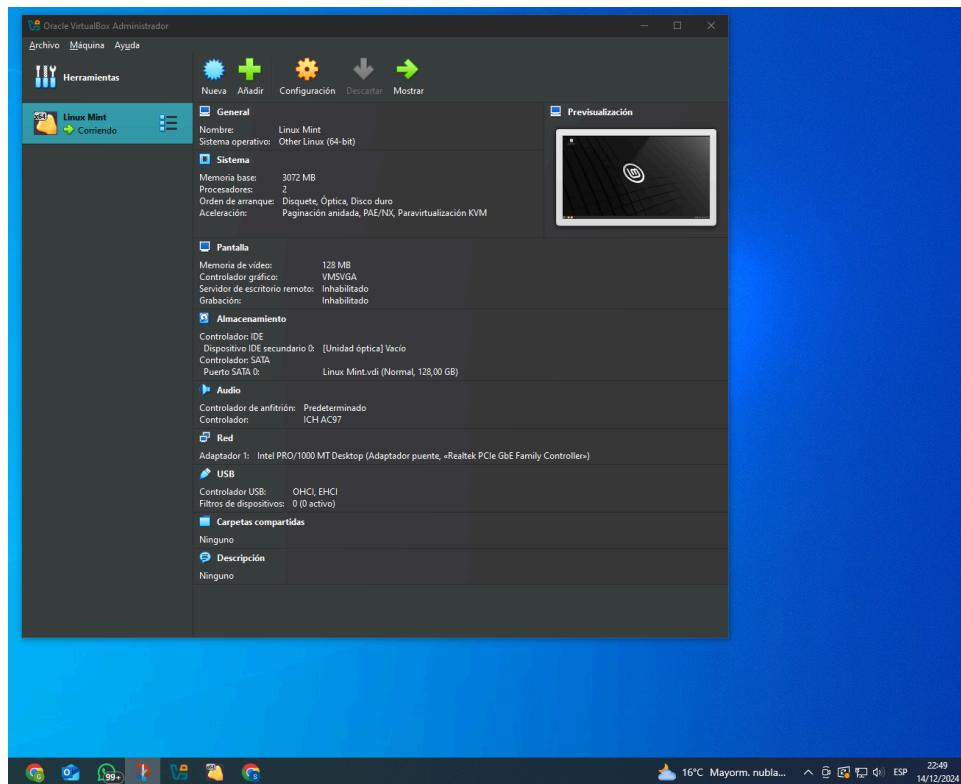
Instalación de Linux Mint:

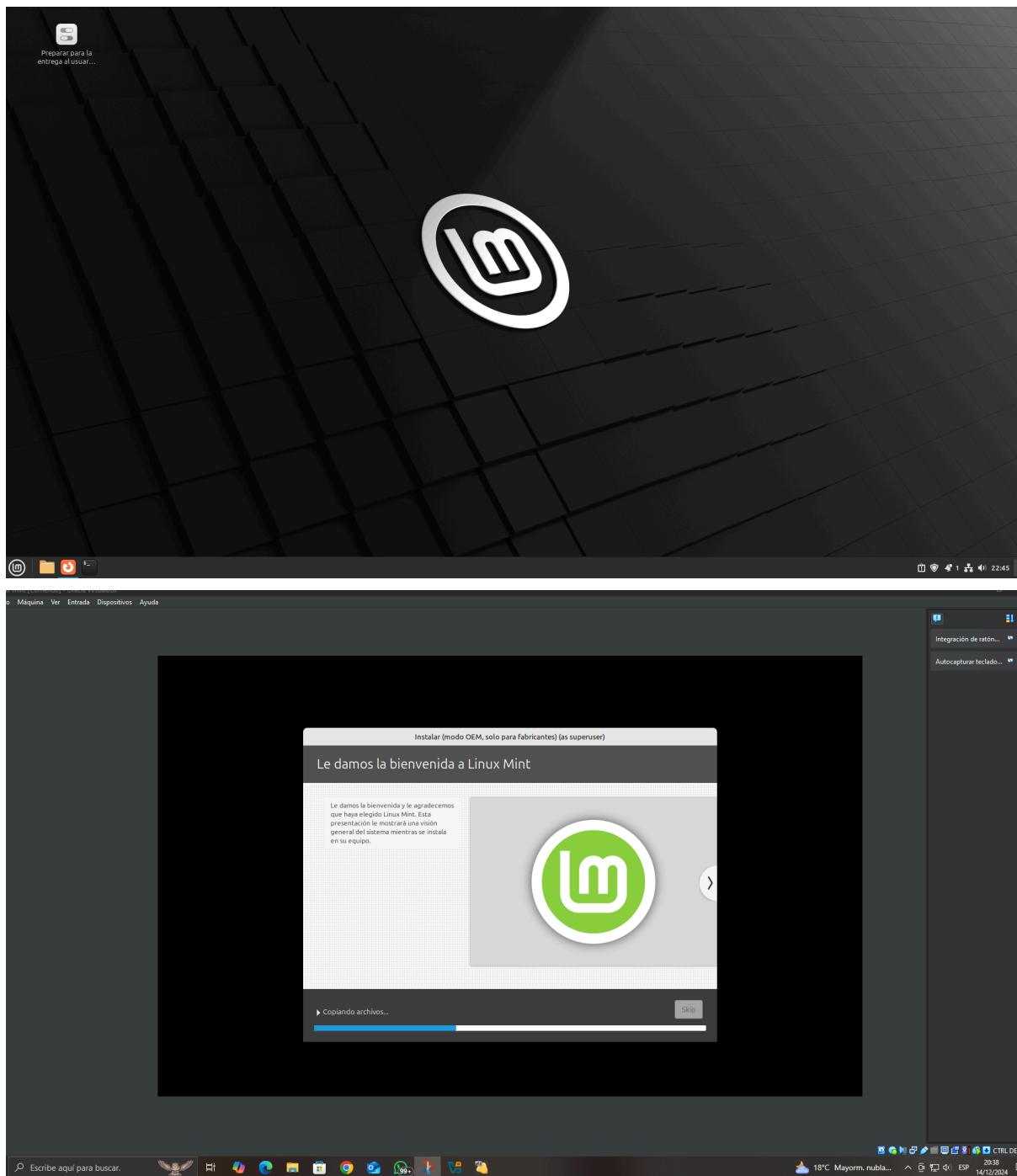


continuación

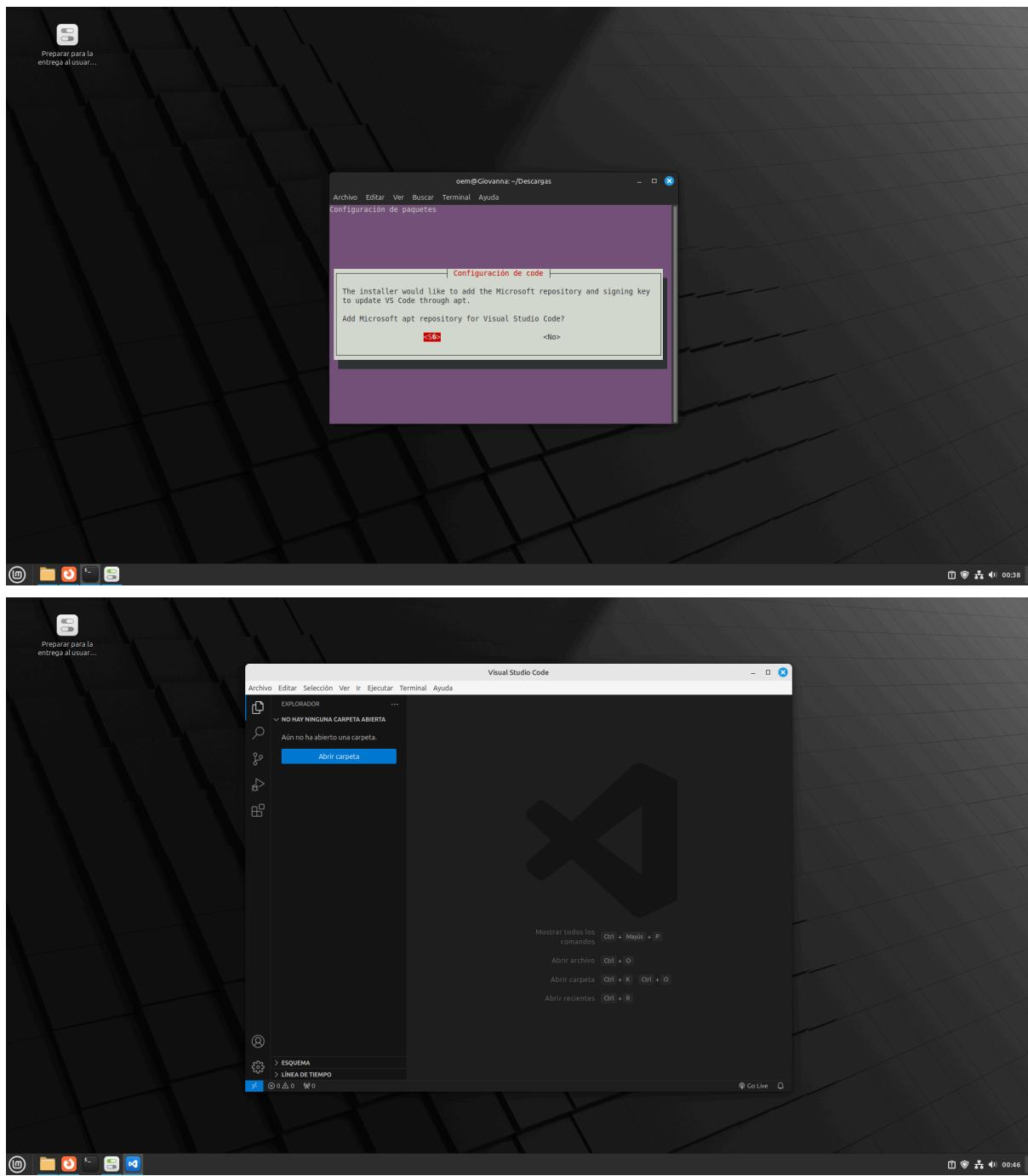


Instalación completada de Linux MInt:

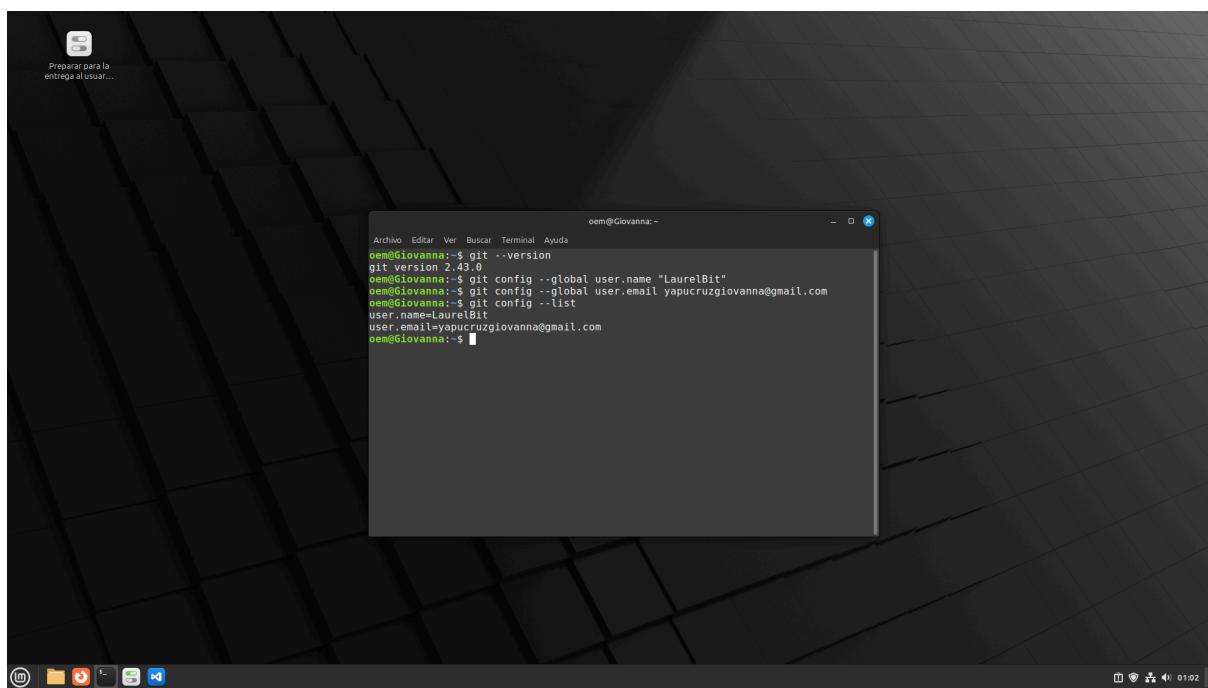
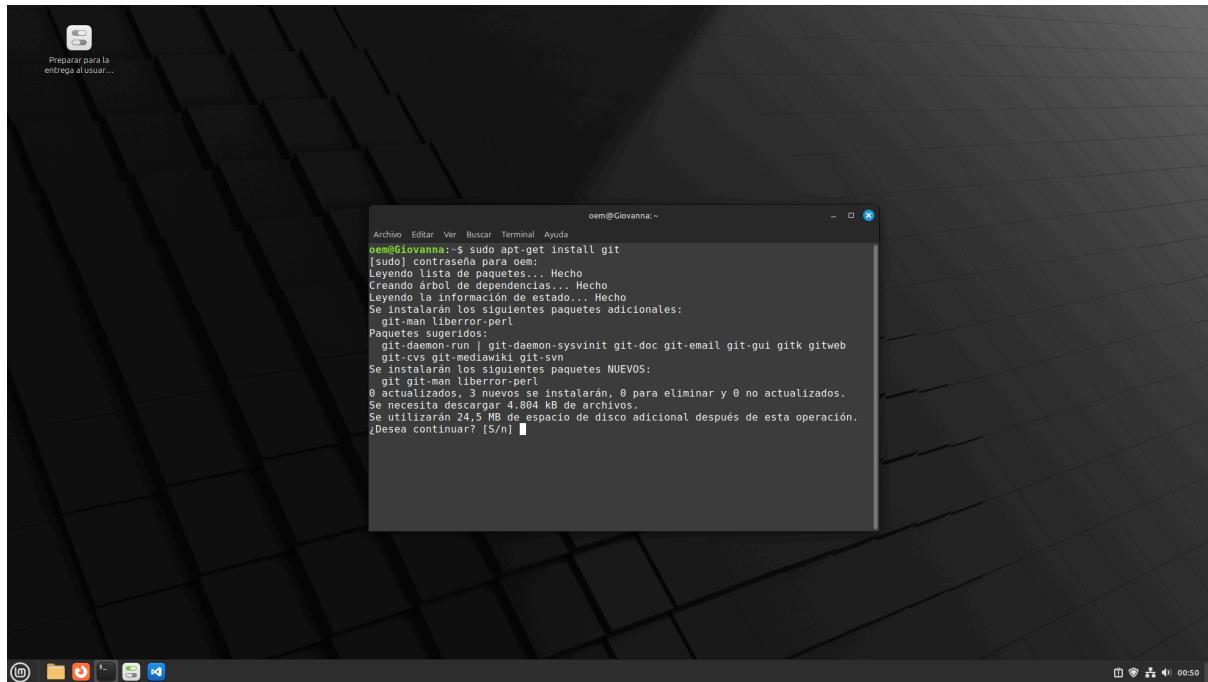




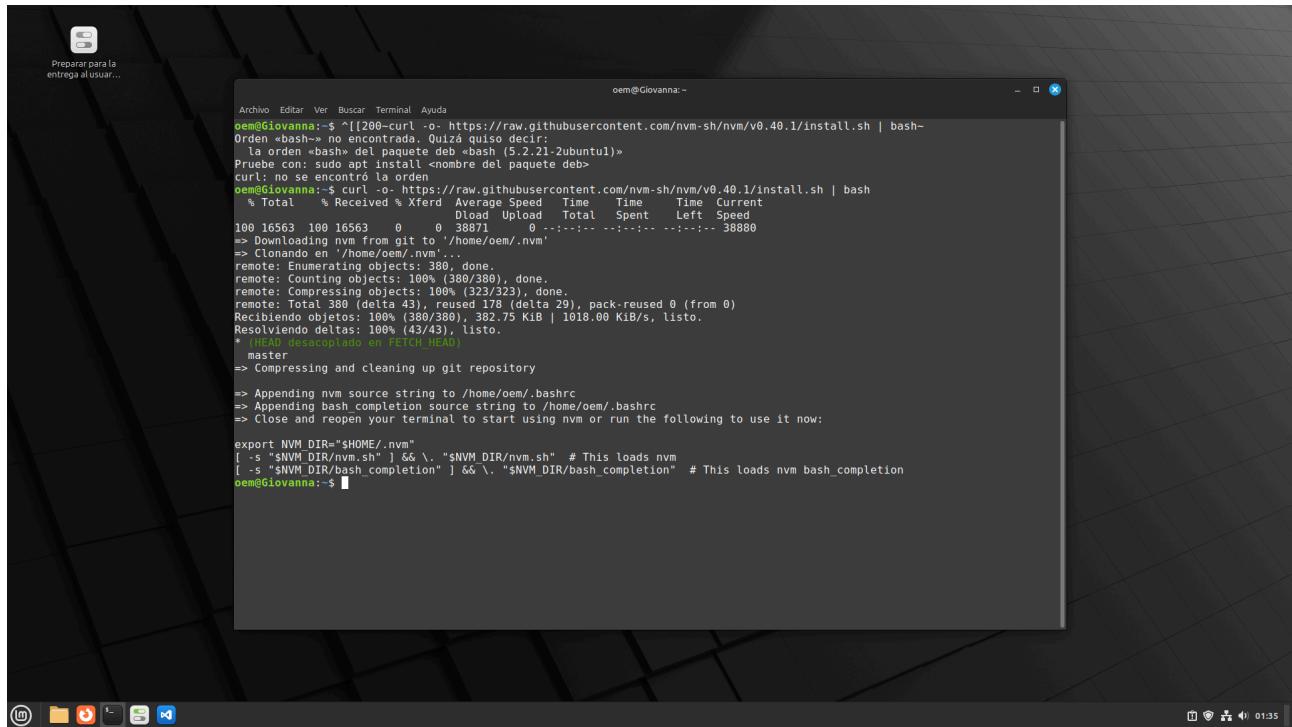
## Instalando Visual CCode:



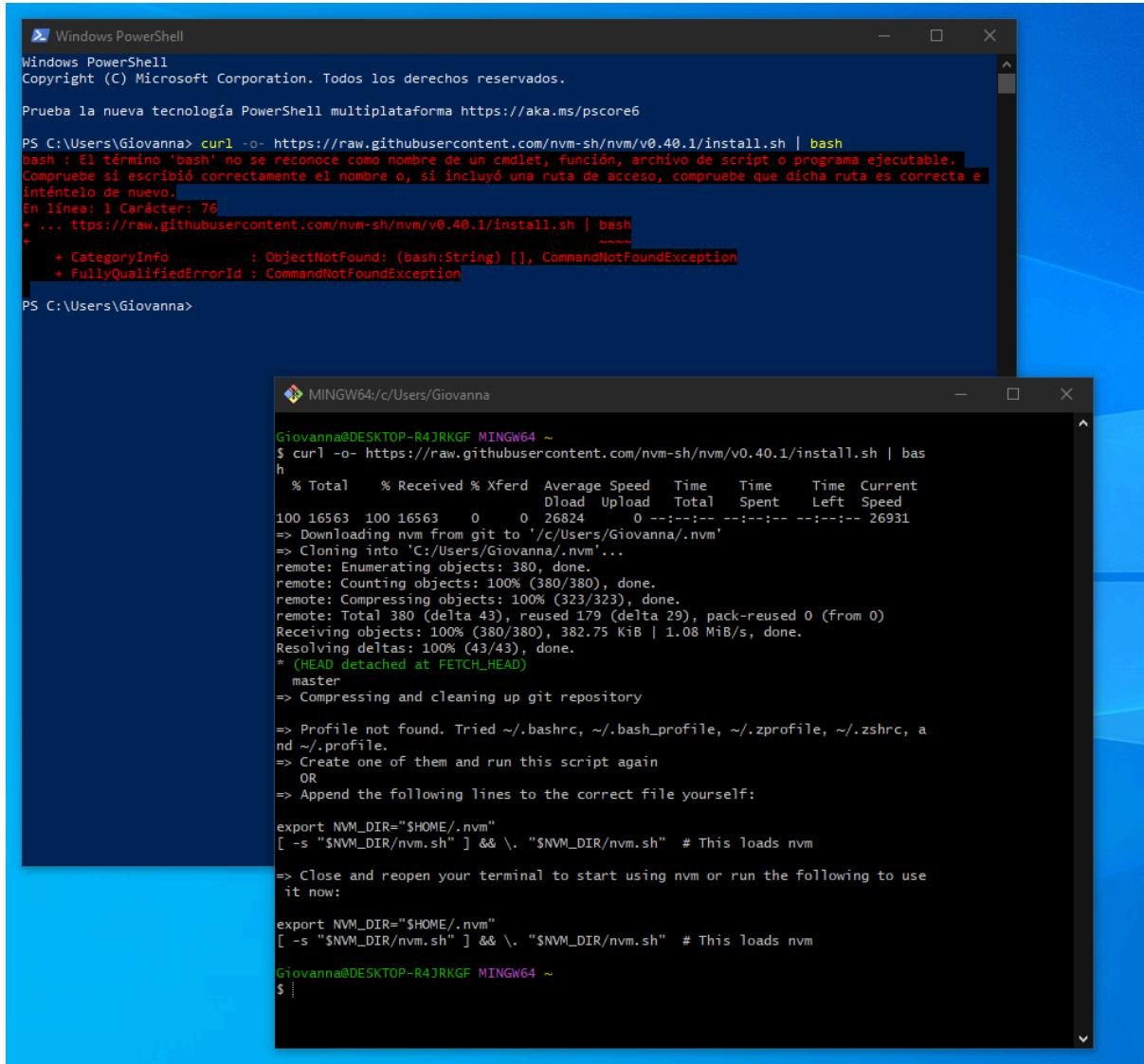
## Instalando GIT:



## Instalando nvm en Linux Mint:



## Instalando nvm en Windows:



The image shows two side-by-side command-line windows on a Windows operating system.

The left window is titled "Windows PowerShell" and shows the following command being run:

```
PS C:\Users\Giovanna> curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.1/install.sh | bash
```

The output of this command is displayed in red text, indicating an error:

```
bash : El término 'bash' no se reconoce como nombre de un cmdlet, función, archivo de script o programa ejecutable.  
Compruebe si escribió correctamente el nombre o, si incluyó una ruta de acceso, compruebe que dicha ruta es correcta e  
inténtelo de nuevo.  
En línea: 1 Carácter: 76  
+ ... https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.1/install.sh | bash  
+ CategoryInfo          : ObjectNotFound: (bash:String) [], CommandNotFoundException  
+ FullyQualifiedErrorId : CommandNotFoundException
```

The right window is titled "MINGW64:c/Users/Giovanna" and shows the following command being run:

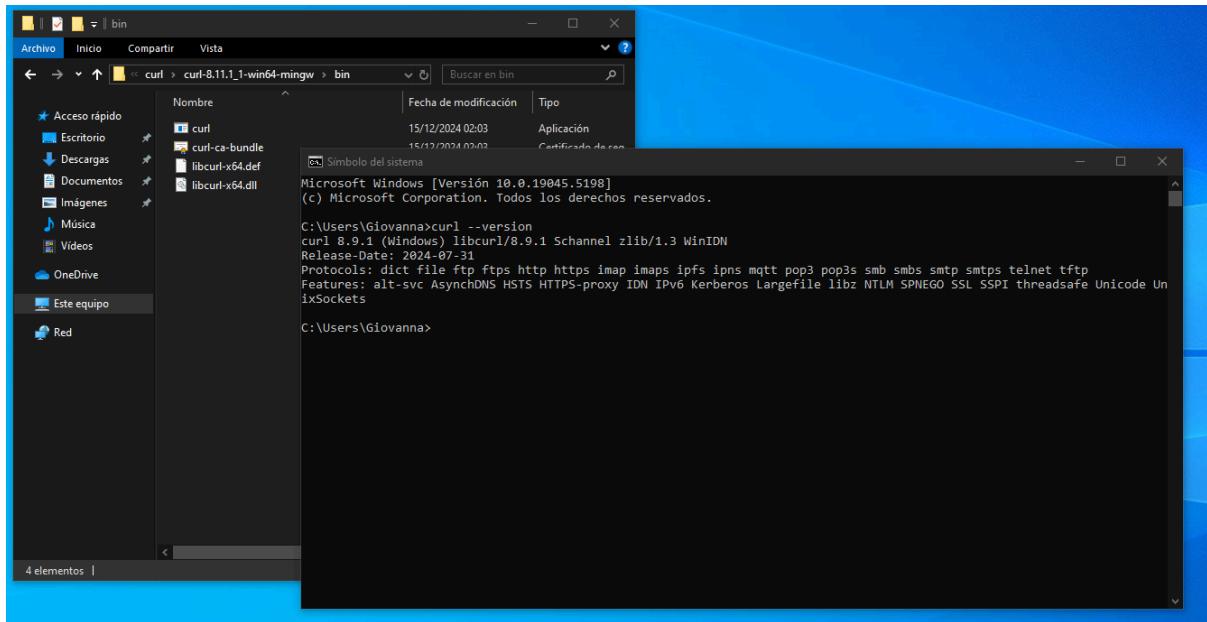
```
Giovanna@DESKTOP-R4JRKGF MINGW64 ~  
$ curl -o- https://raw.githubusercontent.com/nvm-sh/nvm/v0.40.1/install.sh | bas  
h
```

The output of this command is displayed in green text, showing the progress of the download and configuration of nvm:

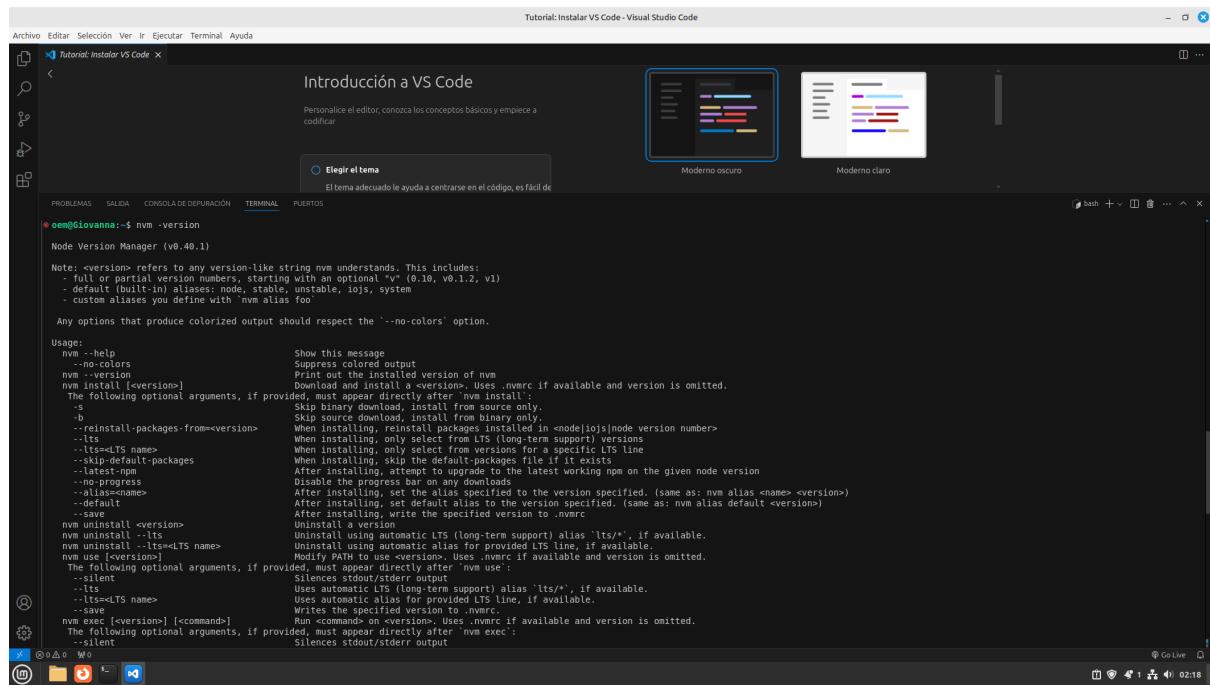
```
% Total    % Received % Xferd  Average Speed   Time     Time     Time  Current  
          Dload  Upload Total Spent   Left Speed  
100 16563  100 16563    0     0  26824      0 --:--:-- --:--:-- 26931  
=> Downloading nvm from git to '/c/Users/Giovanna/.nvm'  
=> Cloning into 'C:/Users/Giovanna/.nvm'...  
remote: Enumerating objects: 380, done.  
remote: Counting objects: 100% (380/380), done.  
remote: Compressing objects: 100% (323/323), done.  
remote: Total 380 (delta 43), reused 179 (delta 29), pack-reused 0 (from 0)  
Receiving objects: 100% (380/380), 382.75 KiB | 1.08 MiB/s, done.  
Resolving deltas: 100% (43/43), done.  
* (HEAD detached at FETCH_HEAD)  
  master  
=> Compressing and cleaning up git repository  
  
=> Profile not found. Tried ~/.bashrc, ~/.bash_profile, ~/.zprofile, ~/.zshrc, a  
nd ~/.profile.  
=> Create one of them and run this script again  
  OR  
=> Append the following lines to the correct file yourself:  
  
export NVM_DIR="$HOME/.nvm"  
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm  
=> Close and reopen your terminal to start using nvm or run the following to use  
it now:  
  
export NVM_DIR="$HOME/.nvm"  
[ -s "$NVM_DIR/nvm.sh" ] && \. "$NVM_DIR/nvm.sh" # This loads nvm
```

The command prompt ends with "Giovanna@DESKTOP-R4JRKGF MINGW64 ~ \$ ...".

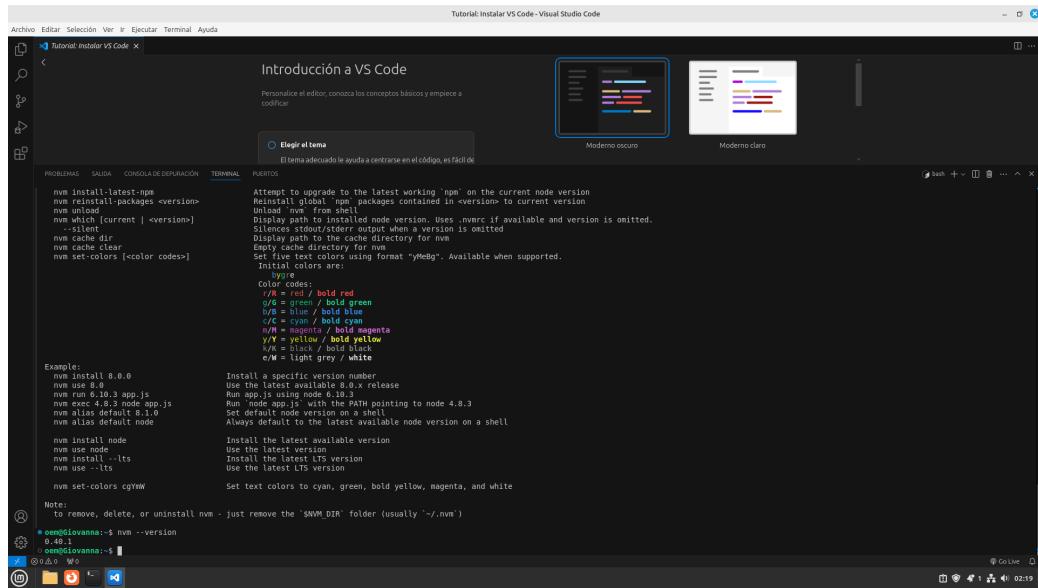
## Instalando CURL (win):



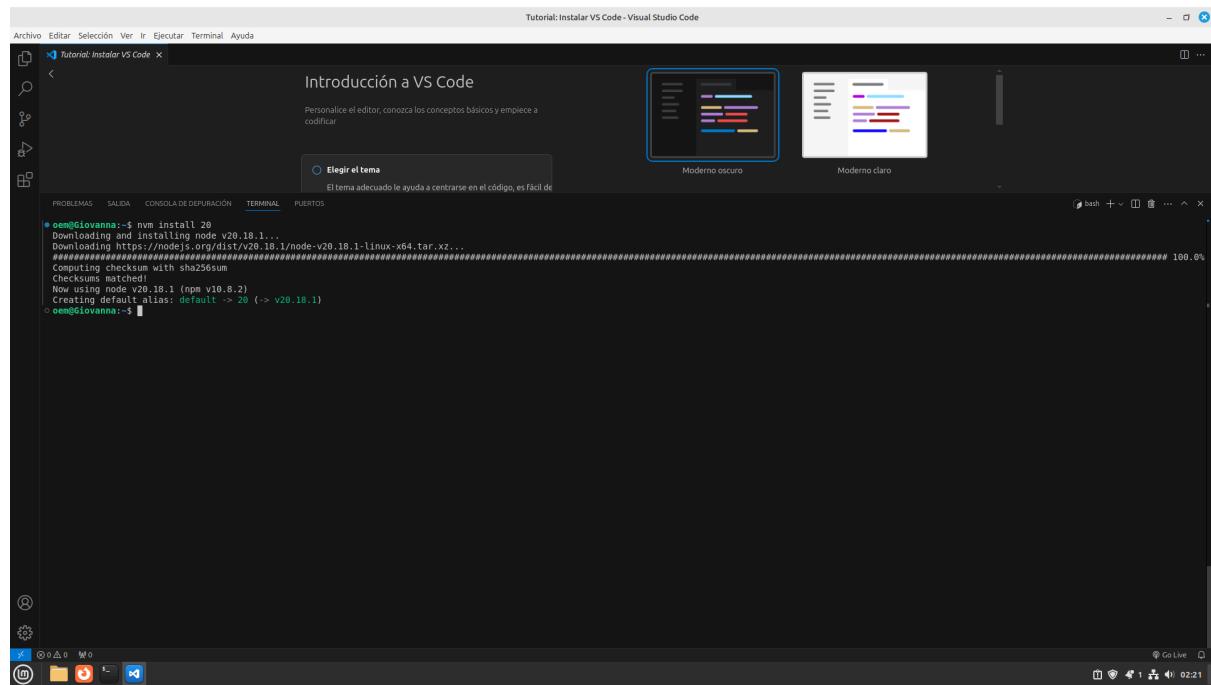
## Verificando nvm en Linux:



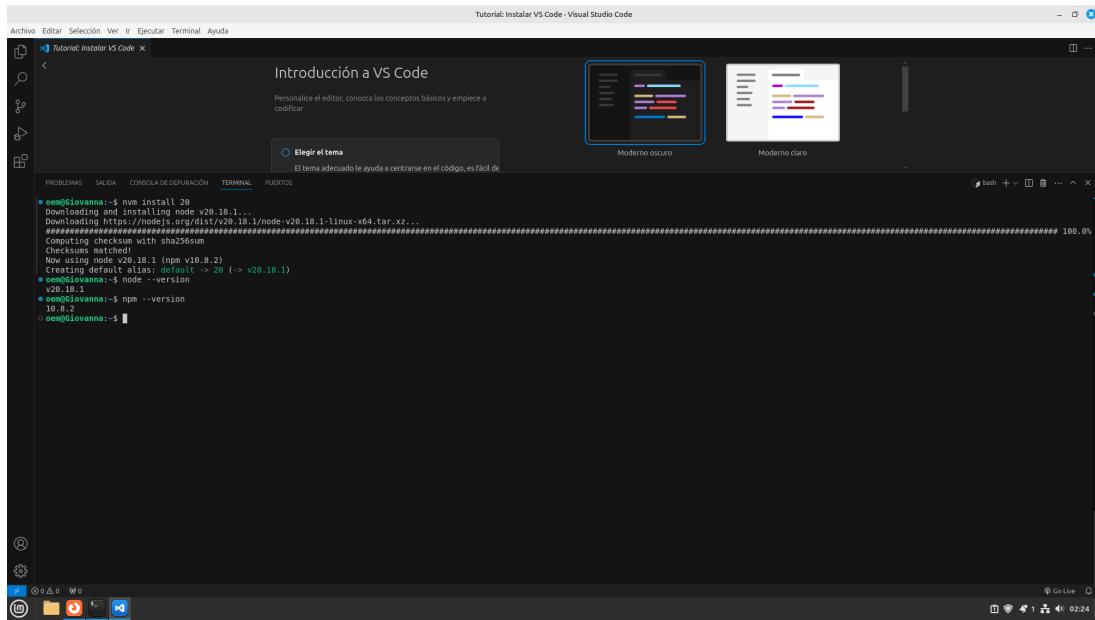
## Versión:



## nvm install 20:

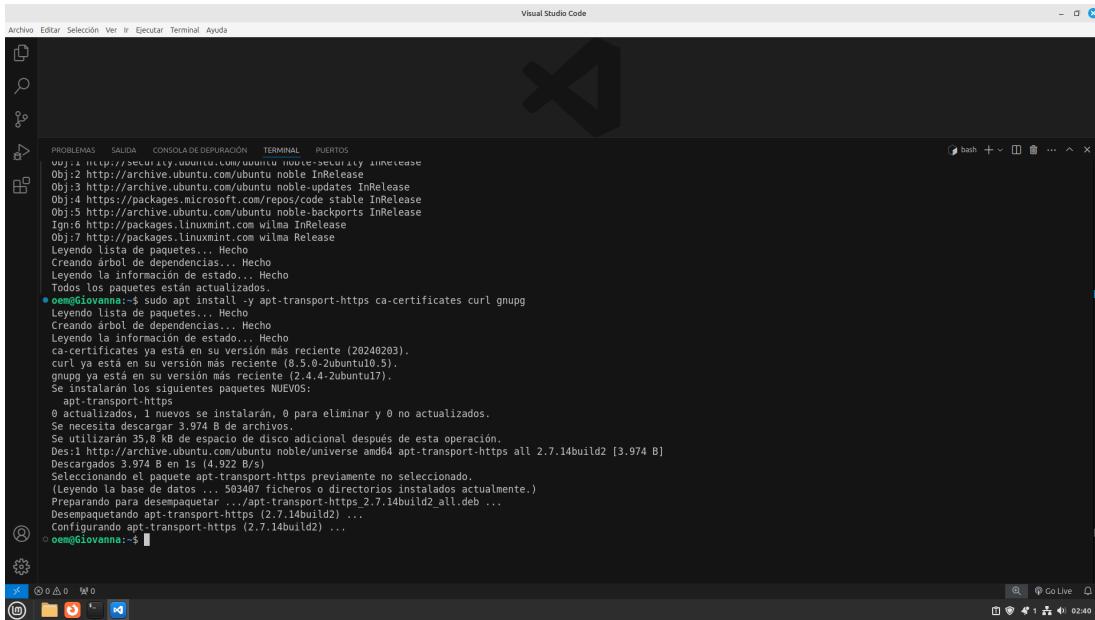


## nvm and node:



```
oem@Giovanna:~$ nvm install 20
Downloading https://nodejs.org/dist/v20.18.1/node-v20.18.1-linux-x64.tar.xz...
Checksums matched!
Now using node v20.18.1 (npm v10.8.2)
Creating default alias: default -> 20 (=> v20.18.1)
v20.18.1
oem@Giovanna:~$ node -v
v20.18.1
oem@Giovanna:~$ npm --version
10.8.2
oem@Giovanna:~$
```

## Docker:



```
oem@Giovanna:~$ sudo apt install -y apt-transport-https ca-certificates curl gnupg
Leyendo lista de paquetes... Hecho
Creando árbol de dependencias... Hecho
El paquete ya está en su versión más reciente (20240829).
curl ya está en su versión más reciente (0.5.0-2ubuntu10.5).
gnupg ya está en su versión más reciente (2.4.4-2ubuntu17).
Se instalarán los siguientes paquetes NUEVOS:
  apt-transport-https
0 actualizados, 1 nuevos se instalarán, 0 para eliminar y 0 no actualizados.
Se necesita descargar 3.974 kB de archivos.
Se utilizarán 35,8 kB de espacio de disco adicional después de esta operación.
Des:1 http://archive.ubuntu.com/ubuntu noble/universe amd64 apt-transport-https all 2.7.14build2 [3.974 kB]
Pendientes: 0 actualizados, 0 nuevos, 0 para eliminar y 0 no actualizados.
Seleccionando el paquete apt-transport-https previamente no seleccionado.
(Leyendo la base de datos ... 503407 ficheros o directorios instalados actualmente.)
Preparando para desempaquetar .../apt-transport-https_2.7.14build2_all.deb ...
Desempaquetando apt-transport-https (2.7.14build2) ...
Configurando apt-transport-https (2.7.14build2) ...
oem@Giovanna:~$
```

continuando:

Leyendo la información de estado... Hecho  
apt-transport-https ya está en su versión más reciente (2.7.14build2).  
ca-certificates ya está en su versión más reciente (20240203).  
curl ya está en su versión más reciente (8.5.0-ubuntu10.5).  
gnupg ya está en su versión más reciente (2.4.4-ubuntu17).  
0 actualizaciones están disponibles para el sistema y 0 no actualizados.  
oem@Giovanna:~\$ sudo install -m 0755 -d /etc/apt/keyrings  
oem@Giovanna:~\$ oem@Giovanna:~\$ sudo curl -fsSL https://download.docker.com/linux/ubuntu/gpg -o /etc/apt/keyrings/docker.asc  
oem@Giovanna:~\$ oem@Giovanna:~\$ sudo chmod a+r /etc/apt/keyrings/docker.asc  
oem@Giovanna:~\$ oem@Giovanna:~\$ echo '\  
\*deb [arch=amd64 signed-by=/etc/apt/keyrings/docker.asc] https://download.docker.com/linux/ubuntu /\  
stable' |  
sudo tee /etc/apt/sources.list.d/docker.list > /dev/null  
oem@Giovanna:~\$ oem@Giovanna:~\$ sudo apt update  
Des 7 https://download.docker.com/linux/ubuntu noble InRelease [48,8 kB]  
0b:1.2 http://archive.ubuntu.com/ubuntu noble InRelease  
0b:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease  
0b:4 http://security.ubuntu.com/ubuntu noble-security InRelease  
0b:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease  
0b:6 http://archive.ubuntu.com/ubuntu noble-stable InRelease  
Des 7 https://packages.linuxmint.com/wilma InRelease [16,6 kB]  
Ign:8 http://packages.linuxmint.com/wilma Release  
0b:9 http://packages.linuxmint.com/wilma Release  
Docker Engine [28.0 kB]  
Leyendo lista de paquetes... Hecho  
Creando árbol de dependencias... Hecho  
Leyendo la información de estado... Hecho  
Todos los paquetes están actualizados.  
oem@Giovanna:~\$

Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /usr/lib/systemd/system/docker.socket.  
Procesando disparadores para man-db (2.12.0-4build2) ...  
Procesando disparadores para libc-bin (2.39-0ubuntu8.3) ...  
● oem@Giovanna:~\$ sudo docker version  
Client: Docker Engine - Community  
 Version: 27.4.0  
 API version: 1.47  
 Go version: go1.22.10  
 Git commit: bde2b89  
 Built: Sat Dec 7 10:38:55 2024  
 OS/Arch: linux/amd64  
 Context: default  
  
Server: Docker Engine - Community  
 Engine:  
 Version: 27.4.0  
 API version: 1.47 (minimum version 1.24)  
 Go version: go1.22.10  
 Git commit: 92a8393  
 Built: Sat Dec 7 10:38:55 2024  
 OS/Arch: linux/amd64  
 Experimental: false  
 containerd:  
 Version: 1.7.24  
 GitCommit: 88bf19b2105c8b17560993bee28a01ddc2f97182  
 runc:  
 Version: 1.2.2  
 GitCommit: v1.2.2-0-g7cb3632  
 docker-init:  
 Version: 0.19.0  
 GitCommit: de40ad0  
oem@Giovanna:~\$

The screenshot shows a Visual Studio Code interface with a terminal tab active. The terminal displays log output from the Docker daemon. Key entries include:

- Docker service loaded and active.
- Triggered by docker.sock.
- Main PID: 12505 (dockerd).
- Tasks: 9.
- Memory: 23.8M (peak: 26.1M).
- CPU: 540ms.
- CGroup: /system.slice/docker.service.

Logs from December 15, 2024, show the daemon starting up, detecting a nameserver, loading containers, and initializing the API.

```
docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; enabled; preset: enabled)
   Active: active (running) since Sun 2024-12-15 02:52:17 -04; 1min 39s ago
     TriggeredBy: ● docker.sock
      Docs: https://docs.docker.com
 Main PID: 12505 (dockerd)
   Tasks: 9
  Memory: 23.8M (peak: 26.1M)
    CPU: 540ms
   CGroup: /system.slice/docker.service
           └─12505 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

dic 15 02:52:15 Giovanna dockerd[12505]: time="2024-12-15T02:52:15.869610113-04:00" level=info msg="Starting up"
dic 15 02:52:16 Giovanna dockerd[12505]: time="2024-12-15T02:52:16.07469725-04:00" level=info msg="detected 172.0.0.52 namserver, assuming systemd-resolved, so using resolv.conf"
dic 15 02:52:16 Giovanna dockerd[12505]: time="2024-12-15T02:52:16.13171035-04:00" level=info msg="loading containers: start."
dic 15 02:52:16 Giovanna dockerd[12505]: time="2024-12-15T02:52:16.953991705-04:00" level=info msg="Loading containers: done."
dic 15 02:52:16 Giovanna dockerd[12505]: time="2024-12-15T02:52:16.985516513-04:00" level=warning msg="WARNING: bridge-nf-call-iptables is disabled"
dic 15 02:52:16 Giovanna dockerd[12505]: time="2024-12-15T02:52:16.985584512-04:00" level=warning msg="WARNING: bridge-nf-call-ip6tables is disabled"
dic 15 02:52:16 Giovanna dockerd[12505]: time="2024-12-15T02:52:16.985584570-04:00" level=info msg="Docker daemon" commit=92a8393 containerd-snapshotter=false storage-driver=overlay2
dic 15 02:52:16 Giovanna dockerd[12505]: time="2024-12-15T02:52:16.985753530-04:00" level=info msg="Daemon has completed initialization"
dic 15 02:52:17 Giovanna dockerd[12505]: time="2024-12-15T02:52:17.071003064-04:00" level=info msg="API listen on /run/docker.sock"
dic 15 02:52:17 Giovanna systemd[1]: Started docker.service - Docker Application Container Engine.
-
```

## Probando instalación de Docker:

Visual Studio Code

Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda

PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL PUERTOS

● **oem@Giovanna:**~\$ sudo usermod -aG docker \$USER  
[sudo] contraseña para oem:  
o **oem@Giovanna:**~\$ newgrp docker  
**oem@Giovanna:**~\$ docker run hello-world  
Unable to find image 'hello-world:latest' locally  
latest: Pulling from library/hello-world  
clec31eb5944: Pull complete  
Digest: sha256:5b3cc85e16e3058003c13b7821318369dad01dac3dbb877aac3c28182255c724  
Status: Downloaded newer image for hello-world:latest

Hello from Docker!  
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:  
1. The Docker client contacted the Docker daemon.  
2. The Docker daemon pulled the "hello-world" image from the Docker Hub.  
(amd64)  
3. The Docker daemon created a new container from that image which runs the executable that produces the output you are currently reading.  
4. The Docker daemon streamed that output to the Docker client, which sent it to your terminal.

To try something more ambitious, you can run an Ubuntu container with:  
\$ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:  
<https://hub.docker.com/>

For more examples and ideas, visit:  
<https://docs.docker.com/get-started/>

## Empleo de recursos:

```
oem@Giovanna:~$ neofetch
oem@Giovanna
-----
OS: Linux Mint 22 x86_64
Host: VirtualBox 1.2
Kernel: 6.8.0-50-generic
Uptime: 1 hour, 35 mins
Packages: 1988 (dpkg)
Shell: bash 5.2.21
Resolution: 1920x1080
DE: Cinnamon 6.2.9
WM: Mutter (Muffin)
WM Theme: Mint-Y-Dark-Aqua (Mint-Y)
Theme: Mint-Y-Aqua [GTK2/3]
Icons: Mint-Y-Sand [GTK2/3]
Terminal: gnome-terminal
CPU: AMD Ryzen 5 3400G (2) @ 3.693GHz
GPU: 00:02.0 VMware SVGA II Adapter
Memory: 1935MiB / 2972MiB
```

## Instalando yarn - creando practica1:

```
oem@Giovanna:~$ yarn create nestjs/app practical
CREATE practical/src/main.ts (228 bytes)
CREATE practical/src/app.controller.spec.ts (617 bytes)
CREATE practical/test/test-e2e.json (183 bytes)
CREATE practical/test/app-e2e-spec.ts (690 bytes)

* Installation in progress...
  Failed to execute 'yarn install --silent'
* Installation in progress...
  Packages installation failed!
In case you don't see any errors above, consider manually running the failed command yarn install to see more details on why it errored out.

  Thanks for installing Nest!
  Please consider donating to our open collective
  to help us maintain this package.

  Donate: https://opencollective.com/nest

oem@Giovanna:~$ npn install yarn
added 1 package in 2s
oem@Giovanna:~$ npn install -g yarn
added 1 package in 1s
oem@Giovanna:~$ nest new practical
  We will scaffold your app in a few seconds..
  Which package manager would you like to use? yarn
Nothing to be done.

  Installation in progress...
  Successfully created project practical
  Get started with the following commands:
    $ cd practical
    $ yarn run start

  Thanks for installing Nest!
  Please consider donating to our open collective
  to help us maintain this package.

  Donate: https://opencollective.com/nest
oem@Giovanna:~$
```

## Ingresando a practica1

The screenshot shows a Visual Studio Code interface. In the center, there's a terminal window displaying the output of a `yarn` command. The logs show the creation of several files like `test/e2e.json` and `test/app.e2e-spec.ts`, followed by an error message about failed installations. Below the terminal, a modal dialog titled "Visual Studio Code Edición mejorada" asks if the user trusts the authors of the files in the current folder. It provides two options: "No, no confío en los autores" and "Sí, confío en los autores". The "Sí, confío en los autores" button is highlighted. At the bottom of the dialog, there's a link to "Examinar la carpeta en modo restringido". The status bar at the bottom right shows the date and time as "12/31".

## Ejecutando yarn:

This screenshot shows the Visual Studio Code interface again, but this time the focus is on the code editor. A file named `package.json` is open in the editor, showing its contents. The code defines a project with version 0.0.1, author information, and various scripts for building, testing, and debugging. The editor has syntax highlighting and code completion features visible. The status bar at the bottom right shows the date and time as "12/31".

## Visualizando localmente:

A screenshot of a Mozilla Firefox browser window. The address bar shows "localhost:3000". The main content area displays the text "Hola a todos del Diplomado!". The browser interface includes tabs for other pages like "First steps | NestJS - A proj" and "Tarea1-Modulo III - Documentación". The status bar at the bottom right shows the date and time as "12/31".

## Cambiando "any" en service y controller:

```

app.service.ts - practica1 - Visual Studio Code
Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda
EXPLORADOR ... TS app.service.ts U X TS app.controller.ts U package.json U
PRACTICA1
> dist
> node_modules
> src
  > TS app.controller.specs.ts u
  > TS app.controller.ts u
  > TS app.module.ts u
  > TS app.service.ts u
  > TS main.ts u
  > test
  > .eslintrc.js u
  > .gitignore u
  > .prettierrc u
  > nest-cli.json u
  > package.json u
  > README.md u
  > tsconfig.build.json u
  > tsconfig.json u
  > yarn.lock u
PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL PUERTOS
[5:11:41 p. m.] File change detected. Starting incremental compilation...
[5:11:41 p. m.] Found 0 errors. Watching for file changes.
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestFactory] Starting Nest application...
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [InstanceLoader] AppModule dependencies initialized +21ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RoutesResolver] AppController {}: +14ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RouterExplorer] Mapped {}, GET route +5ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestApplication] Nest application successfully started +3ms
[5:11:41 p. m.] File change detected. Starting incremental compilation...
[5:11:41 p. m.] Found 0 errors. Watching for file changes.
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestFactory] Starting Nest application...
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [InstanceLoader] AppModule dependencies initialized +21ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RoutesResolver] AppController {}: +14ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RouterExplorer] Mapped {}, GET route +5ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestApplication] Nest application successfully started +3ms
  > ESQUEMA
  > LÍNEA DE TIEMPO
  > master+ ⌂ 0 △ 0 ⌂ 0
Lin. 9, col. 1 Espacios: 2 UTF-8 LF {} TypeScript ⌂ Go Live ⌂

app.controller.ts - practica1 - Visual Studio Code
Archivo Editar Selección Ver Ir Ejecutar Terminal Ayuda
EXPLORADOR ... TS app.service.ts U TS app.controller.ts U package.json U
PRACTICA1
> dist
> node_modules
> src
  > TS app.controller.specs.ts u
  > TS app.controller.ts u
  > TS app.module.ts u
  > TS app.service.ts u
  > TS main.ts u
  > test
  > .eslintrc.js u
  > .gitignore u
  > .prettierrc u
  > nest-cli.json u
  > package.json u
  > README.md u
  > tsconfig.build.json u
  > tsconfig.json u
  > yarn.lock u
PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL PUERTOS
[5:11:41 p. m.] File change detected. Starting incremental compilation...
[5:11:41 p. m.] Found 0 errors. Watching for file changes.
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestFactory] Starting Nest application...
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [InstanceLoader] AppModule dependencies initialized +21ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RoutesResolver] AppController {}: +14ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RouterExplorer] Mapped {}, GET route +5ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestApplication] Nest application successfully started +3ms
[5:11:41 p. m.] File change detected. Starting incremental compilation...
[5:11:41 p. m.] Found 0 errors. Watching for file changes.
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestFactory] Starting Nest application...
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [InstanceLoader] AppModule dependencies initialized +21ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RoutesResolver] AppController {}: +14ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [RouterExplorer] Mapped {}, GET route +5ms
[Nest] 20691 - 15/12/2024, 5:11:42 p. m. LOG [NestApplication] Nest application successfully started +3ms
  > ESQUEMA
  > LÍNEA DE TIEMPO
  > master+ ⌂ 0 △ 0 ⌂ 0
Lin. 13, col. 1 Espacios: 2 UTF-8 LF {} TypeScript ⌂ Go Live ⌂

```

## Resultado:

