

# How to create a virtual workspace in Windows

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## 1 Download VirtualBox

To download VirtualBox, you can go to the following link:

[Download VirtualBox Here](#)

## 2 Download Vagrant

To download Vagrant, you can go to the following link:

[Download Vagrant Here](#)

Install the version of your operating system.

## 3 Download Git

To download Git, you can go to the following link:

[Download Git Here](#)

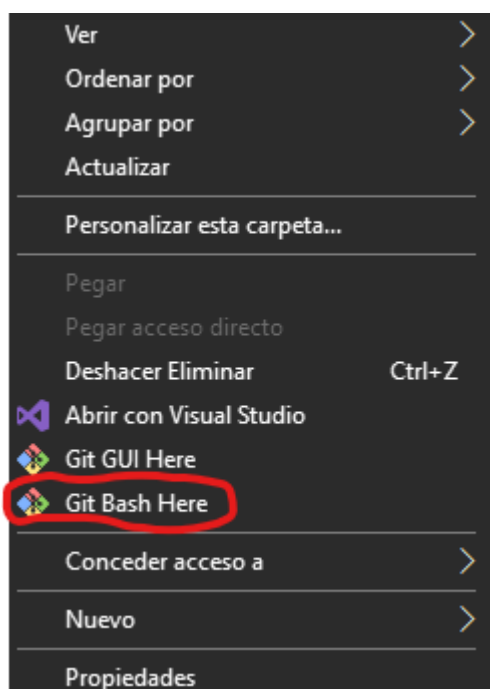
## 4 Download a text editor

Download a text editor of your choice, I recommend Visual Studio Code.

[Download Visual Studio Code Here](#)

## 5 Move between folders

You have to open a cmd or gitBash terminal, to do it this way you just have to right click on a folder or on the desktop and the terminal will open.



## 5.1 CMD commands:

1. I recommend working in the home folder.

```
cd C:\Home
```

2. Once in the selected folder, we are going to create another folder with the name ISW811 (it can be different).

```
mkdir ISW811
```

3. We access a created folder.

```
cd ISW811
```

4. We create another folder called VMs.

```
mkdir VMs
```

5. We access a created folder.

```
cd VMs
```

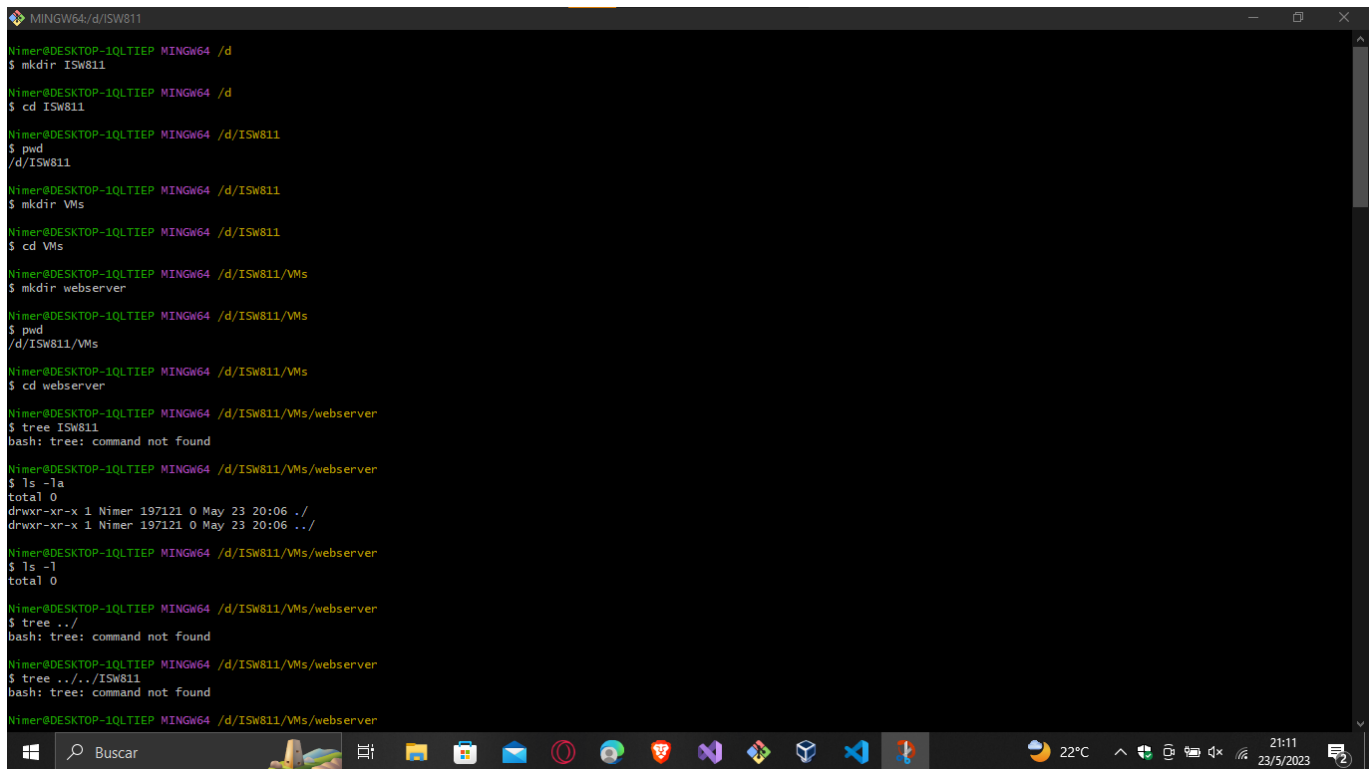
6. We create another folder called, with the name of your project.

```
mkdir webserver
```

7. We access a created folder.

```
cd webserver
```

In the next part you can see an image with process



```
MINGW64/d/ISW811
Nimer@DESKTOP-IQLTIEP MINGW64 /d
$ mkdir ISW811
Nimer@DESKTOP-IQLTIEP MINGW64 /d
$ cd ISW811
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811
$ pwd
/d/ISW811
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811
$ mkdir VMs
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811
$ cd VMs
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs
$ mkdir webserver
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs
$ pwd
/d/ISW811/VMs
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs
$ cd webserver
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs/webserver
$ tree ISW811
bash: tree: command not found
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs/webserver
$ ls -la
total 0
drwxr-xr-x 1 Nimer 197121 0 May 23 20:06 ./
drwxr-xr-x 1 Nimer 197121 0 May 23 20:06 ../
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs/webserver
$ ls -l
total 0
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs/webserver
$ tree ../
bash: tree: command not found
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs/webserver
$ tree ../../ISW811
bash: tree: command not found
Nimer@DESKTOP-IQLTIEP MINGW64 /d/ISW811/VMs/webserver
```

## 6 Create a virtual workspace

To create a virtual workspace, you need to enter the web server folder, created earlier.

### 6.1 Start vagrant with its respective operating system, to create the virtual space

command

```
vagrant init debian/bullseye64
```

### 6.2 You need to edit the code that was created in the above command.

This command will open the Visual Studio code, you just have to uncomment line 35. command

```
code Vagrantfile
```

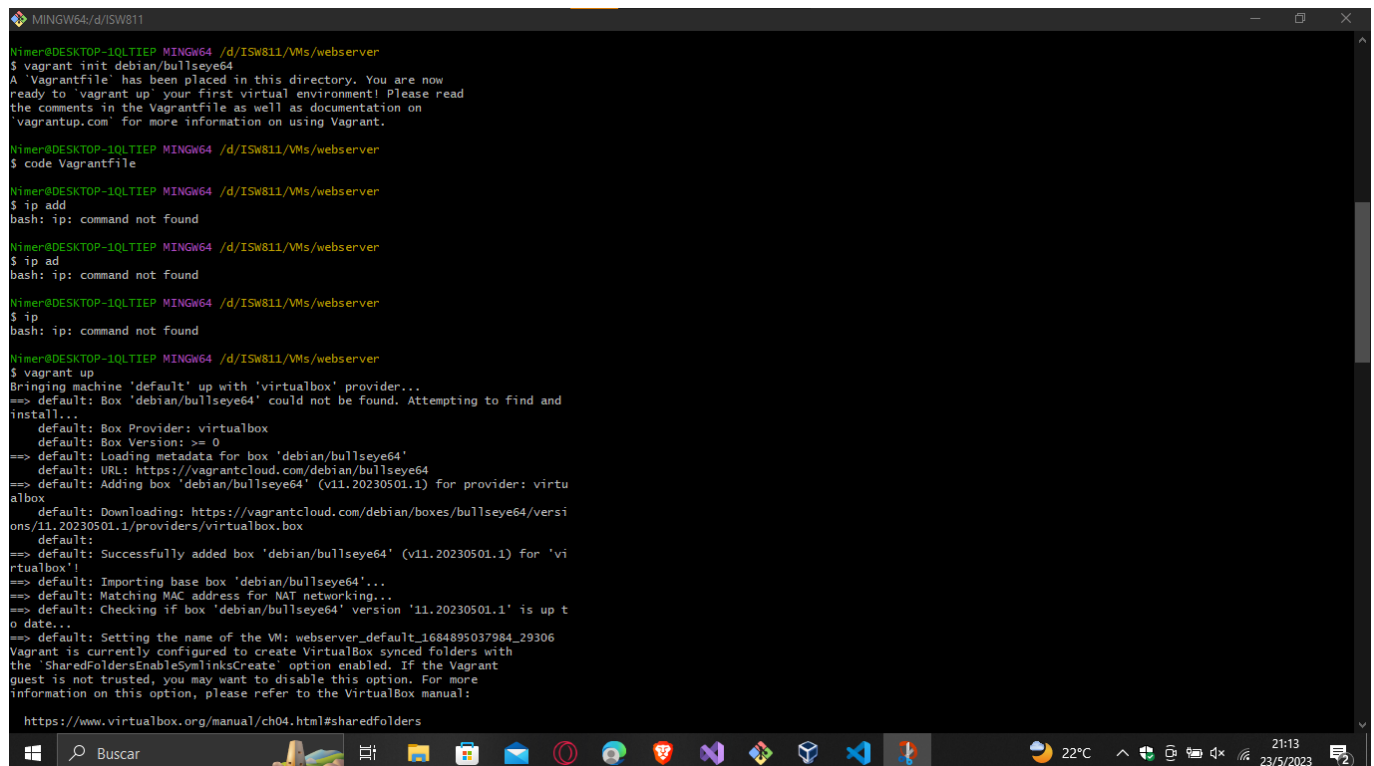
like what you see in the following image

```
33 # Create a private network, which allows host-only access to the machine
34 # using a specific IP.
35 config.vm.network "private_network", ip: "192.168.33.10"
36
```

### 6.3 The following command configures the machine, to be able to start it.

```
vagrant up
```

It has to stay as follows



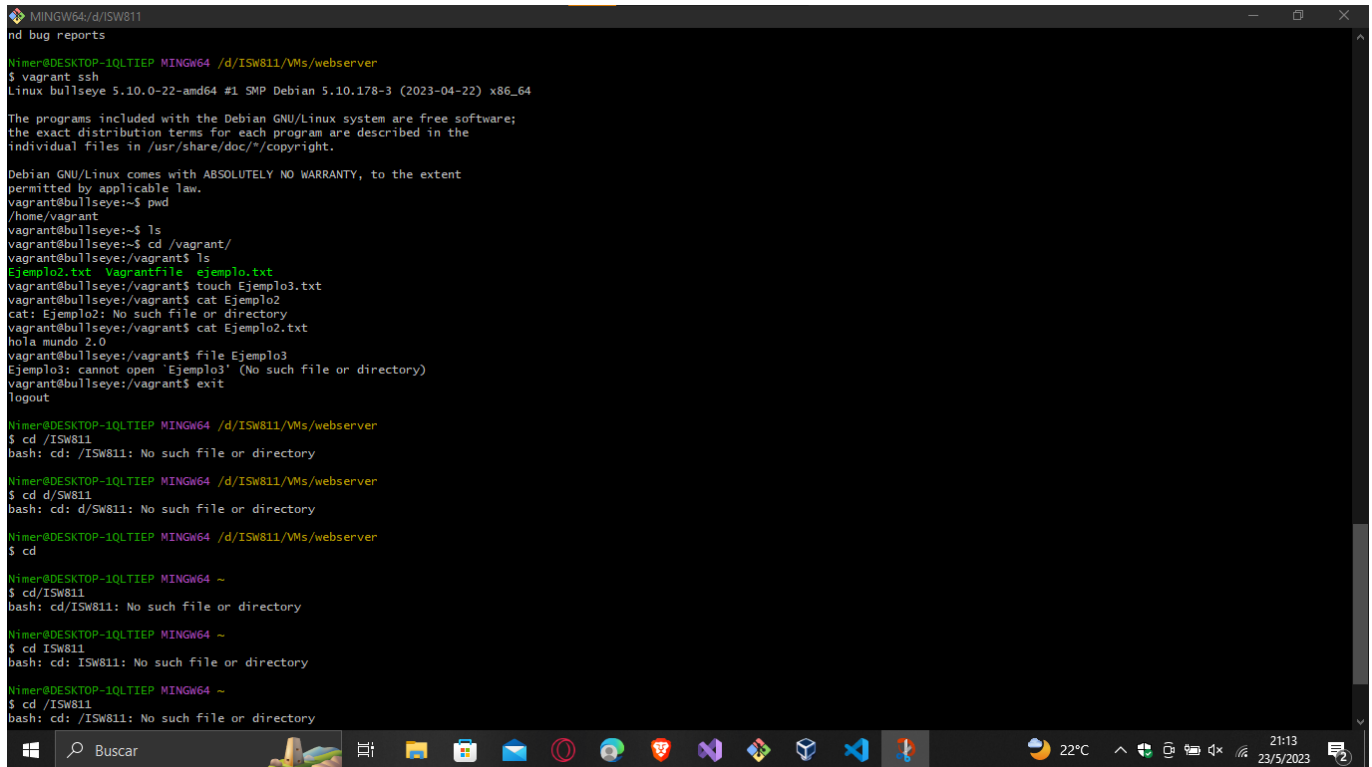
```
MINGW64/d:/ISW811
Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ vagrant init debian/bullseye64
A 'Vagrantfile' has been placed in this directory. You are now
ready to 'vagrant up' your first virtual environment! Please read
the comments in the Vagrantfile as well as documentation on
'vagrantup.com' for more information on using Vagrant.
Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ code Vagrantfile
Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ ip add
bash: ip: command not found
Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ ip ad
bash: ip: command not found
Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ ip
bash: ip: command not found
Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Box 'debian/bullseye64' could not be found. Attempting to find and
install...
    default: Box Provider: virtualbox
    default: Box Version: >= 0
==> default: Loading metadata for box 'debian/bullseye64'
    default: URL: https://vagrantcloud.com/debian/bullseye64
==> default: Adding box 'debian/bullseye64' (v11.20230501.1) for provider: virtu
albox
    default: Downloading: https://vagrantcloud.com/debian/boxes/bullseye64/versi
ons/11.20230501.1/providers/virtualbox.box
    default:
==> default: Successfully added box 'debian/bullseye64' (v11.20230501.1) for 'vi
rtualbox'!
==> default: Importing base box 'debian/bullseye64'...
==> default: Matching MAC address for NAT networking...
==> default: Checking if box 'debian/bullseye64' version '11.20230501.1' is up t
o date...
==> default: Setting the name of the VM: webserver_default_1684895037984_29306
Vagrant is currently configured to create VirtualBox synced folders with
the 'SharedFoldersEnableSymlinksCreate' option enabled. If the Vagrant
guest is not trusted, you may want to disable this option. For more
information on this option, please refer to the VirtualBox manual:
https://www.virtualbox.org/manual/ch04.html#sharedfolders
```

6.4 The following command starts the machine.

```
vagrant ssh
```

Another terminal will open but this time from the virtual machine, which will be your workspace.

It has to stay as follows



```
MINGW64/d:/ISW811
nd bug reports

Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ vagrant ssh
Linux bullseye 5.10.0-22-amd64 #1 SMP Debian 5.10.178-3 (2023-04-22) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
vagrant@bullseye:~$ pwd
/home/vagrant
vagrant@bullseye:~$ ls
vagrant@bullseye:~$ cd /vagrant/
vagrant@bullseye:/vagrant$ ls
Ejemplo2.txt Vagrantfile ejemplo.txt
vagrant@bullseye:/vagrant$ touch Ejemplo3.txt
vagrant@bullseye:/vagrant$ cat Ejemplo2
cat: Ejemplo2: No such file or directory
vagrant@bullseye:/vagrant$ cat Ejemplo2.txt
hola mundo 2.0
vagrant@bullseye:/vagrant$ file Ejemplo3
Ejemplo3: cannot open 'Ejemplo3' (No such file or directory)
vagrant@bullseye:/vagrant$ exit
logout

Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ cd /ISW811
bash: cd: /ISW811: No such file or directory

Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ cd d:/SW811
bash: cd: d:/SW811: No such file or directory

Nimer@DESKTOP-IQLTIEP MINGW64 /d:/ISW811/VMs/webserver
$ cd
$ cd /ISW811
bash: cd: /ISW811: No such file or directory

Nimer@DESKTOP-IQLTIEP MINGW64 ~
$ cd ISW811
bash: cd: ISW811: No such file or directory

Nimer@DESKTOP-IQLTIEP MINGW64 ~
$ cd /ISW811
bash: cd: /ISW811: No such file or directory
```

6.5 To close the machine you can do it with the following command

First log out of the virtual machine

```
exit
```

Once you are back in the console run the following command

```
vagrant halt
```

To start the machine again, execute the following commands

```
vagrant up
vagrant ssh
```