ACTIVIDAD 2 - SHELL SCRIPTS DE APROVISIONAMIENTO

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OPTATIVA - 2º ASIR

Contenido

Ver video que está en la Guía antes de realizar la actividad

https://www.youtube.com/watch?v=aLYMcwsIcwk

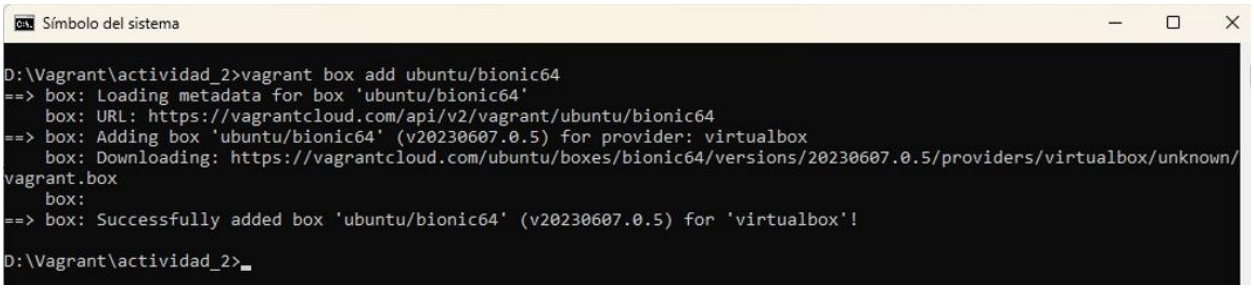
1. Necesitamos una máquina virtual con una versión de ubuntu. Busca en Vagrant Hub, un box adecuado.

Hemos creado la carpeta "D:\Vagrant\actividad_2>" Nos colocamos en ella.

Usamos: **vagrant box add ubuntu/bionic64**

Es la versión más nueva de ubuntu que hay en vagranthub.

https://portal.cloud.hashicorp.com/vagrant/discover/ubuntu/bionic64



2. Inicializa y levanta la máquina virtual

Descargamos el vagrantfile

vagrant init

```
D:\Vagrant\actividad_2>vagrant init
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.
```

Abrimos el **vagrantfile** y modificamos **config.vm.box**

config.vm.box = "**ubuntu/bionic64**"

```
# boxes at https://vagrantcloud.com/s
config.vm.box = "ubuntu/bionic64"
```

Y ahora lo levantamos:

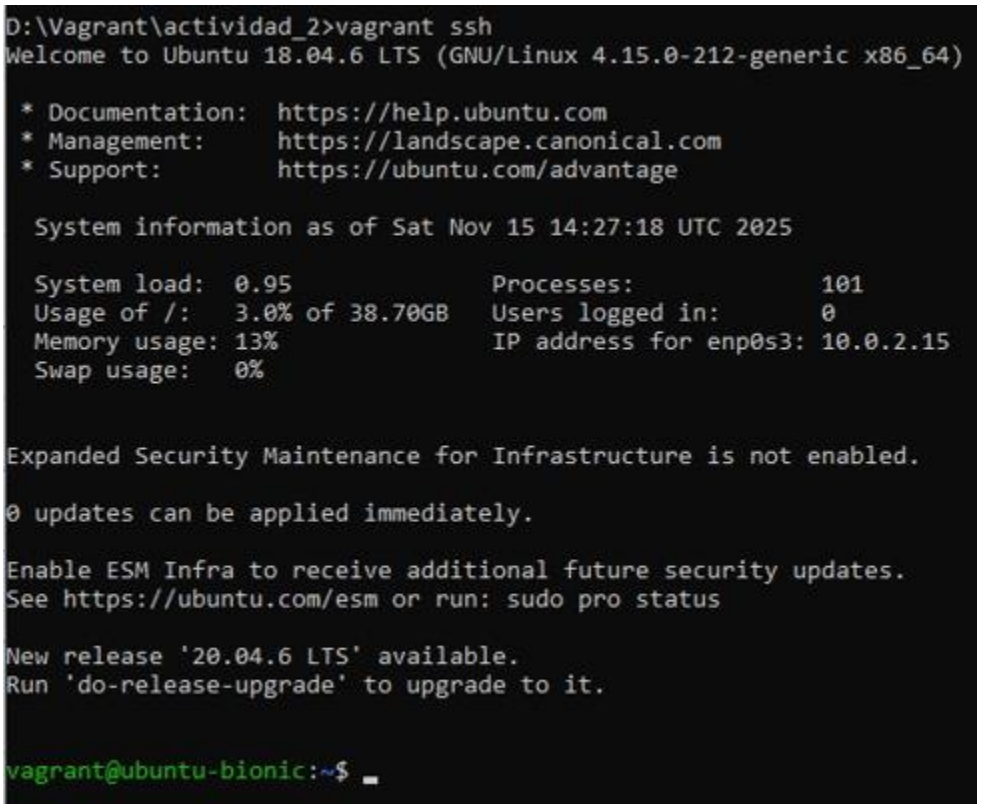
vagrant up

```
D:\Vagrant\actividad_2>vagrant up
Bringing machine 'default' up with 'virtualbox' provider...
==> default: Importing base box 'ubuntu/bionic64'...
==> default: Matching MAC address for NAT networking...
==> default: Checking if box 'ubuntu/bionic64' version '20230607.0.5' is up to date...
==> default: Setting the name of the VM: actividad_2_default_1763216758086_98125
==> default: Clearing any previously set network interfaces...
==> default: Preparing network interfaces based on configuration...
    default: Adapter 1: nat
==> default: Forwarding ports...
    default: 22 (guest) => 2222 (host) (adapter 1)
==> default: Running 'pre-boot' VM customizations...
==> default: Booting VM...
==> default: Waiting for machine to boot. This may take a few minutes...
    default: SSH address: 127.0.0.1:2222
    default: SSH username: vagrant
    default: SSH auth method: private key
```

3. Comprueba que tienes acceso.

Nos conectamos por SSH

vagrant ssh



Aprovisionamiento inline

- Crea un aprovisionamiento de tipo shell inline, en el que crees una carpeta nueva.

En el **vagrantfile** nos vamos a **config.vm.provision** y lo modificamos:

config.vm.provision "shell", inline: <<-SHELL

mkdir /home/vagrant/carpeta_nuevecita

SHELL

```
  config.vm.provision "shell", inline: <<-SHELL
      mkdir /home/vagrant/carpeta_nuevecita
  SHELL
end
```

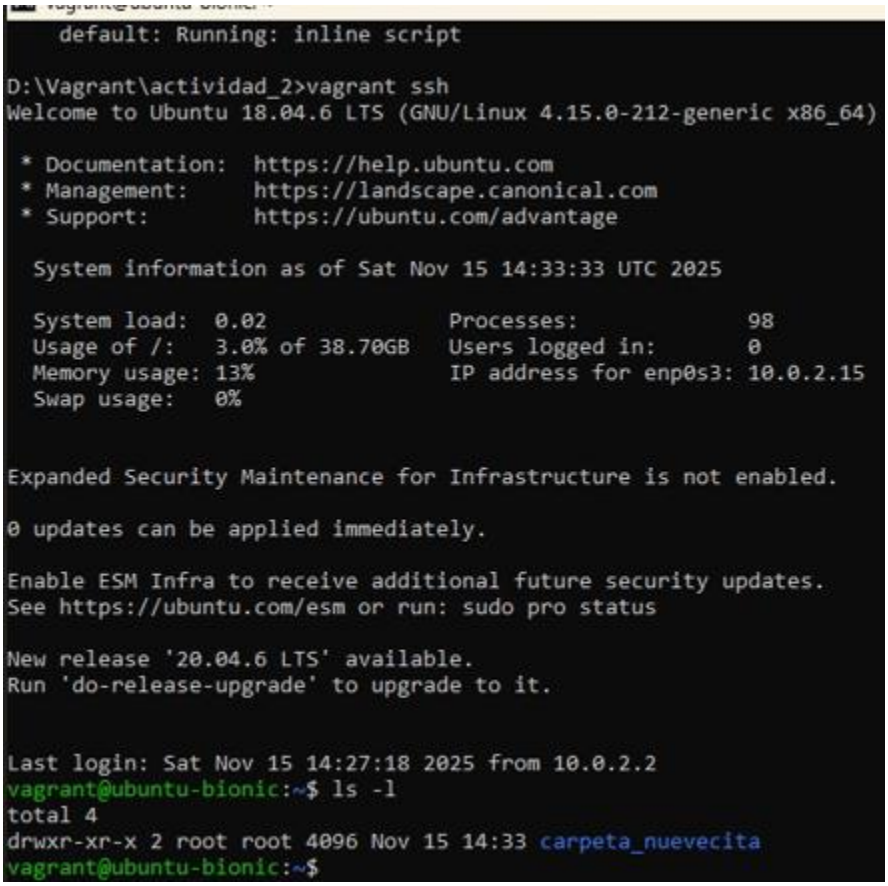
- ¿Cómo puedes ejecutar el aprovisionamiento si la máquina ya está levantada? ¿ Y si no? Usa la que te interese

Si ya está levantado usamos "**vagrant provision**" y si está apagado se aplicará el aprovisionamiento la próxima vez que lo levantemos. En este caso hemos usado la primera opción.

```
D:\Vagrant\actividad_2>vagrant provision
==> default: Running provisioner: shell...
    default: Running: inline script

D:\Vagrant\actividad_2>
```

- Comprueba que el aprovisionamiento se ha realizado



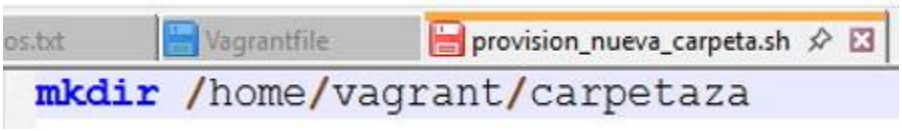
Aprovisionamiento por documento

- Elimina el aprovisionamiento anterior y crea uno nuevo mediante un fichero, que cree una nueva carpeta (que sea distinta)

Creamos en el mismo directorio un archivo ".sh" En mi caso "**provision_nueva_carpeta.sh**"

Introducimos en el:

mkdir /home/vagrant/carpetaza



Ahora, en el vagrantfile:

config.vm.provision "shell", path: "provision_nueva_carpeta.sh"

```
  # documentation for more information about their specific syntax and use
    config.vm.provision "shell", path: "provision_nueva_carpeta.sh"
end
```

Guardalo todo.

- Recarga el aprovisionamiento

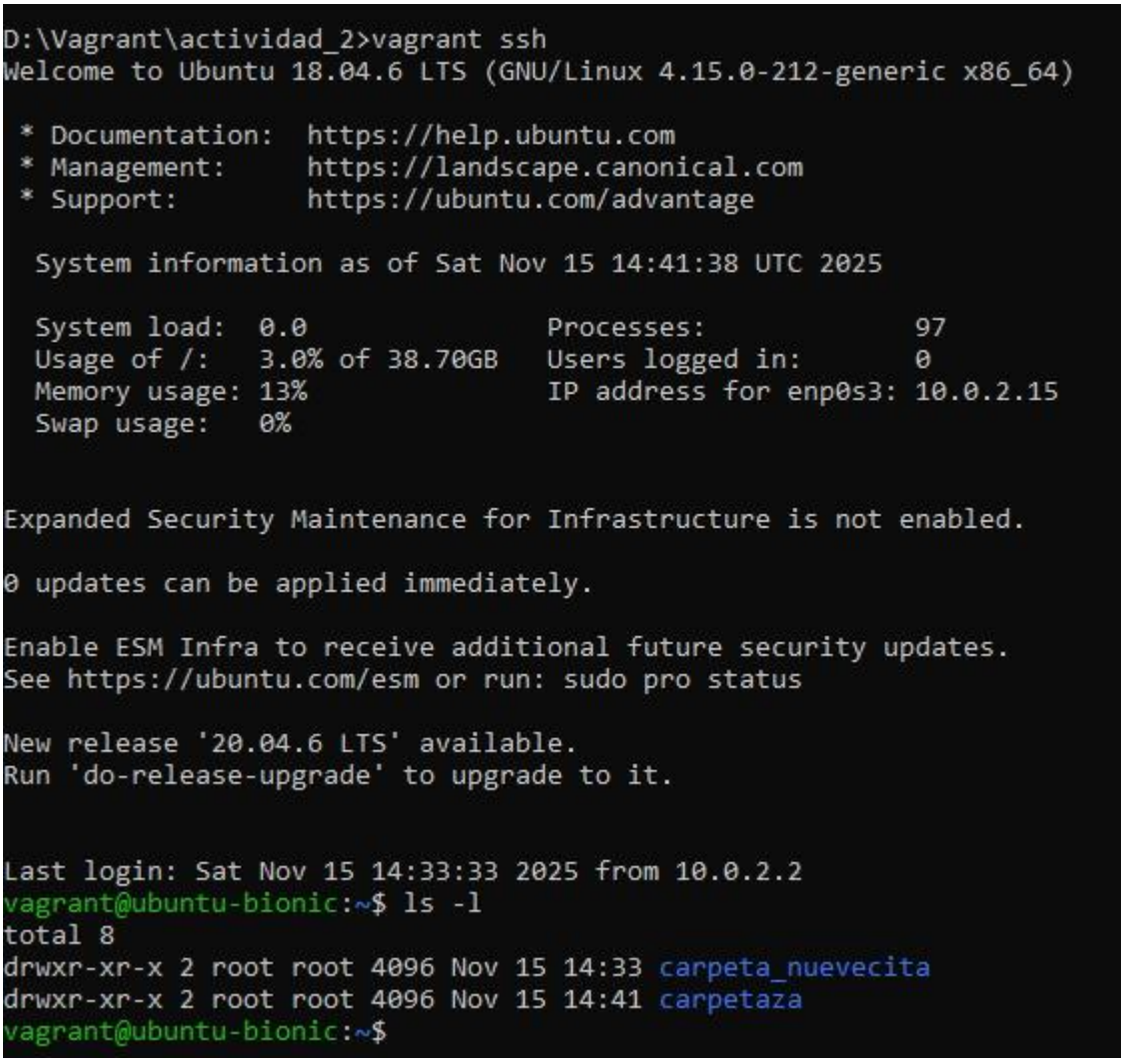
vagrant provision

```
D:\Vagrant\actividad_2>vagrant provision
==> default: Running provisioner: shell...
    default: Running: C:/Users/CRISTO~1/AppData/Local/Temp/vagrant-shell20251115-9316-y68su0.sh

D:\Vagrant\actividad_2>
```

- ¿Existe la carpeta nueva? ¿Existe la carpeta anterior?

Si, existen ambas carpetas.

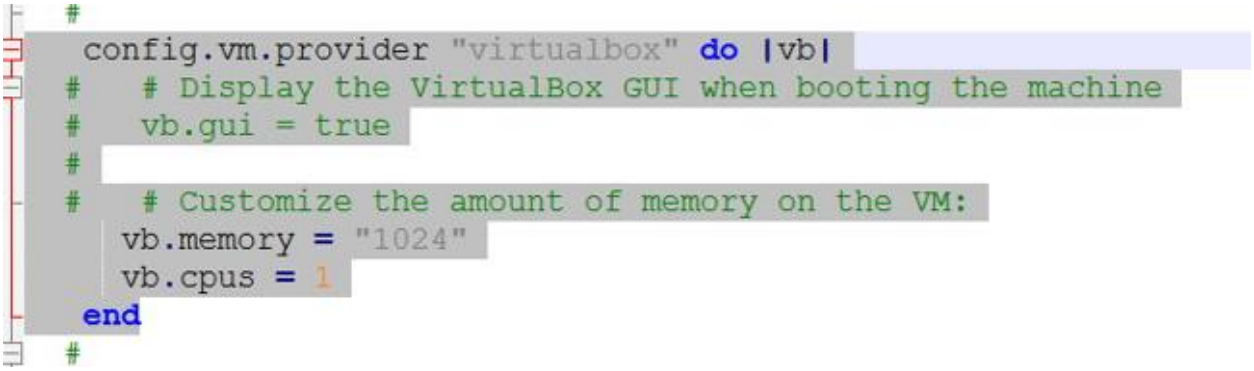


Modifica los recursos que usa la VM

- Indica que cuando se use VirtualBox use solo una cpu y 1gb de ram

Modificamos el vagrantfile.

```
config.vm.provider "virtualbox" do |vb|
#   # Display the VirtualBox GUI when booting the machine
#   vb.gui = true
#
#   # Customize the amount of memory on the VM:
  vb.memory = "1024"
        vb.cpus = 1
end
```



- Aplica los cambios y demuestra que se han llevado a cabo

Para los cambios de hardware hay que usar "**vagrant reload**" (reinicia la maquina):

```
D:\Vagrant\actividad_2>vagrant reload
==> default: Attempting graceful shutdown of VM...
    default: Guest communication could not be established! This is usually because
    default: SSH is not running, the authentication information was changed,
    default: or some other networking issue. Vagrant will force halt, if
    default: capable.
==> default: Forcing shutdown of VM...
==> default: Checking if box 'ubuntu/bionic64' version '20230607.0.5' is up to date...
==> default: Clearing any previously set forwarded ports...
==> default: Fixed port collision for 22 => 2222. Now on port 2200.
==> default: Clearing any previously set network interfaces...
==> default: Preparing network interfaces based on configuration...
    default: Adapter 1: nat
==> default: Forwarding ports...
    default: 22 (guest) => 2200 (host) (adapter 1)
==> default: Running 'pre-boot' VM customizations...
==> default: Booting VM...
==> default: Waiting for machine to boot. This may take a few minutes...
    default: SSH address: 127.0.0.1:2200
    default: SSH username: vagrant
    default: SSH auth method: private key
==> default: Machine booted and ready!
==> default: Checking for guest additions in VM...
    default: The guest additions on this VM do not match the installed version of
    default: VirtualBox! In most cases this is fine, but in rare cases it can
    default: prevent things such as shared folders from working properly. If you see
    default: shared folder errors, please make sure the guest additions within the
    default: virtual machine match the version of VirtualBox you have installed on
    default: your host and reload your VM.
    default:
    default: Guest Additions Version: 5.2.42
    default: VirtualBox Version: 7.1
==> default: Mounting shared folders...
    default: D:/Vagrant/actividad_2 => /vagrant
==> default: Machine already provisioned. Run `vagrant provision` or use the `--provision`
==> default: flag to force provisioning. Provisioners marked to run always will still run.
```

RAM: **grep MemTotal /proc/meminfo**

CPU: **grep processor /proc/cpuinfo | wc -l**