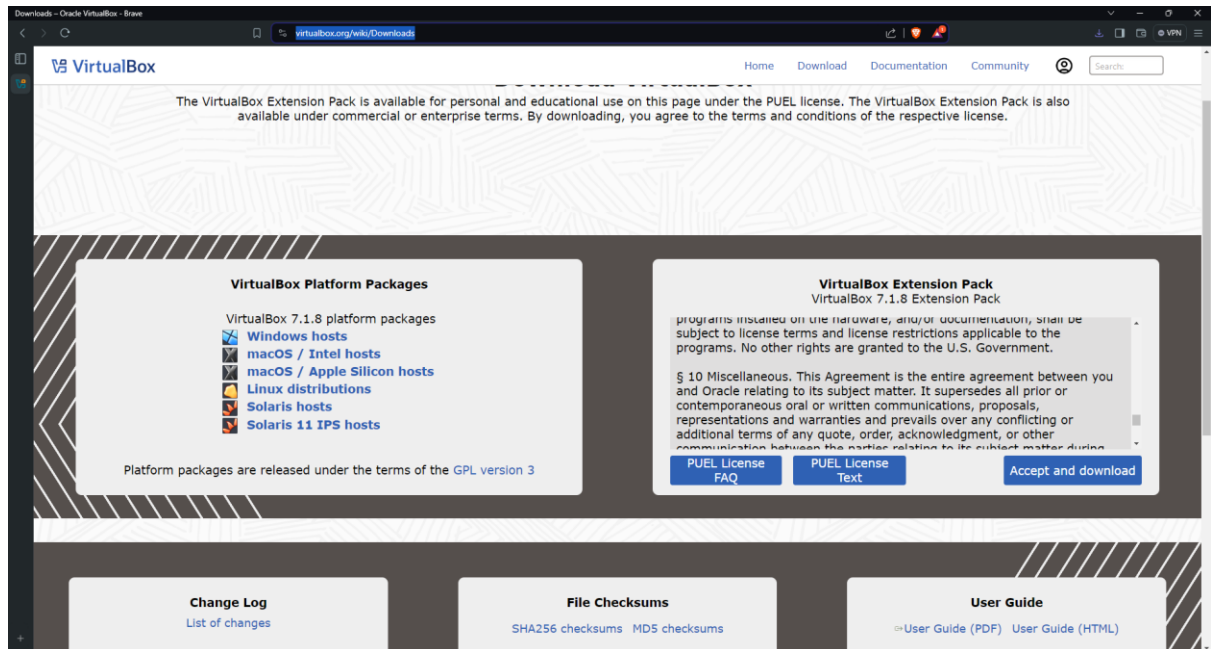
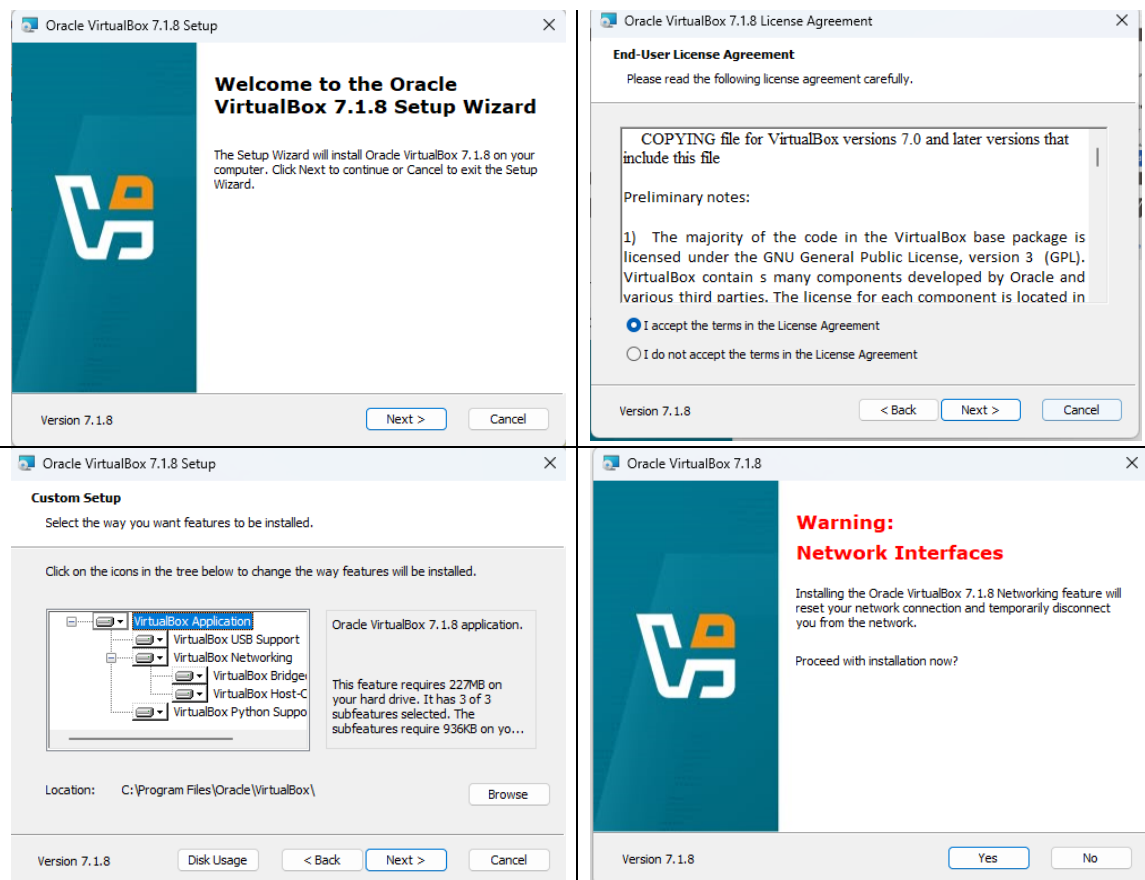


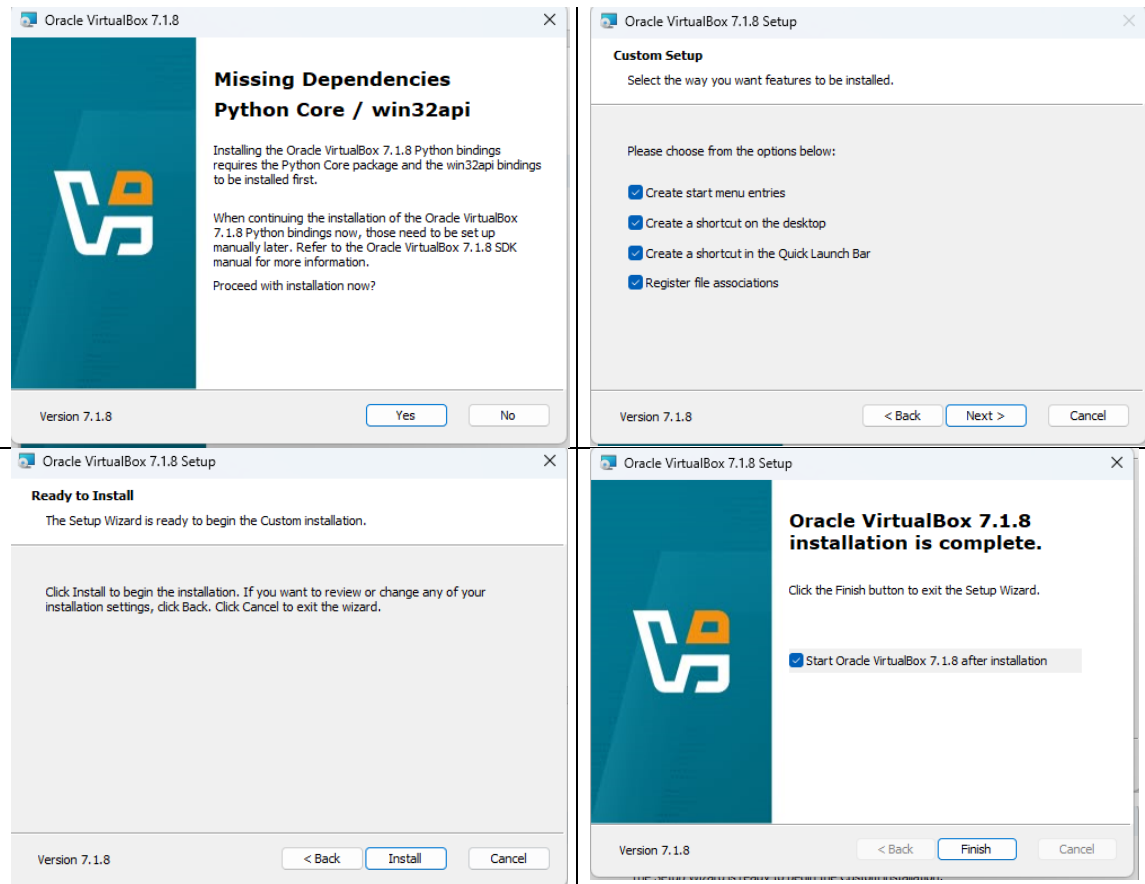
Instalación de virtual box

1. Entrar a <https://www.virtualbox.org/wiki/Downloads> y descargar la opción Windows Host



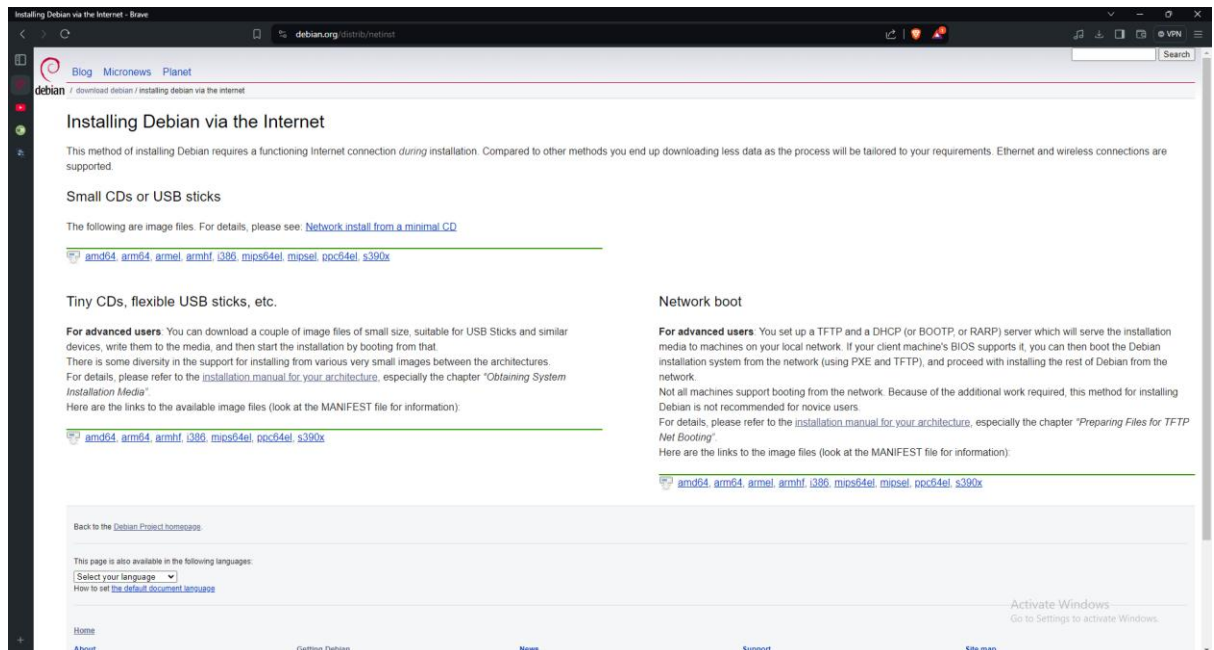
2. Una vez descargado el instalador, ejecutarlo y seguir los pasos que se muestran.



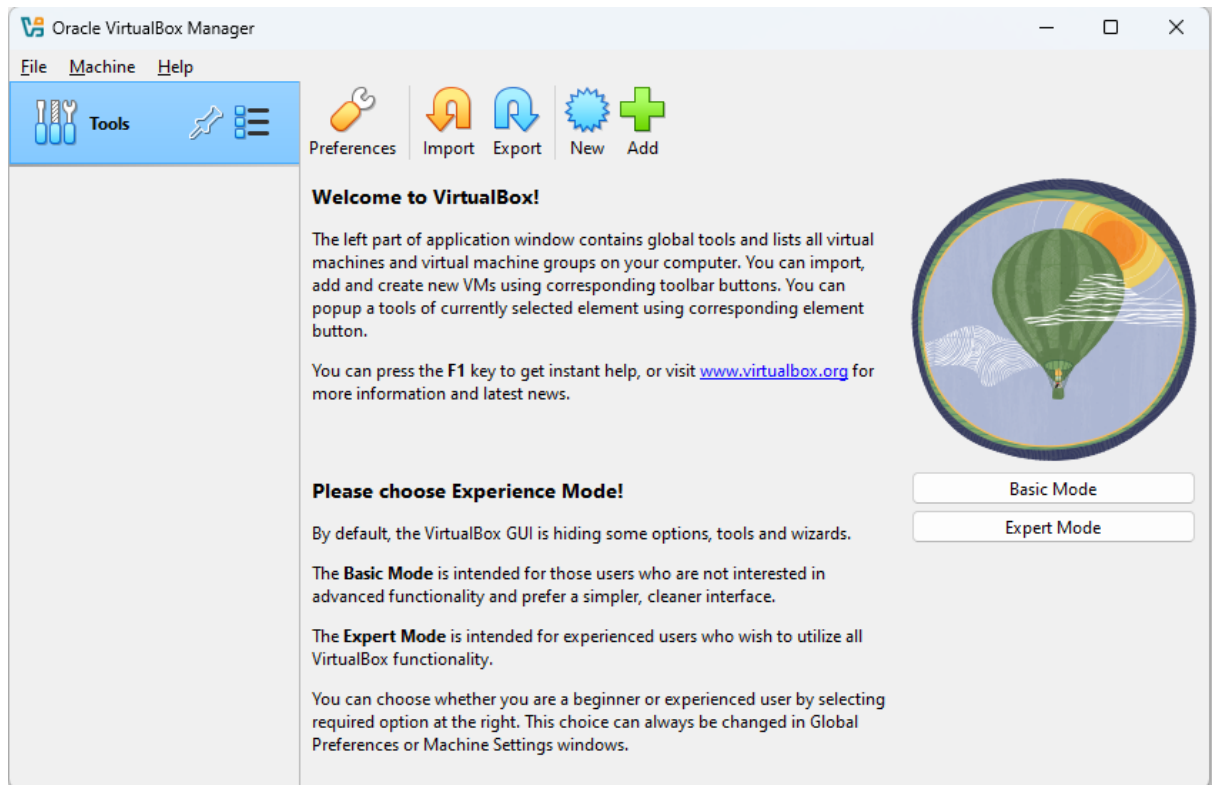


Instalación de Debian

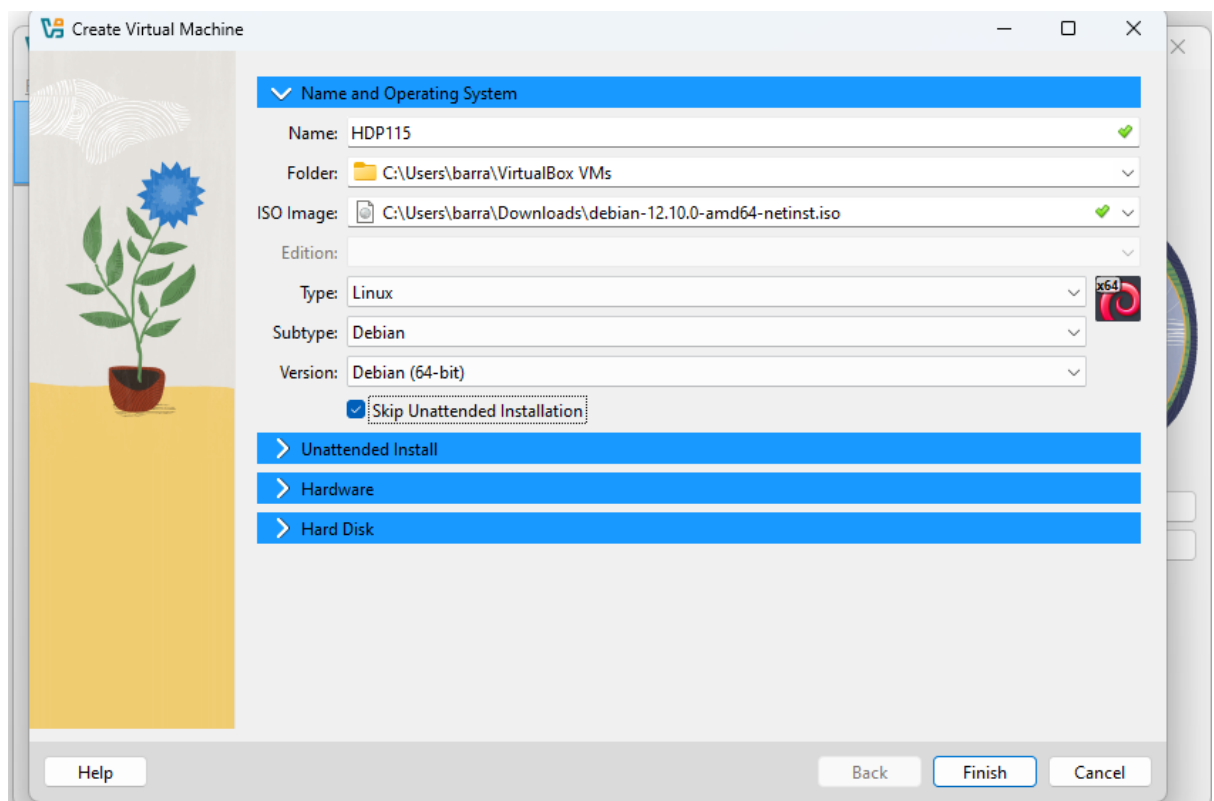
1. Descargar el ISO en la página oficial de Debian <https://www.debian.org/distrib/netinst>.



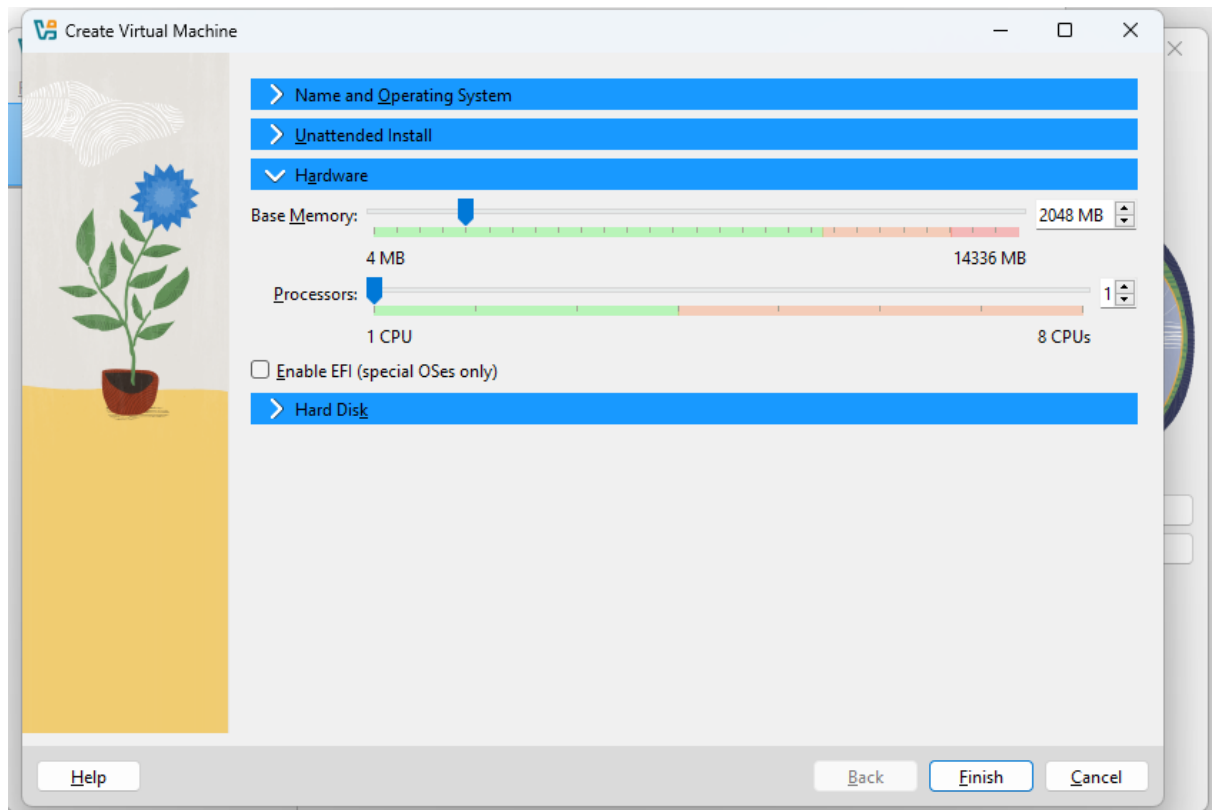
2. Abrir VirtualBox y hacer click en New:



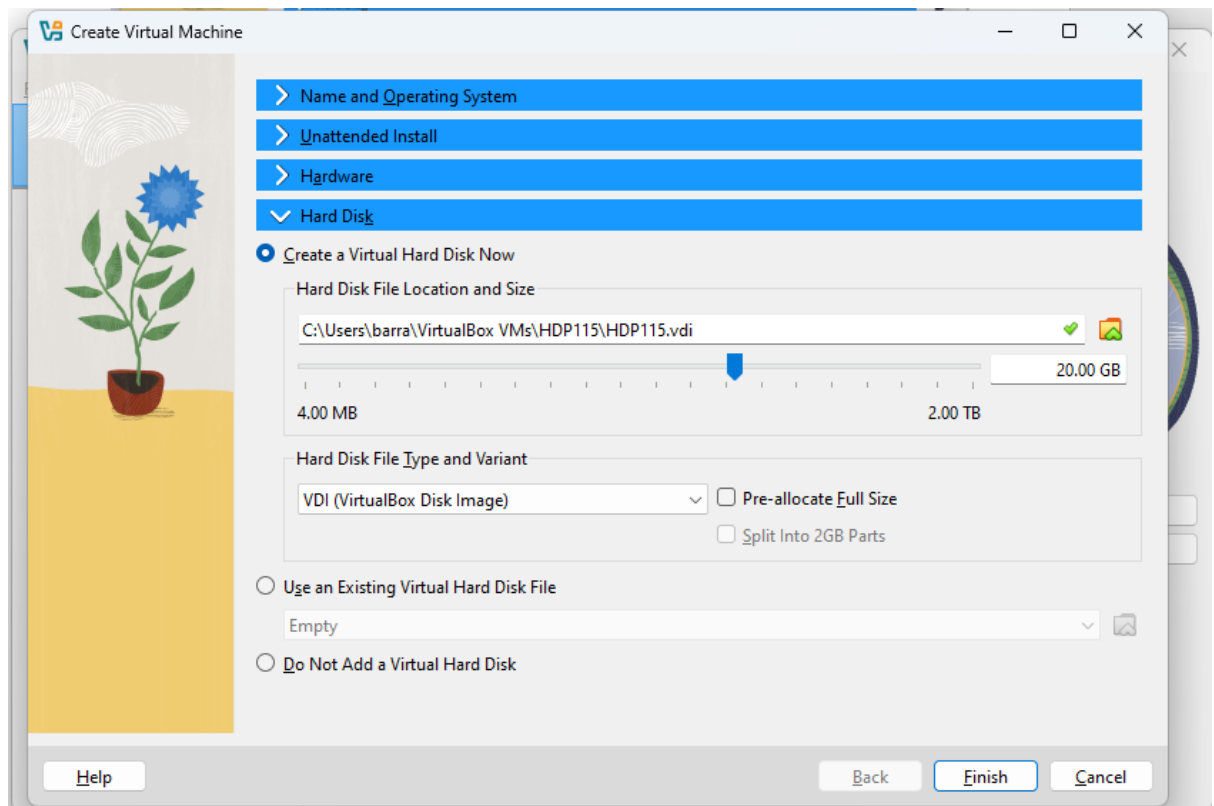
3. En el formulario que aparece, establecer el nombre de la máquina, seleccionar la imagen de Debian recién descargada y seleccionar la casilla Skip Unattended Installation.



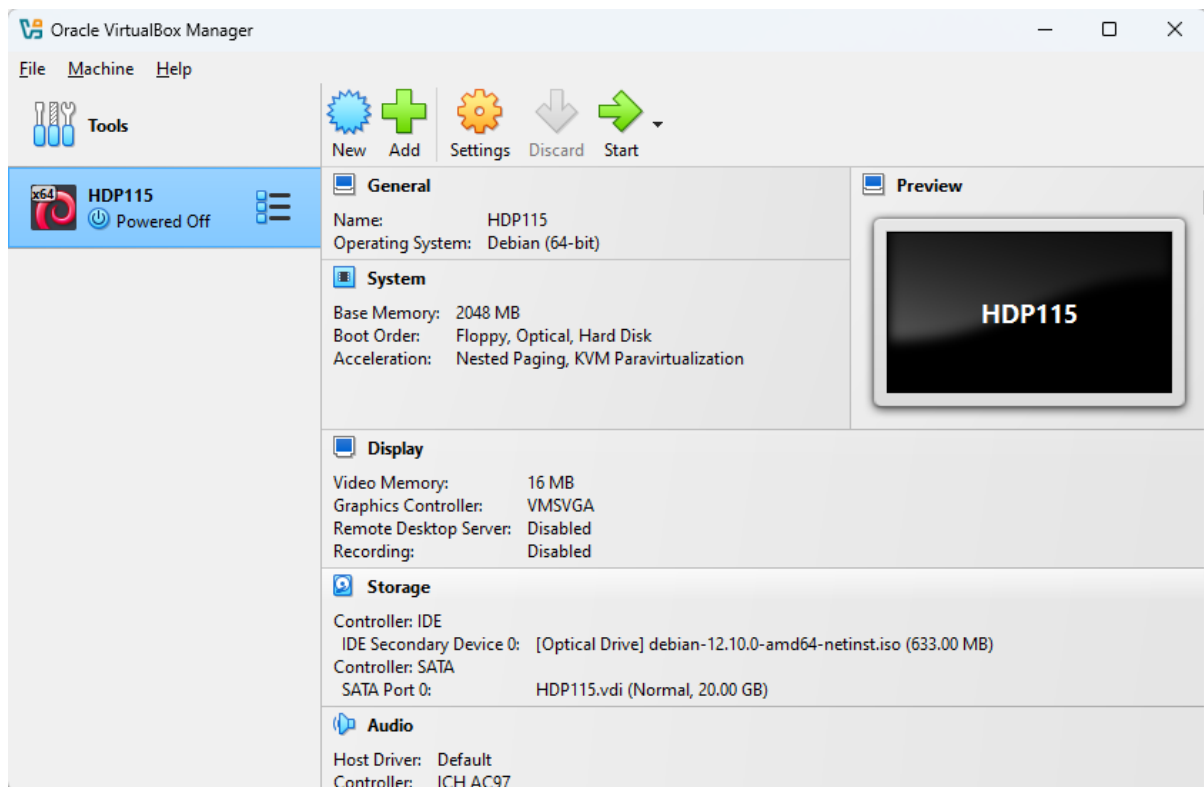
4. Establecer la cantidad de RAM y CPUs virtuales, para este proyecto se usaron los valores por defecto (2GB de RAM y 1 CPU)



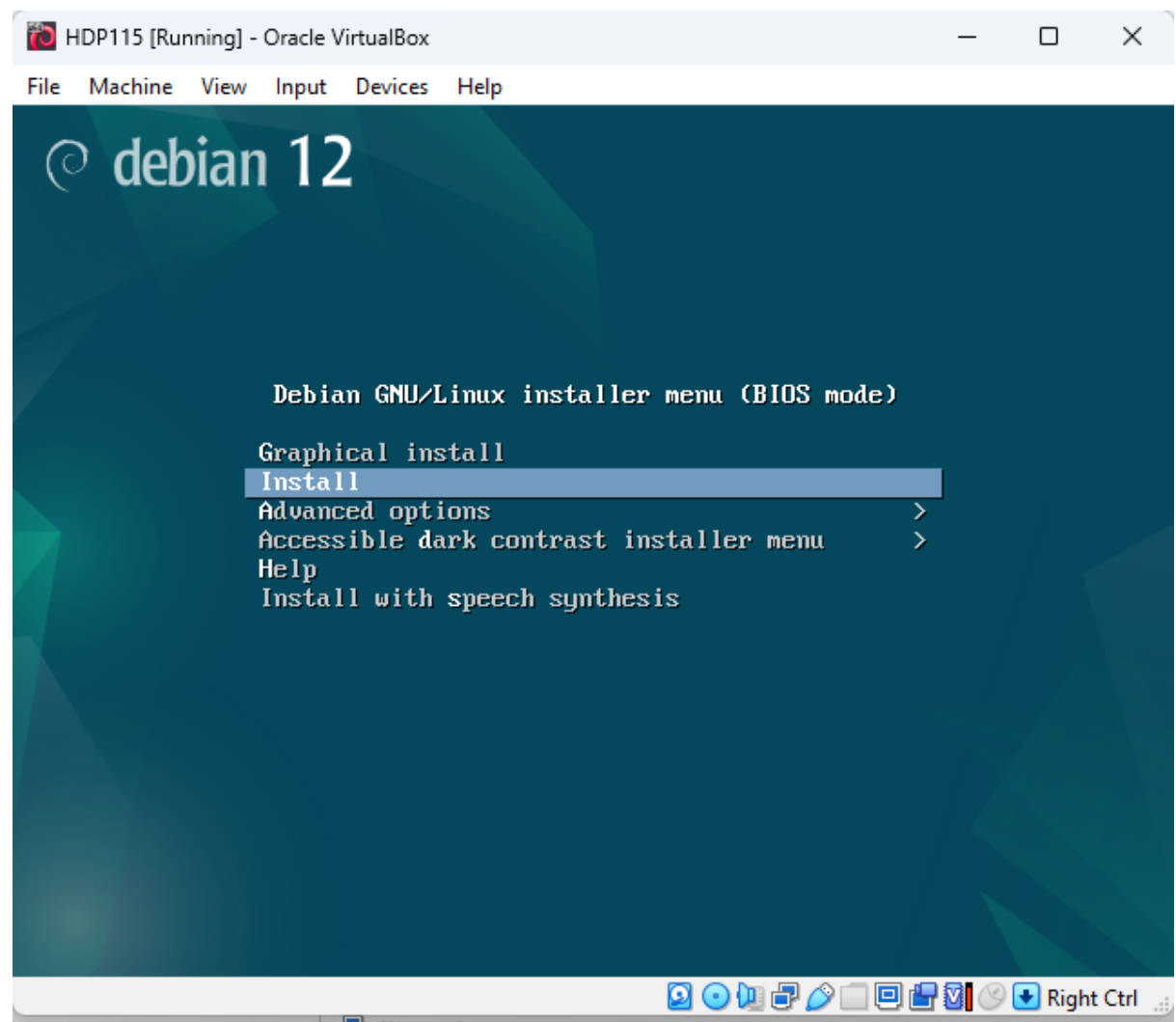
5. Establecer la cantidad de almacenamiento ROM de la máquina, en este proyecto se usó 20 GB.



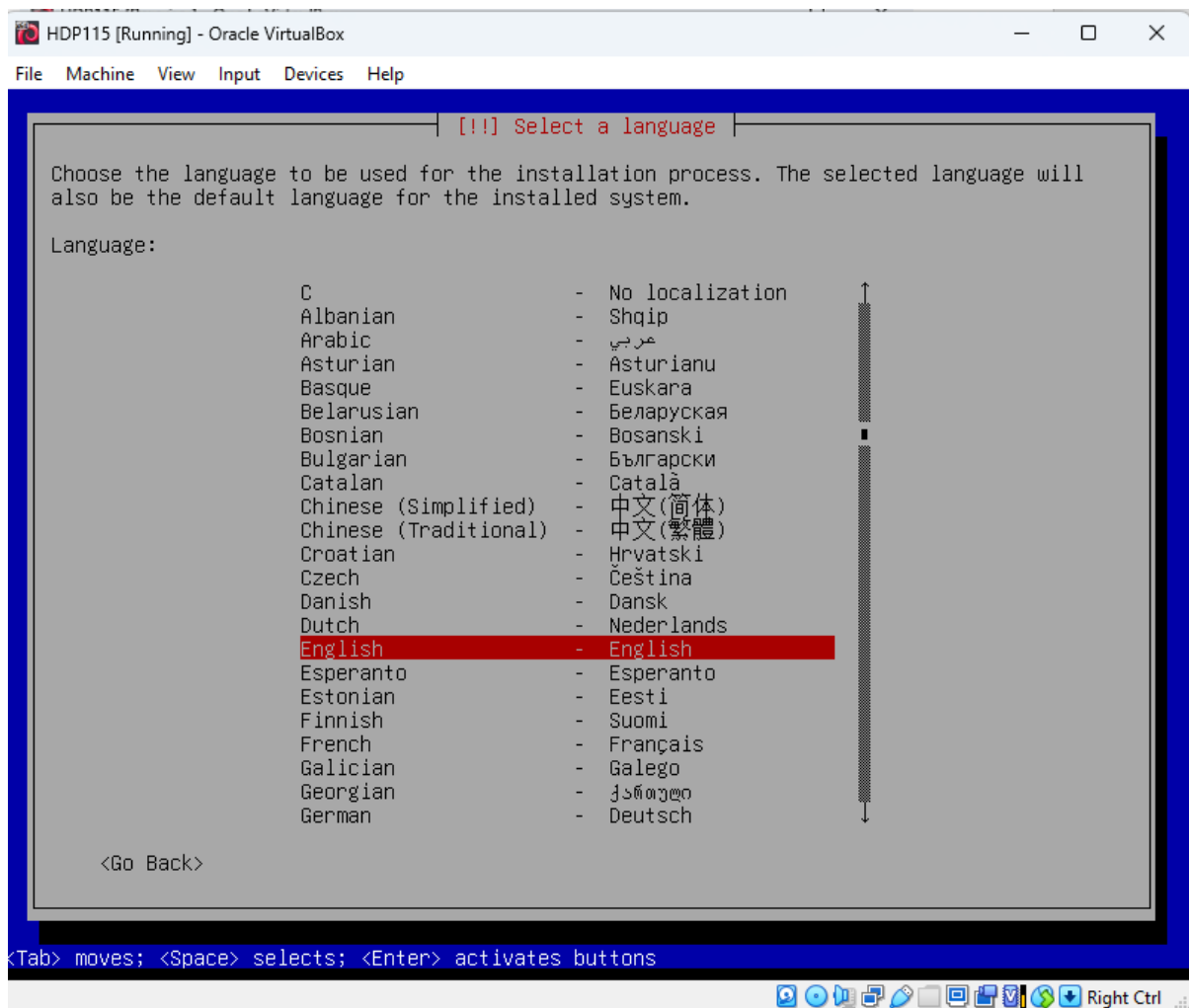
6. Finalizar la instalación e iniciar la máquina.



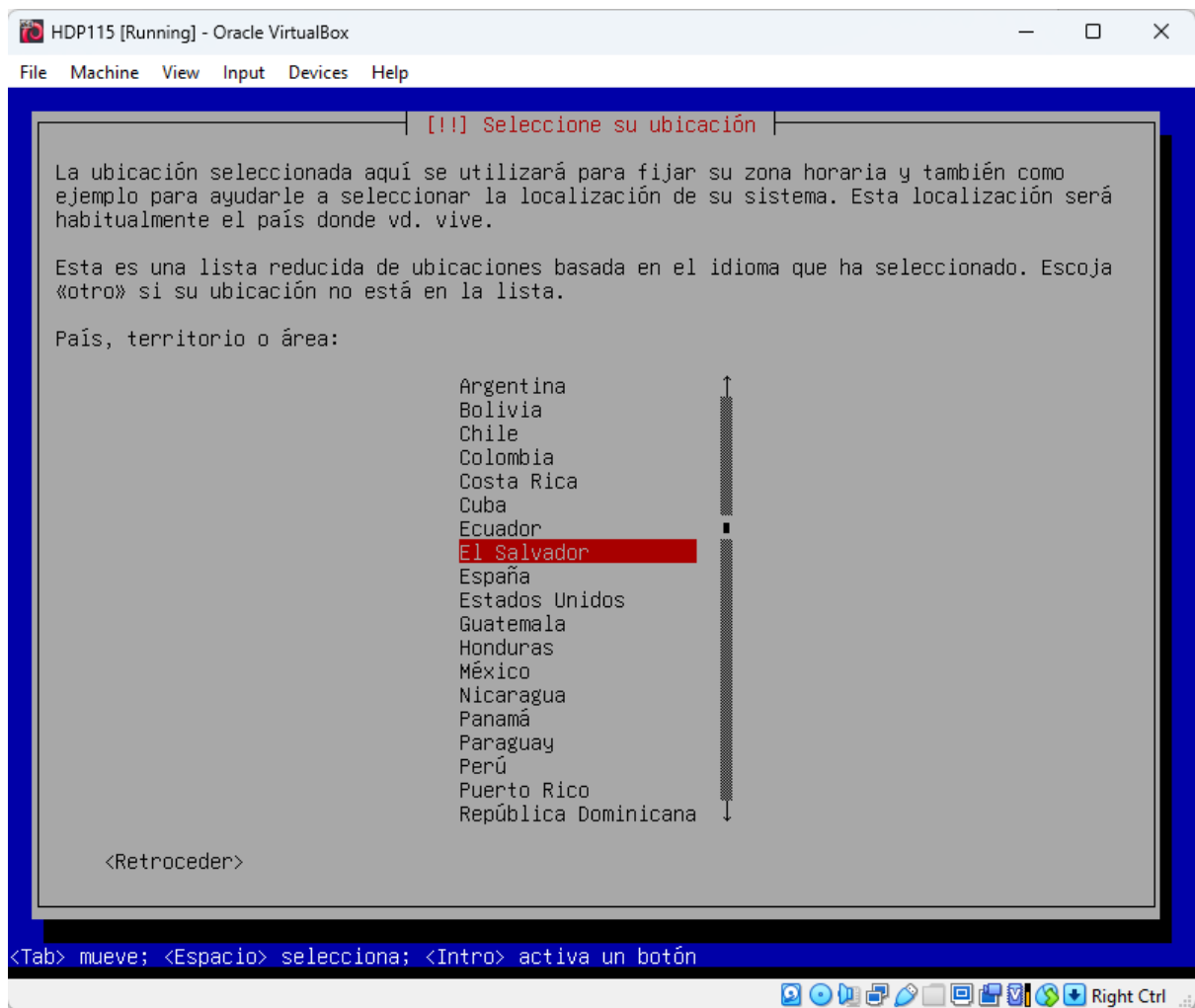
7. Seleccionar la instalación sin graficos



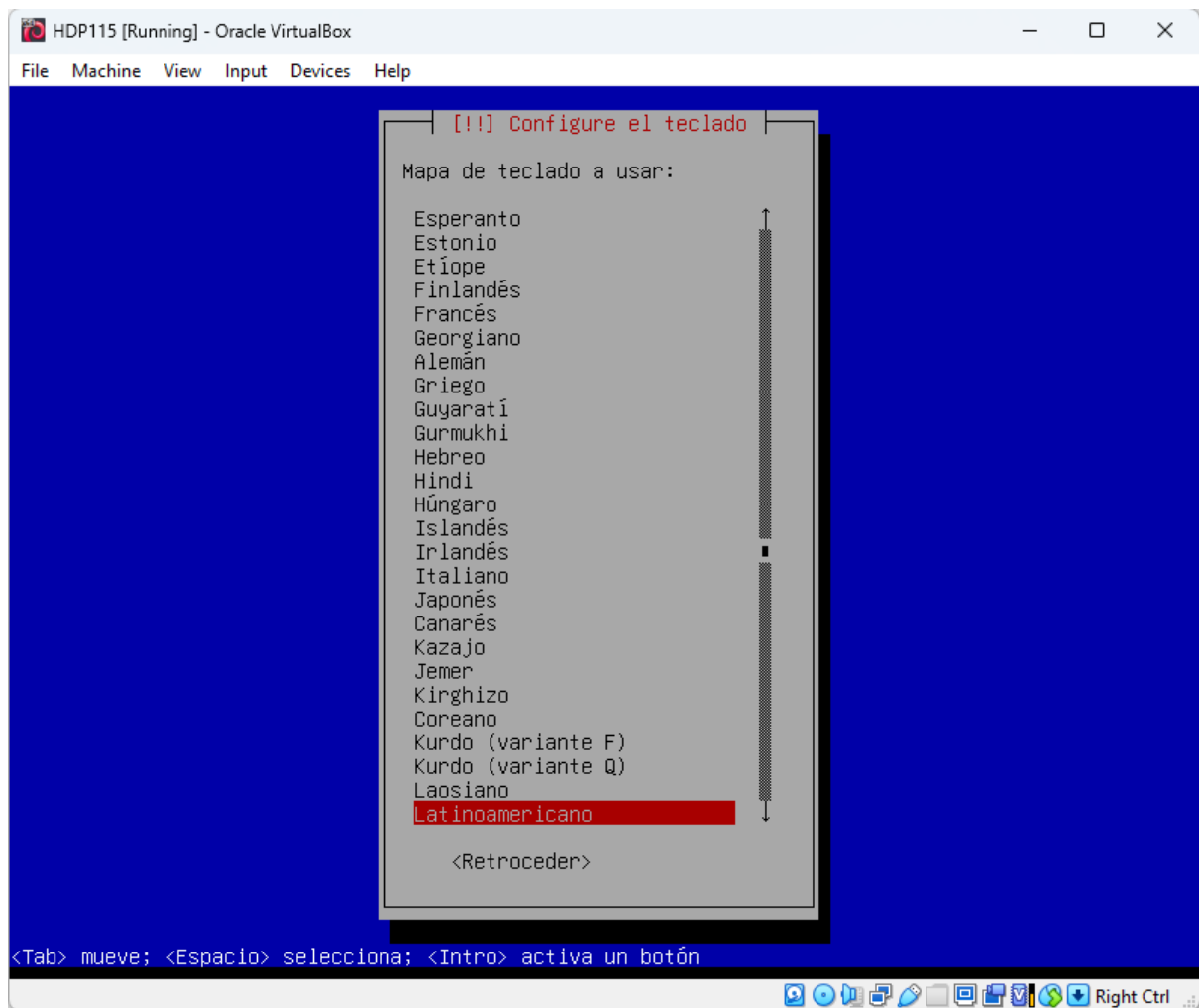
8. Seleccionar el idioma



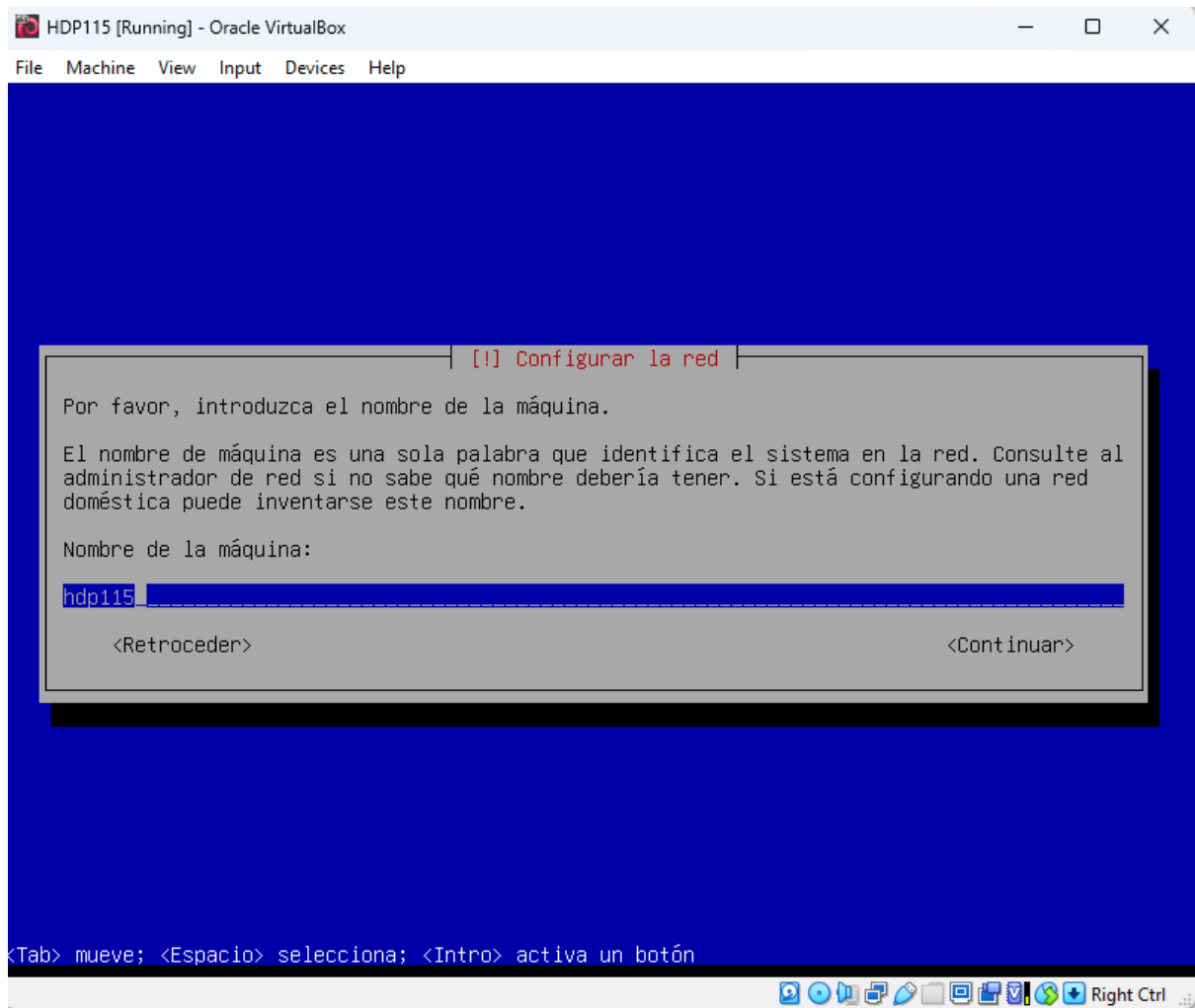
9. Seleccionar la ubicación.



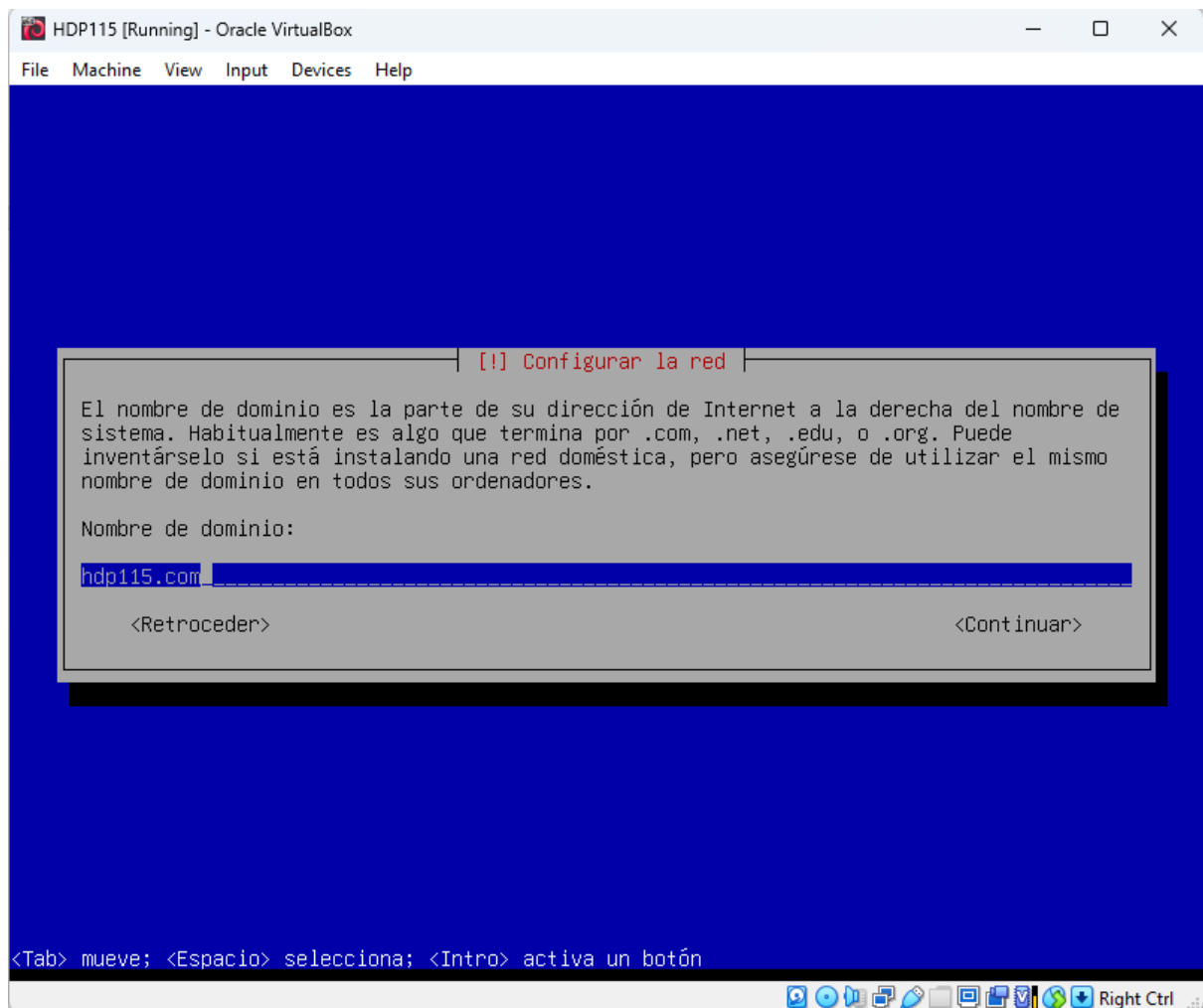
10. Seleccionar la distribución de teclado.



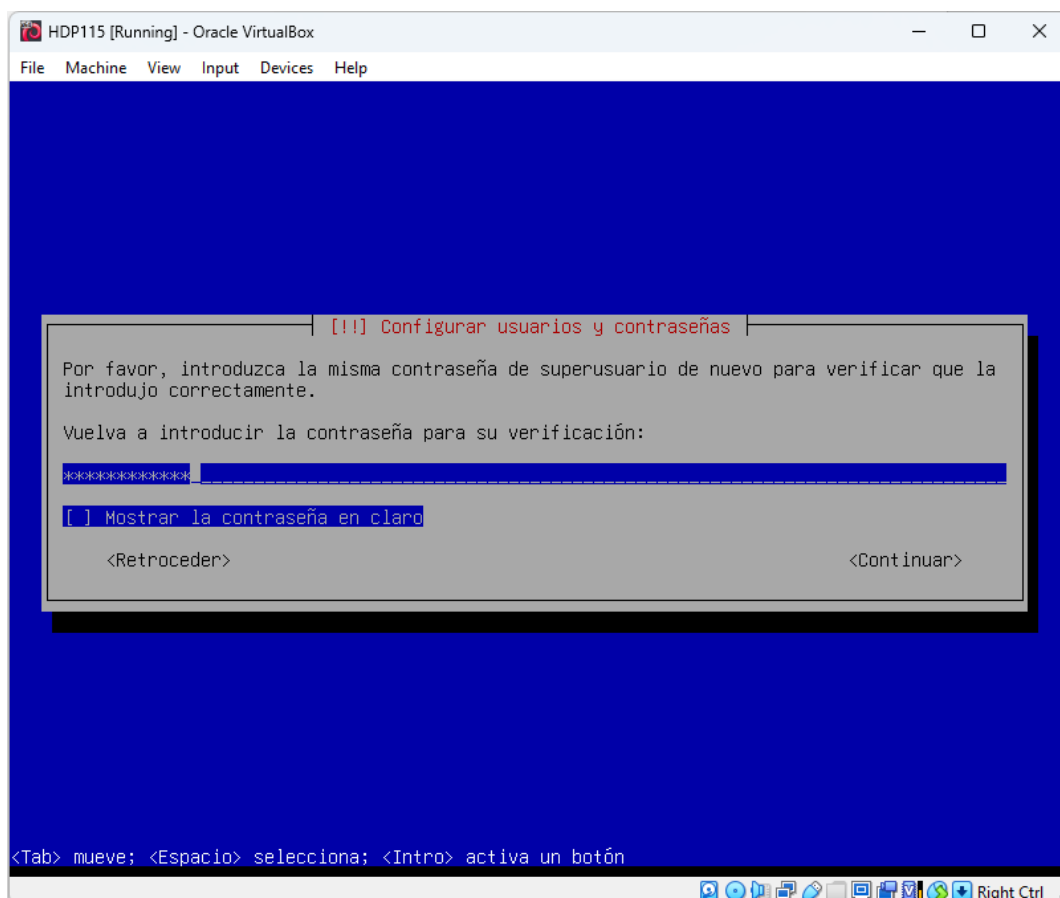
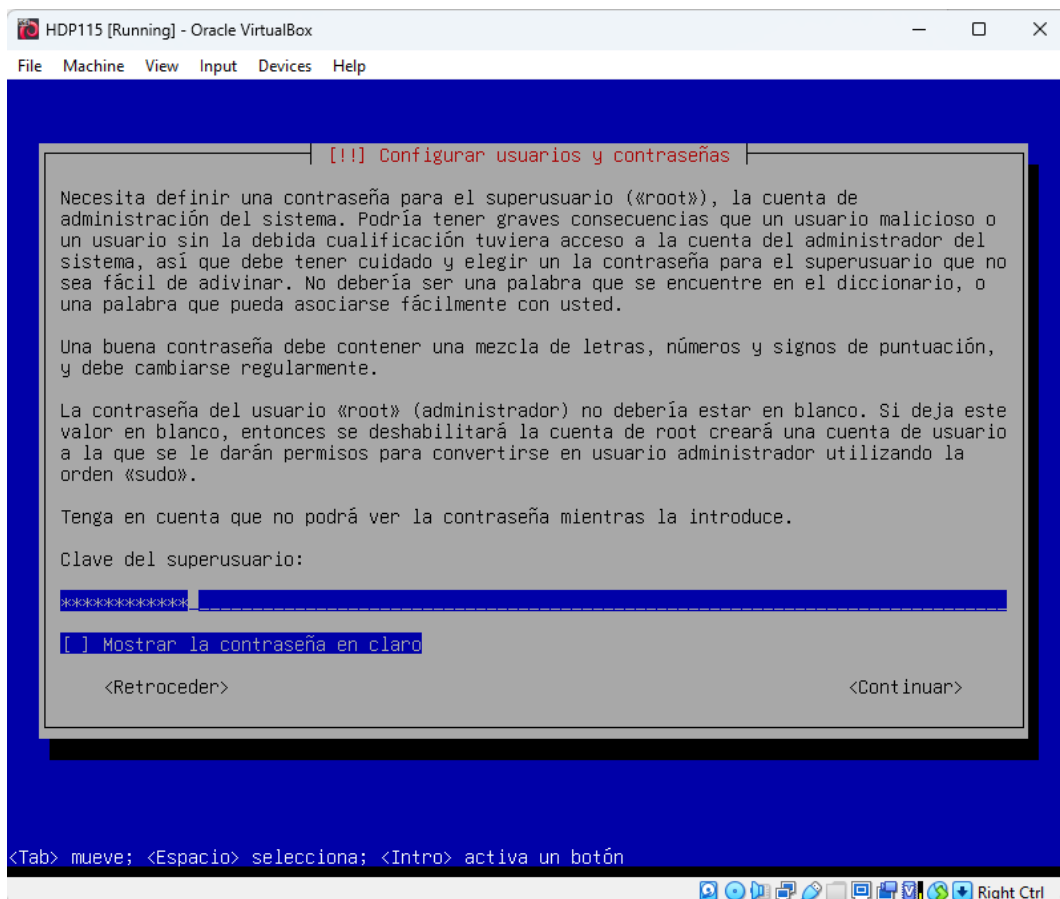
11. Configurar el nombre de la maquina.



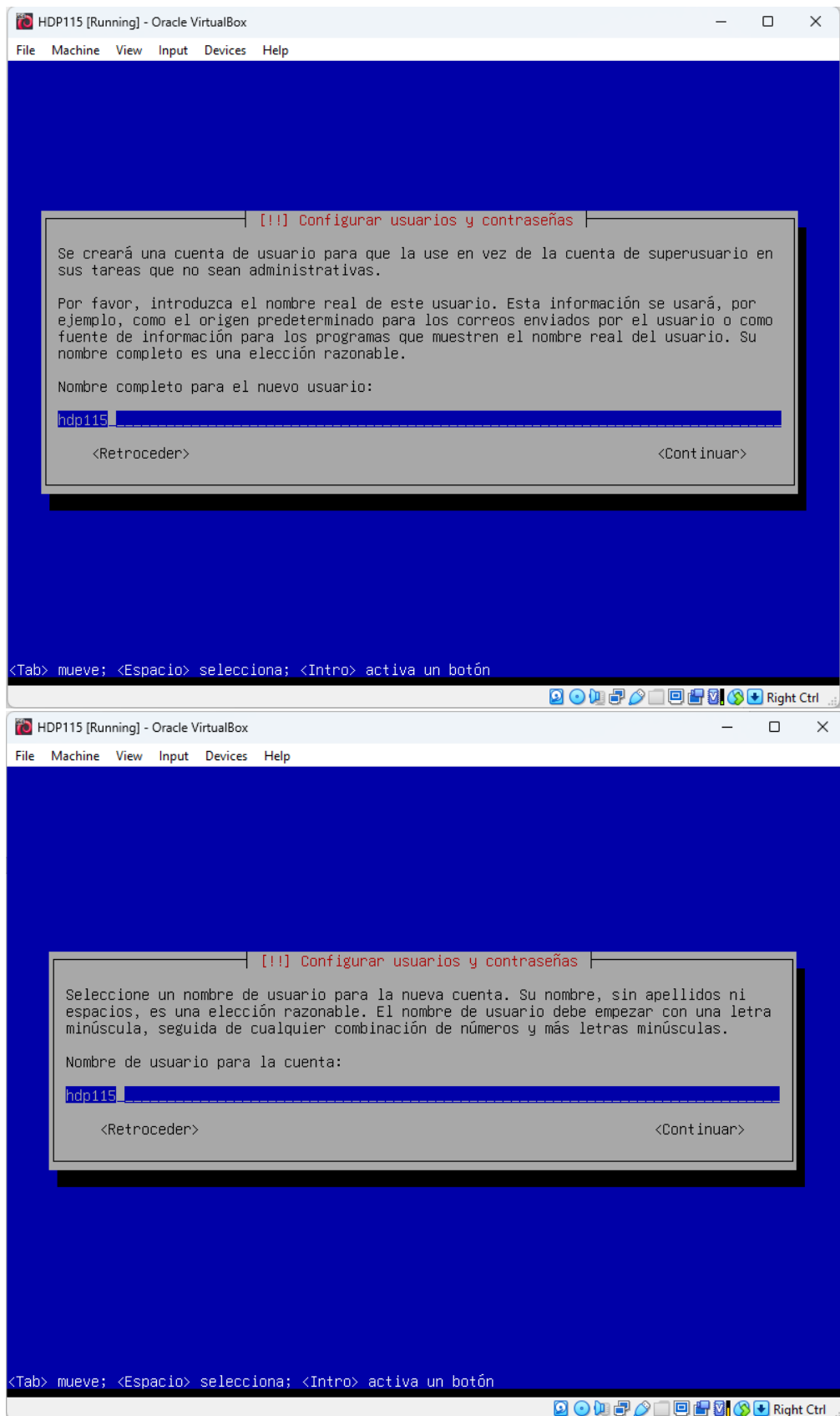
12. Configurar la red. Ya que se usó una red local, el nombre de dominio fue inventado.

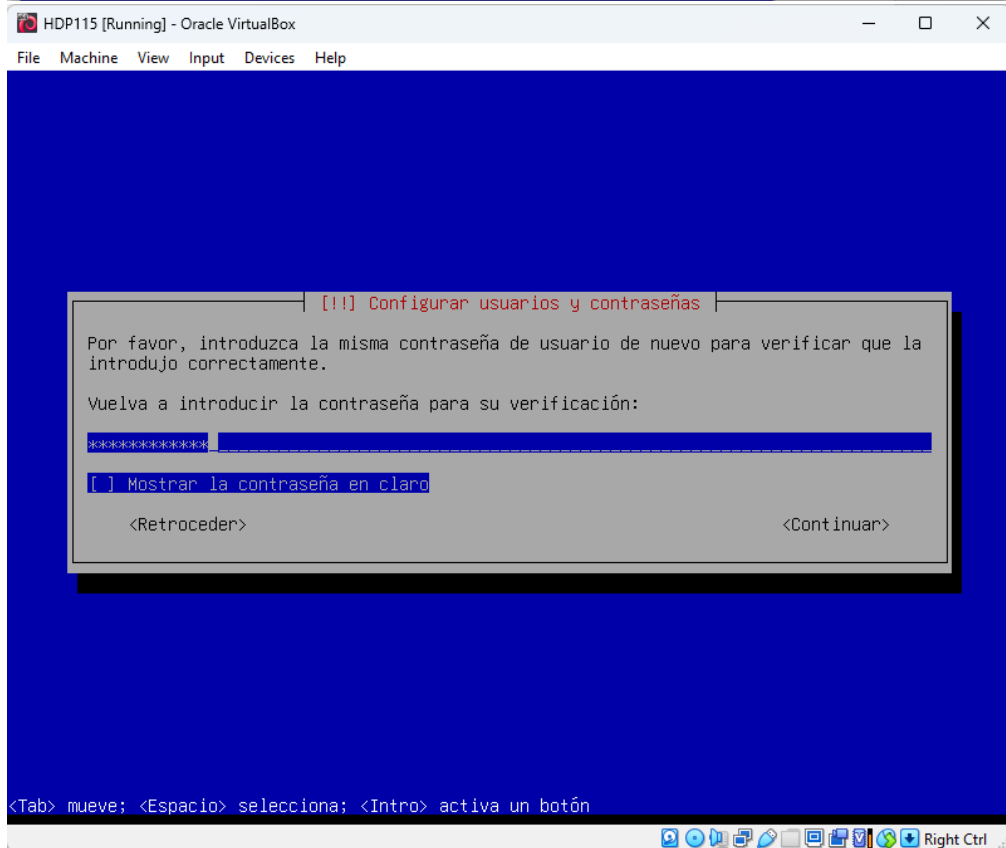
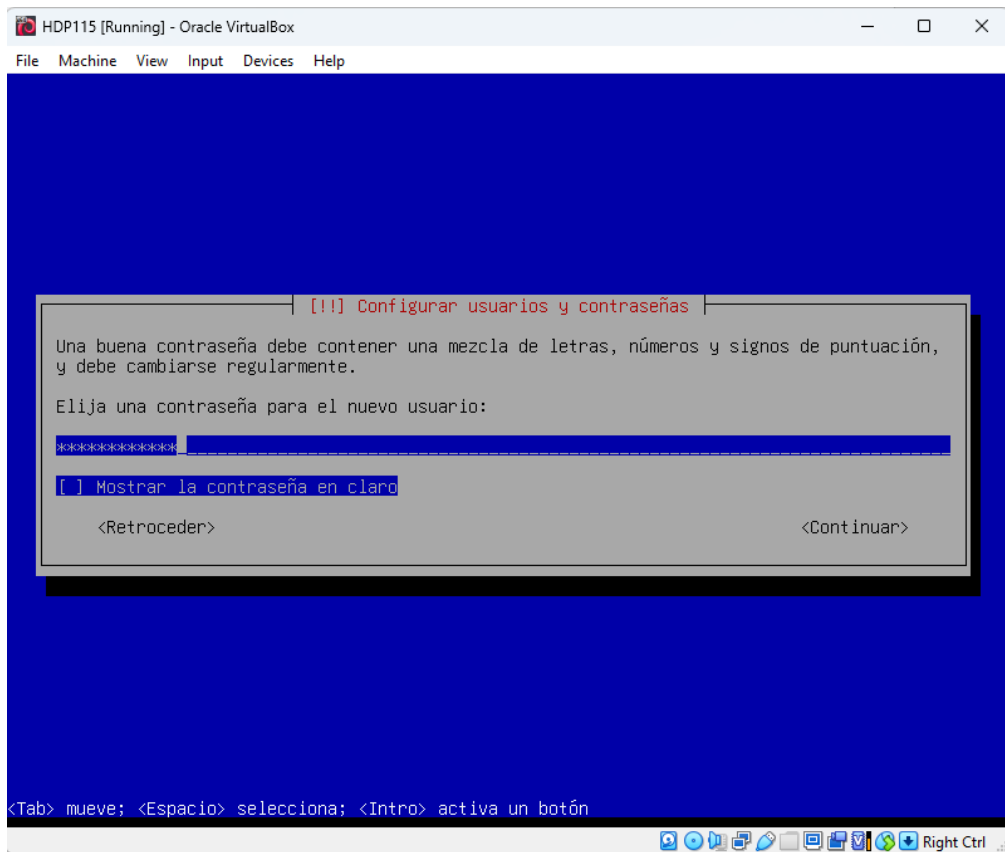


13. Establecer la contraseña para super usuario.

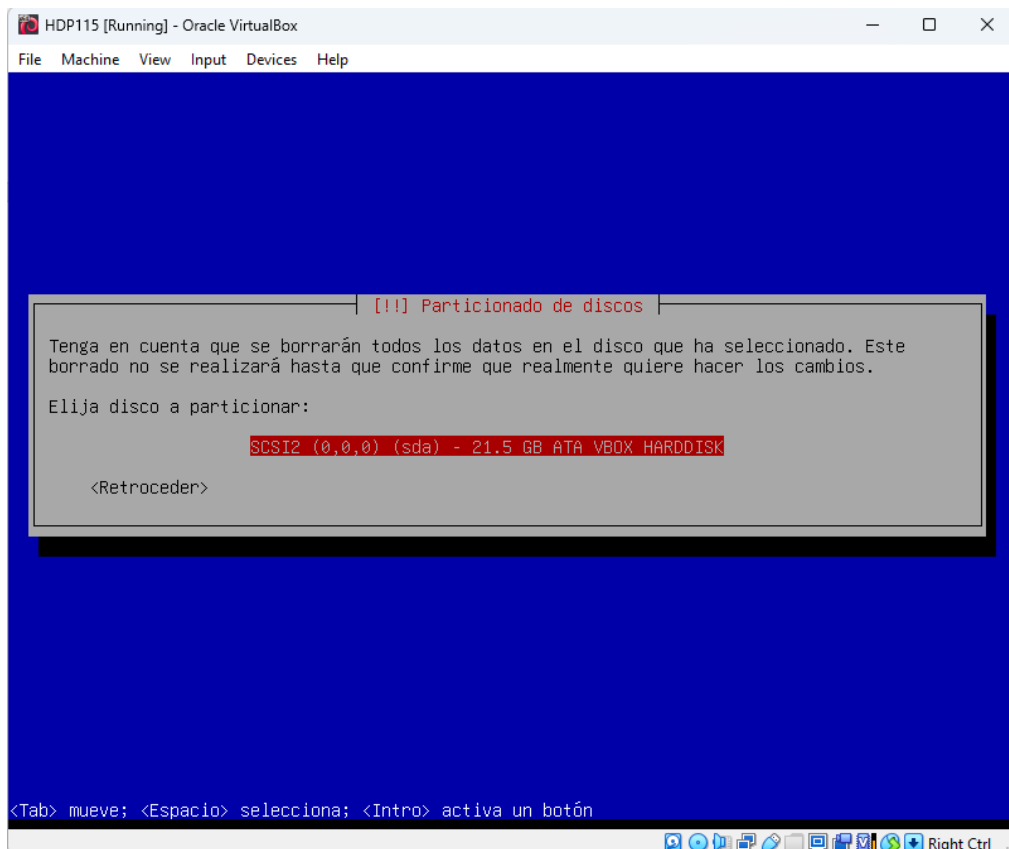
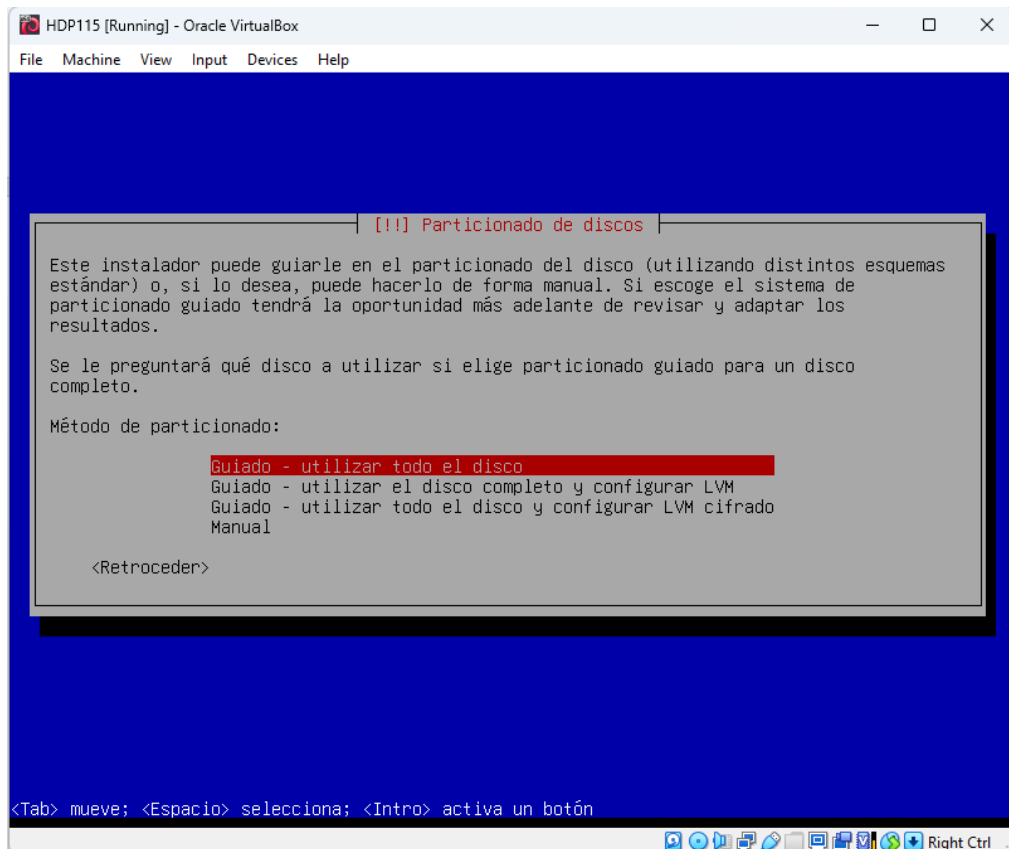


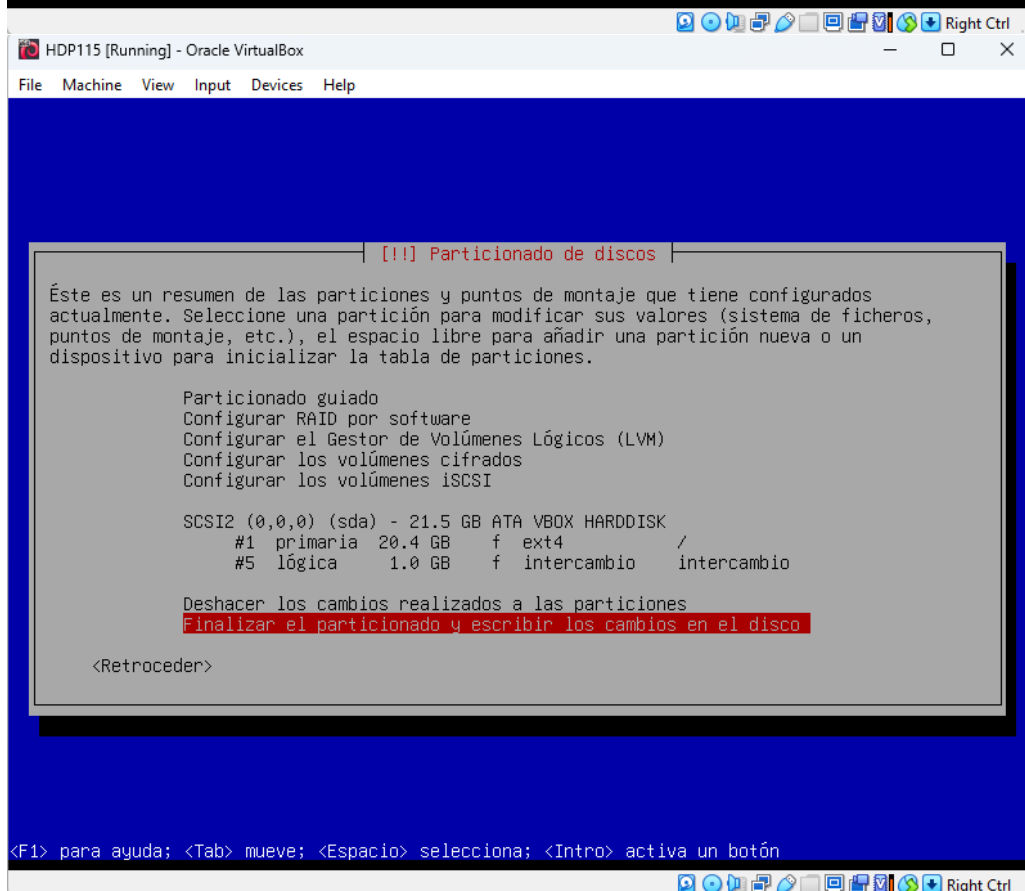
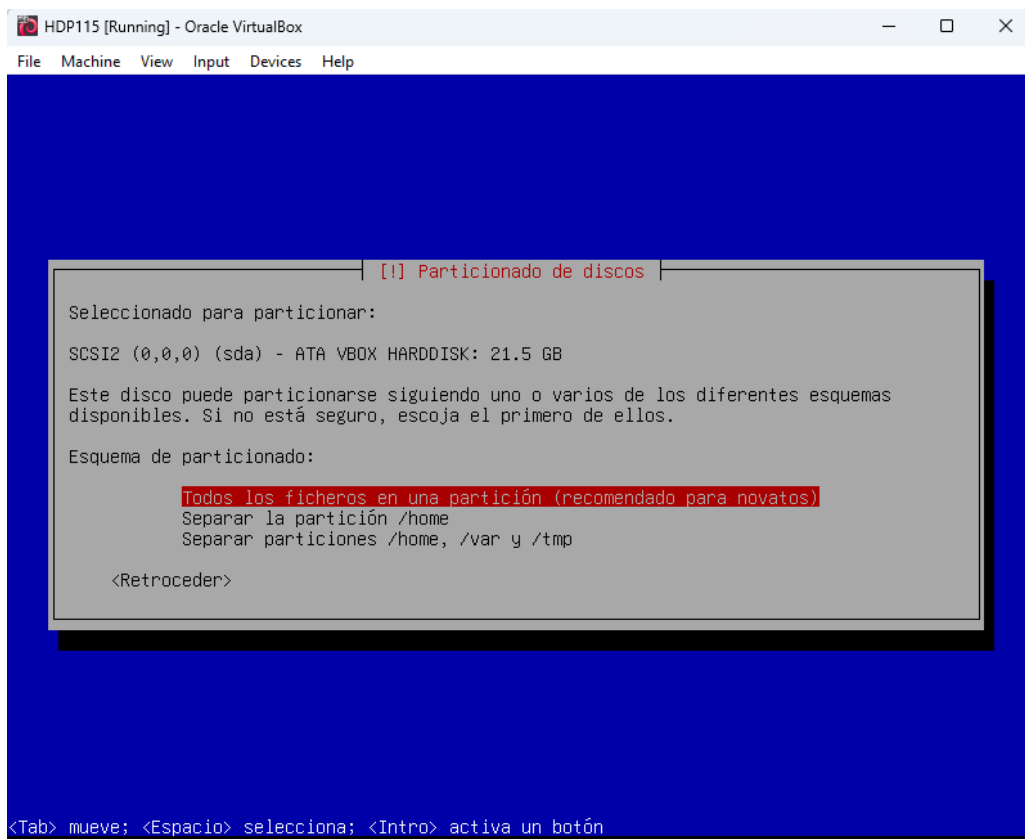
14. Configurar un nuevo usuario estableciendo su nombre de usuario con su respectiva contraseña.

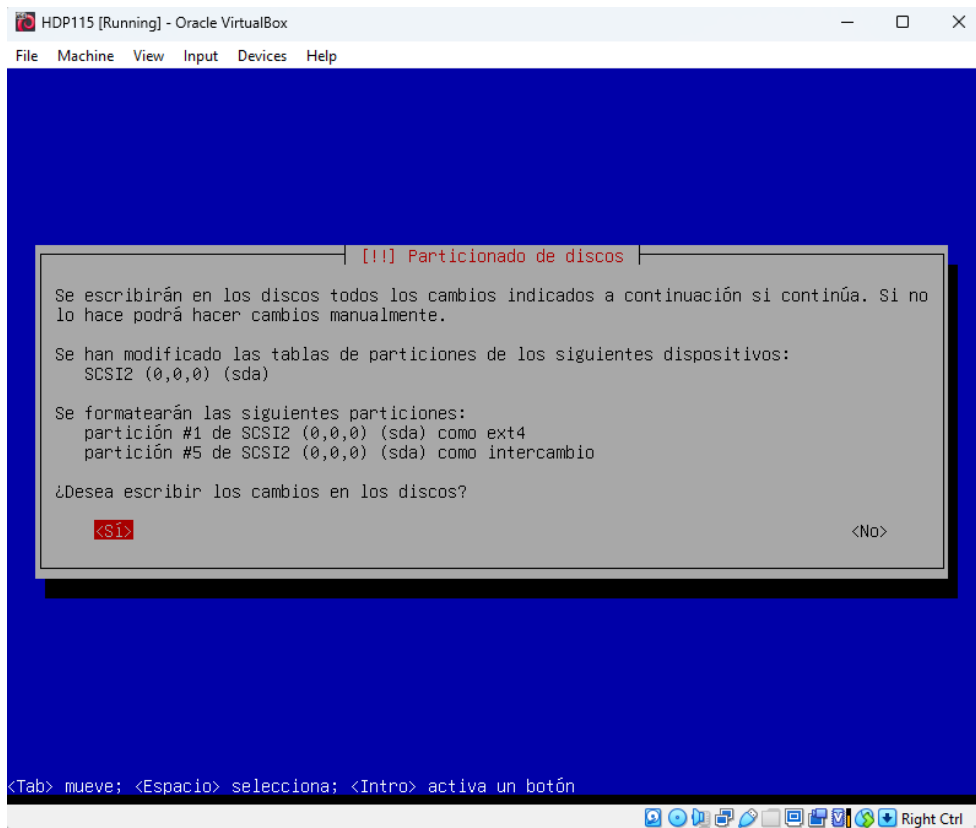




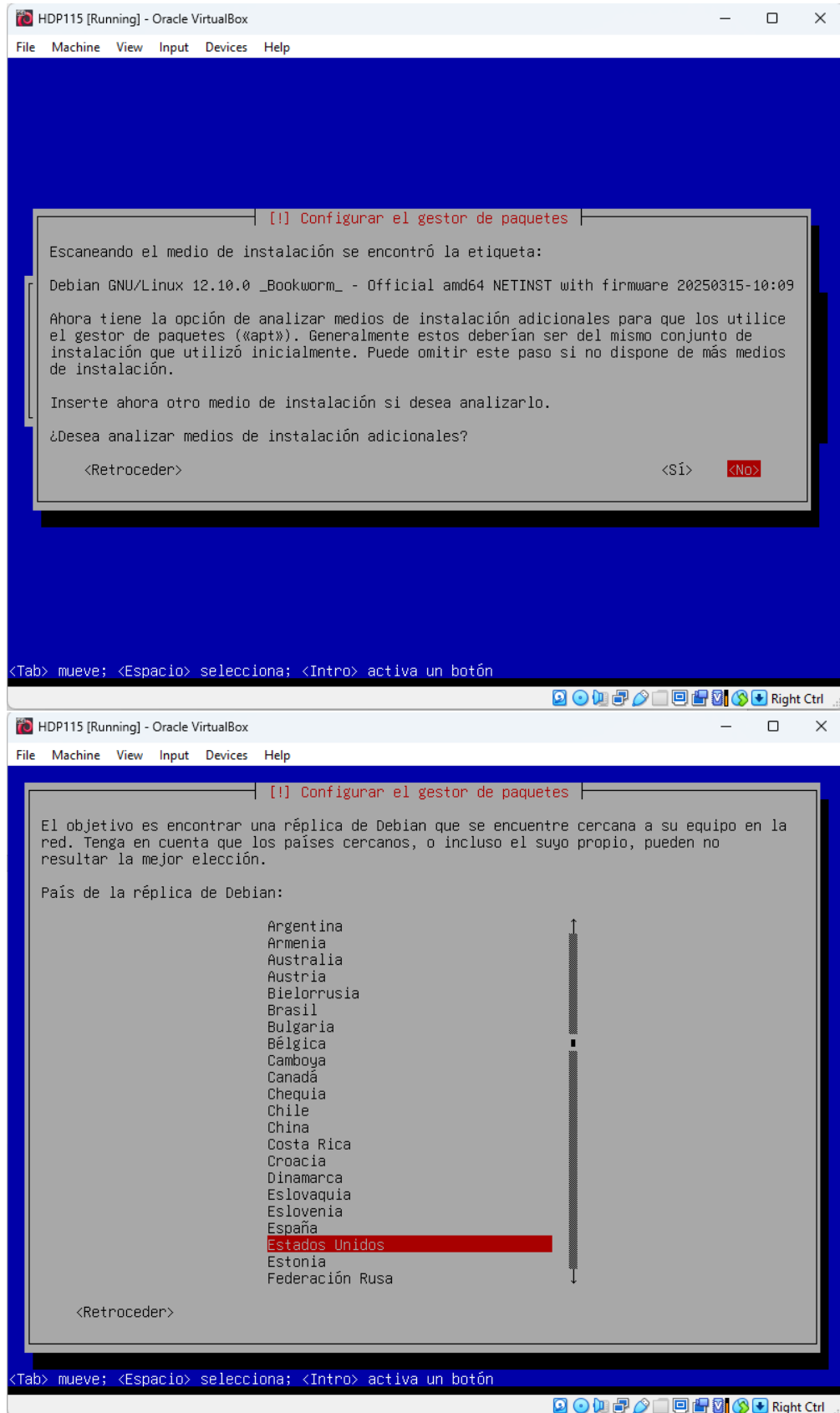
15. Configurar el disco de instalación, seleccionando el método de particionado a Utilizar todo el disco, el disco a particionar, el esquema de particionado a todo el disco y finalmente aceptar todas las demás preguntas.

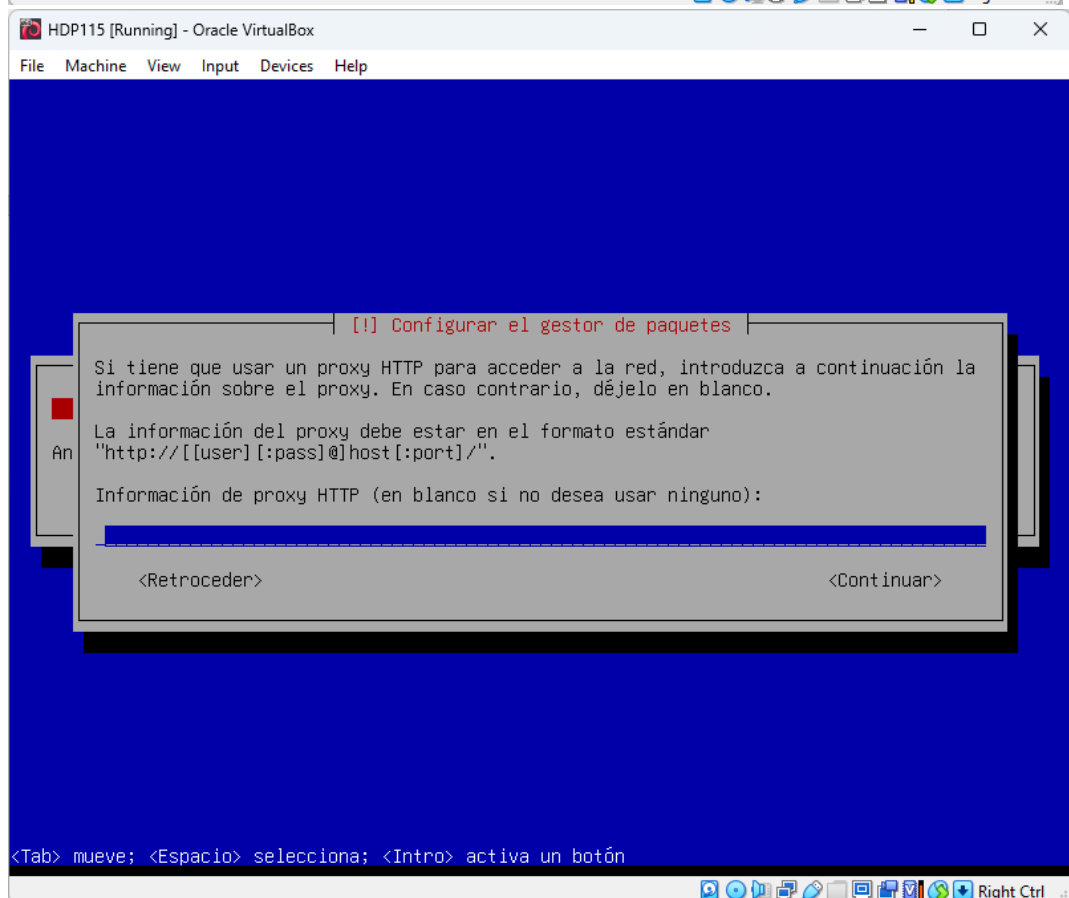
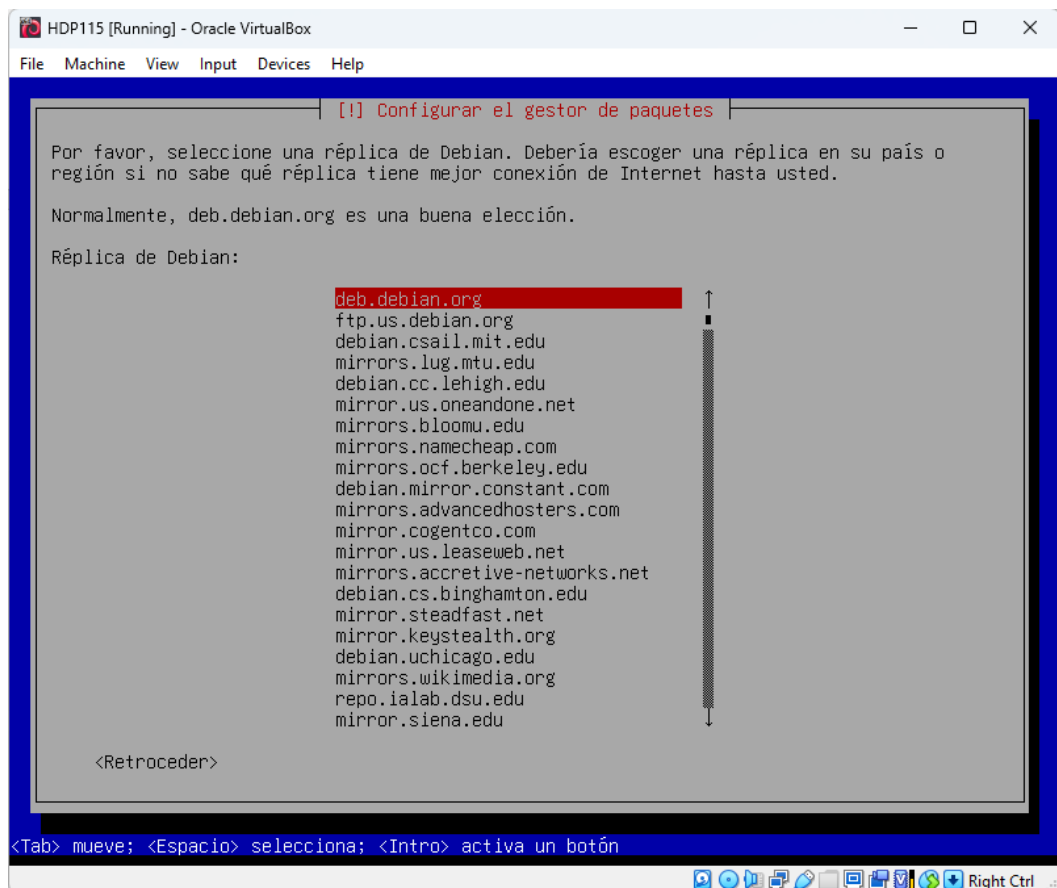


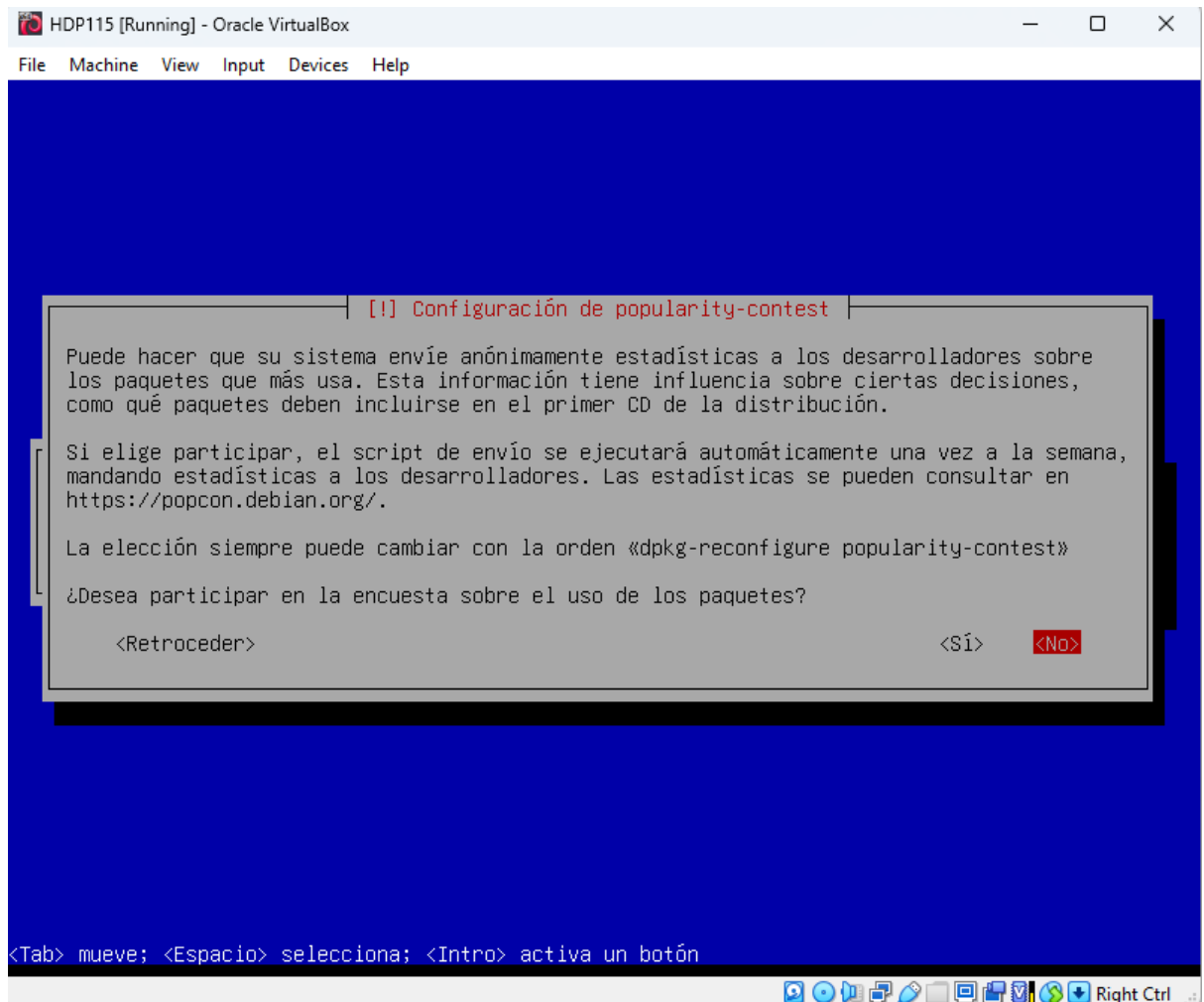




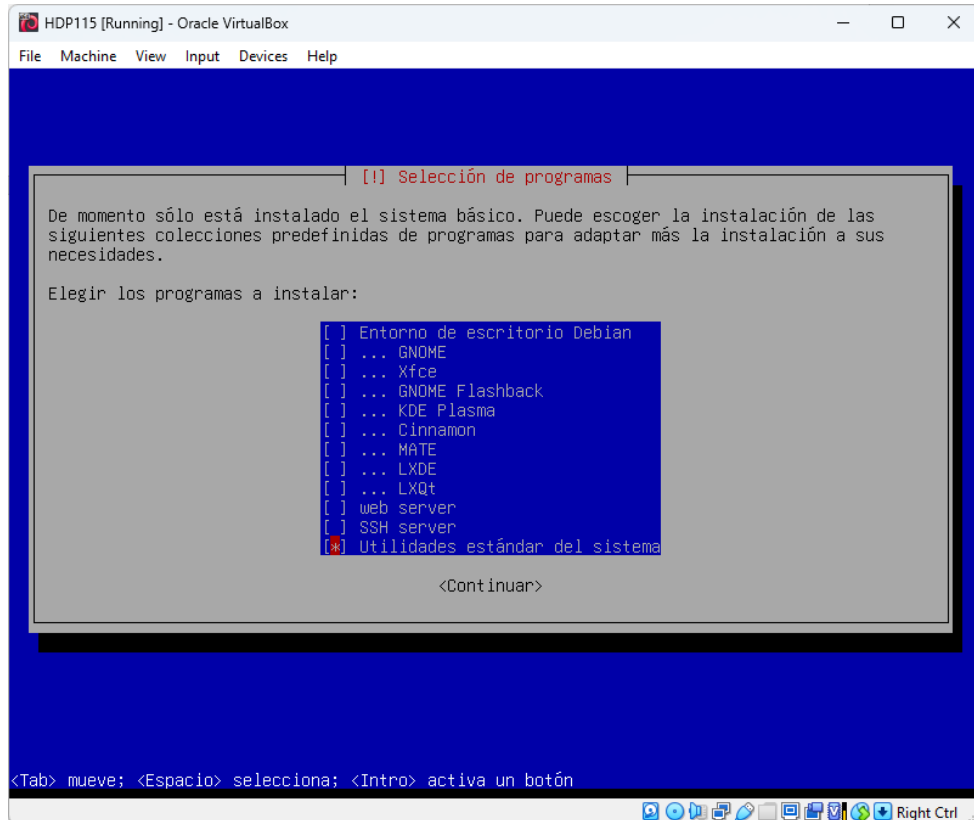
16. Configurar la región, réplica y proxy del gestor de debian.



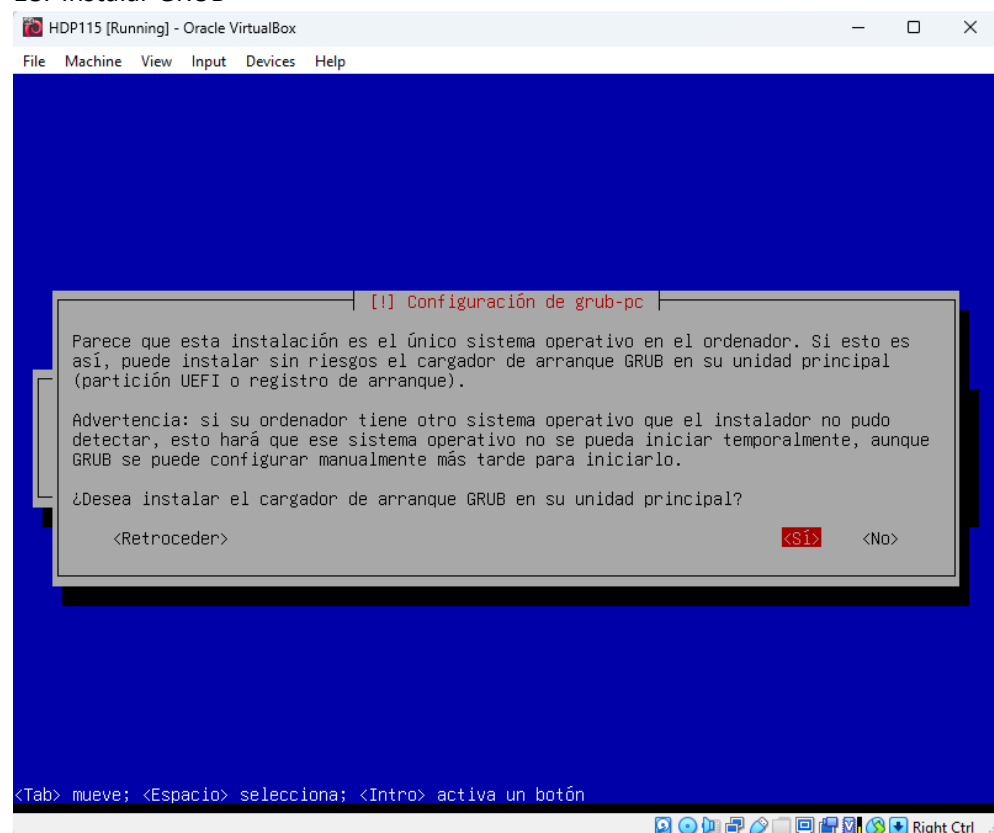


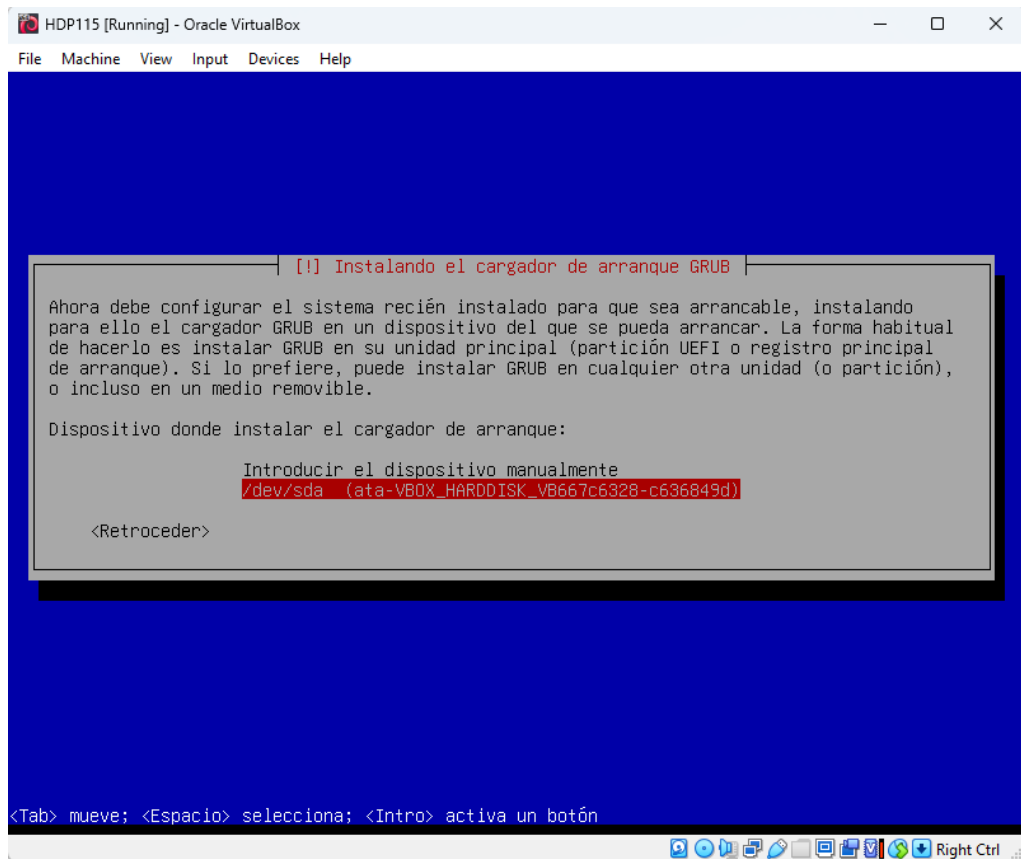


17. En la selección de programas, solamente dejar la opción de utilidades estándar del sistema

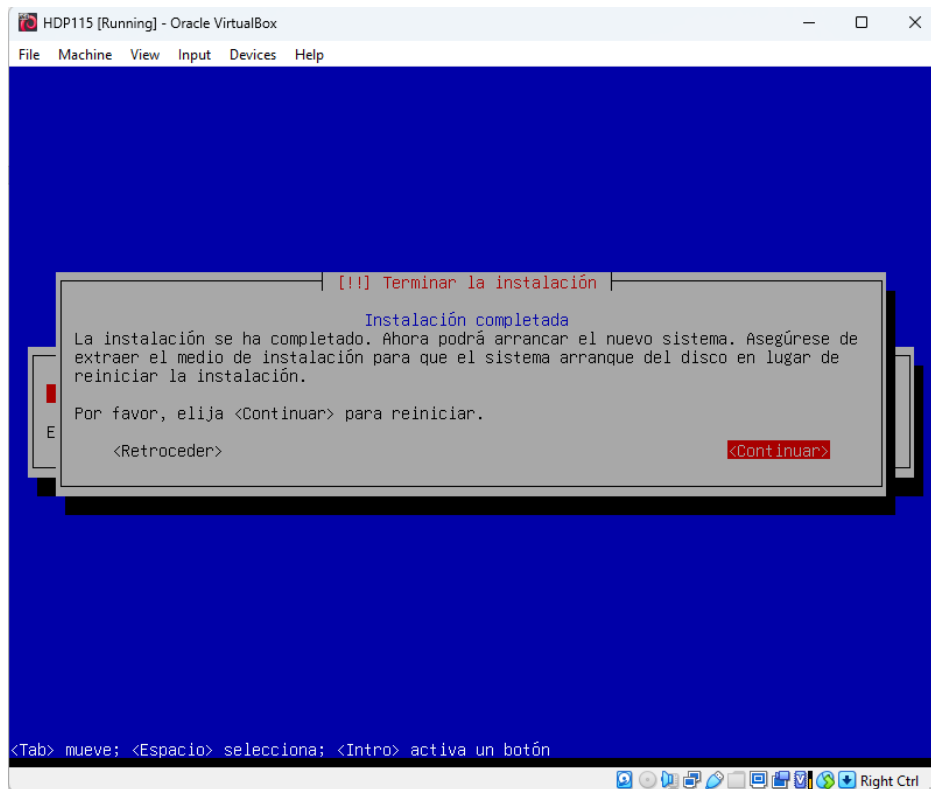


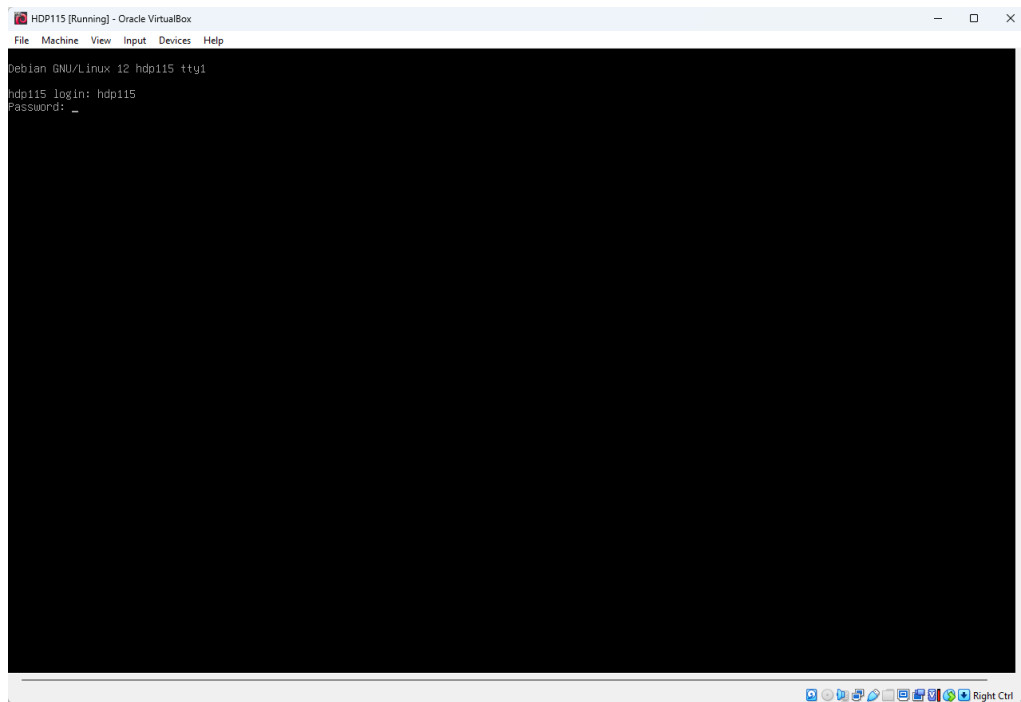
18. Instalar GRUB





19. Finalizar la instalación e iniciar sesión en con las credenciales anteriores.





Instalación de redmine y git

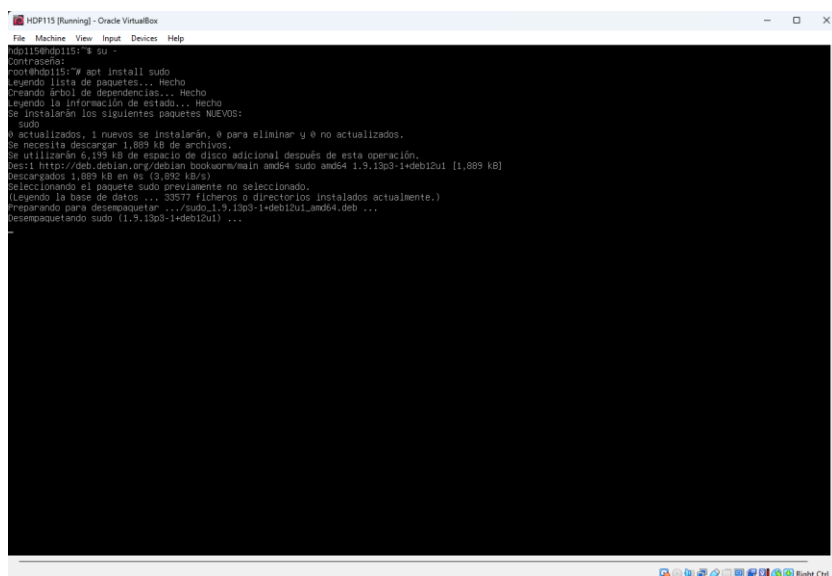
1. Ejecutar los siguientes comandos en orden para la instalación de sudo.

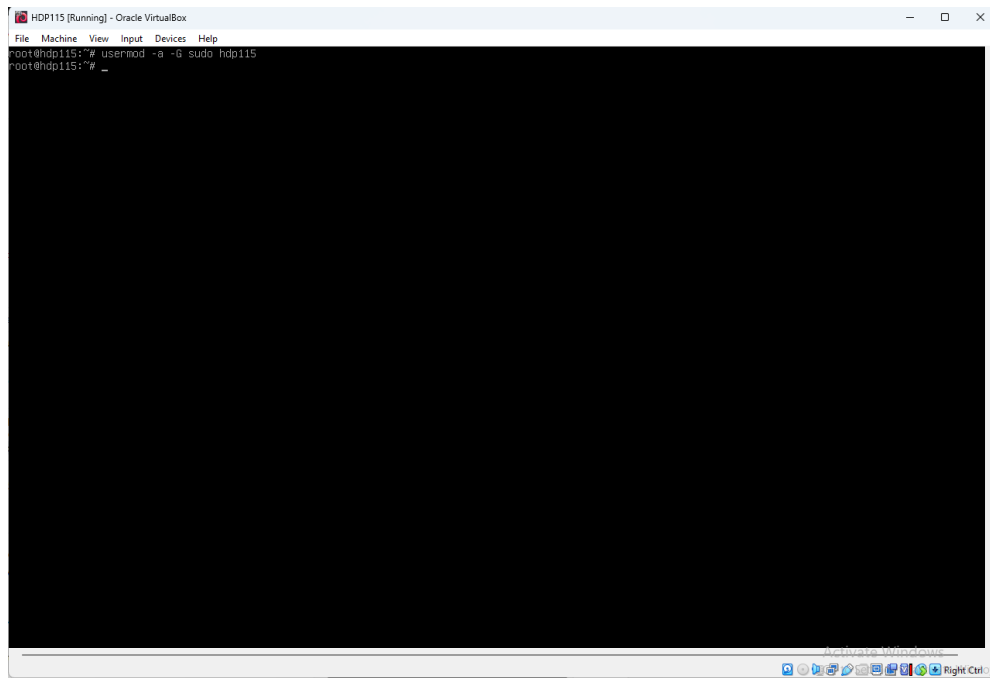
su —

apt install sudo

usermod -a -G sudo hdp115

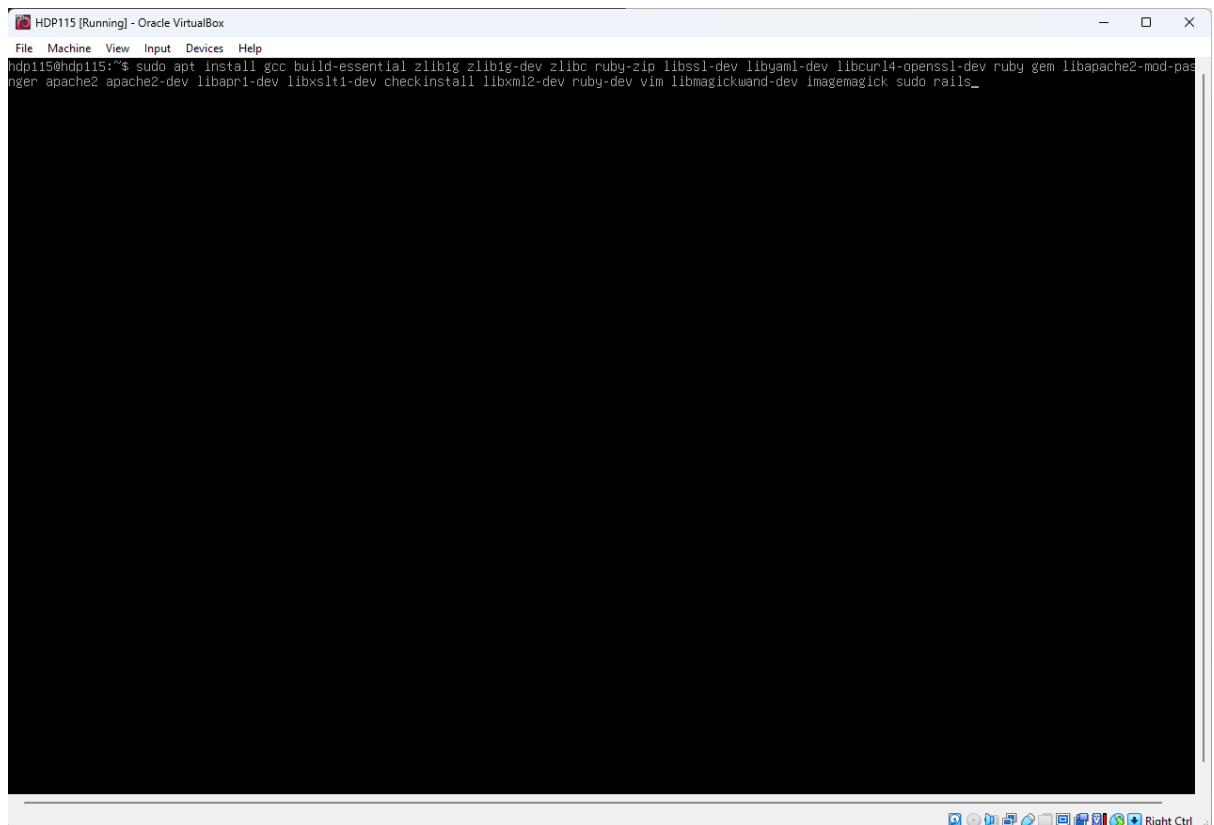
exit





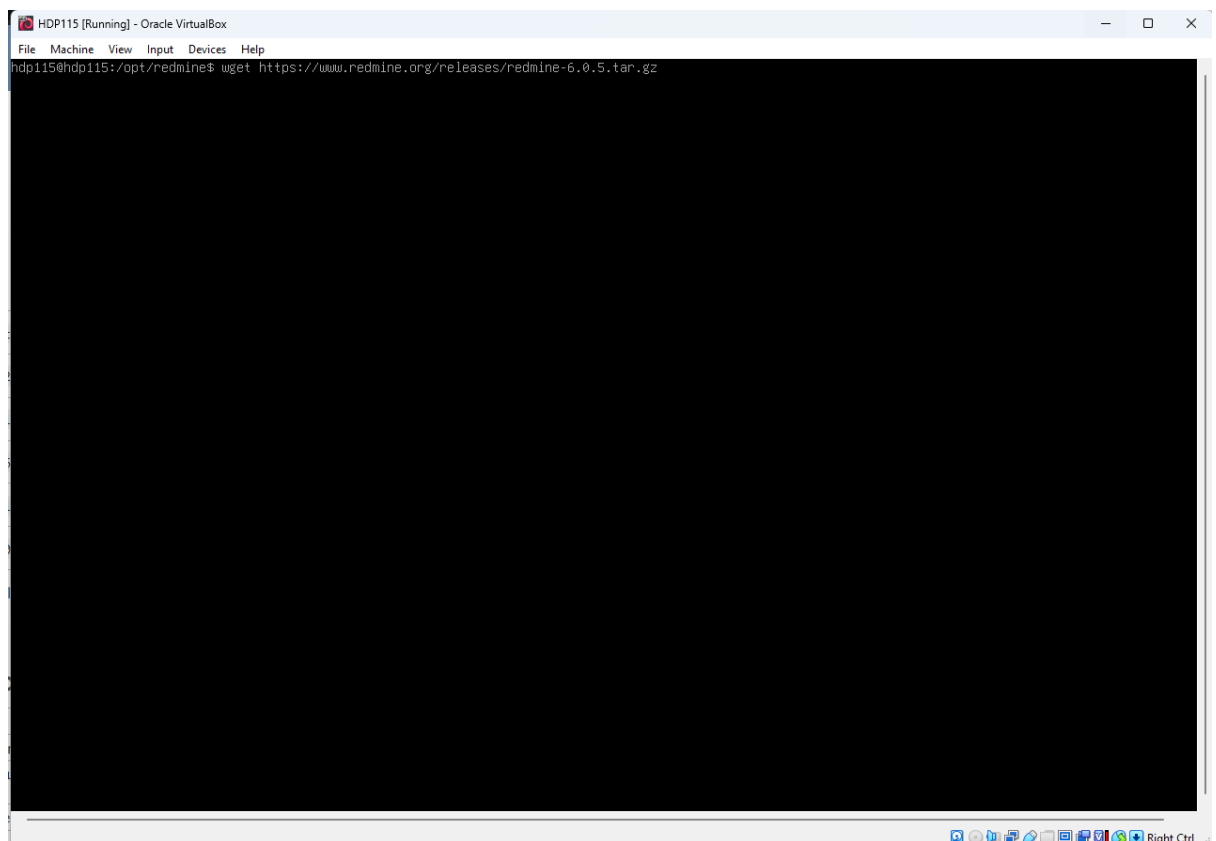
2. Para la instalación de todos los prerequisites de redmine y git, correr el siguiente comando.

```
sudo apt install git gcc build-essential zlib1g zlib1g-dev zlibc ruby-  
zip libssl-dev libyaml-dev libcurl4-openssl-dev ruby-gem libapache2-mod-  
passenger apache2 apache2-dev libapr1-dev libxslt1-dev checkinstall  
libxml2-dev ruby-dev vim libmagickwand-dev imagemagick sudo rails
```



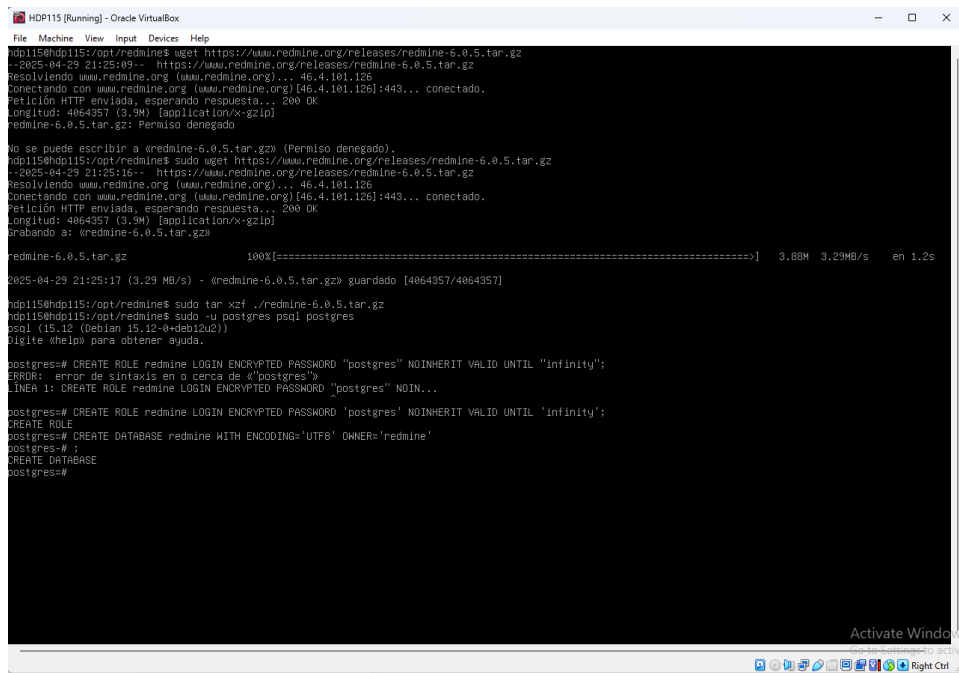
3. Descargar el código de redmine correr los siguientes comandos:

```
sudo cd /opt  
sudo mkdir redmine  
sudo redmine  
wget http://www.redmine.org/releases/redmine-6.0.5.tar.gz  
tar xzf ./redmine-6.0.5.tar.gz
```



4. Instalar postgresql, correr los siguientes comandos:

```
sudo apt install postgresql postgresql-contrib libpq-dev  
sudo -u postgres psql postgres  
  
CREATE ROLE redmine LOGIN ENCRYPTED PASSWORD 'your_password'  
NOINHERIT VALID UNTIL 'infinity';  
  
CREATE DATABASE redmine WITH ENCODING='UTF8' OWNER=redmine;  
  
\c redmine postgres  
  
grant all on schema public to redmine;
```



```
HOP115 [Running] - Oracle VirtualBox
File Machine View Input Devices Help

hdp115@hdp115:/opt/redmine$ wget https://www.redmine.org/releases/redmine-6.0.5.tar.gz
--2025-04-29 21:25:09-- https://www.redmine.org/releases/redmine-6.0.5.tar.gz
Resolving www.redmine.org (www.redmine.org)... 46.4.101.126
Conectando con www.redmine.org (www.redmine.org) [46.4.101.126]:443... conectado.
Petición HTTP enviada, esperando respuesta... 200 OK
Longitud: 4064357 (3.9M) [application/x-gzip]
redmine-6.0.5.tar.gz: Permiso denegado

No se puede escribir a «redmine-6.0.5.tar.gz» (Permiso denegado).
hdp115@hdp115:/opt/redmine$ sudo wget https://www.redmine.org/releases/redmine-6.0.5.tar.gz
--2025-04-29 21:25:16-- https://www.redmine.org/releases/redmine-6.0.5.tar.gz
Resolving www.redmine.org (www.redmine.org)... 46.4.101.126
Conectando con www.redmine.org (www.redmine.org) [46.4.101.126]:443... conectado.
Petición HTTP enviada, esperando respuesta... 200 OK
Longitud: 4064357 (3.9M) [application/x-gzip]
Guardando a: «redmine-6.0.5.tar.gz»

redmine-6.0.5.tar.gz 100%[=====] 3.88M 3.29MB/s en 1.2s

2025-04-29 21:25:17 (3.29 MB/s) - «redmine-6.0.5.tar.gz» guardado [4064357/4064357]

hdp115@hdp115:/opt/redmine$ sudo tar xzf ./redmine-6.0.5.tar.gz
hdp115@hdp115:/opt/redmine$ sudo -u postgres psql postgres
psql (15.12 (Debian 15.12-0+deb12u2))
Digite \help para obtener ayuda.

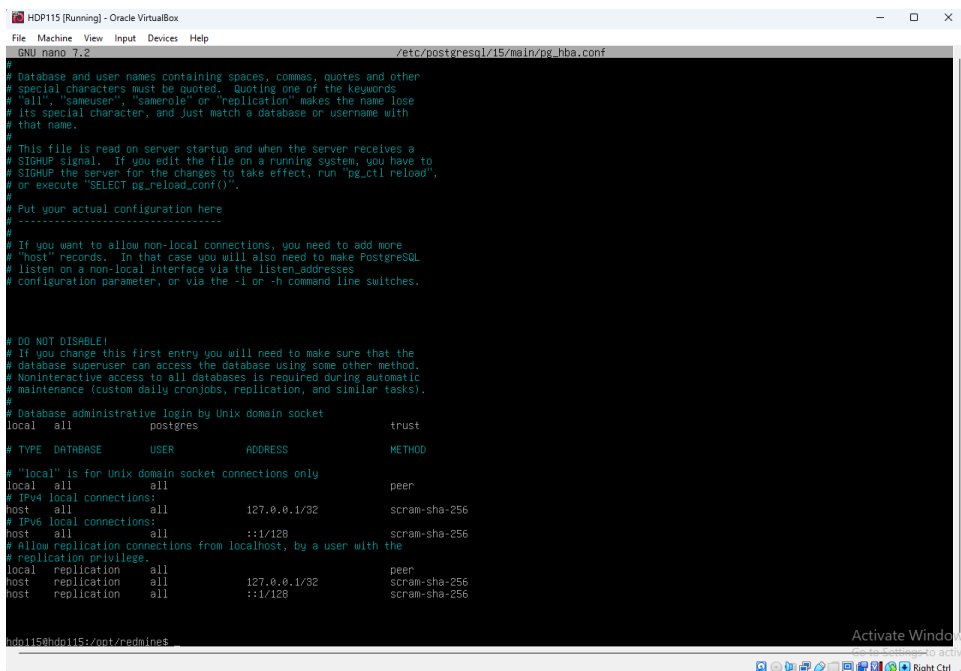
postgres=# CREATE ROLE redmine LOGIN ENCRYPTED PASSWORD 'postgres' NOINHERIT VALID UNTIL 'infinity';
ERROR: error de sintaxis en o cerca de «'postgres'»
LINEA 1: CREATE ROLE redmine LOGIN ENCRYPTED PASSWORD 'postgres' NOINHERIT VALID UNTIL 'infinity';
CREATE ROLE
postgres=# CREATE ROLE redmine LOGIN ENCRYPTED PASSWORD 'postgres' NOINHERIT VALID UNTIL 'infinity';
CREATE ROLE
postgres=# CREATE DATABASE redmine WITH ENCODING='UTF8' OWNER='redmine'
postgres=# ;
CREATE DATABASE
postgres=#
```

5. Configurar postgresql. Usando el comando nano, modificar el archivo /etc/postgresql/15/main/pg_hba.conf usando el comando nano, modificar la primera línea no comentada por:

```
local all postgres trust
```

Y correr el comando:

```
sudo service postgresql reload
```



```
HOP115 [Running] - Oracle VirtualBox
File Machine View Input Devices Help

GNU nano 7.2 /etc/postgresql/15/main/pg_hba.conf
# Database and user names containing spaces, commas, quotes and other
# special characters must be quoted. Quoting one of the keywords
# 'all', 'sameuser', 'samerole' or 'replication' makes the name lose
# its special character, and just match a database or username with
# that name.
#
# This file is read on server startup and when the server receives a
# SIGHUP signal. If you edit the file on a running system, you have to
# SIGHUP the server for the changes to take effect, run "pg_ctl reload",
# or execute "SELECT pg_reload_conf()".
#
# Put your actual configuration here
#
# If you want to allow non-local connections, you need to add more
# "host" records. In that case you will also need to make PostgreSQL
# listen on a non-local interface via the listen_addresses
# configuration parameter, or via the -l or -h command line switches.
#
# DO NOT DISABLE!
# If you change this first entry you will need to make sure that the
# database superuser can access the database using some other method.
# Noninteractive access to all databases is required during automatic
# maintenance (custom daily cronjobs, replication, and similar tasks).
#
# Database administrative login by Unix domain socket
local all postgres trust
# TYPE DATABASE USER ADDRESS METHOD
# "local" is for Unix domain socket connections only
local all peer
# IPv4 local connections:
host all all 127.0.0.1/32 scram-sha-256
# IPv6 local connections:
host all all ::1/128 scram-sha-256
# Allow replication connections from localhost, by a user with the
# replication privilege.
local replication all peer
host replication all 127.0.0.1/32 scram-sha-256
host replication all ::1/128 scram-sha-256

hdp115@hdp115:/opt/redmine$
```

6. Crear el archivo /opt/redmine/redmine-3.4.11/config/database.yml con el siguiente contenido:

```
production:

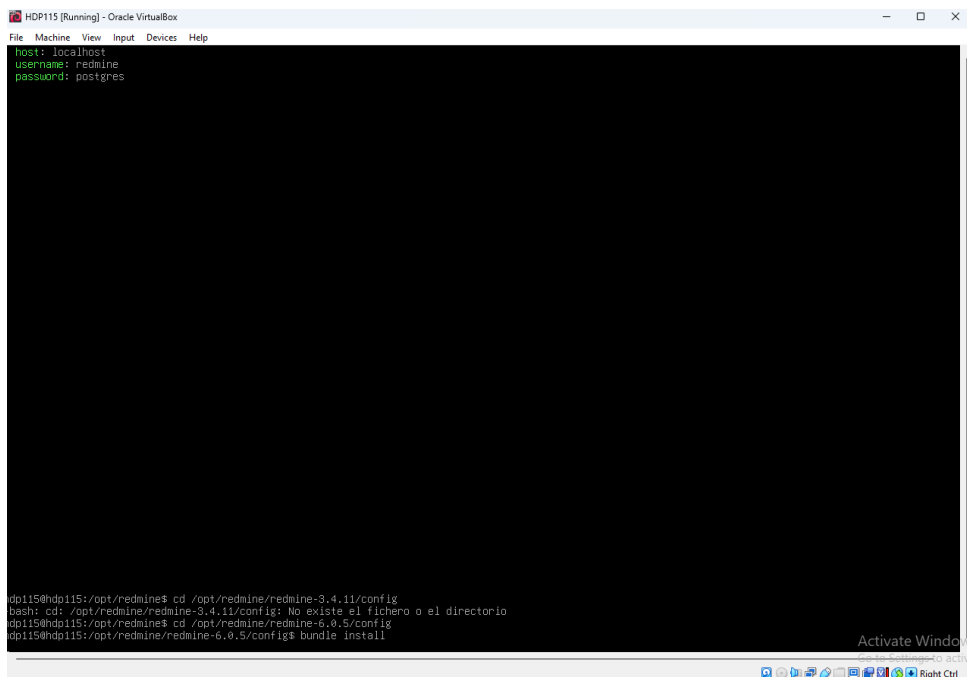
  adapter: postgresql

  database: redmine

  host: localhost

  username: redmine

  password: postgres
```



7. Configurar el esquema de la base de datos corriendo los siguientes comandos:

```
sudo cd /opt/redmine/redmine-3.4.11/config/

sudo bundle install

sudo bundle exec rake generate_secret_token

sudo RAILS_ENV=production bundle exec rake db:migrate

sudo RAILS_ENV=production bundle exec rake redmine:load_default_data

mkdir -p tmp tmp/pdf public/assets

sudo chown -R redmine:redmine files log tmp public/assets

sudo chmod -R 755 files log tmp public/assets
```

```
HDP115 [Running] - Oracle VirtualBox
File Machine View Input Devices Help

-- remove_index(:custom_values, {:column=>[:customized_type, :customized_id], :name=>:custom_values_customized, :if_exists=>true})
-> 0.0051s
-- add_index(:custom_values, [:customized_type, :customized_id, :custom_field_id], {:name=>:custom_values_customized_custom_field_id})
-> 0.0043s
== 20221012135202 AddIndexToCustomValues: migrated (0.0201s) =====
-- 20221214173537 AddSelectProjectPublicityPermission: migrating =====
-- 20221214173537 AddSelectProjectPublicityPermission: migrated (0.0030s) ====
-- 20230810020734 AddStatusDescription: migrating =====
-- add_column(:issue_statuses, :description, :string, {:after=>:name})
-> 0.0061s
-- 20230810020734 AddStatusDescription: migrated (0.0118s) =====
-- 20231012112407 RemoveMentionUsersPermission: migrating =====
-- 20231012112407 RemoveMentionUsersPermission: migrated (0.0100s) =====
-- 20231113131245 EnsureDefaultNotificationOptionIsStoredInDb: migrating =====
-- 20231113131245 EnsureDefaultNotificationOptionIsStoredInDb: migrated (0.0024s)
-- 20240213101801 AddQueriesDescription: migrating =====
-- add_column(:queries, :description, :string)
-> 0.0019s
-- 20240213101801 AddQueriesDescription: migrated (0.0074s) =====
-- 20241007144951 ChangeTextFormattingFromMarkdownToCommonMark: migrating =====
-- 20241007144951 ChangeTextFormattingFromMarkdownToCommonMark: migrated (0.0024s)
-- 20241022095140 RemoveOrphanedCustomValueAttachments: migrating =====
-- 20241022095140 RemoveOrphanedCustomValueAttachments: migrated (0.0048s) ====
-- 20241026031710 UpdateOrphanedJournalUpdatedByIdToAnonymous: migrating =====
-- 20241026031710 UpdateOrphanedJournalUpdatedByIdToAnonymous: migrated (0.0032s)
-- 20241103150135 ChangeSettingsValueLimit: migrating =====
-- 20241103150135 ChangeSettingsValueLimit: migrated (0.0001s) =====
-- 20241103104550 ChangeBuiltinRolesUserVisibility: migrating =====
-- change_column_default(:roles, :users_visibility, "members_of_visible_projects")
-> 0.0036s
-- 20241103104550 ChangeBuiltinRolesUserVisibility: migrated (0.0100s) =====
hdp115@hdp115:/opt/redmine/redmine-6.0.5/config$ sudo RAILS_ENV=production bundle exec rake redmine:load_default_data
(In /opt/redmine/redmine-6.0.5)
Select language: ar, az, bg, bs, ca, cs, da, de, el, en, en-GB, es, es-PA, et, eu, fa, fi, fr, gl, he, hr, hu, id, it, ja, ko, lt, lv, mk, mn, nl, no, pl, pt, p
t-BR, ro, ru, sk, sl, sq, sr, sr-YU, sv, ta-IN, th, tr, uk, vi, zh, zh-TW [en] es
Default configuration data loaded.
hdp115@hdp115:/opt/redmine/redmine-6.0.5/config$
```

Configurar Apache Server

1. Correr los siguientes comandos:

```
cd /opt/

sudo chown -R www-data:www-data /opt/redmine

cd /opt/redmine/redmine-6.0.5

sudo chmod -R 755 files log tmp public/plugin_assets

sudo chown www-data:www-data Gemfile.lock

sudo ln -s /opt/redmine/redmine-6.0.5/public/ /var/www/html/redmine
```

2. Editar el archivo sudo nano /etc/apache2/sites-available/master.conf con:

```
<VirtualHost *:80>

    ServerAdmin admin@example.com

    Servername hostname

    DocumentRoot /var/www/html/

    <Location /redmine>

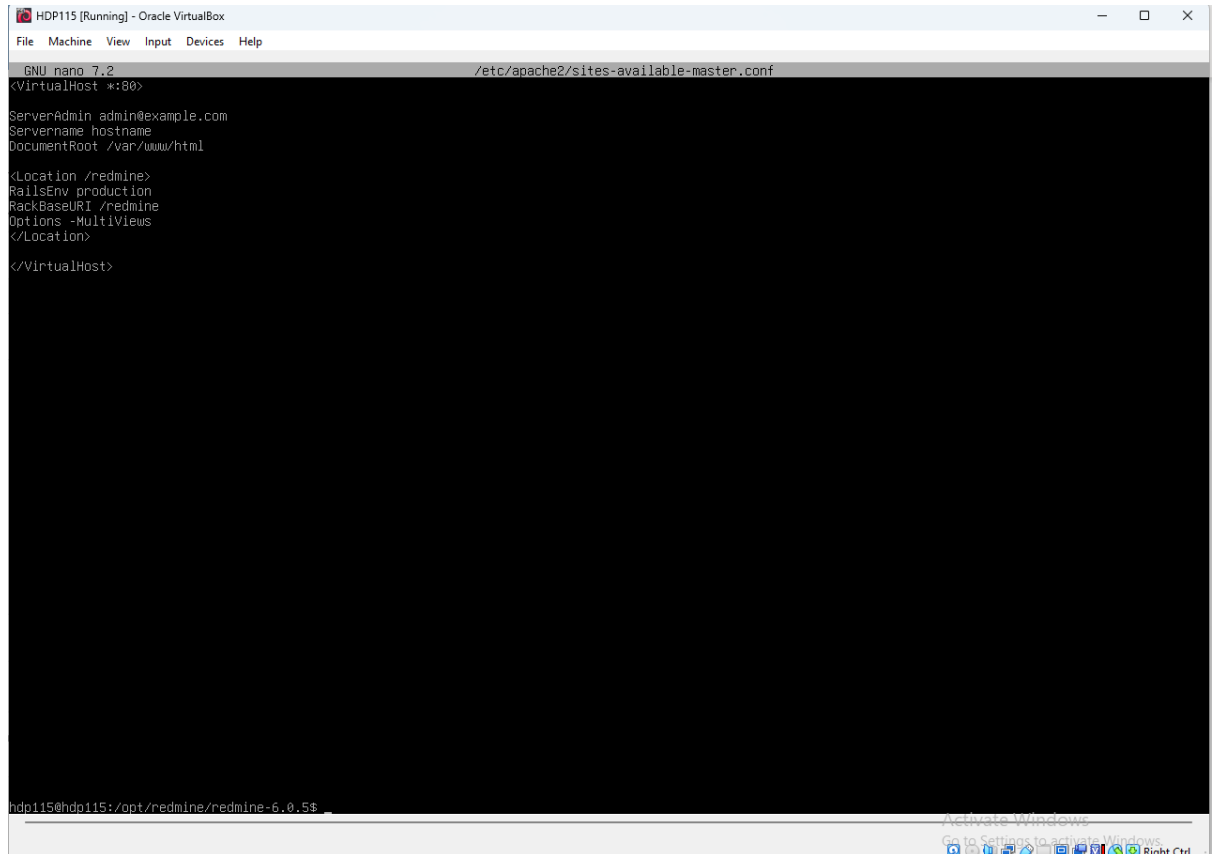
        RailsEnv production
```

```
RackBaseURI /redmine

Options -MultiViews

</Location>

</VirtualHost>
```



3. Correr los siguientes comandos:

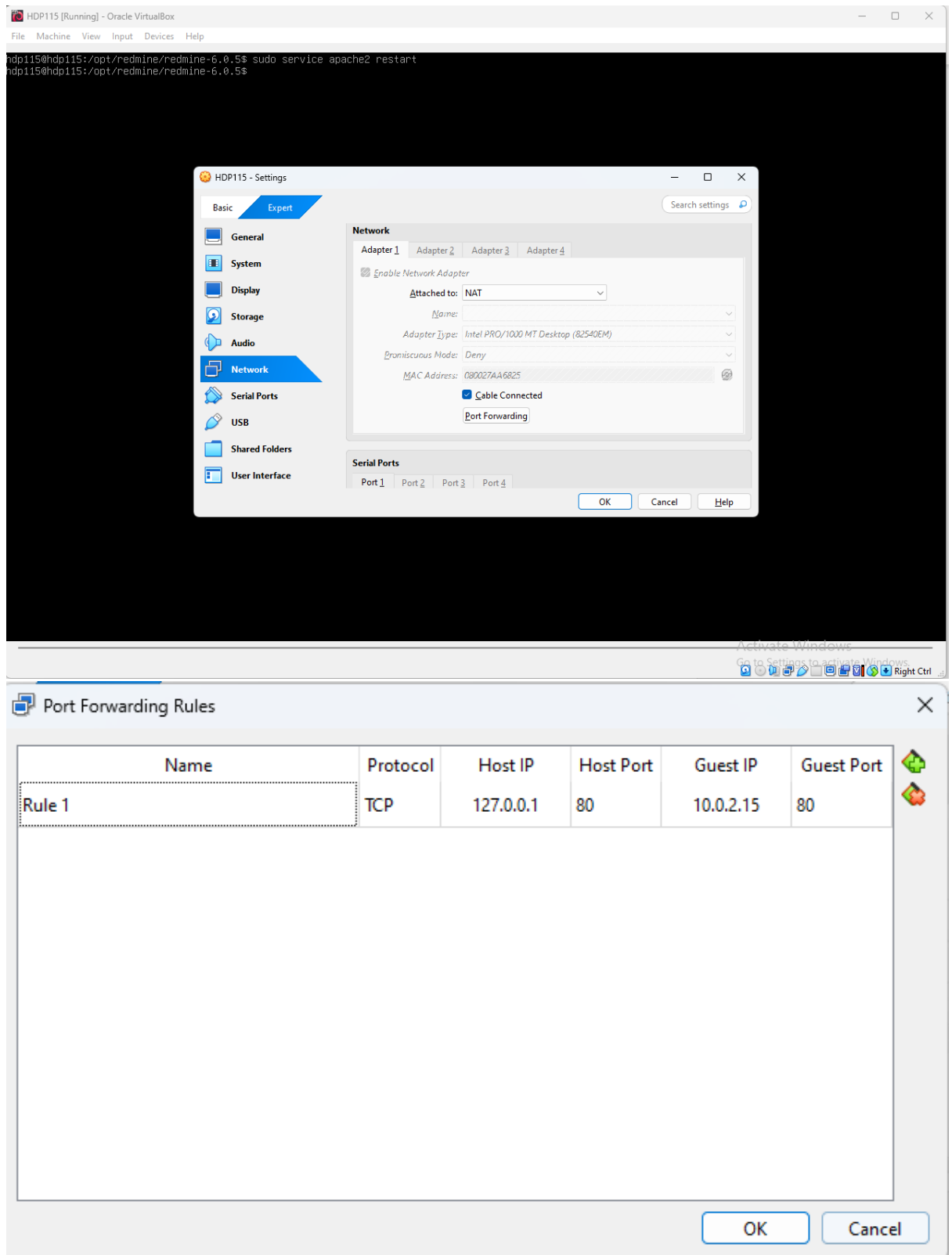
```
sudo a2dissite 000-default.conf

sudo a2ensite master.conf
```

4. Añadir esta línea al cuerpo de /etc/apache2/mods-available/passenger.conf

```
PassengerUser www-data
```

5. En virtual box configurar el puerto de salida en Devices > Network > Network Settings > Expert, seleccionar la opción NAT y en Port Forwarding añadir una regla como se muestra en la imagen.

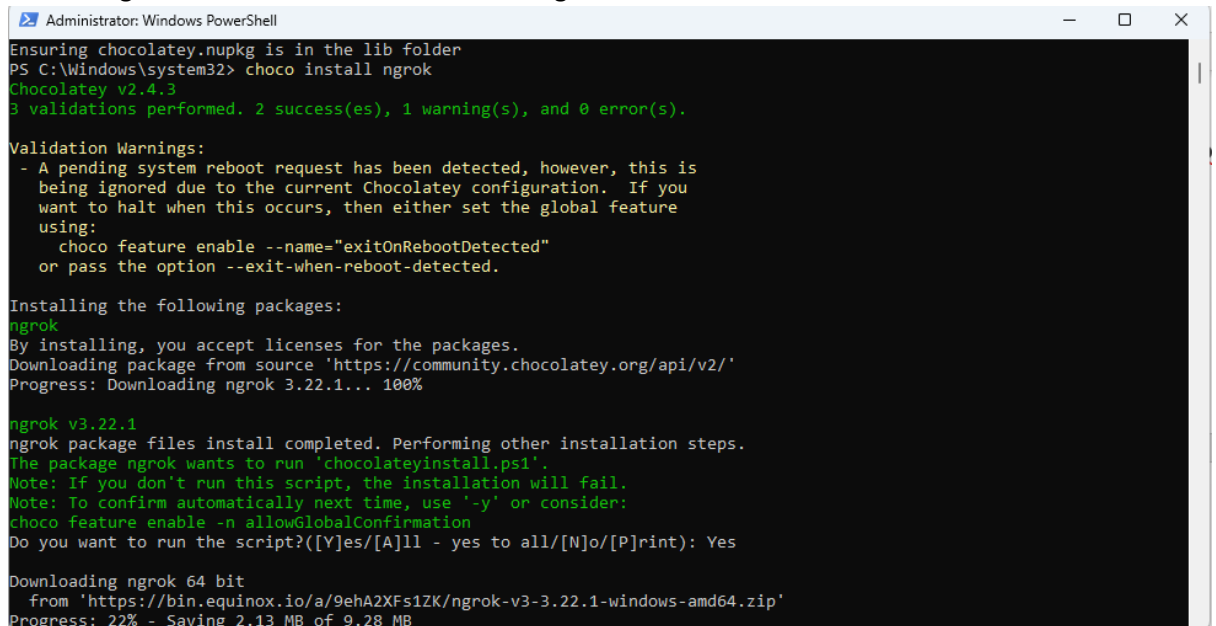


Compartiendo el puerto con ngrok

1. Instalar chocolatey ejecutando el siguiente comando en powershell como administrador
Set-ExecutionPolicy Bypass -Scope Process -Force;
[System.Net.ServicePointManager]::SecurityProtocol =

```
[System.Net.ServicePointManager]::SecurityProtocol -bor 3072; iex ((New-Object System.Net.WebClient).DownloadString('https://community.chocolatey.org/install.ps1'))
```

2. Instalar ngrok con el comando: `choco install ngrok`.



```
Administrator: Windows PowerShell
Ensuring chocolatey.nupkg is in the lib folder
PS C:\Windows\system32> choco install ngrok
Chocolatey v2.4.3
3 validations performed. 2 success(es), 1 warning(s), and 0 error(s).

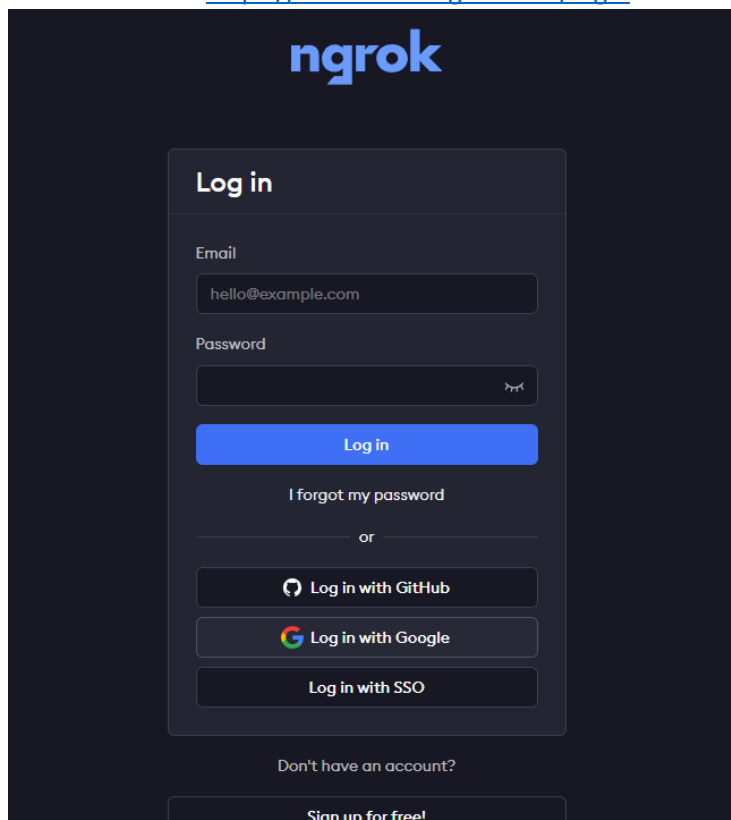
Validation Warnings:
- A pending system reboot request has been detected, however, this is
  being ignored due to the current Chocolatey configuration. If you
  want to halt when this occurs, then either set the global feature
  using:
    choco feature enable --name="exitOnRebootDetected"
  or pass the option --exit-when-reboot-detected.

Installing the following packages:
ngrok
By installing, you accept licenses for the packages.
Downloading package from source 'https://community.chocolatey.org/api/v2/'
Progress: Downloading ngrok 3.22.1... 100%

ngrok v3.22.1
ngrok package files install completed. Performing other installation steps.
The package ngrok wants to run 'chocolateyinstall.ps1'.
Note: If you don't run this script, the installation will fail.
Note: To confirm automatically next time, use '-y' or consider:
choco feature enable -n allowGlobalConfirmation
Do you want to run the script?([Y]es/[A]ll - yes to all/[N]o/[P]rint): Yes

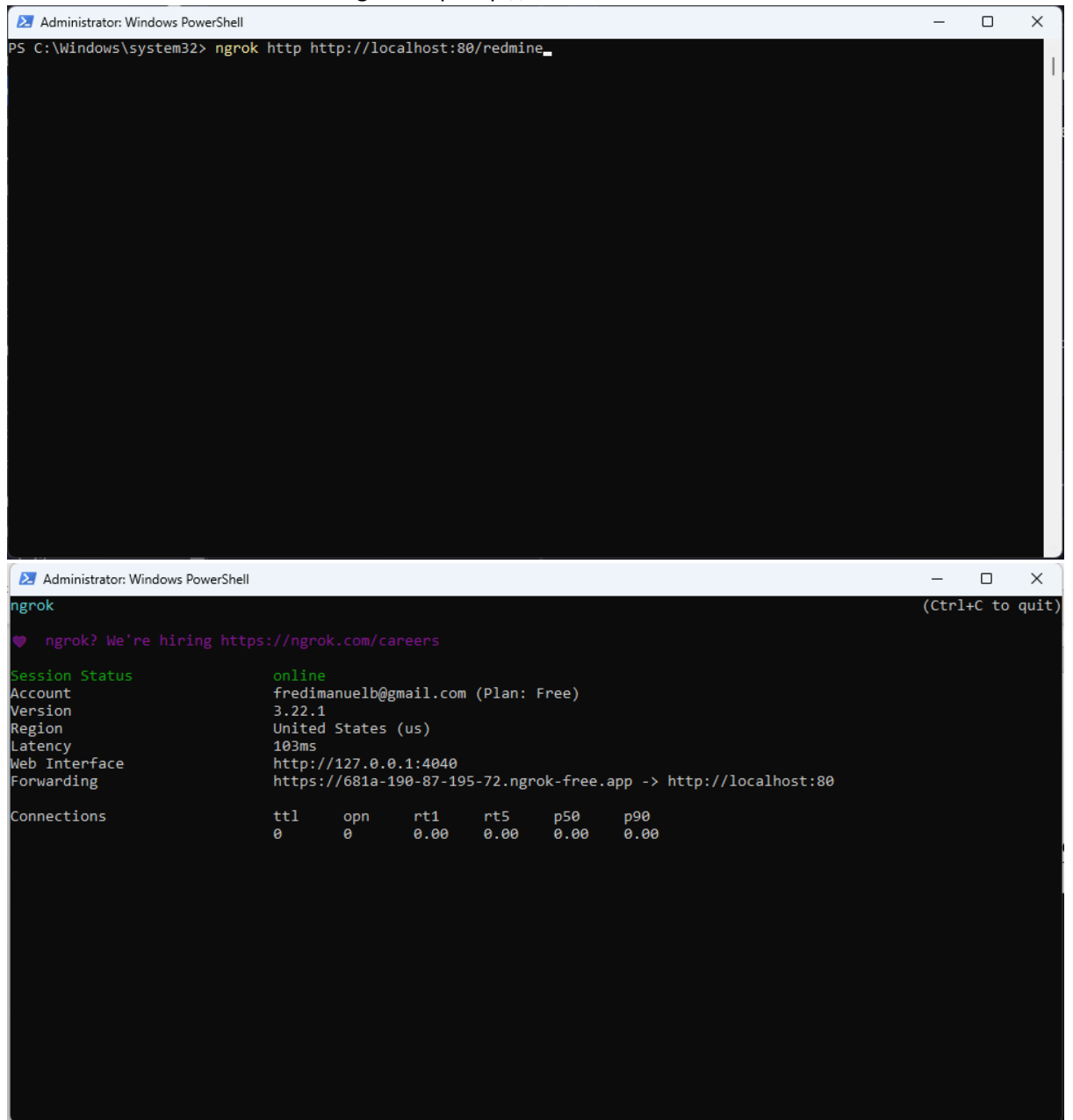
Downloading ngrok 64 bit
  from 'https://bin.equinox.io/a/9ehA2Xfs1ZK/ngrok-v3-3.22.1-windows-amd64.zip'
Progress: 22% - Saving 2.13 MB of 9.28 MB
```

3. Iniciar sesión en <https://dashboard.ngrok.com/login> con una cuenta de Google.



4. Dependiendo el token que la aplicación genere correr el comando:
`ngrok config add-authtoken <token>`

5. Finalizar corriendo el comando: `ngrok http http://localhost:80`



```
Administrator: Windows PowerShell
PS C:\Windows\system32> ngrok http http://localhost:80/redmine_

ngrok
ngrok? We're hiring https://ngrok.com/careers

Session Status      online
Account             fredimanuelb@gmail.com (Plan: Free)
Version             3.22.1
Region              United States (us)
Latency              103ms
Web Interface        http://127.0.0.1:4040
Forwarding            https://681a-190-87-195-72.ngrok-free.app -> http://localhost:80

Connections
  ttl    opn    rt1    rt5    p50    p90
    0     0     0.00   0.00   0.00   0.00
```

6. Abrir el navegador en la url que provee ngrok (<https://8b63-190-87-195-72.ngrok-free.app/redmine>, en este caso).

