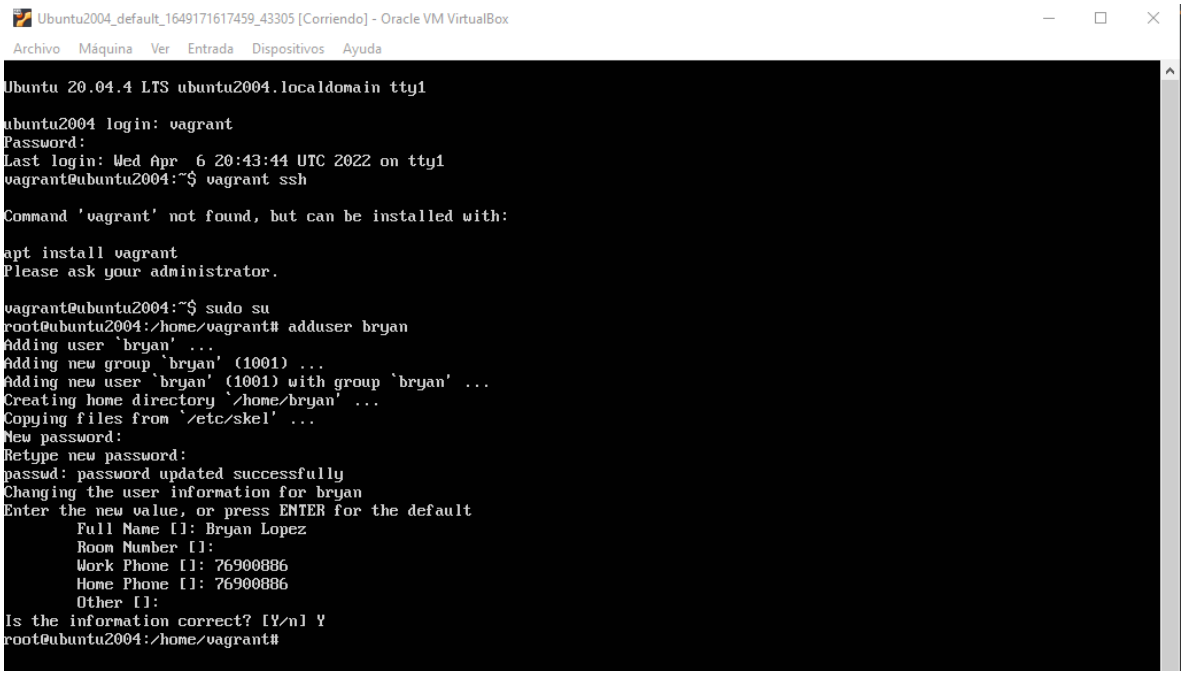
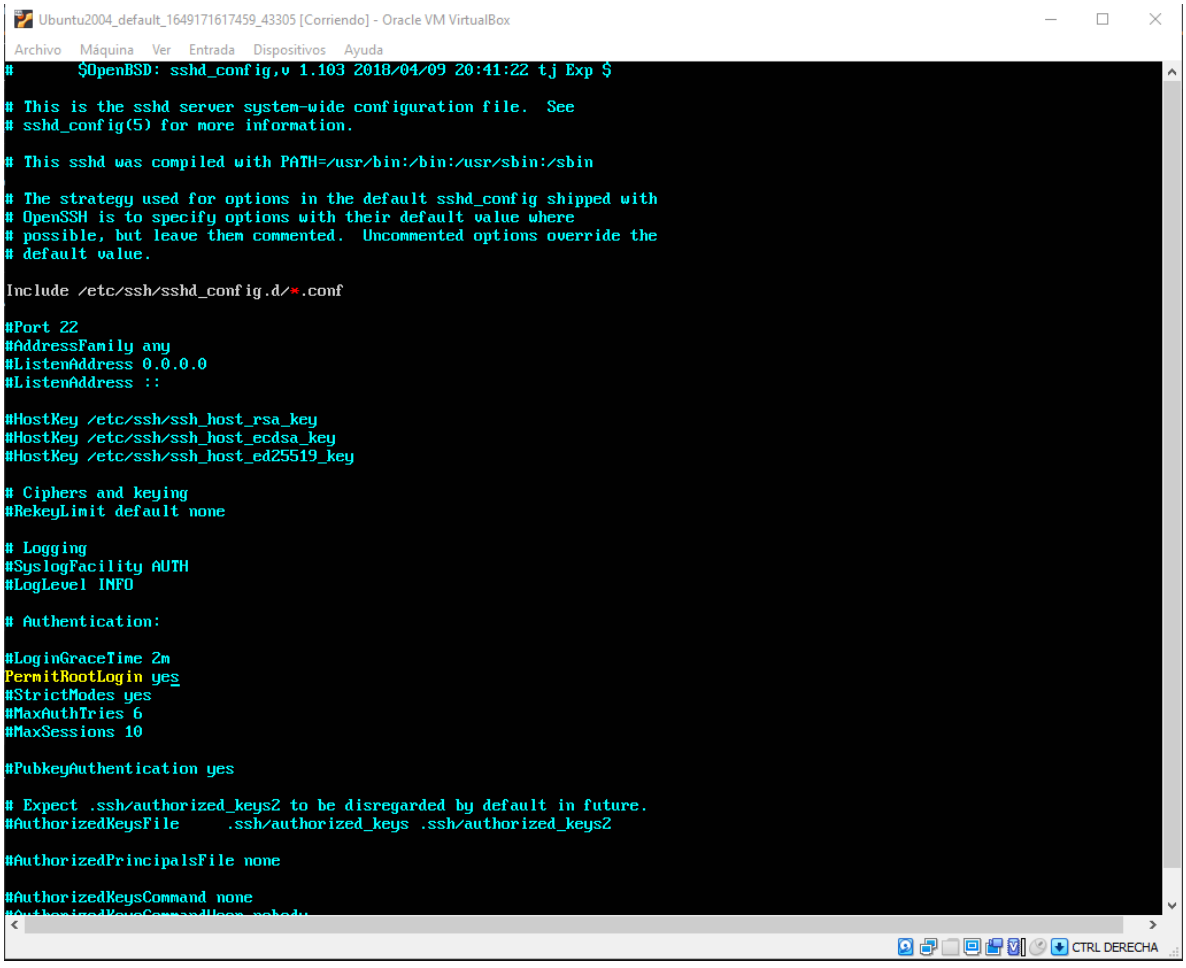
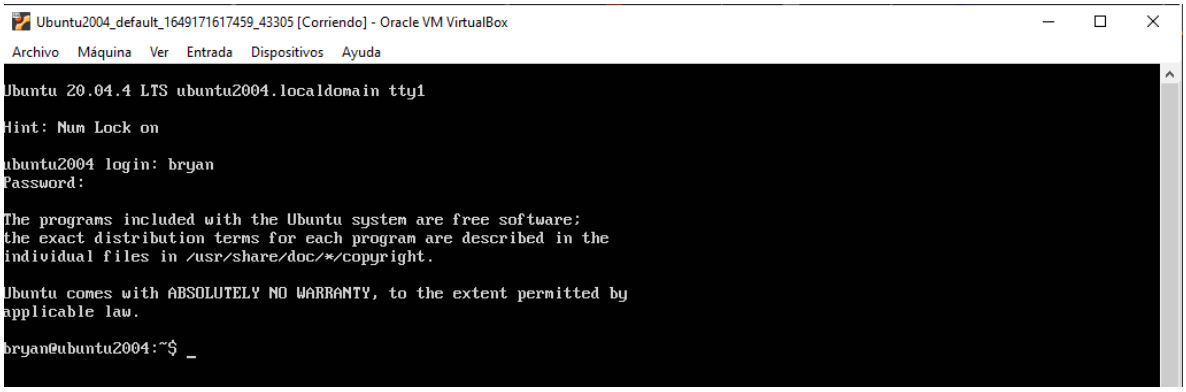
1. Create a new user for the Ubuntu VM



2. Enable root login in the ssh.conf file

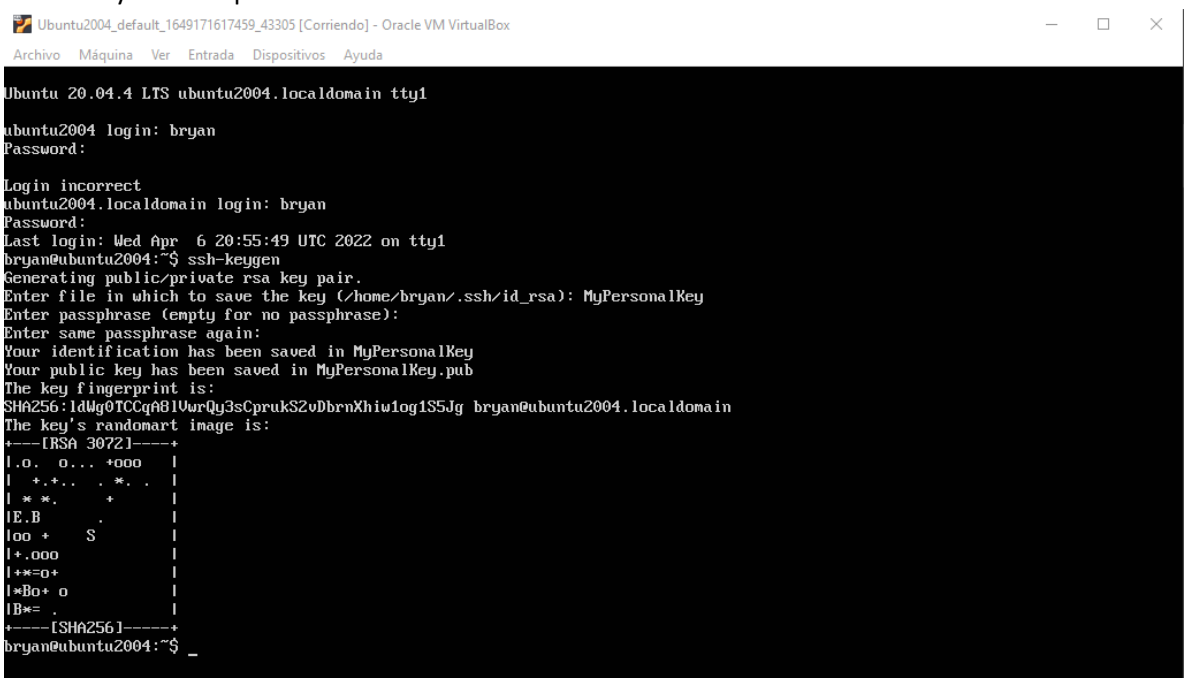


3. User successfully created

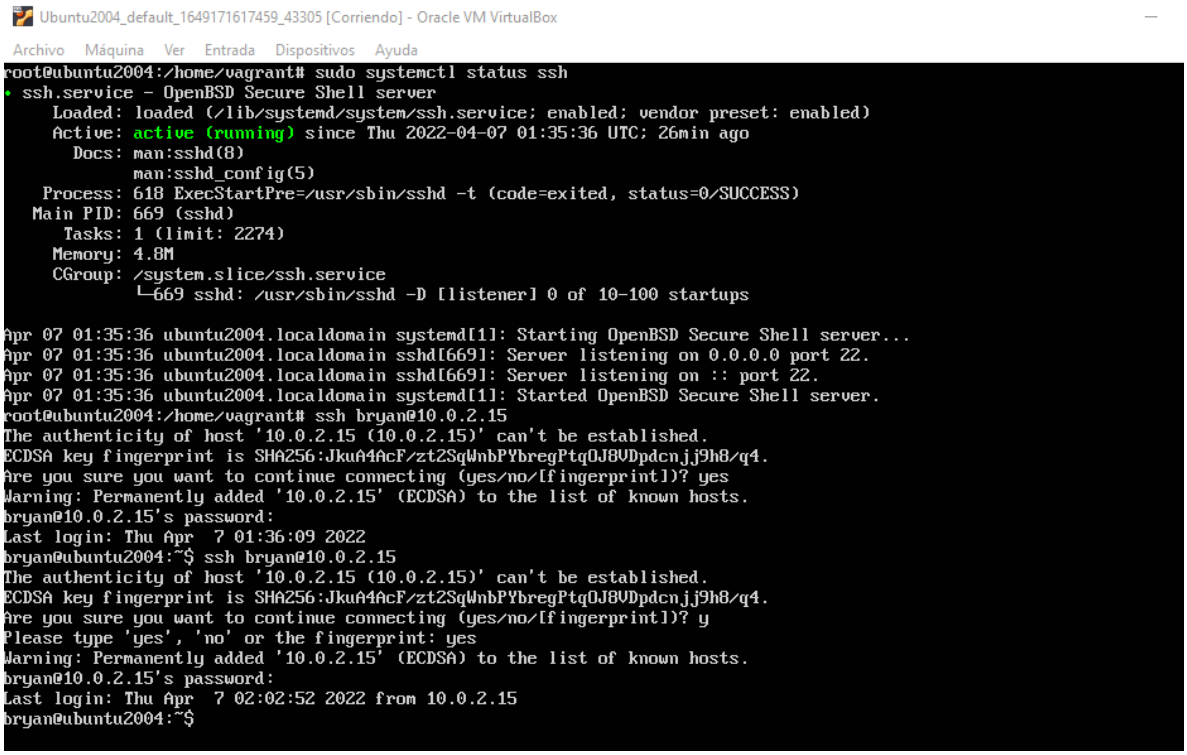


4. Now let's try to log in with the new user

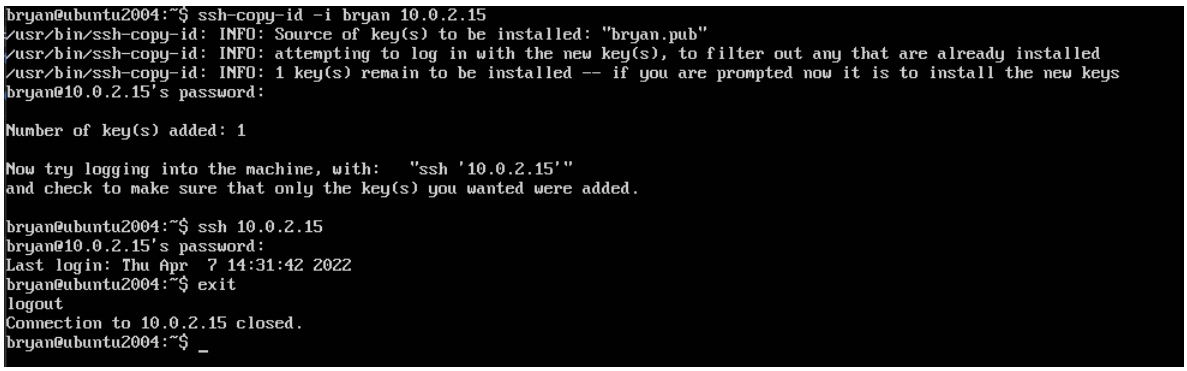
5. Set un keys for the personal user



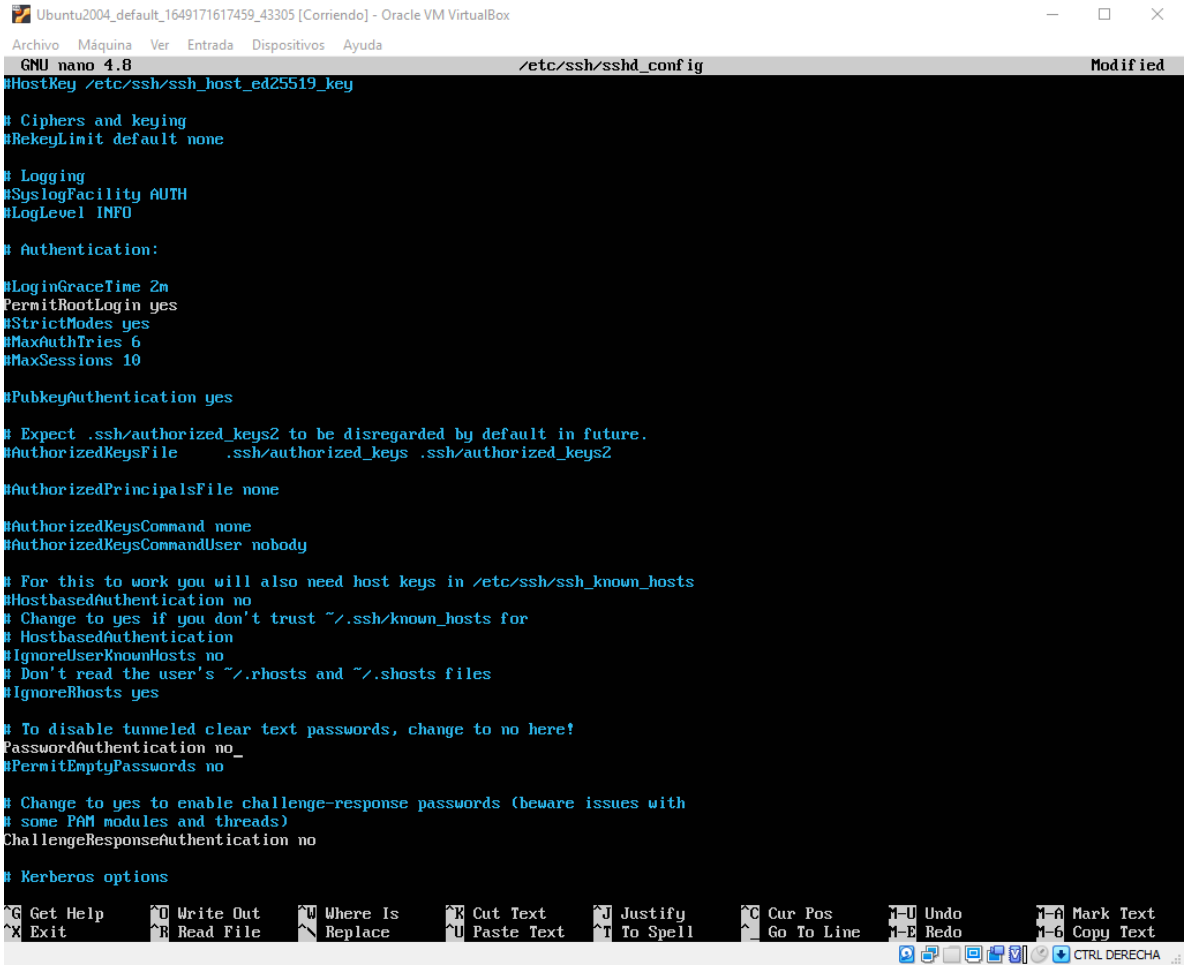
6. Use the personal key to Access the ssh



7. Add the public key to the ssh

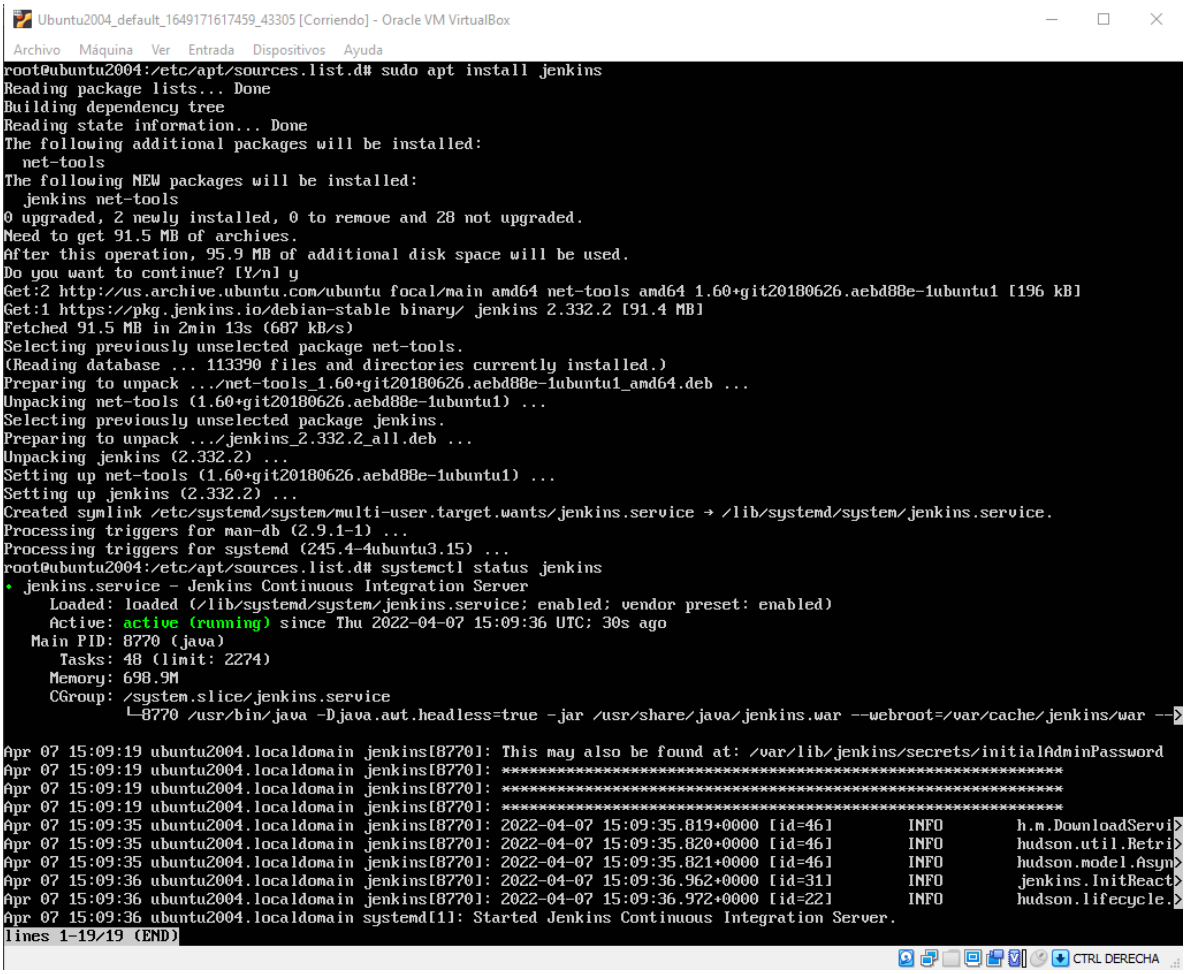


8. Set the password authentication = no



9. Log in without password

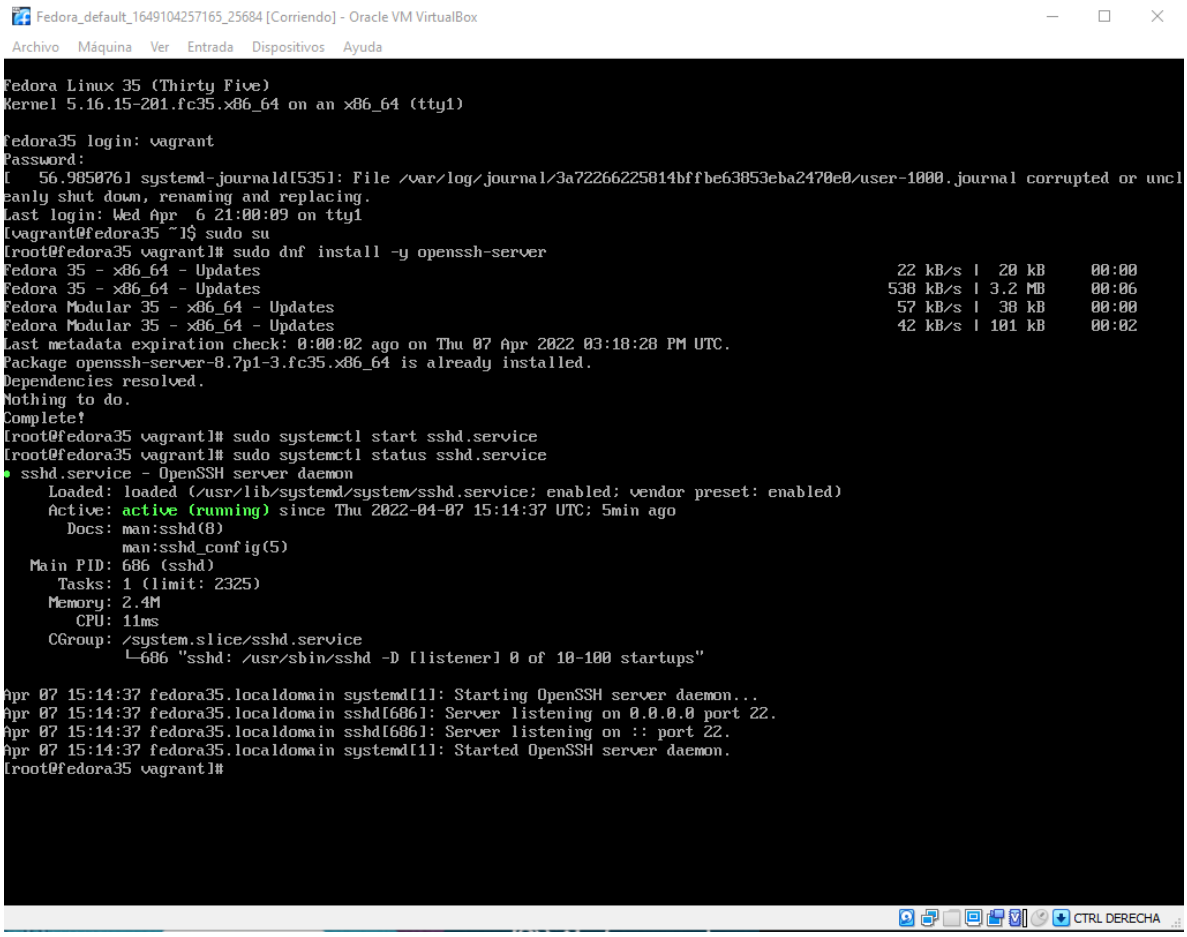
10. Then we install Jenkins



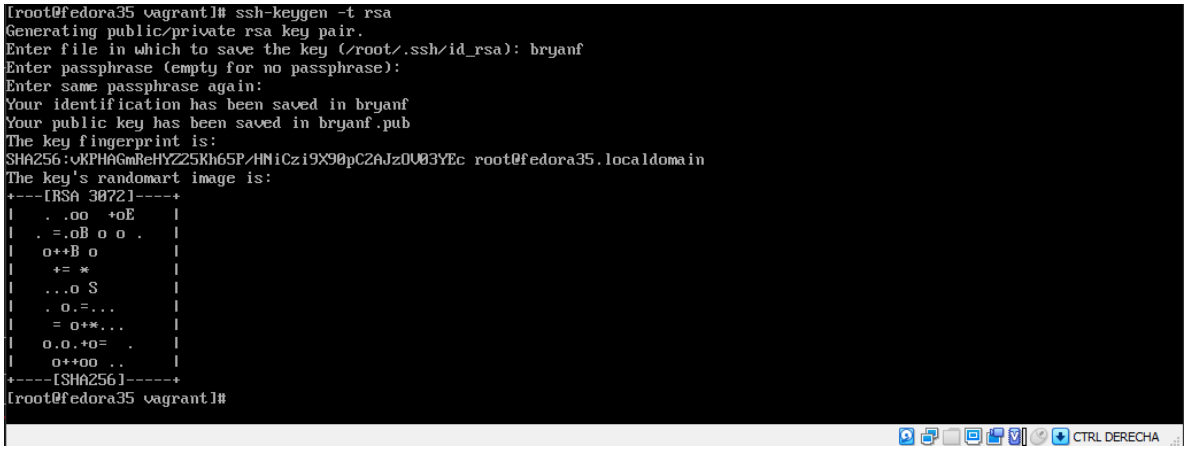
11. Adding the password

12. New user in fedora

13. Install shh.service



14. Now lets créate a new key



15. Test connection

```
[bryanf@fedora35 ~]$ ssh bryanf@10.0.2.15
The authenticity of host '10.0.2.15 (10.0.2.15)' can't be established.
ED25519 key fingerprint is SHA256:AQ6yVH1nxwqk/bnL4HJ23CE4hr7vTSPTBkEQfL6KiRQ.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint: yes
Warning: Permanently added '10.0.2.15' (ED25519) to the list of known hosts.
bryanf@10.0.2.15's password:
Last login: Thu Apr  7 15:25:36 2022
[bryanf@fedora35 ~]$ _
```

16. Install java and jenkis

```
Installed:
  alsa-lib-1.2.6.1-3.fc35.x86_64                        copy-jdk-configs-4.0-2.fc35.noarch
  cups-libs-1:2.3.3op2-16.fc35.x86_64                   fontconfig-2.13.94-5.fc35.x86_64
  giflib-5.2.1-8.fc35.x86_64                            java-11-openjdk-1:11.0.14.1.1-5.fc35.x86_64
  java-11-openjdk-headless-1:11.0.14.1.1-5.fc35.x86_64  javapackages-filesystem-6.0.0-1.fc35.noarch
  lcms2-2.12-2.fc35.x86_64                              libXcomposite-0.4.5-6.fc35.x86_64
  libXi-1.7.10-7.fc35.x86_64                            libXrender-0.9.10-15.fc35.x86_64
  libXtst-1.2.3-15.fc35.x86_64                          libfontenc-1.1.3-16.fc35.x86_64
  libjpeg-turbo-2.1.0-3.fc35.x86_64                     lksctp-tools-1.0.18-11.fc35.x86_64
  lua-5.4.4-1.fc35.x86_64                               lua-posix-35.0-4.fc35.x86_64
  mkfontscale-1.2.1-3.fc35.x86_64                       ttmkfdir-3.0.9-64.fc35.x86_64
  tzdata-java-2021e-1.fc35.noarch                       xml-common-0.6.3-57.fc35.noarch
  xorg-x11-fonts-Type1-7.5-32.fc35.noarch

Complete!
[root@fedora35 vagrant]# sudo wget -O /etc/yum.repos.d/jenkins.repo https://pkg.jenkins.io/redhat/jenkins.repo
--2022-04-07 15:50:10--  https://pkg.jenkins.io/redhat/jenkins.repo
Resolving pkg.jenkins.io (pkg.jenkins.io)... 199.232.134.133, 2a04:4e42:61::645
Connecting to pkg.jenkins.io (pkg.jenkins.io)|199.232.134.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 71
Saving to: '/etc/yum.repos.d/jenkins.repo'

/etc/yum.repos.d/jenkins.repo   100%[=====================================================>]      71  --.-KB/s    in

2022-04-07 15:50:11 (3.72 MB/s) - '/etc/yum.repos.d/jenkins.repo' saved [71/71]

[root@fedora35 vagrant]# sudo rpm --import https://pkg.jenkins.io/redhat/jenkins.io.key
[root@fedora35 vagrant]# dnf repolist
repo id                                     repo name
fedora                                      Fedora 35 - x86_64
fedora-cisco-openh264                       Fedora 35 openh264 (From Cisco) - x86_64
fedora-modular                              Fedora Modular 35 - x86_64
jenkins                                     Jenkins
updates                                     Fedora 35 - x86_64 - Updates
updates-modular                             Fedora Modular 35 - x86_64 - Updates
[root@fedora35 vagrant]# _
```

17.

```
[root@fedora35 vagrant]# sudo rpm --import https://pkg.jenkins.io/redhat/jenkins.io.key
[root@fedora35 vagrant]# dnf repolist
repo id                                     repo name
fedora                                      Fedora 35 - x86_64
fedora-cisco-openh264                       Fedora 35 openh264 (From Cisco) - x86_64
fedora-modular                              Fedora Modular 35 - x86_64
jenkins                                     Jenkins
updates                                     Fedora 35 - x86_64 - Updates
updates-modular                             Fedora Modular 35 - x86_64 - Updates
[root@fedora35 vagrant]# sudo dnf install jenkins
Jenkins                                                          42 kB/s |  98 kB     00:02
Dependencies resolved.
================================================================================================================
 Package                 Architecture            Version                     Repository                   Size
================================================================================================================
Installing:
 jenkins                 noarch                  2.342-1.1                   jenkins                      87 M

Transaction Summary
================================================================================================================
Install  1 Package

Total download size: 87 M
Installed size: 87 M
Is this ok [y/N]: y
Downloading Packages:
jenkins-2.342-1.1.noarch.rpm                                     616 kB/s |  87 MB     02:24
----------------------------------------------------------------------------------------------------------------
Total                                                            616 kB/s |  87 MB     02:24
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                                        1/1
  Running scriptlet: jenkins-2.342-1.1.noarch                                             1/1
  Installing       : jenkins-2.342-1.1.noarch                                             1/1
  Running scriptlet: jenkins-2.342-1.1.noarch                                             1/1
  Verifying        : jenkins-2.342-1.1.noarch                                             1/1

Installed:
  jenkins-2.342-1.1.noarch

Complete!
[root@fedora35 vagrant]#
```

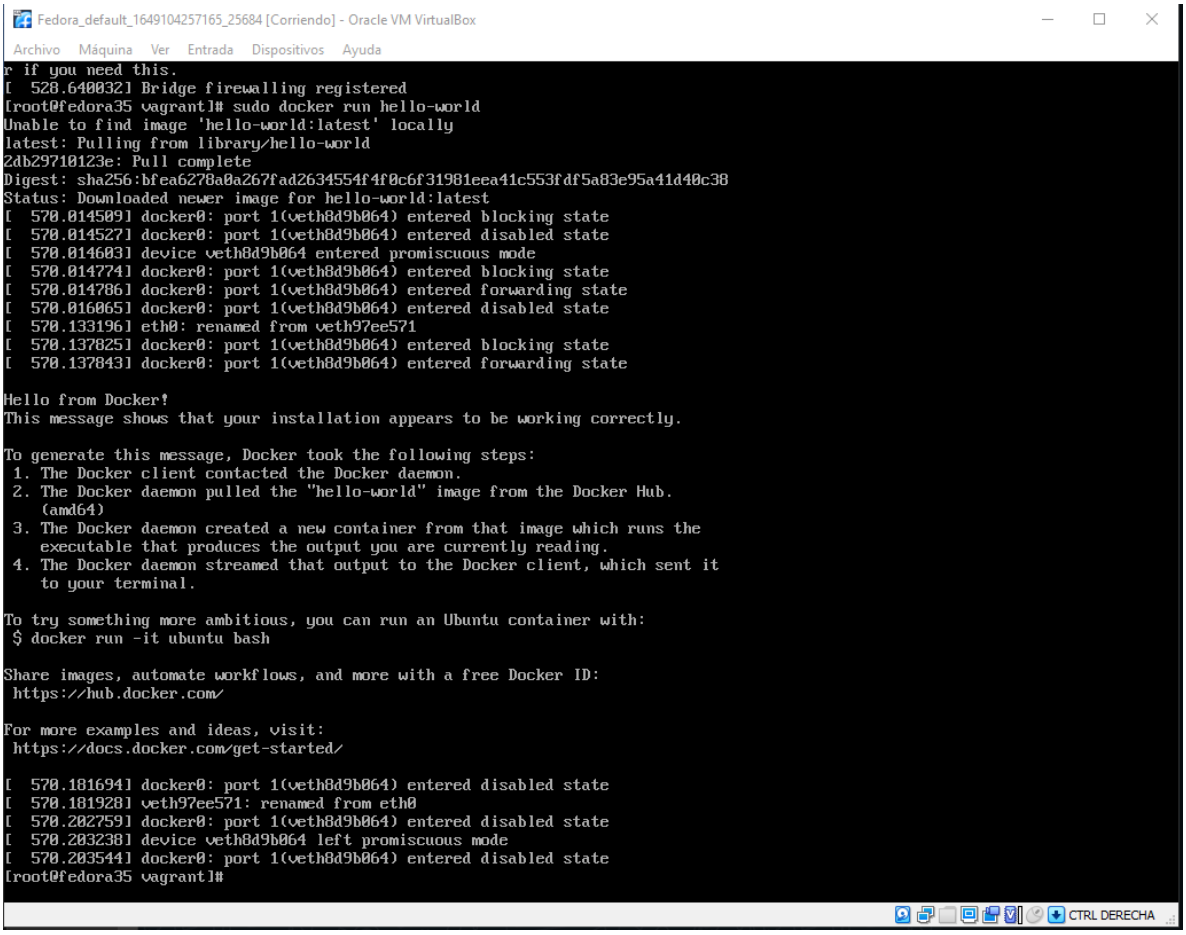
18. And finally check the status

```
Installed:
  jenkins-2.342-1.1.noarch

Complete!
[root@fedora35 vagrant]# /etc/init.d/jenkins start
Starting jenkins (via systemctl):                          [  OK  ]
[root@fedora35 vagrant]#
[root@fedora35 vagrant]# /etc/init.d/jenkins status
● jenkins.service - Jenkins Continuous Integration Server
     Loaded: loaded (/usr/lib/systemd/system/jenkins.service; disabled; vendor preset: disabled)
     Active: active (running) since Thu 2022-04-07 15:57:53 UTC; 10s ago
   Main PID: 19281 (java)
      Tasks: 47 (limit: 2325)
     Memory: 747.6M
        CPU: 32.097s
     CGroup: /system.slice/jenkins.service
             └─19281 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/j

Apr 07 15:57:34 fedora35.localdomain jenkins[19281]: This may also be found at: /var/lib/jenkins/secrets/initialAdm
Apr 07 15:57:34 fedora35.localdomain jenkins[19281]: ************************************************************
Apr 07 15:57:34 fedora35.localdomain jenkins[19281]: ************************************************************
Apr 07 15:57:34 fedora35.localdomain jenkins[19281]: ************************************************************
Apr 07 15:57:53 fedora35.localdomain jenkins[19281]: 2022-04-07 15:57:53.505+0000 [id=46]       INFO        h.m.Do
Apr 07 15:57:53 fedora35.localdomain jenkins[19281]: 2022-04-07 15:57:53.507+0000 [id=46]       INFO        hudson
Apr 07 15:57:53 fedora35.localdomain jenkins[19281]: 2022-04-07 15:57:53.508+0000 [id=46]       INFO        hudson
Apr 07 15:57:53 fedora35.localdomain jenkins[19281]: 2022-04-07 15:57:53.959+0000 [id=30]       INFO        jenkin
Apr 07 15:57:53 fedora35.localdomain jenkins[19281]: 2022-04-07 15:57:53.970+0000 [id=22]       INFO        hudson
Apr 07 15:57:53 fedora35.localdomain systemd[1]: Started Jenkins Continuous Integration Server.

[root@fedora35 vagrant]# _
```

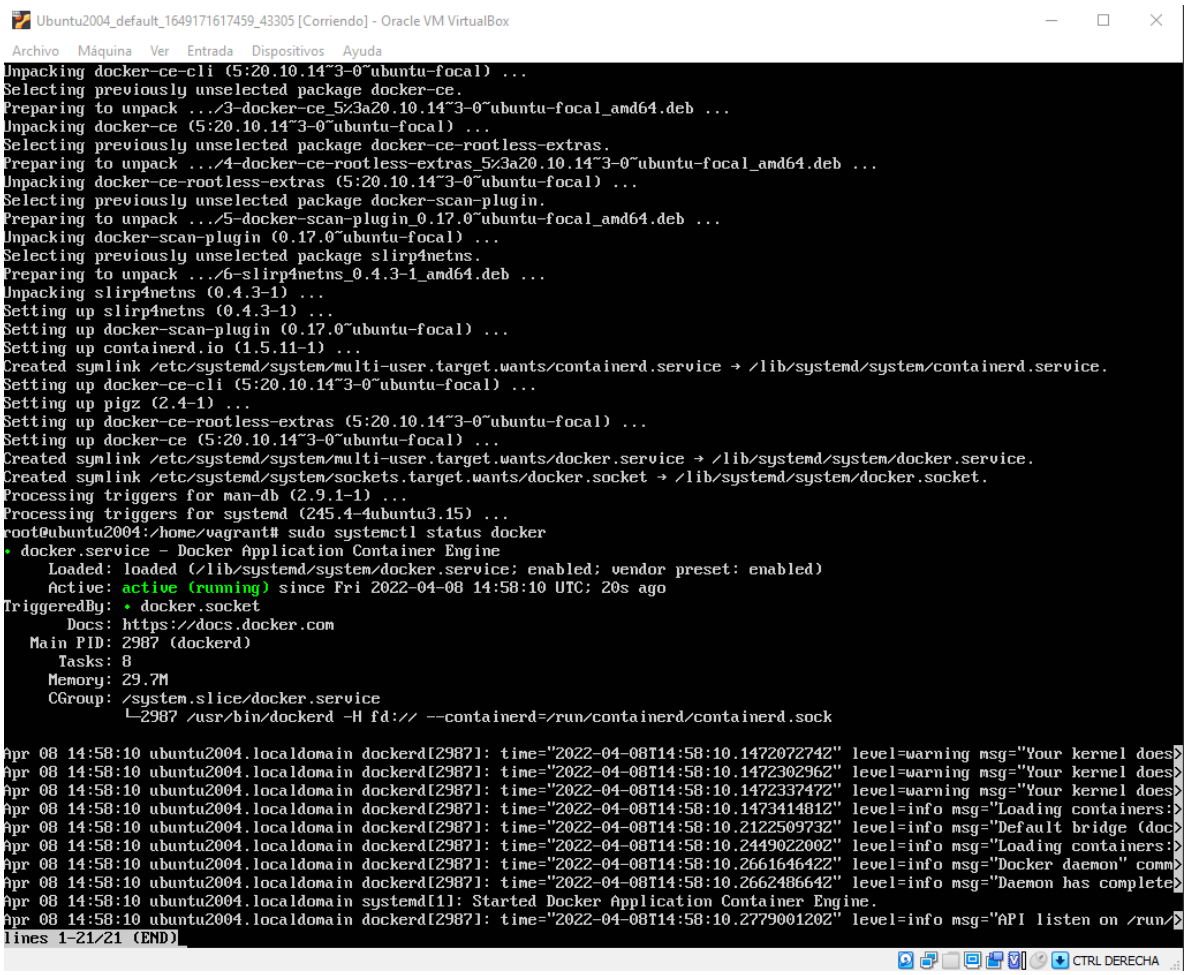
19. And set the firewall

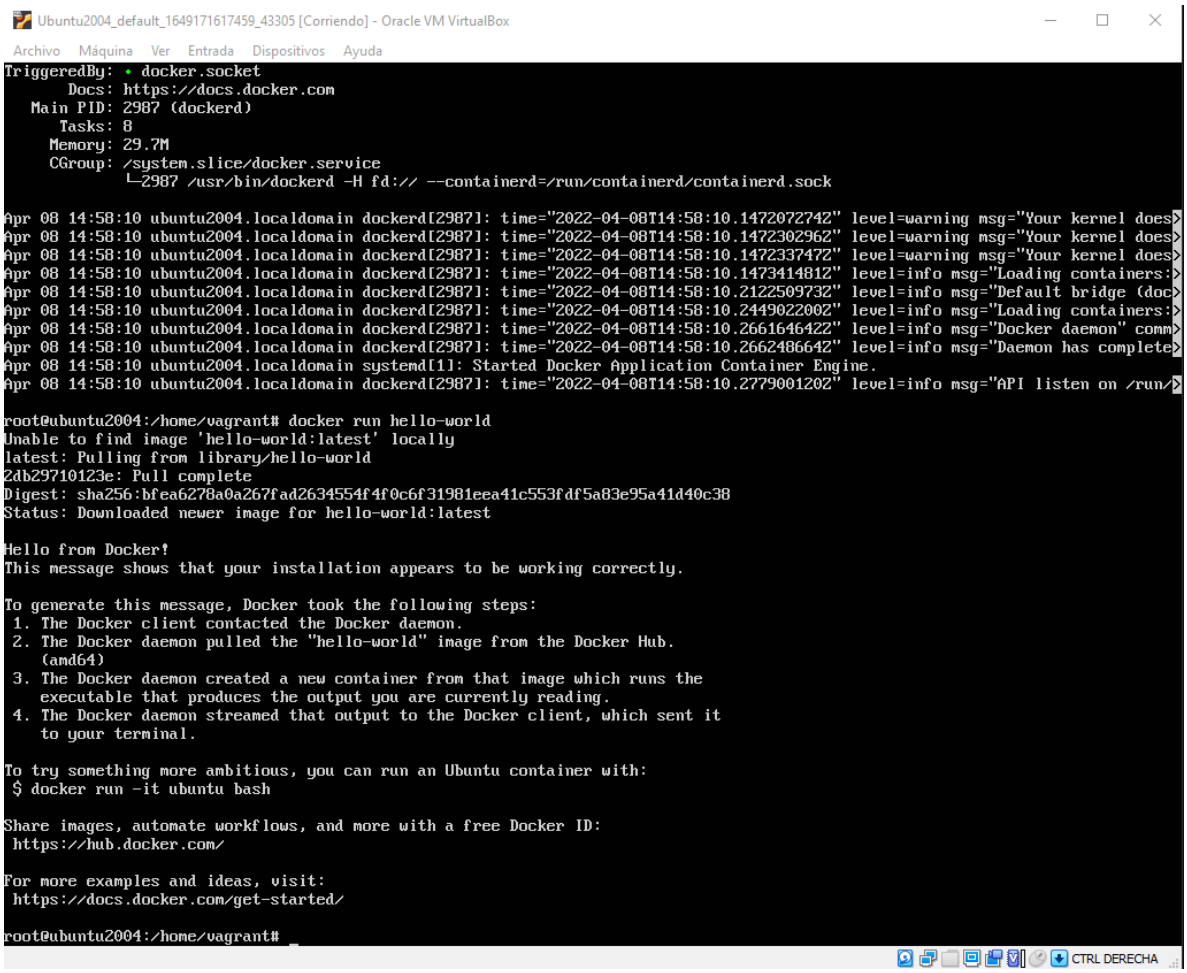
```
[root@fedora35 vagrant]# firewall-cmd --add-port=8080/tcp --permanent
success
[root@fedora35 vagrant]# firewall-cmd --reload
success
[root@fedora35 vagrant]# firewall-cmd --list-all
public (active)
  target: default
  icmp-block-inversion: no
  interfaces: eth0
  sources:
  services: dhcpv6-client mdns ssh
  ports: 8080/tcp
  protocols:
  forward: yes
  masquerade: no
  forward-ports:
  source-ports:
  icmp-blocks:
  rich rules:
[root@fedora35 vagrant]#
```

20. The next thing to do is install Docker, once Docker its installed run the hello world command (sudo systemctl start Docker then sudo Docker run hello-world)



21. The same goes with ubuntu

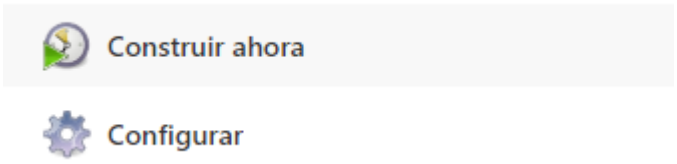

Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
Unpacking docker-ce-cli (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../3-docker-ce_5%3a20.10.14~3-0~ubuntu-focal_amd64.deb ...
Unpacking docker-ce (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-ce-rootless-extras.
Preparing to unpack .../4-docker-ce-rootless-extras_5%3a20.10.14~3-0~ubuntu-focal_amd64.deb ...
Unpacking docker-ce-rootless-extras (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-scan-plugin.
Preparing to unpack .../5-docker-scan-plugin_0.17.0~ubuntu-focal_amd64.deb ...
Unpacking docker-scan-plugin (0.17.0~ubuntu-focal) ...
Selecting previously unselected package slirp4netns.
Preparing to unpack .../6-slirp4netns_0.4.3-1_amd64.deb ...
Unpacking slirp4netns (0.4.3-1) ...
Setting up slirp4netns (0.4.3-1) ...
Setting up docker-scan-plugin (0.17.0~ubuntu-focal) ...
Setting up containerd.io (1.5.11-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/containerd.service → /lib/systemd/system/containerd.service.
Setting up docker-ce-cli (5:20.10.14~3-0~ubuntu-focal) ...
Setting up pigz (2.4-1) ...
Setting up docker-ce-rootless-extras (5:20.10.14~3-0~ubuntu-focal) ...
Setting up docker-ce (5:20.10.14~3-0~ubuntu-focal) ...
Created symlink /etc/systemd/system/multi-user.target.wants/docker.service → /lib/systemd/system/docker.service.
Created symlink /etc/systemd/system/sockets.target.wants/docker.socket → /lib/systemd/system/docker.socket.
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for systemd (245.4-4ubuntu3.15) ...
root@ubuntu2004:/home/vagrant# sudo systemctl status docker
• docker.service - Docker Application Container Engine
Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
Active: active (running) since Fri 2022-04-08 14:58:10 UTC; 20s ago
TriggeredBy: • docker.socket
Docs: https://docs.docker.com
Main PID: 2987 (dockerd)
Tasks: 8
Memory: 29.7M
CGroup: /system.slice/docker.service
└─2987 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.1472072742" level=warning msg="Your kernel does
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.1472302962" level=warning msg="Your kernel does
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.1472337472" level=warning msg="Your kernel does
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.1473414812" level=info msg="Loading containers:
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.2122509732" level=info msg="Default bridge (doc
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.2449022002" level=info msg="Loading containers:
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.2661646422" level=info msg="Docker daemon" comm
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.2662486642" level=info msg="Daemon has complete
Apr 08 14:58:10 ubuntu2004.localdomain systemd[1]: Started Docker Application Container Engine.
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.2779001202" level=info msg="API listen on /run/
lines 1-21/21 (END)
CTRL DERECHA

22. 

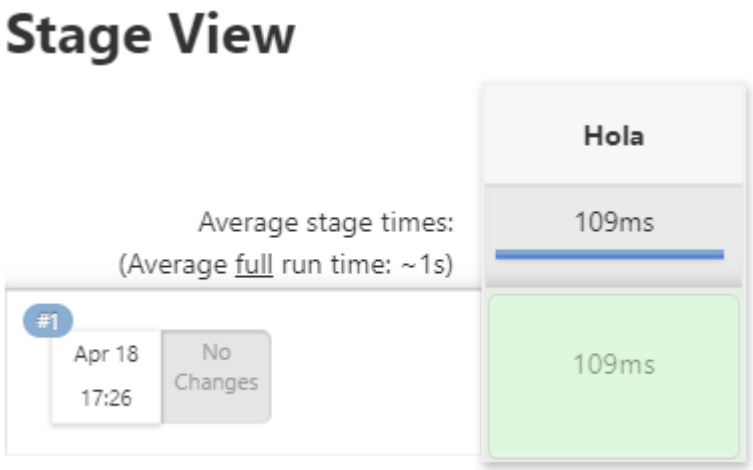
23. Create a Hello world task in Jenkins: first créate a new task

24. Then créate a pipeline script with the “Hello World”

25. Then click the build now



26. And finally check the result



Salida de consola

```
Lanzada por el usuario Bryan Henry López Maldonado
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins  in C:\ProgramData\Jenkins\.jenkins\workspace\New Test
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Hola)
[Pipeline] echo
Hola Mundo
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```