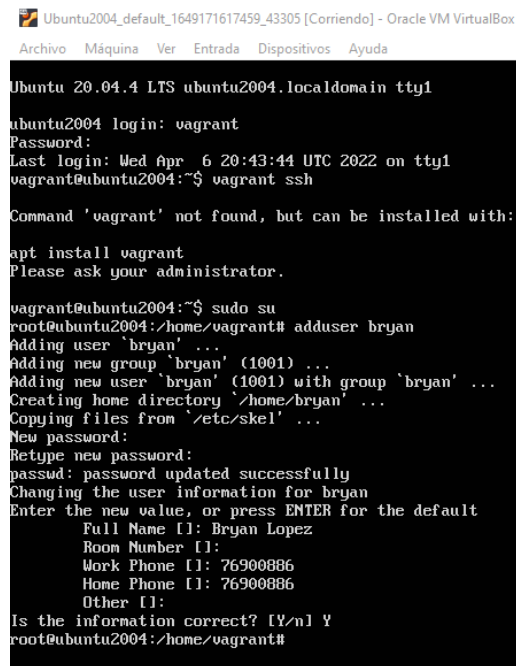


1. Create a new user for the Ubuntu VM



```
Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

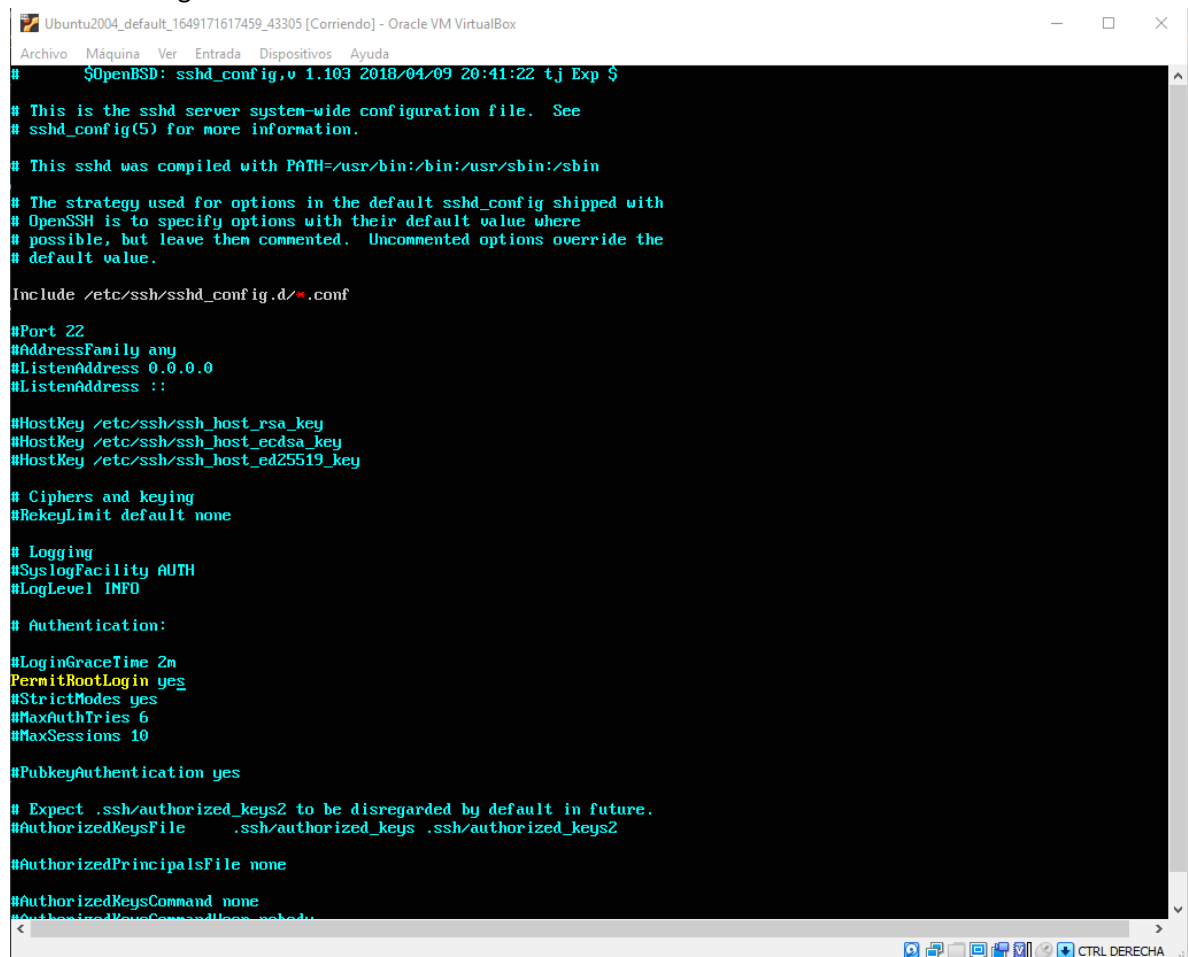
Ubuntu 20.04.4 LTS ubuntu2004.localdomain tty1
ubuntu2004 login: vagrant
Password:
Last login: Wed Apr  6 20:43:44 UTC 2022 on tty1
vagrant@ubuntu2004:~$ vagrant ssh

Command 'vagrant' not found, but can be installed with:

apt install vagrant
Please ask your administrator.

vagrant@ubuntu2004:~$ sudo su
root@ubuntu2004:/home/vagrant# adduser bryan
Adding user 'bryan' ...
Adding new group 'bryan' (1001) ...
Adding new user 'bryan' (1001) with group 'bryan' ...
Creating home directory '/home/bryan' ...
Copying files from '/etc/skel' ...
New password:
Retype new password:
passwd: password updated successfully
Changing the user information for bryan
Enter the new value, or press ENTER for the default
    Full Name []: Bryan Lopez
    Room Number []:
    Work Phone []: 76900886
    Home Phone []: 76900886
    Other []:
Is the information correct? [Y/n] Y
root@ubuntu2004:/home/vagrant#
```

2. Enable root login in the ssh.conf file



```
Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

# $OpenBSD: sshd_config,v 1.103 2018/04/09 20:41:22 tj Exp $

# This is the sshd server system-wide configuration file. See
# sshd_config(5) for more information.

# This sshd was compiled with PATH=/usr/bin:/bin:/usr/sbin:/sbin

# The strategy used for options in the default sshd_config shipped with
# OpenSSH is to specify options with their default value where
# possible, but leave them commented. Uncommented options override the
# default value.

Include /etc/ssh/sshd_config.d/*.conf

#Port 22
#AddressFamily any
#ListenAddress 0.0.0.0
#ListenAddress ::

#HostKey /etc/ssh/ssh_host_rsa_key
#HostKey /etc/ssh/ssh_host_ecdsa_key
#HostKey /etc/ssh/ssh_host_ed25519_key

# Ciphers and keying
#RekeyLimit default none

# Logging
#SyslogFacility AUTH
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m
PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10

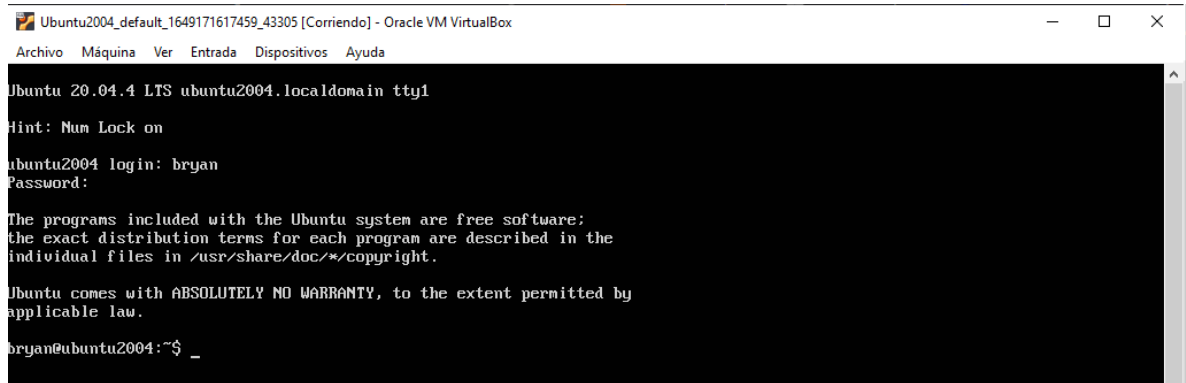
#PubkeyAuthentication yes

# Expect .ssh/authorized_keys2 to be disregarded by default in future.
#AuthorizedKeysFile .ssh/authorized_keys .ssh/authorized_keys2

#AuthorizedPrincipalsFile none

#AuthorizedKeysCommand none
#AuthorizedKeysCommandUser nobody
```

3. User successfully created



```
Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

Ubuntu 20.04.4 LTS ubuntu2004.localdomain tty1

Hint: Num Lock on

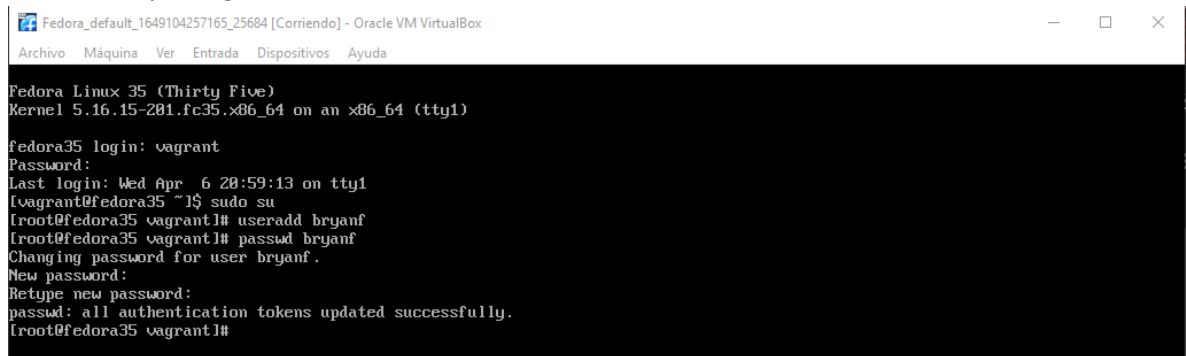
ubuntu2004 login: bryan
Password:

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

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.

bryan@ubuntu2004:~$ _
```

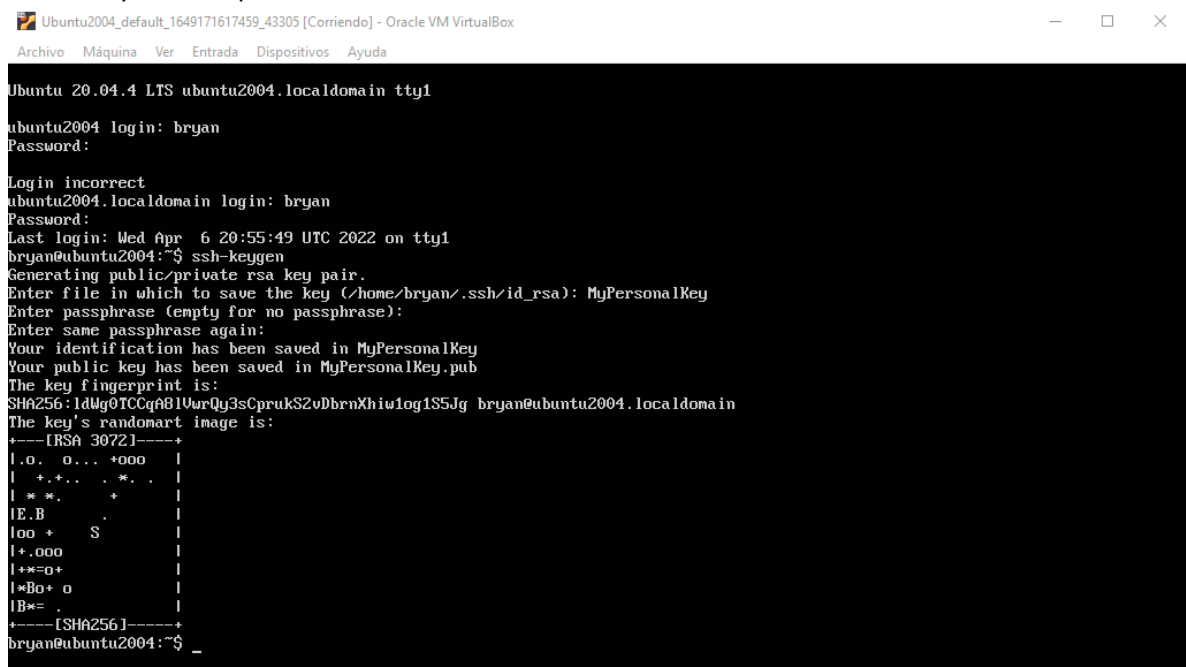
4. Now let's try to log in with the new user



```
Fedora Linux 35 (Thirty Five)
Kernel 5.16.15-201.fc35.x86_64 on an x86_64 (tty1)

fedora35 login: vagrant
Password:
Last login: Wed Apr  6 20:59:13 on tty1
[vagrant@fedora35 ~]$ sudo su
[root@fedora35 vagrant]# useradd bryanf
[root@fedora35 vagrant]# passwd bryanf
Changing password for user bryanf.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@fedora35 vagrant]#
```

5. Set up keys for the personal user



```
Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda

Ubuntu 20.04.4 LTS ubuntu2004.localdomain tty1

ubuntu2004 login: bryan
Password:

Login incorrect
ubuntu2004.localdomain login: bryan
Password:
Last login: Wed Apr  6 20:55:49 UTC 2022 on tty1
bryan@ubuntu2004:~$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/bryan/.ssh/id_rsa): MyPersonalKey
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in MyPersonalKey
Your public key has been saved in MyPersonalKey.pub
The key fingerprint is:
SHA256:ldWg0TCqA8lUurQy3sCprukS2vDbrnXhiw1og1S5Jg bryan@ubuntu2004.localdomain
The key's randomart image is:
+---[RSA 3072]-----+
|o. o...+ooo |
| +.+..*. |
| * *. + |
|E.B |
|oo + S |
|+.ooo |
|+*=o+ |
|*Bo+ o |
|B*= |
+---[SHA256]-----+
bryan@ubuntu2004:~$ _
```

6. Use the personal key to Access the ssh

```
root@ubuntu2004:/home/vagrant# sudo systemctl status ssh
* ssh.service - OpenBSD Secure Shell server
   Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2022-04-07 01:35:36 UTC; 26min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Process: 618 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCESS)
   Main PID: 669 (sshd)
     Tasks: 1 (limit: 2274)
    Memory: 4.8M
   CGroup: /system.slice/ssh.service
           └─669 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups

Apr 07 01:35:36 ubuntu2004.localdomain systemd[1]: Starting OpenBSD Secure Shell server...
Apr 07 01:35:36 ubuntu2004.localdomain sshd[669]: Server listening on 0.0.0.0 port 22.
Apr 07 01:35:36 ubuntu2004.localdomain sshd[669]: Server listening on :: port 22.
Apr 07 01:35:36 ubuntu2004.localdomain systemd[1]: Started OpenBSD Secure Shell server.
root@ubuntu2004:/home/vagrant# ssh bryan@10.0.2.15
The authenticity of host '10.0.2.15 (10.0.2.15)' can't be established.
ECDSA key fingerprint is SHA256:JkuA4AcF/zt2SqWnbPYbregPtqQJ8VDpdcnjJ9h8/q4.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.0.2.15' (ECDSA) to the list of known hosts.
bryan@10.0.2.15's password:
Last login: Thu Apr  7 01:36:09 2022
bryan@ubuntu2004:~$ ssh bryan@10.0.2.15
The authenticity of host '10.0.2.15 (10.0.2.15)' can't be established.
ECDSA key fingerprint is SHA256:JkuA4AcF/zt2SqWnbPYbregPtqQJ8VDpdcnjJ9h8/q4.
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' (ECDSA) to the list of known hosts.
bryan@10.0.2.15's password:
Last login: Thu Apr  7 02:02:52 2022 from 10.0.2.15
bryan@ubuntu2004:~$
```

7. Add the public key to the ssh

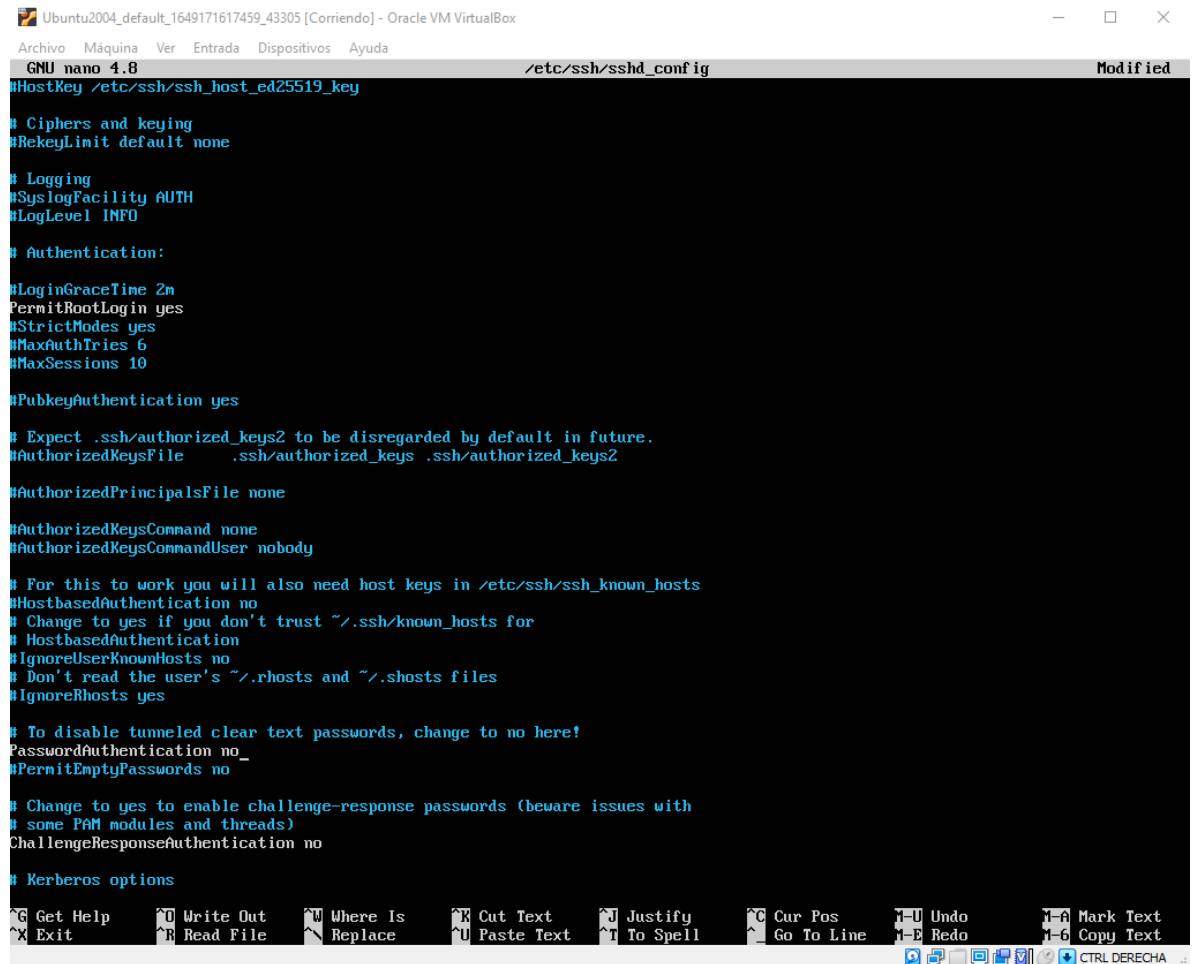
```
bryan@ubuntu2004:~$ ssh-copy-id -i bryan 10.0.2.15
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "bryan.pub"
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys
bryan@10.0.2.15's password:

Number of key(s) added: 1

Now try logging into the machine, with:  "ssh '10.0.2.15'"
and check to make sure that only the key(s) you wanted were added.

bryan@ubuntu2004:~$ ssh 10.0.2.15
bryan@10.0.2.15's password:
Last login: Thu Apr  7 14:31:42 2022
bryan@ubuntu2004:~$ exit
logout
Connection to 10.0.2.15 closed.
bryan@ubuntu2004:~$ _
```

8. Set the password authentication = no



```
Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo  Máquina  Ver  Entrada  Dispositivos  Ayuda
GNU nano 4.8 /etc/ssh/sshd_config Modified
#HostKey /etc/ssh/ssh_host_ed25519_key

# Ciphers and keying
#RekeyLimit default none

# Logging
#SyslogFacility AUTH
#LogLevel INFO

# Authentication:

#LoginGraceTime 2m
#PermitRootLogin yes
#StrictModes yes
#MaxAuthTries 6
#MaxSessions 10

#PubkeyAuthentication yes

# Expect .ssh/authorized_keys2 to be disregarded by default in future.
#AuthorizedKeysFile .ssh/authorized_keys .ssh/authorized_keys2

#AuthorizedPrincipalsFile none

#AuthorizedKeysCommand none
#AuthorizedKeysCommandUser nobody

# For this to work you will also need host keys in /etc/ssh/ssh_known_hosts
#HostbasedAuthentication no
# Change to yes if you don't trust ~/.ssh/known_hosts for
# HostbasedAuthentication
#IgnoreUserKnownHosts no
# Don't read the user's ~/.rhosts and ~/.shosts files
#IgnoreRhosts yes

# To disable tunneled clear text passwords, change to no here!
PasswordAuthentication no
#PermitEmptyPasswords no

# Change to yes to enable challenge-response passwords (beware issues with
# some PAM modules and threads)
ChallengeResponseAuthentication no

# Kerberos options

^G Get Help  ^O Write Out  ^W Where Is  ^K Cut Text   ^J Justify    ^C Cur Pos    ^U Undo      ^M Mark Text
^X Exit      ^R Read File  ^\ Replace   ^U Paste Text ^T To Spell   ^G Go To Line ^E Redo      ^C Copy Text
CTRL DERECHA
```

9. Log in without password



```
Restarting OpenSSH Secure Shell server: sshd
root@Bryan:/home/bryan# ssh bryan@127.0.0.1
Last login: Thu Apr 14 16:27:37 2022 from 127.0.0.1
bryan@Bryan:~$
```

10. Then we install Jenkins

```
Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
root@ubuntu2004:/etc/apt/sources.list.d# sudo apt install jenkins
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  net-tools
The following NEW packages will be installed:
  jenkins net-tools
0 upgraded, 2 newly installed, 0 to remove and 28 not upgraded.
Need to get 91.5 MB of archives.
After this operation, 95.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:2 http://us.archive.ubuntu.com/ubuntu focal/main amd64 net-tools amd64 1.60+git20180626.aebd88e-1ubuntu1 [196 kB]
Get:1 https://pkg.jenkins.io/debian-stable binary/ jenkins 2.332.2 [91.4 MB]
Fetched 91.5 MB in 2min 13s (687 kB/s)
Selecting previously unselected package net-tools.
(Reading database ... 113390 files and directories currently installed.)
Preparing to unpack .../net-tools_1.60+git20180626.aebd88e-1ubuntu1_amd64.deb ...
Unpacking net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...
Selecting previously unselected package jenkins.
Preparing to unpack .../jenkins_2.332.2_all.deb ...
Unpacking jenkins (2.332.2) ...
Setting up net-tools (1.60+git20180626.aebd88e-1ubuntu1) ...
Setting up jenkins (2.332.2) ...
Created symlink /etc/systemd/system/multi-user.target.wants/jenkins.service → /lib/systemd/system/jenkins.service.
Processing triggers for man-db (2.9.1-1) ...
Processing triggers for systemd (245.4-4ubuntu3.15) ...
root@ubuntu2004:/etc/apt/sources.list.d# systemctl status jenkins
• jenkins.service - Jenkins Continuous Integration Server
   Loaded: loaded (/lib/systemd/system/jenkins.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2022-04-07 15:09:36 UTC; 30s ago
     Main PID: 8770 (java)
       Tasks: 48 (limit: 2274)
      Memory: 698.9M
    CGroup: /system.slice/jenkins.service
            └─8770 /usr/bin/java -Djava.awt.headless=true -jar /usr/share/java/jenkins.war --webroot=/var/cache/jenkins/war --

Apr 07 15:09:19 ubuntu2004.localdomain jenkins[8770]: This may also be found at: /var/lib/jenkins/secrets/initialAdminPassword
Apr 07 15:09:19 ubuntu2004.localdomain jenkins[8770]: *****
Apr 07 15:09:19 ubuntu2004.localdomain jenkins[8770]: *****
Apr 07 15:09:19 ubuntu2004.localdomain jenkins[8770]: *****
Apr 07 15:09:35 ubuntu2004.localdomain jenkins[8770]: 2022-04-07 15:09:35.819+0000 [id=46] INFO h.n.DownloadService
Apr 07 15:09:35 ubuntu2004.localdomain jenkins[8770]: 2022-04-07 15:09:35.820+0000 [id=46] INFO hudson.util.Retri
Apr 07 15:09:35 ubuntu2004.localdomain jenkins[8770]: 2022-04-07 15:09:35.821+0000 [id=46] INFO hudson.model.Asyn
Apr 07 15:09:36 ubuntu2004.localdomain jenkins[8770]: 2022-04-07 15:09:36.962+0000 [id=31] INFO jenkins.InitReact
Apr 07 15:09:36 ubuntu2004.localdomain jenkins[8770]: 2022-04-07 15:09:36.972+0000 [id=22] INFO hudson.lifecycle
Apr 07 15:09:36 ubuntu2004.localdomain systemd[1]: Started Jenkins Continuous Integration Server.
lines 1-19/19 (END)
```

11. Adding the password

```
root@ubuntu2004:/etc/apt/sources.list.d# sudo ufw allow 8080
Rules updated
Rules updated (v6)
root@ubuntu2004:/etc/apt/sources.list.d# sudo cat /var/lib/jenkins/secrets/initialAdminPassword
fe99b51abc6246718994a66f4ca82404
root@ubuntu2004:/etc/apt/sources.list.d#
```

12. New user in fedora

```
Fedora Linux 35 (Thirty Five)
Kernel 5.16.15-201.fc35.x86_64 on an x86_64 (tty1)

fedora35 login: vagrant
Password:
Last login: Wed Apr 6 20:59:13 on tty1
[vagrant@fedora35 ~]$ sudo su
[root@fedora35 vagrant]# useradd bryanf
[root@fedora35 vagrant]# passwd bryanf
Changing password for user bryanf.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@fedora35 vagrant]#
```

13. Install ssh.service

```
Fedora_default_1649104257165_25684 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda

Fedora Linux 35 (Thirty Five)
Kernel 5.16.15-201.fc35.x86_64 on an x86_64 (tty1)

Fedora35 login: vagrant
Password:
[ 56.9850761] systemd-journald[535]: File /var/log/journal/3a72266225814bffe63853eba2470e0/user-1000.journal corrupted or uncleanly shut down, renaming and replacing.
Last login: Wed Apr  6 21:00:09 on tty1
lvagrant@fedora35 ~]$ sudo su
[root@fedora35 vagrant]# sudo dnf install -y openssh-server
Fedora 35 - x86_64 - Updates                                22 kB/s | 20 kB      00:00
Fedora 35 - x86_64 - Updates                                538 kB/s | 3.2 MB   00:06
Fedora Modular 35 - x86_64 - Updates                       57 kB/s | 38 kB    00:00
Fedora Modular 35 - x86_64 - Updates                       42 kB/s | 101 kB   00:02
Last metadata expiration check: 0:00:02 ago on Thu 07 Apr 2022 03:18:28 PM UTC.
Package openssh-server-8.7p1-3.fc35.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@fedora35 vagrant]# sudo systemctl start sshd.service
[root@fedora35 vagrant]# sudo systemctl status sshd.service
● sshd.service - OpenSSH server daemon
   Loaded: loaded (/usr/lib/systemd/system/sshd.service; enabled; vendor preset: enabled)
   Active: active (running) since Thu 2022-04-07 15:14:37 UTC; 5min ago
     Docs: man:sshd(8)
           man:sshd_config(5)
   Main PID: 686 (sshd)
     Tasks: 1 (limit: 2325)
    Memory: 2.4M
       CPU: 11ms
   CGroup: /system.slice/sshd.service
           └─686 "sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups"

Apr 07 15:14:37 fedora35.localdomain systemd[1]: Starting OpenSSH server daemon...
Apr 07 15:14:37 fedora35.localdomain sshd[686]: Server listening on 0.0.0.0 port 22.
Apr 07 15:14:37 fedora35.localdomain sshd[686]: Server listening on :: port 22.
Apr 07 15:14:37 fedora35.localdomain systemd[1]: Started OpenSSH server daemon.
[root@fedora35 vagrant]#
```

14. Now lets create a new key

```
[root@fedora35 vagrant]# ssh-keygen -t rsa
Generating public/private rsa key pair.
Enter file in which to save the key (/root/.ssh/id_rsa): bryanf
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in bryanf
Your public key has been saved in bryanf.pub
The key fingerprint is:
SHA256:uKPHAGmReHYZ25Kh65P/HN1Cz19X90pC2AjzOU03YEc root@fedora35.localdomain
The key's randomart image is:
+---[RSA 3072]---+
| . .oo +oE |
| . =.oB o o . |
| o++B o |
| += * |
| ...o S |
| . o.=... |
| = o+*... |
| o.o.+o= . |
| o++oo .. |
+---[SHA256]-----+
[root@fedora35 vagrant]#
```

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:AQ6yUH1nxwqk/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 jenkins

```

Installed:
alsa-lib-1.2.6.1-3.fc35.x86_64
cups-libs-1:2.3.3op2-16.fc35.x86_64
giflib-5.2.1-8.fc35.x86_64
java-11-openjdk-headless-1:11.0.14.1-5.fc35.x86_64
lcms2-2.12-2.fc35.x86_64
libXi-1.7.10-7.fc35.x86_64
libXtst-1.2.3-15.fc35.x86_64
libjpeg-turbo-2.1.0-3.fc35.x86_64
lua-5.4.4-1.fc35.x86_64
mkfontscale-1.2.1-3.fc35.x86_64
tzdata-java-2021e-1.fc35.noarch
xorg-x11-fonts-Type1-7.5-32.fc35.noarch
copy-jdk-configs-4.0-2.fc35.noarch
fontconfig-2.13.94-5.fc35.x86_64
java-11-openjdk-1:11.0.14.1-5.fc35.x86_64
javapackages-filesystem-6.0.0-1.fc35.noarch
libXcomposite-0.4.5-6.fc35.x86_64
libXrender-0.9.10-15.fc35.x86_64
libfontenc-1.1.3-16.fc35.x86_64
lksctp-tools-1.0.18-11.fc35.x86_64
lua-posix-35.0-4.fc35.x86_64
ttmkfdir-3.0.9-64.fc35.x86_64
xml-common-0.6.3-57.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/fedora/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                :
  Running scriptlet: jenkins-2.342-1.1.noarch
  Installing              : jenkins-2.342-1.1.noarch
  Running scriptlet: jenkins-2.342-1.1.noarch
  Verifying                : jenkins-2.342-1.1.noarch
                                          1/1
                                          1/1
                                          1/1
                                          1/1
                                          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; 18s 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

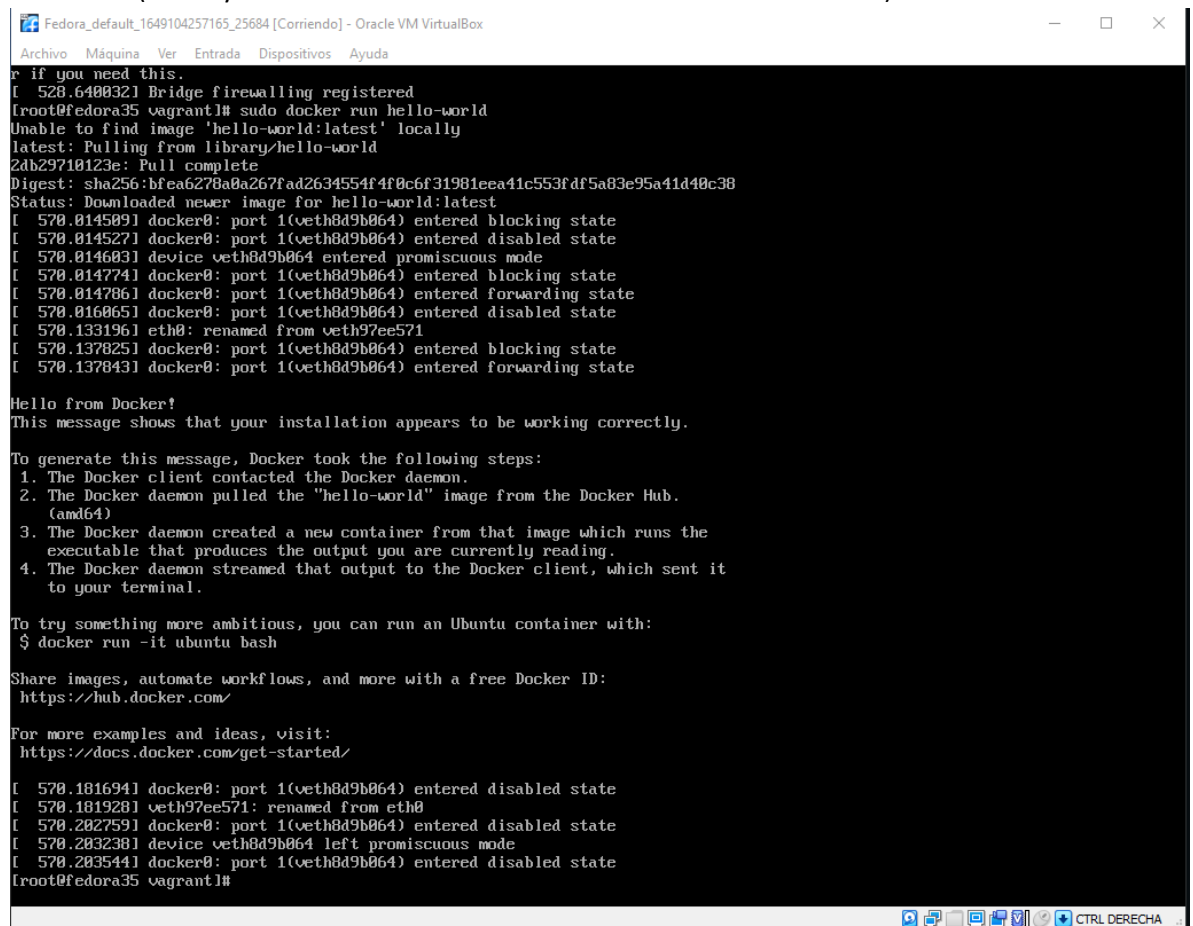
Apr 07 15:57:34 fedora35.localdomain jenkins[19281]: This may also be found at: /var/lib/jenkins/secrets/initialAdmin
Apr 07 15:57:34 fedora35.localdomain jenkins[19281]: *****
Apr 07 15:57:34 fedora35.localdomain jenkins[19281]: *****
Apr 07 15:57:53 fedora35.localdomain jenkins[19281]: 2022-04-07 15:57:53.505+0000 [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 jenkins
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)



```
Fedora_default_1649104257165_25684 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
r if you need this.
[ 528.640032] Bridge firewalling registered
[root@fedora35 vagrant]# sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2ab29710123e: Pull complete
Digest: sha256:bfea6278a0a267fad2634554f4f0c6f31981eea41c553fdf5a83e95a41d40c38
Status: Downloaded newer image for hello-world:latest
[ 570.014509] docker0: port 1(veth8d9b064) entered blocking state
[ 570.014527] docker0: port 1(veth8d9b064) entered disabled state
[ 570.014603] device veth8d9b064 entered promiscuous mode
[ 570.014774] docker0: port 1(veth8d9b064) entered blocking state
[ 570.014786] docker0: port 1(veth8d9b064) entered forwarding state
[ 570.016065] docker0: port 1(veth8d9b064) entered disabled state
[ 570.133196] eth0: renamed from veth97ee571
[ 570.137025] docker0: port 1(veth8d9b064) entered blocking state
[ 570.137043] docker0: port 1(veth8d9b064) entered forwarding state

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/

[ 570.181694] docker0: port 1(veth8d9b064) entered disabled state
[ 570.181928] veth97ee571: renamed from eth0
[ 570.202759] docker0: port 1(veth8d9b064) entered disabled state
[ 570.203238] device veth8d9b064 left promiscuous mode
[ 570.203544] docker0: port 1(veth8d9b064) entered disabled state
[root@fedora35 vagrant]#
```

21. The same goes with ubuntu

```

Unpacking docker-ce-cli (5:20.10.14~3-0~ubuntu-focal) ...
Selecting previously unselected package docker-ce.
Preparing to unpack .../3-docker-ce_5:20.10.14~3-0~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_5:20.10.14~3-0~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="2022-04-08T14:58:10.147207274Z" level=warning msg="Your kernel does>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.147230296Z" level=warning msg="Your kernel does>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.147233747Z" level=warning msg="Your kernel does>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.147341481Z" level=info msg="Loading containers:>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.212250973Z" level=info msg="Default bridge (doc>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.244902200Z" level=info msg="Loading containers:>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.266164642Z" level=info msg="Docker daemon" comm>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.266248664Z" 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="2022-04-08T14:58:10.277900120Z" level=info msg="API listen on /run/>
lines 1-21/21 (END)

```

```
Ubuntu2004_default_1649171617459_43305 [Corriendo] - Oracle VM VirtualBox
Archivo Máquina Ver Entrada Dispositivos Ayuda
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

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Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.212250973Z" level=info msg="Default bridge (doc>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.244902200Z" level=info msg="Loading containers:>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.266164642Z" level=info msg="Docker daemon" comm>
Apr 08 14:58:10 ubuntu2004.localdomain dockerd[2987]: time="2022-04-08T14:58:10.266248664Z" 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="2022-04-08T14:58:10.277900120Z" level=info msg="API listen on /run/>

root@ubuntu2004:/home/vagrant# docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:bfe6278a0a267fad2634554f4f0c6f31981eea41c553fdf5a83e95a41d40c38
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:
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   (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

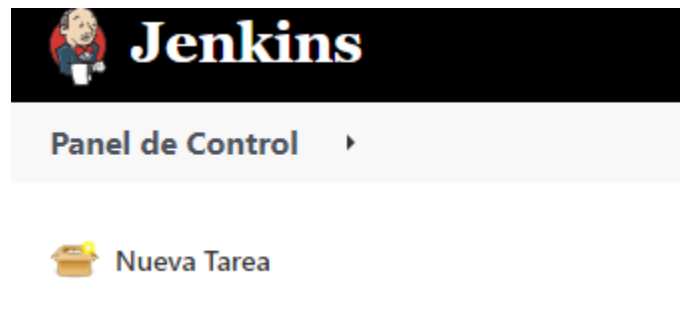
Share images, automate workflows, and more with a free Docker ID:
https://hub.docker.com/

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

root@ubuntu2004:/home/vagrant#
```

22.

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



24. Then crée a pipeline script with the "Hello World"

Pipeline

Definition

Pipeline script

Script ?

```
1 pipeline {  
2   agent any  
3   stages {  
4     stage("Hola") {  
5       steps {  
6         echo 'Hola Mundo'  
7       }  
8     }  
9   }  
10 }
```

25. Then click the build now



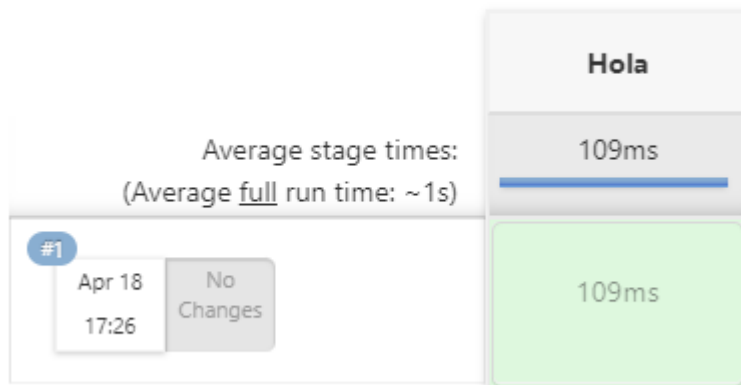
Construir ahora



Configurar

26. And finally check the result

Stage View





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