Establish SSH login on Ubuntu virtual machine

In quest machine:

```
Login as a super user on the machine
```

sudo su

Update system packages:

apt update

Create a new user:

adduser <USERNAME>

Give super user privileges to the new user:

sudo usermod -aG sudo <USERNAME>

Create .ssh folder and authorized_files folder in home:

sudo mkdir ~/.ssh

sudo chmod 700 ~/.ssh

sudo touch ~/.ssh/authorized_keys

sudo chmod 600 ~/.ssh/authorized_keys

sudo chown -R <USERNAME>:<USERNAME> ~/.ssh

In host machine:

Generate SSH key pair:

ssh-keygen

In Windows, copy the public key to clipboard:

type C:\Users\<USER>\.shh\<KEY_NAME>.pub | CLIP

In quest machine:

Copy the public key to authorized_keys file:

```
sudo echo "<PUBLIC_KEY>" >> ~/.ssh/authorized_keys
```

In host machine:

```
Login to the guest machine using ssh:
```

```
ssh <USERNAME>@<GUEST IP ADDRESS>
```

Installing Docker on Ubuntu virtual machine

```
Update system
     sudo apt update
Install prerequisites for apt
     sudo apt install apt-transport-https ca-certificates curl
     software-properties-common
Add GPG key for Docker repository
     curl -fsSL https://download.docker.com/linux/ubuntu/gpg |
     sudo apt-key add -
Update system
     sudo apt update
Add Docker CE repository to system
     sudo add-apt-repository "deb [arch=amd64]
     https://download.docker.com/linux/ubuntu focal stable"
Make sure to install from Docker repository
     apt-cache policy docker-ce
Install Docker CE
     sudo apt install docker-ce
Check Docker service status (should be active)
     systemctl status docker
Add user to docker group (to avoid using sudo for Docker commands)
     sudo usermod -aG docker <USERNAME>
     su - <USERNAME>
```

docker version

Installing Jenkins on a Docker container

Pull most recent Jenkins LTS version (can be checked in https://hub.docker.com/r/jenkins/jenkins):

docker pull jenkins/jenkins:lts-jdk11

Create a new container to run Jenkins using Docker:

docker run -p 8080:8080 -p 50000:50000 -v jenkins_home:/var/jenkins_home jenkins/jenkins:lts-jdk11

Make sure to have initial administrator password at hand (automatically generated and shown in logs):

Jenkins initial setup is required. An admin user has been created and a password generated.

Please use the following password to proceed to installation:

1883c809f01b4ed585fb5c3e0156543a

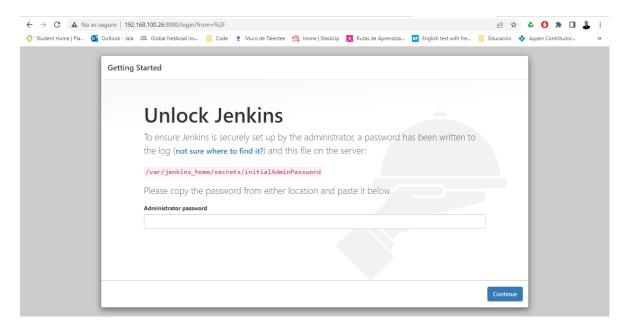
This may also be found at: /var/jenkins home/secrets/initialAdminPassword

Wait for this message to be shown in logs:

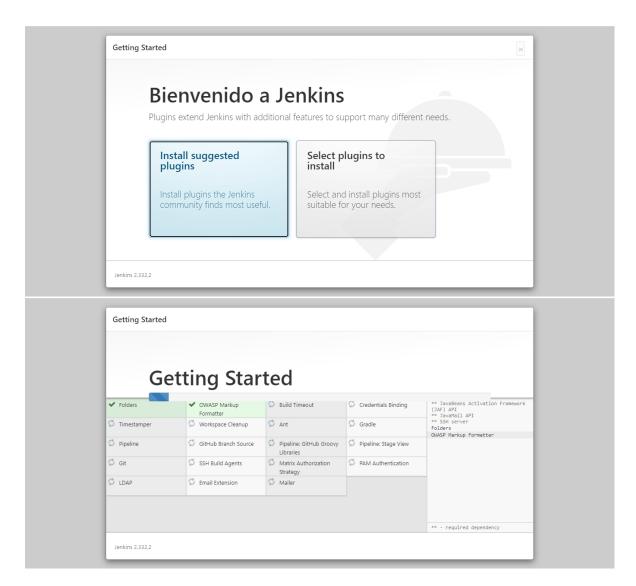
Jenkins is fully up and running

Then go to the browser, open a new tab and go to

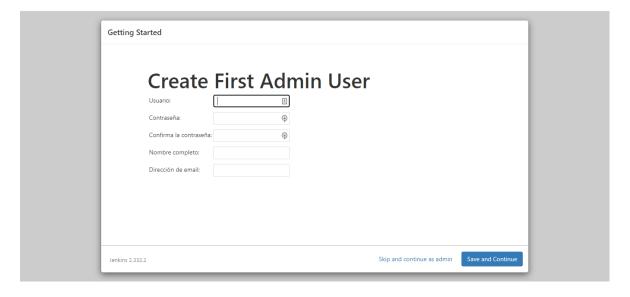
http://<LOCAL_HOST_IP_ADDRESS>: 8080. Add the initial administrator password and click on Continue.



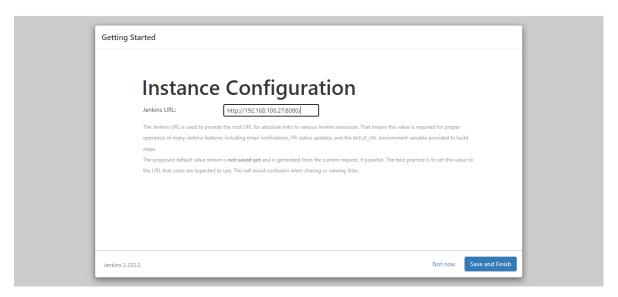
Choose "Install suggested plugins" and wait until the installation is finished.



Create the first admin user. Fill all the fields and click Save and Continue.



Choose the Jenkins URL to access Jenkins. Leaving the one that is default is recommended.



Jenkins has been installed and is ready to use.

