Class SSH

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Review what are SSH public/private keys

The Secure Shell (SSH) protocol uses asymetric cryptography, in which a related key pair is used:

The public key is copied to the SSH server. Anyone with a copy of the public key can encrypt data which can then only be read by the person who holds the corresponding private key.

The private key remains with the user. The possession of this key is proof of the user's identity. Only a user in possession of a private key that corresponds to the public key at the server will be able to authenticate successfully.

Create a personal user in both VMs

Create a new user: `sudo adduser username`

In Fedora, configure a password for the user: `sudo passwd username`

Add the user to the sudo group:

For Ubuntu: `sudo adduser username sudo`

For Fedora: `sudo usermod -aG wheel username`

Switch to the new user: `su -l username`

Setup SSH keys for the personal user

Search the private SSH key in your local machine or create one with `ssh-keygen`.

In the server, logged in with the created user, run:

mkdir .ssh

echo 'SSH_PUBLIC_KEY' > .ssh/authorized_keys

Login to the VM with your personal user without using a password

1. In Virtualbox, select the VM, click on Settings -> Network -> Advanced -> Port forwarding and copy the Host port.

2. Connect to the VM via SSH with: `ssh -p HOST_PORT username@127.0.0.1`

Install Jenkins in both VMs using Docker

Ubuntu

sudo apt-get update

sudo apt-get install ca-certificates curl gnupg lsb-release

curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /usr/share/keyrings/docker-archive-keyring.gpg

echo "deb [arch=$(dpkg --print-architecture) signed-by=/usr/share/keyrings/docker-archive-keyring.gpg] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null

sudo apt-get update

sudo apt-get install docker-ce docker-ce-cli containerd.io

Fedora:

sudo dnf -y install dnf-plugins-core

sudo dnf config-manager --add-repo

https://download.docker.com/linux/fedora/docker-ce.repo

sudo dnf install docker-ce docker-ce-cli containerd.io

sudo systemctl start docker