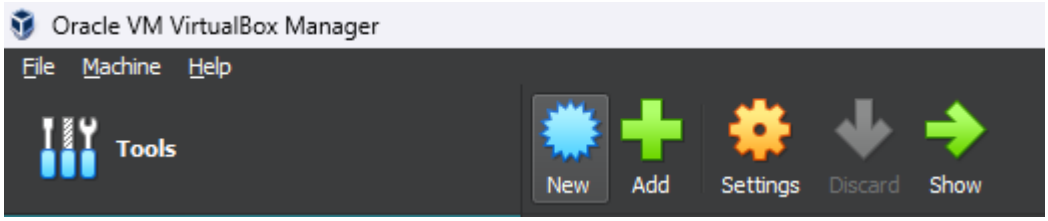
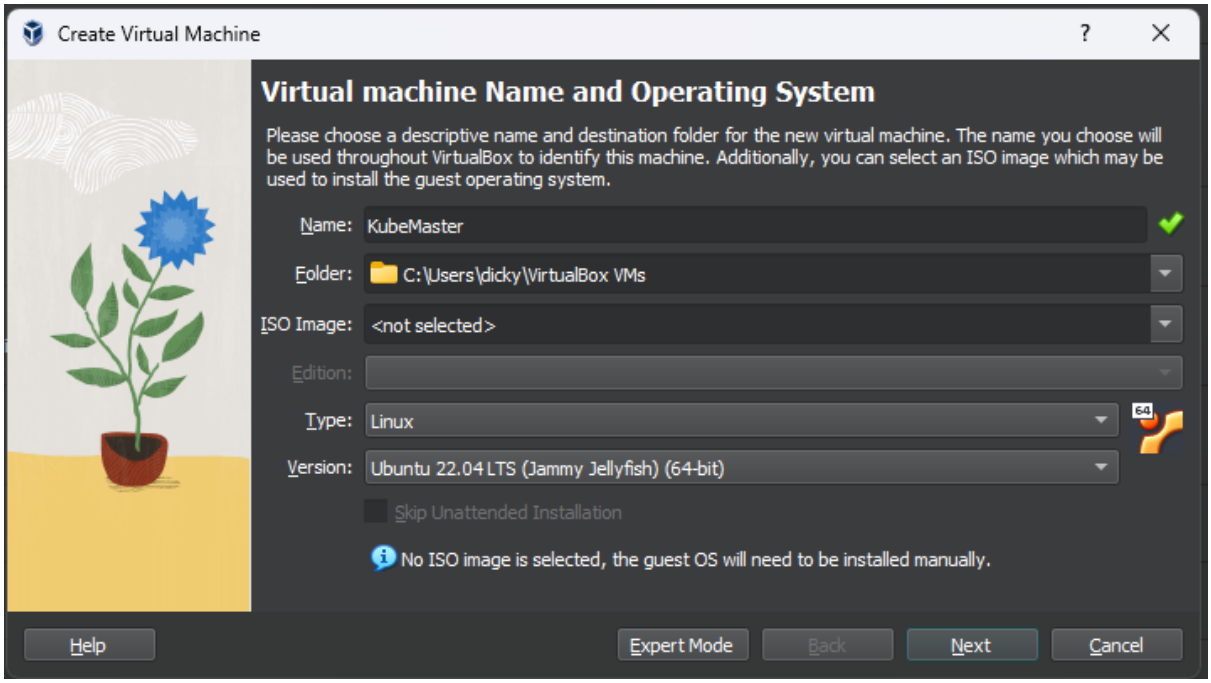
Ubuntu 22.04.2 LTS

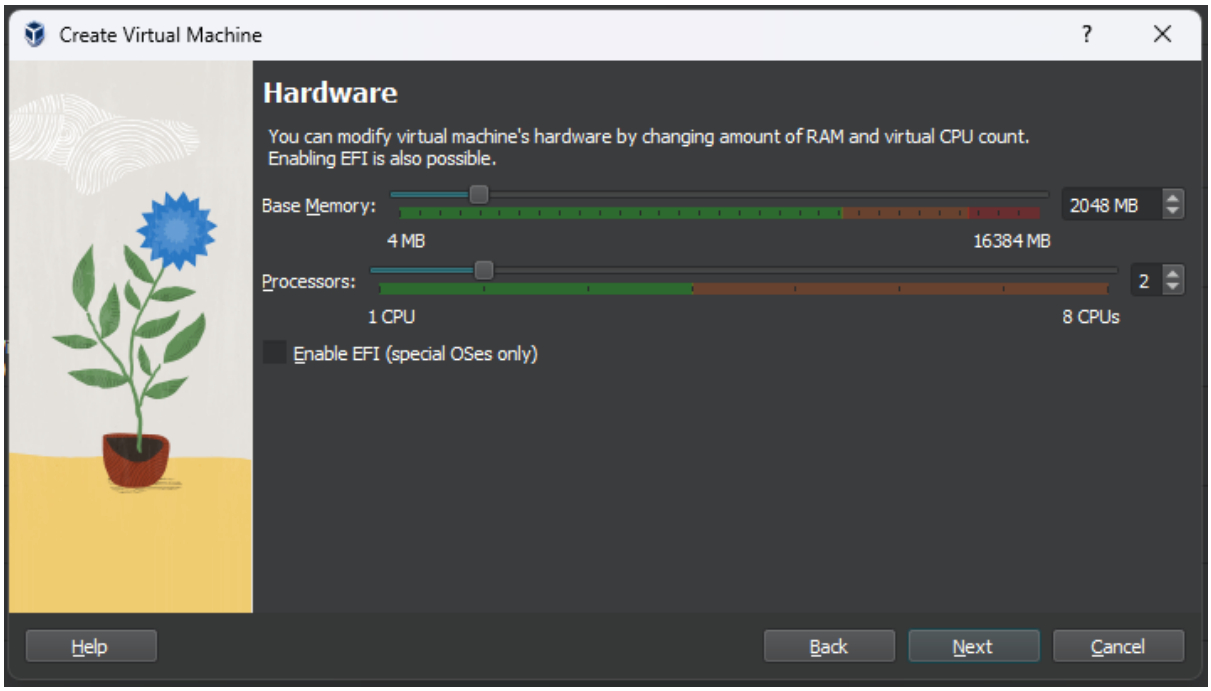
Kubernetes 1.26.2

VirtualBox 7.0.6

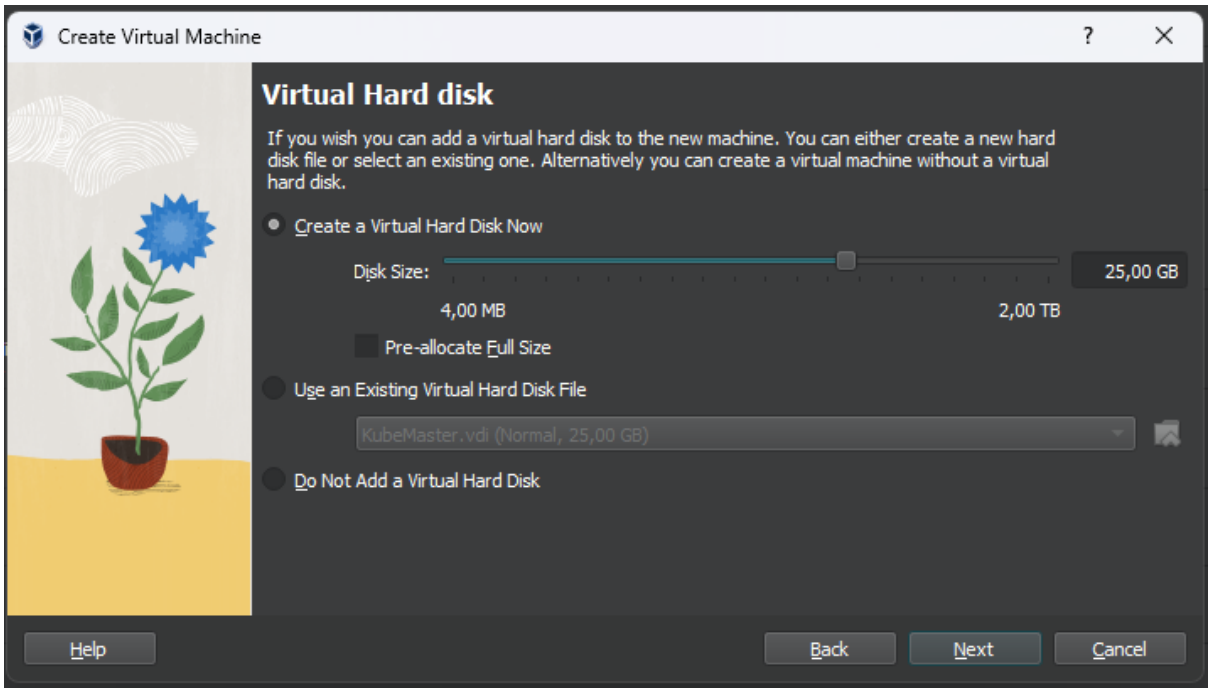


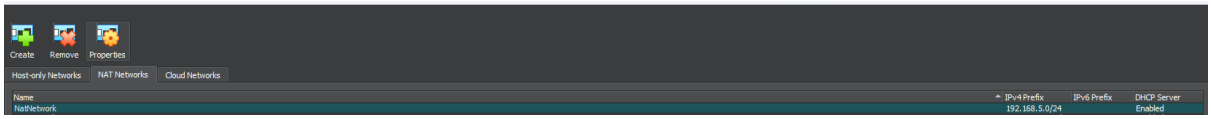
Add new 3 server KubeMaster, KubeWorker1, KubeWorker3



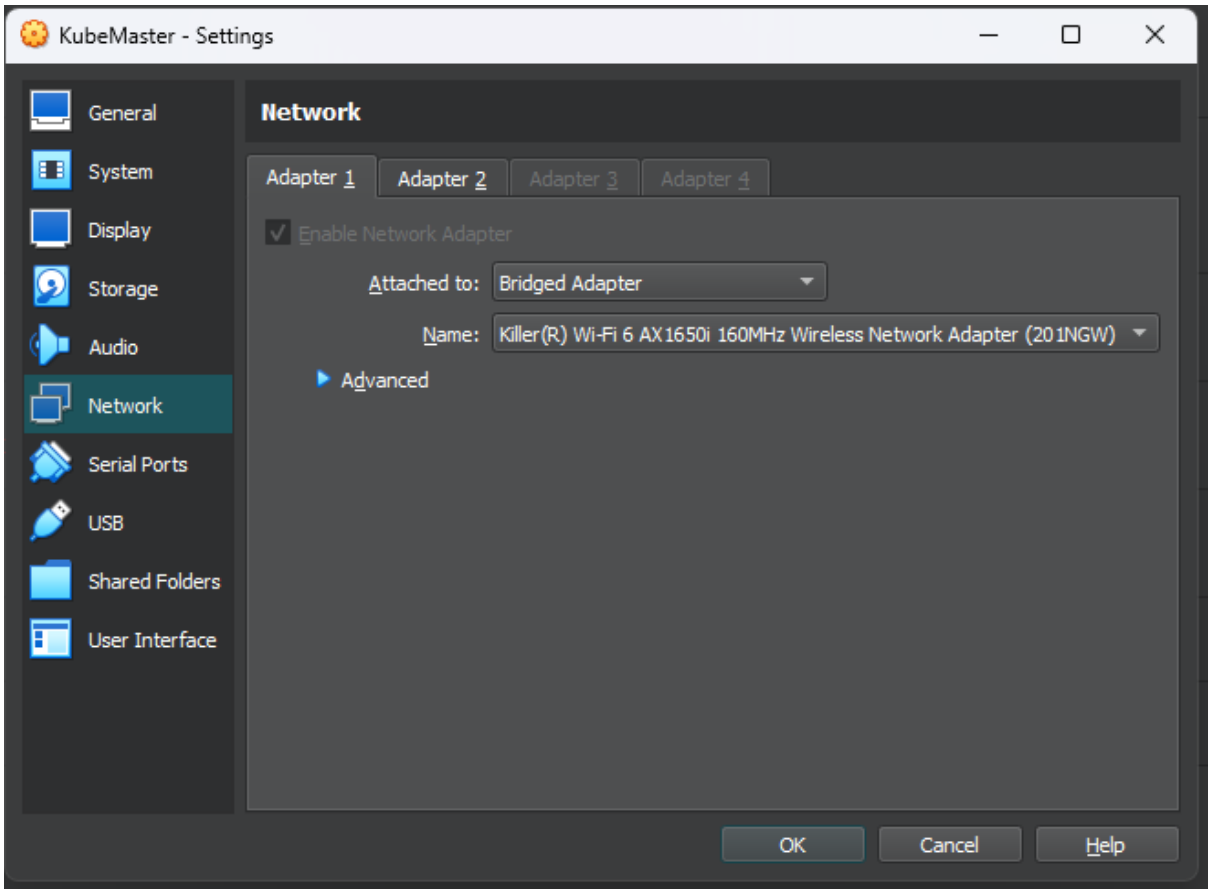


Set minimum req for Kubernetes 2 cpus

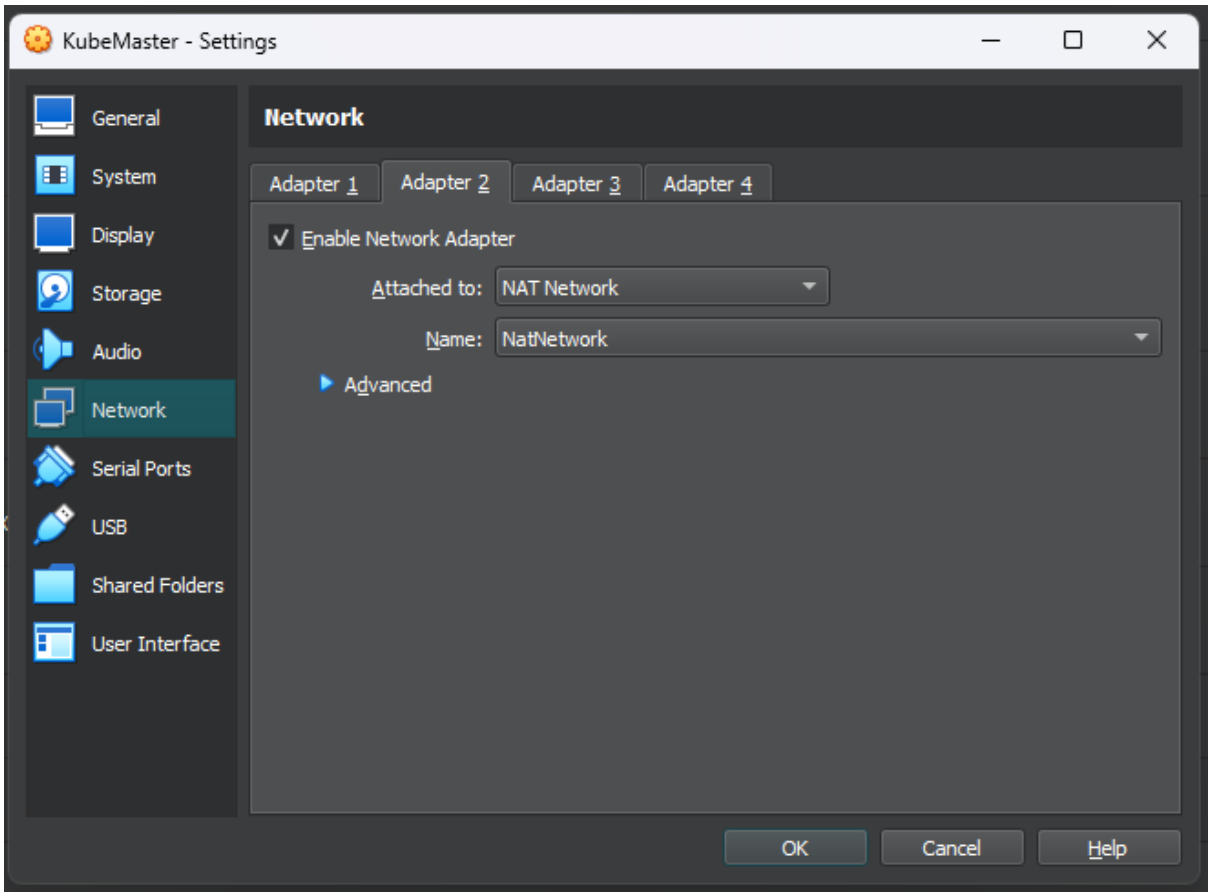




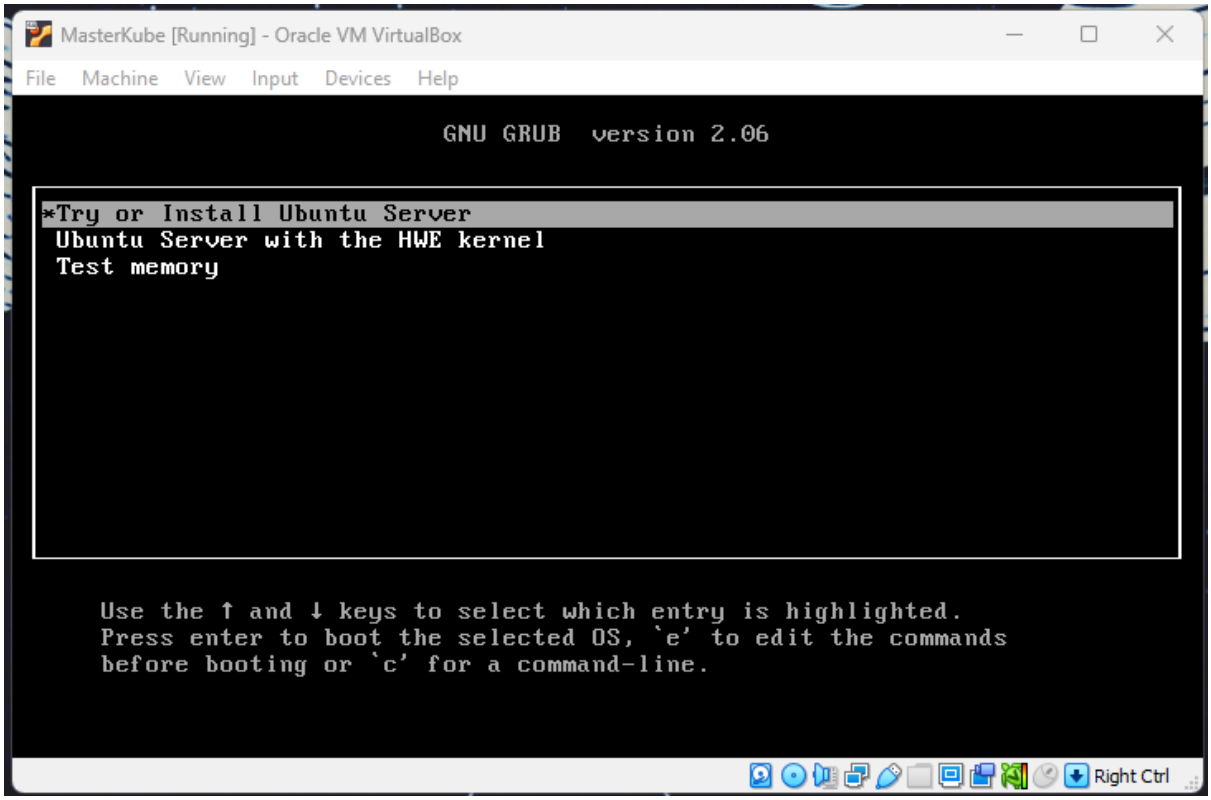
Create new NatNetwork



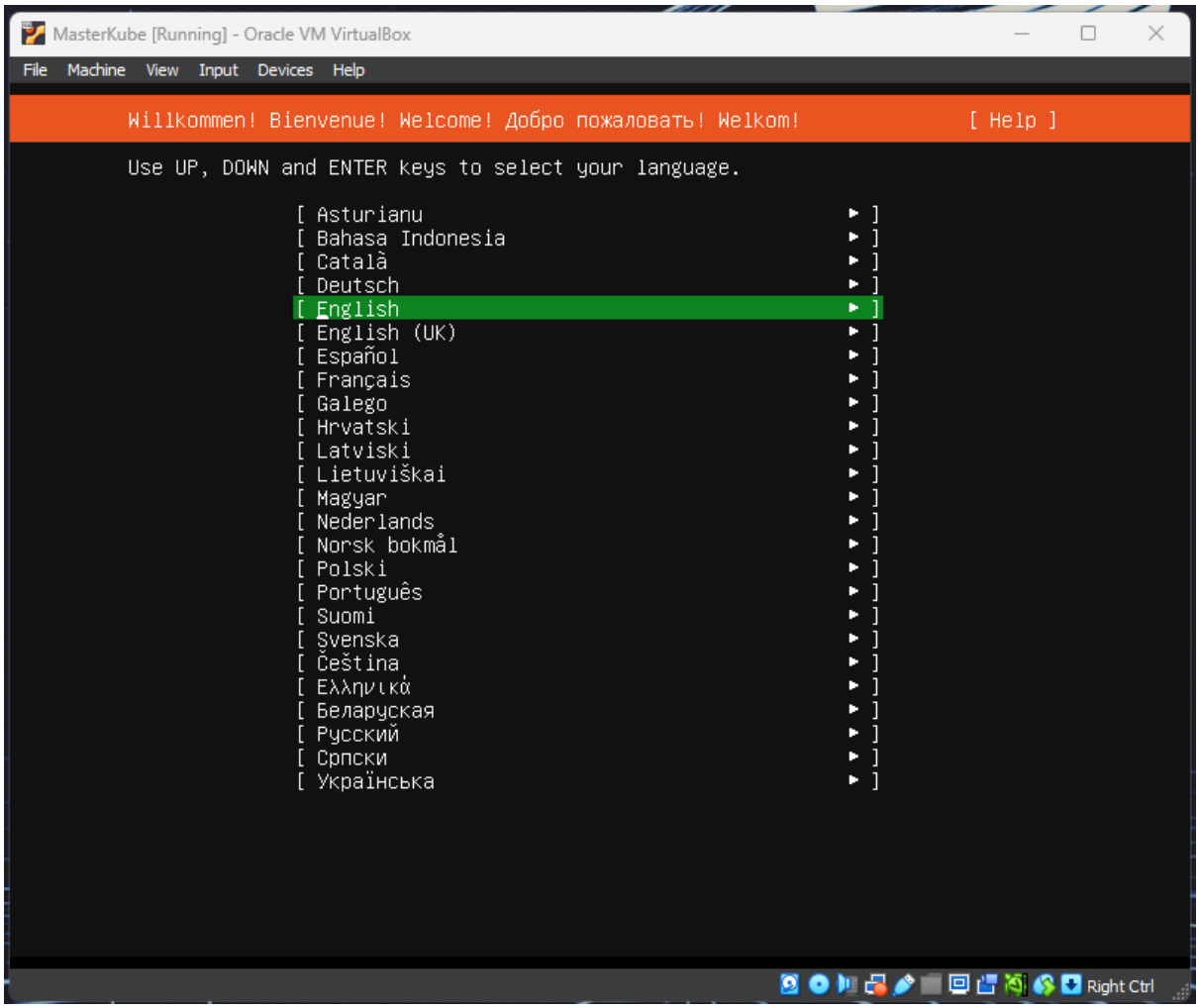
Setup Adapter 1 attached to Bridged adapter



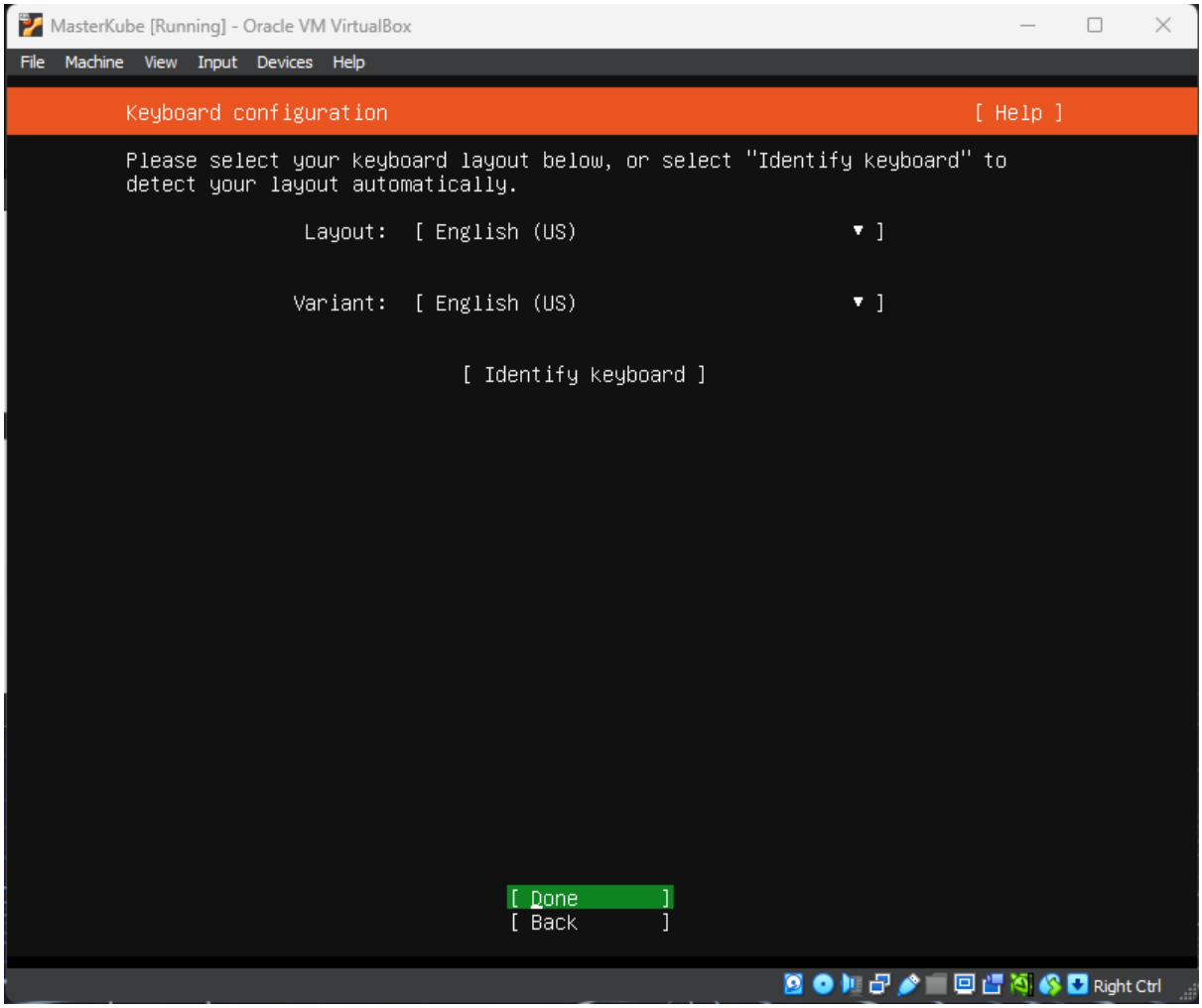
Setup Adapter 2 Nat Network (select interace you created before)

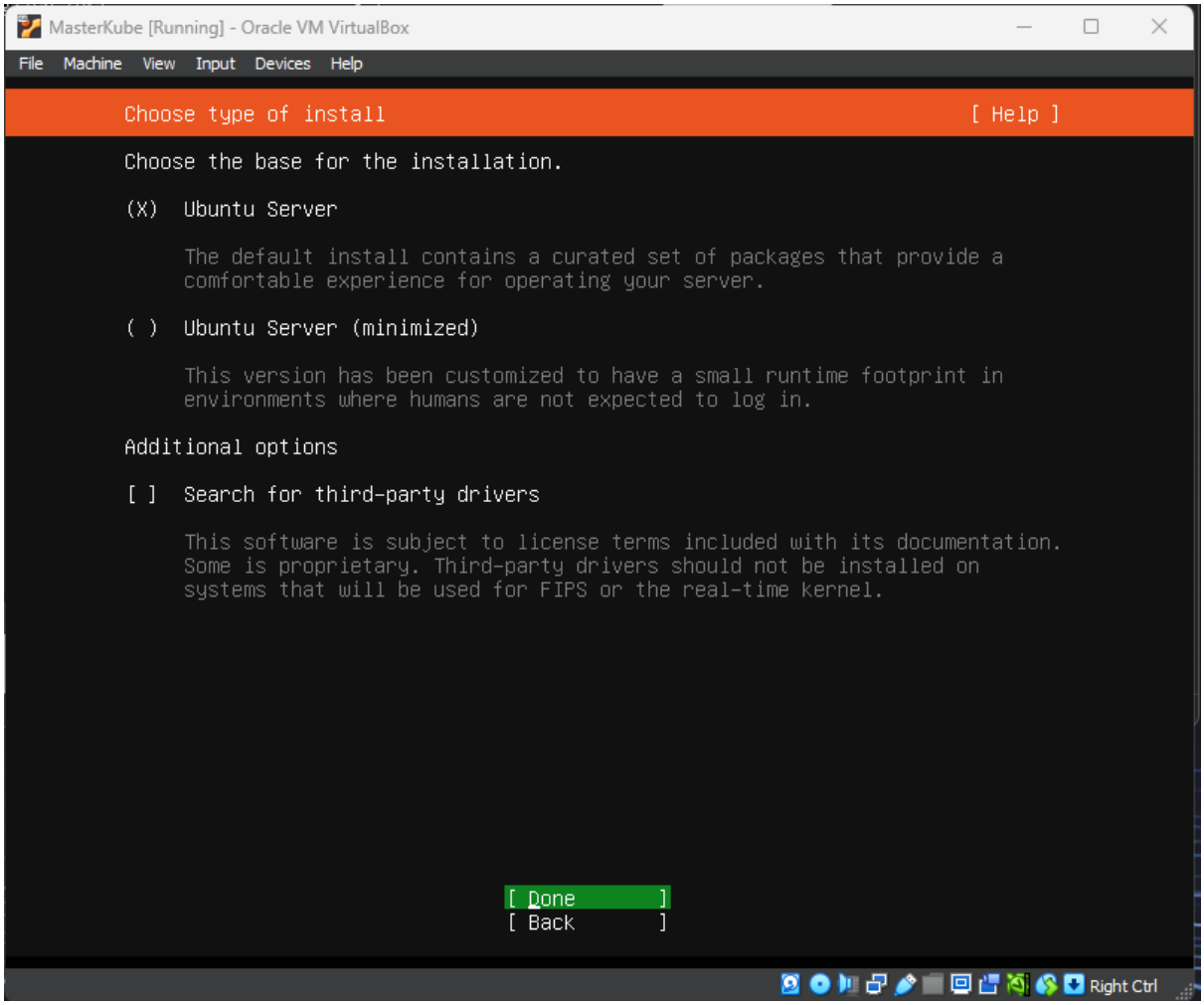


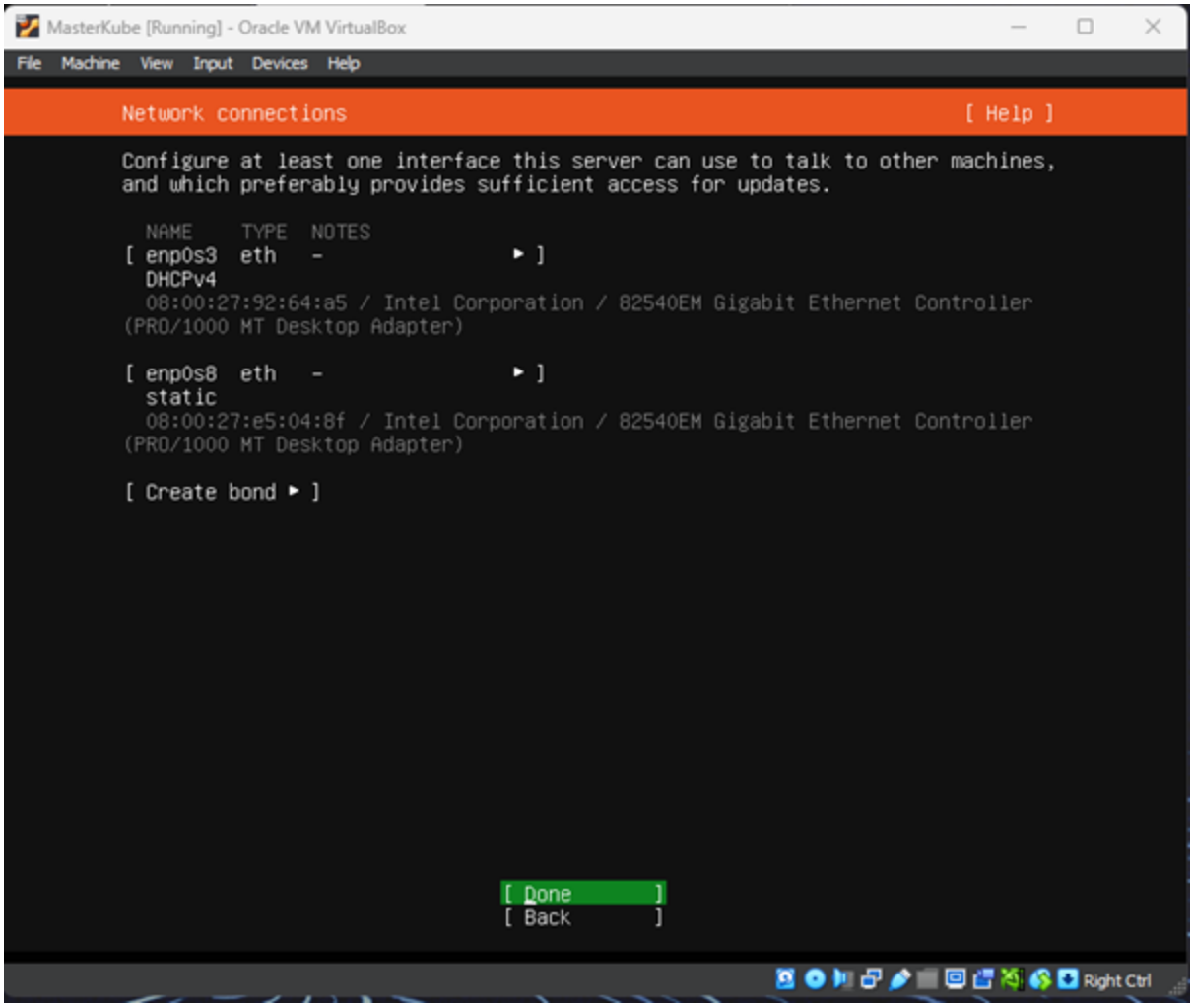
Install Ubuntu Server



Select language


MasterKube [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Keyboard configuration [Help]
Please select your keyboard layout below, or select "Identify keyboard" to
detect your layout automatically.
Layout: [English (US) ▾]
Variant: [English (US) ▾]
[Identify keyboard]
[Done]
[Back]
Right Ctrl


MasterKube [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Choose type of install [Help]
Choose the base for the installation.
(X) Ubuntu Server
The default install contains a curated set of packages that provide a comfortable experience for operating your server.
( ) Ubuntu Server (minimized)
This version has been customized to have a small runtime footprint in environments where humans are not expected to log in.
Additional options
[ ] Search for third-party drivers
This software is subject to license terms included with its documentation. Some is proprietary. Third-party drivers should not be installed on systems that will be used for FIPS or the real-time kernel.
[Done]
[Back]
Right Ctrl



Setup IP static for enp0s8

KubeMaster 192.168.5.8

Subnet 192.168.5.0/24

KubeWorker1 192.168.5.9

Subnet 192.168.5.0/24

KubeWorker2 192.168.5.10

Subnet 192.168.5.0/24

Leave enp0s3 as DHCP

#after that wait until finish

#after reboot login prompt will appear

#login input user & pass

sudo apt-get update

#install curl

sudo apt-get install -y apt-transport-https ca-certificates curl

#add repository kubernetes

sudo curl -fsSLo /etc/apt/keyrings/kubernetes-archive-keyring.gpg https://packages.cloud.google.com/apt/doc/apt-key.gpg

echo "deb [signed-by=/etc/apt/keyrings/kubernetes-archive-keyring.gpg] https://apt.kubernetes.io/ kubernetes-xenial main" | sudo tee /etc/apt/sources.list.d/kubernetes.list

sudo apt-get update

#install kubernetes

sudo apt-get install -y kubelet kubeadm kubectl

#disable auto update

sudo apt-mark hold kubelet kubeadm kubectl

#install docker

sudo apt-get install docker.io -y

#disable swap mem

sudo swapoff -a

[KubeMaster only]

#kubeadm initiate

sudo kubeadm init --control-plane-endpoint kubemaster:6443 --pod-network-cidr 10.10.0.0/16

mkdir -p $HOME/.kube

sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config

sudo chown $(id -u):$(id -g) $HOME/.kube/config

#get calico manifest file

curl https://raw.githubusercontent.com/projectcalico/calico/v3.25.0/manifests/calico.yaml -O

sudo vim calico.yaml

#uncomment CALICO_IPV4POOL_CIDR dan pastikan bernilai sama dengan pod CIDR

kubectl apply -f calico.yaml

#after initiate you will get token then you can join any number of worker nodes

[KubeWorker1 & KubeWorker2]

sudo kubeadm join kubemaster:6443 --token 17zdww.w0yg45uj8y4ynty0 \ --discovery-token-ca-cert-hash sha256:8d7948b1c56e0b266797524fca7797ae9f1fce8906d76cc71914cd1044d55f0b \ --control-plane

Apply the deployment

sudo kubectl apply docker-compose.yml