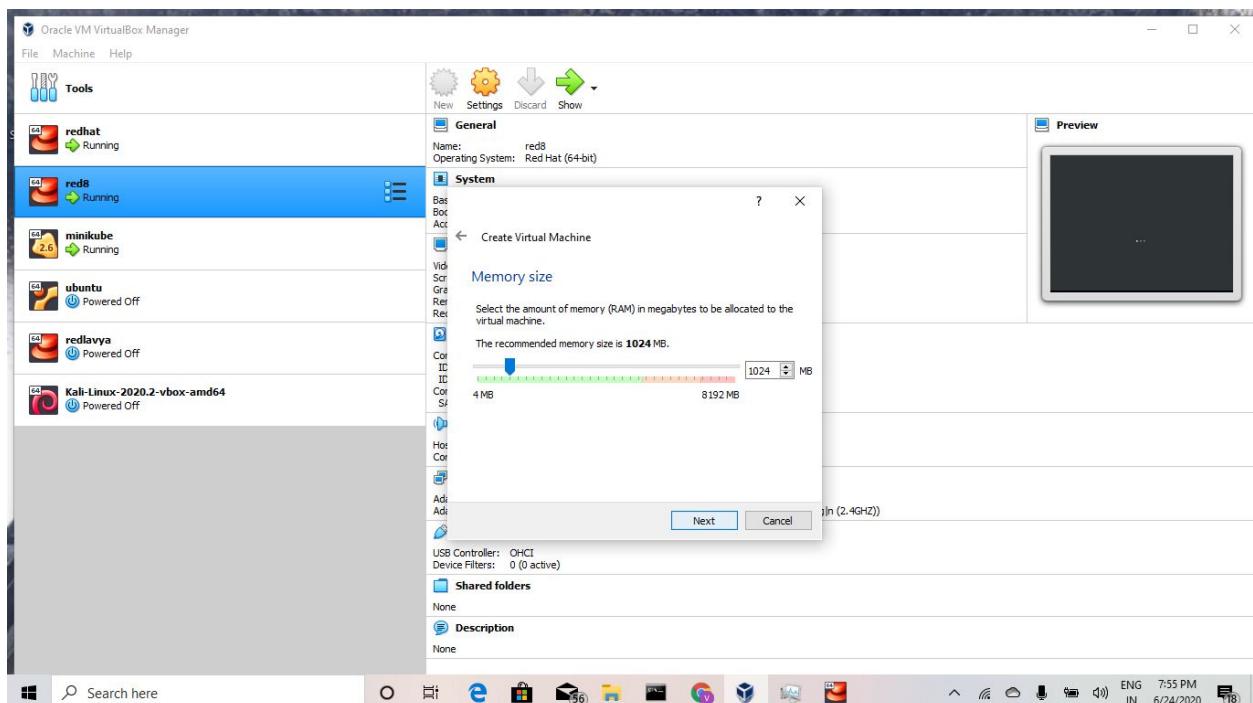
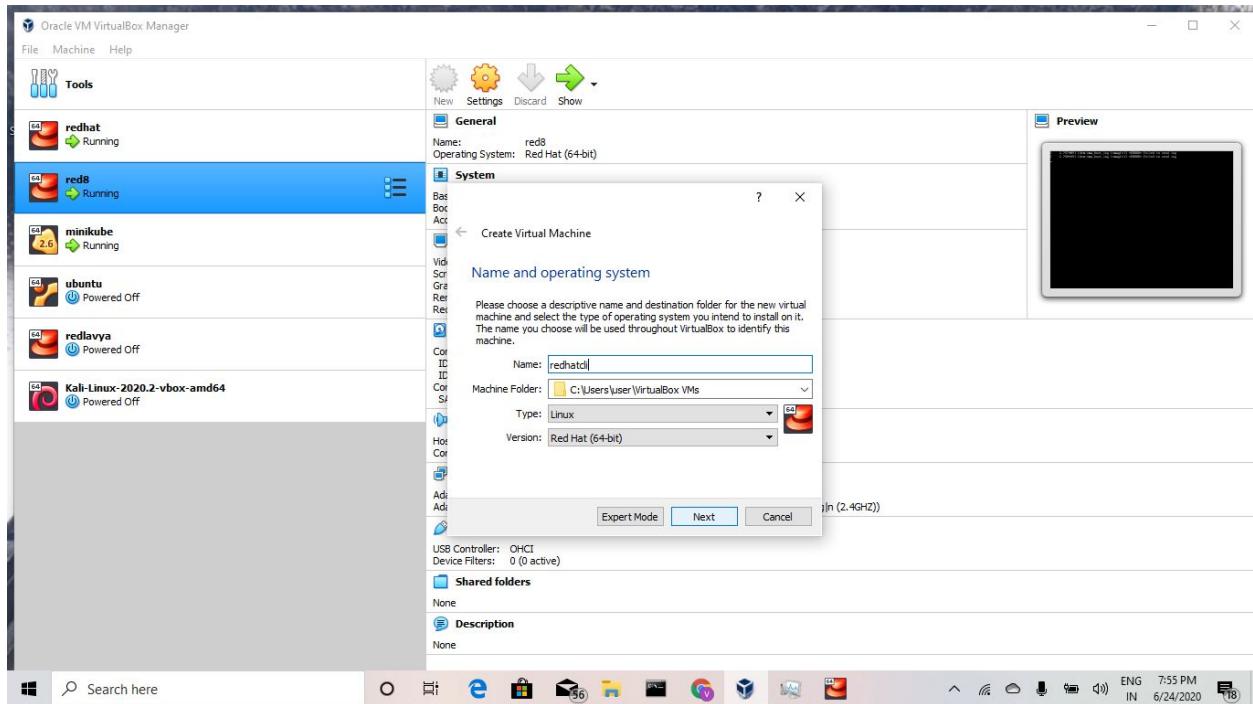
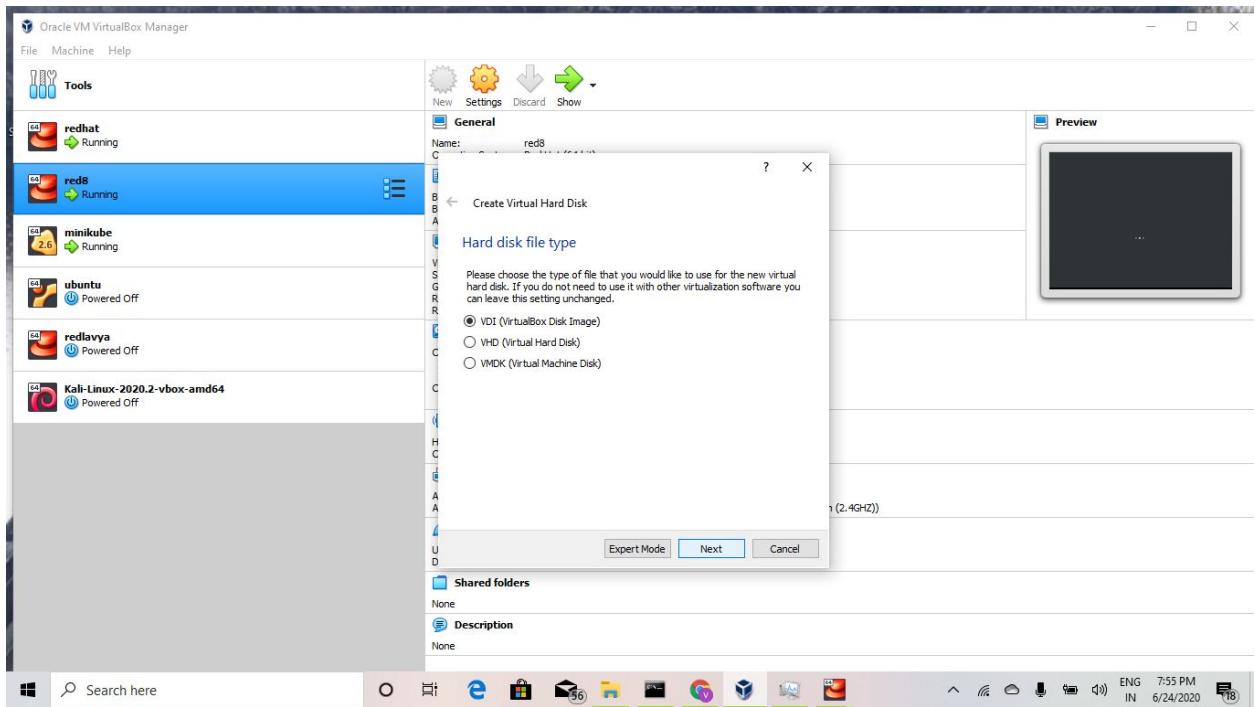
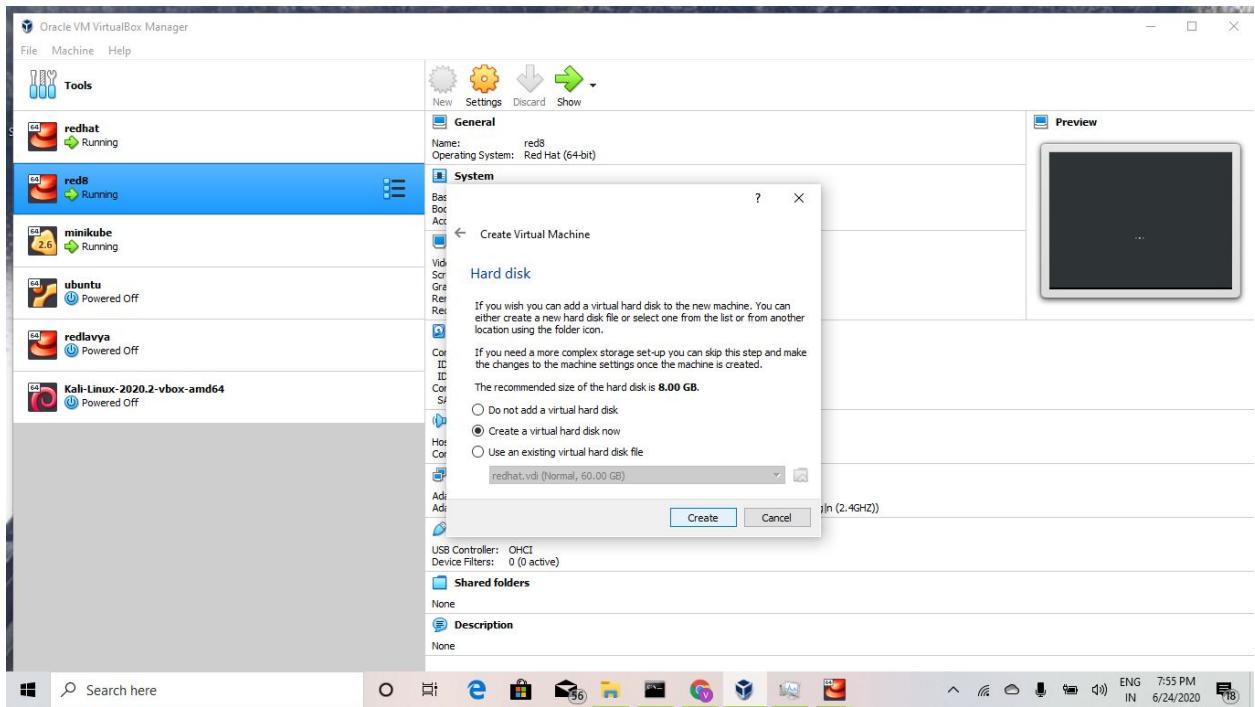
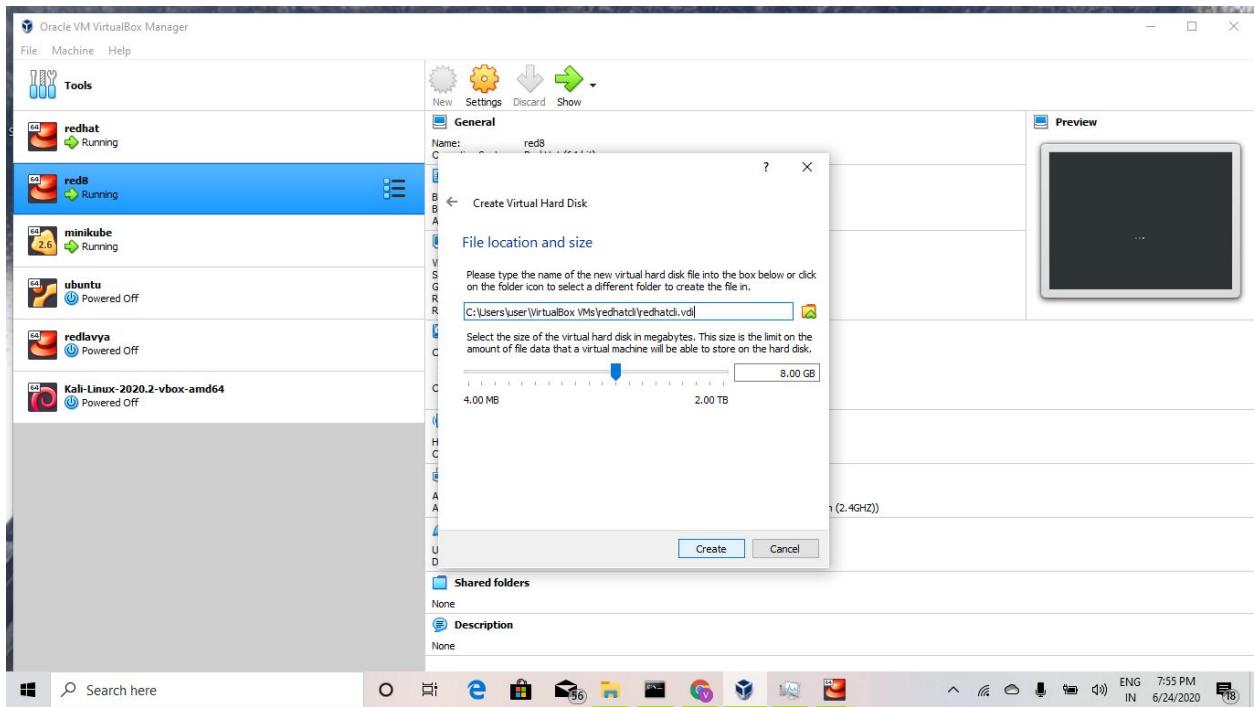
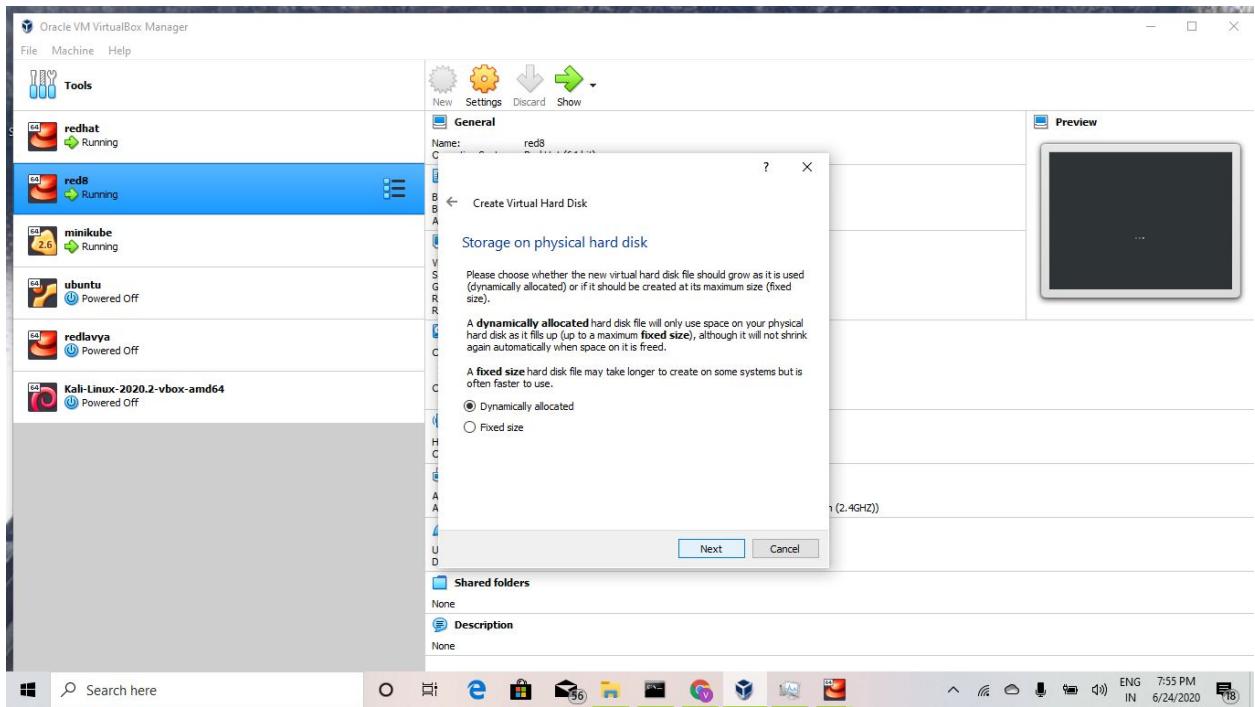


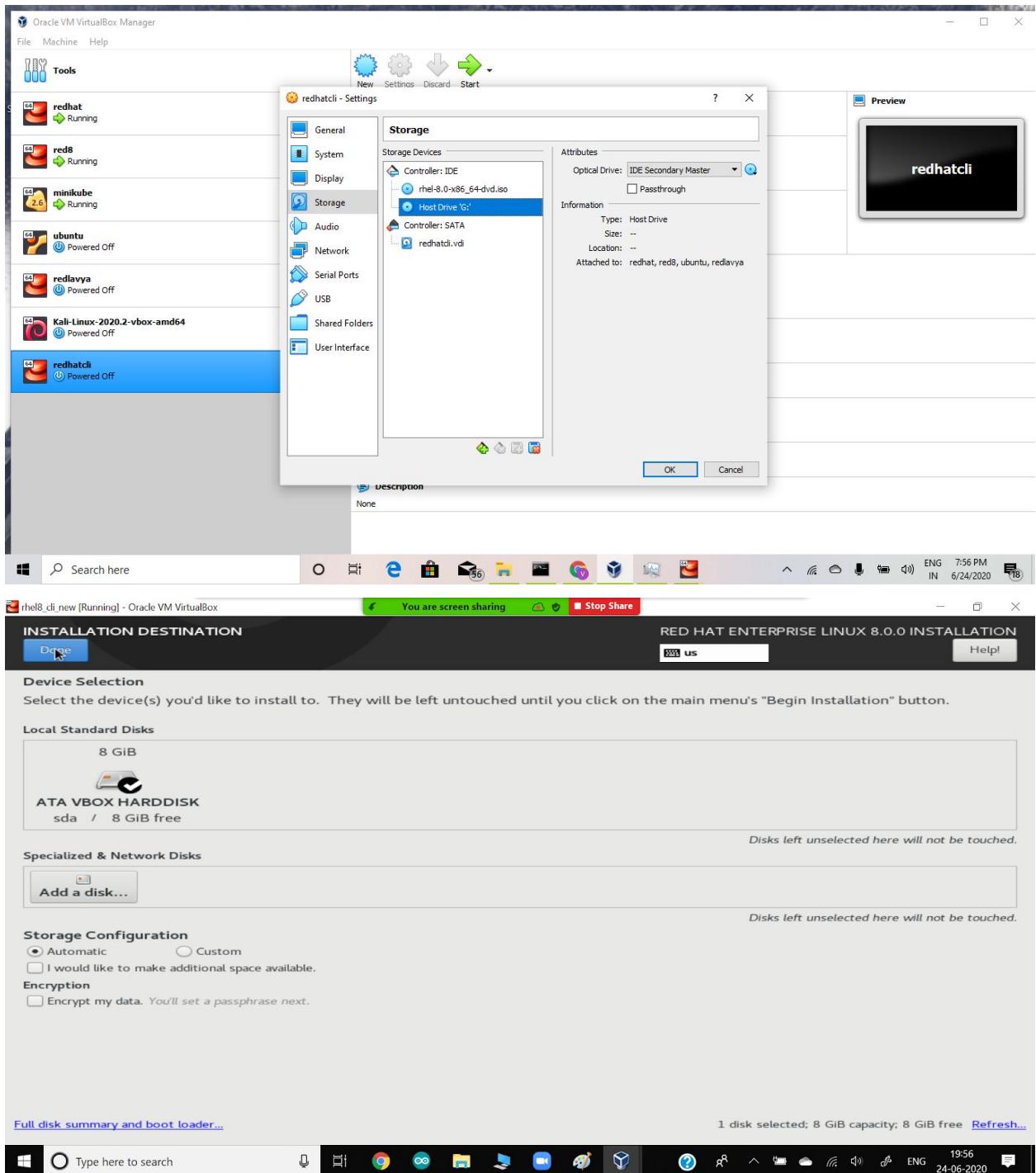
**24th june**

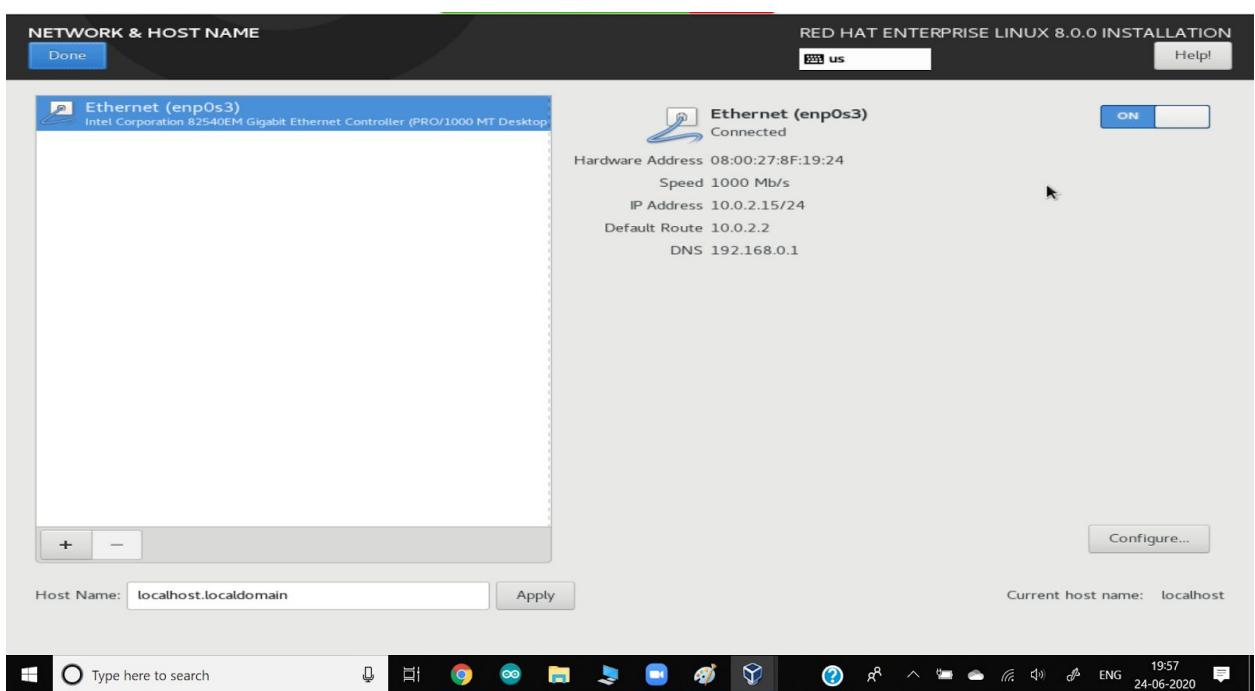
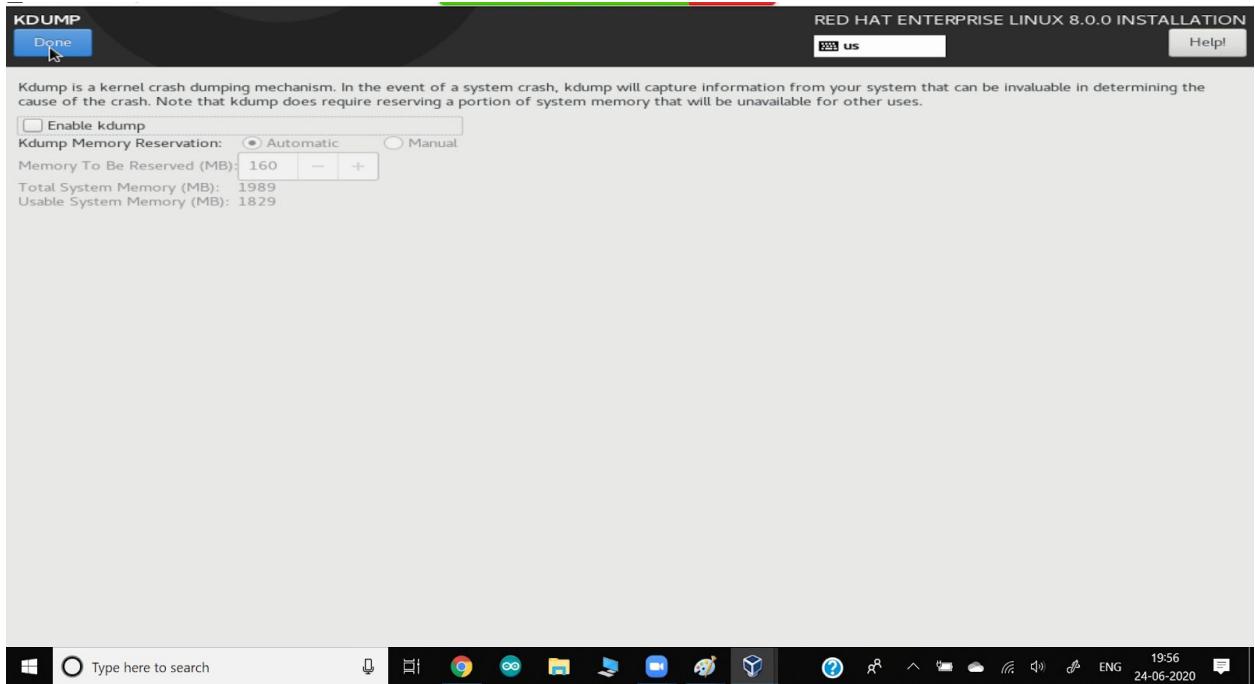
## Multi node kubernetes cluster

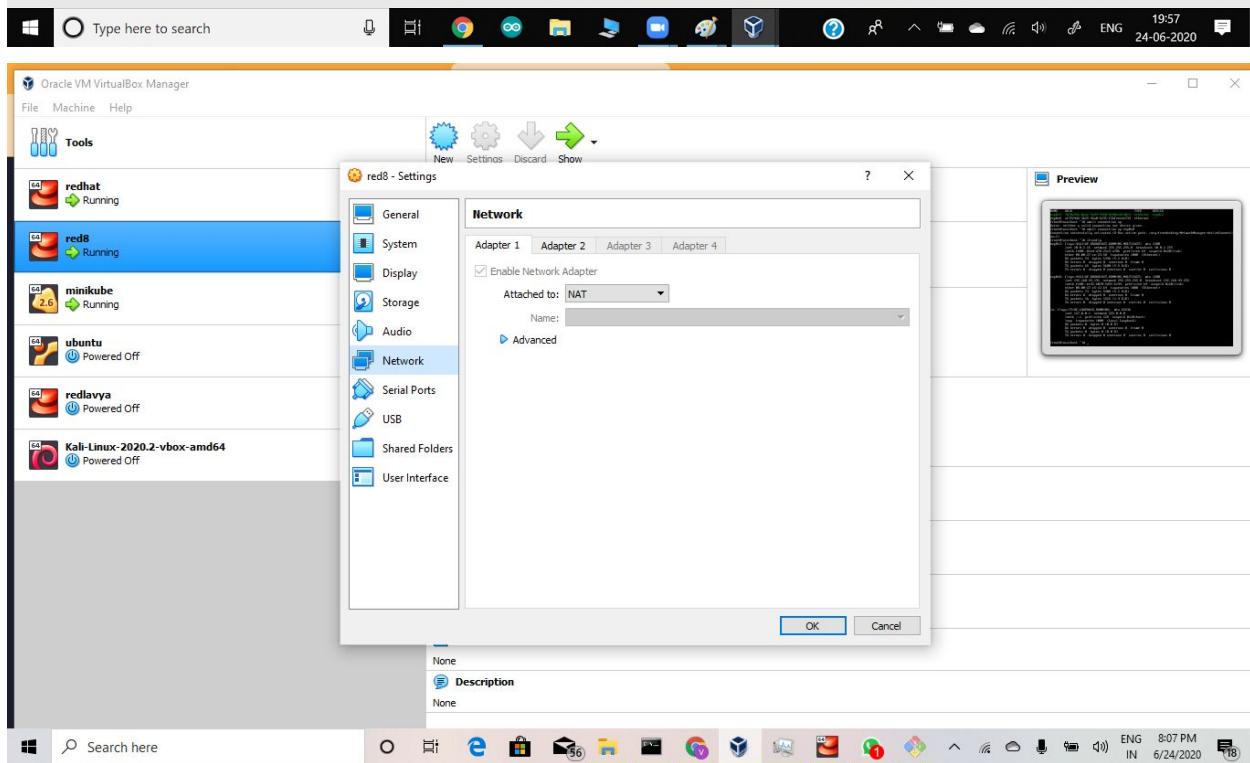
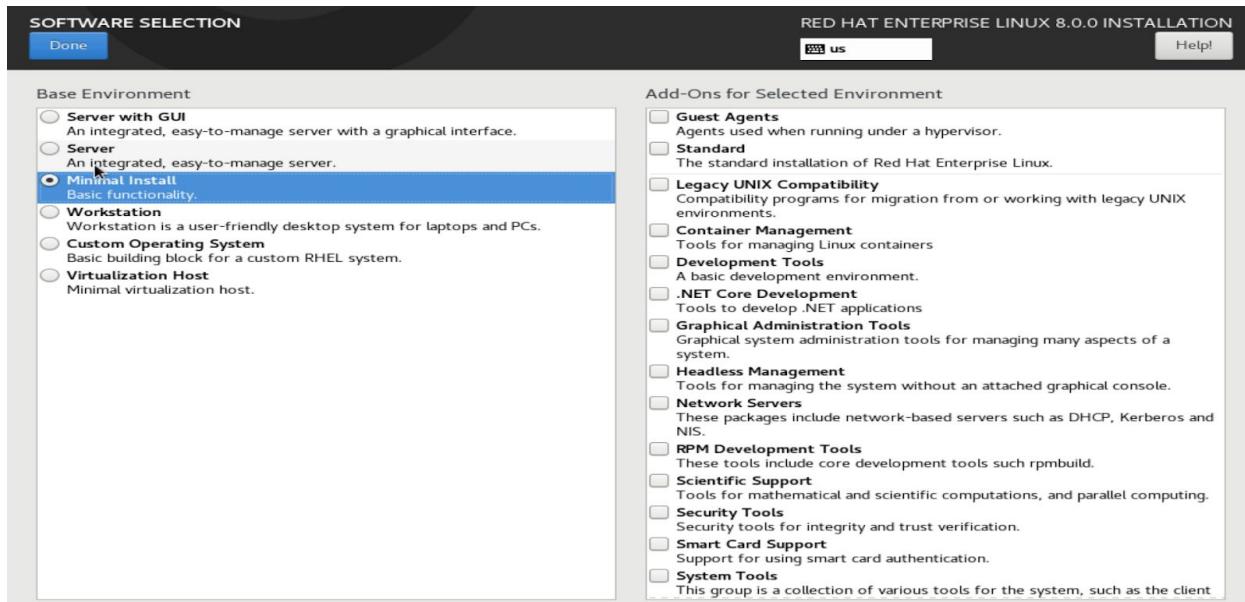


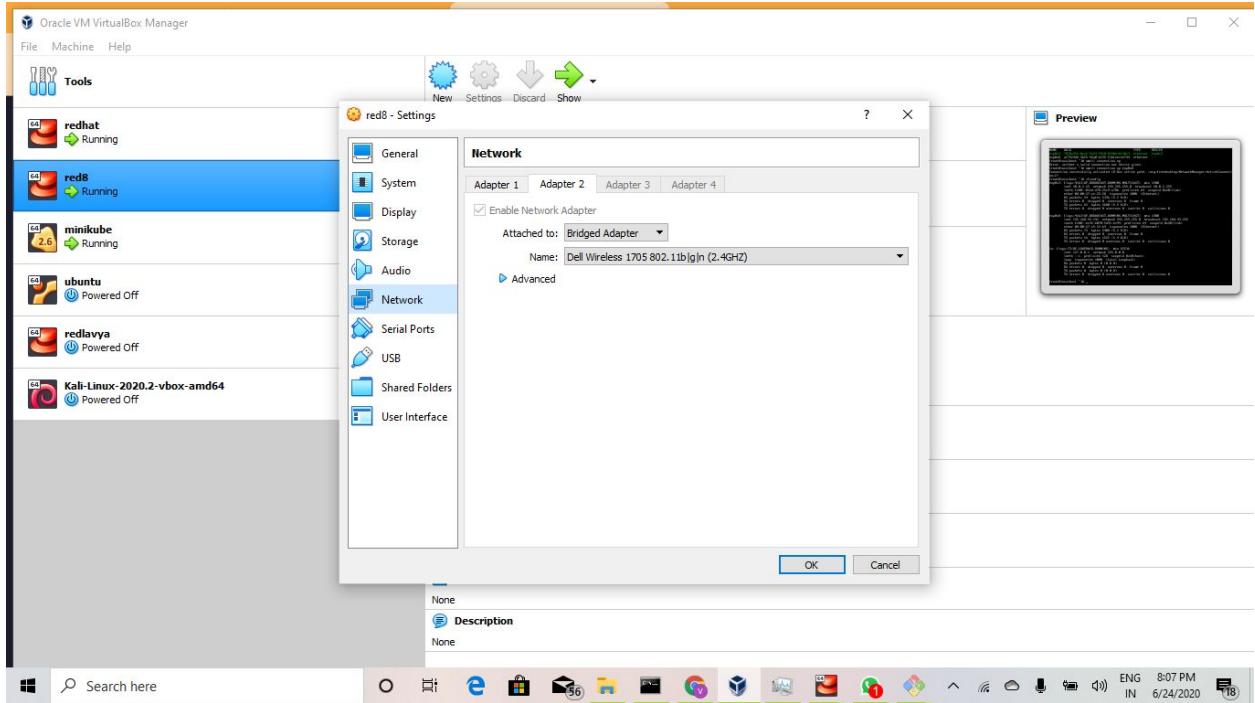












JOIN(u have to join initially )

## Kube scheduler (daemon/service)

Kube controller(monitored)

## Scd database

**For installing docker directly:**

## **sudo yum config-manager**

--add-repo=https://downloa

```
yum install docker-ce --nobest -y
```

**systemctl start docker**

## **systemctl status docker**

## Systemi di status docker

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Black lives matter.

We stand in solidarity with the Black community.  
Racism is unacceptable.  
It conflicts with the core values of the Kubernetes project and our community does not tolerate it.

## Documentation

Documentation / Getting started / Production environment / Installing Kubernetes with deployment tools / Bootstrapping clusters with kubeadm / Installing kubeadm



## Installing kubeadm

This page shows how to install the **kubeadm** toolbox. For information how to create a cluster with **kubeadm** once you have performed this installation process, see the Using **kubeadm** to Create a Cluster page.



Before you begin  
Verify the MAC address and product\_uuid are unique for every node  
Check network adapters  
Letting iptables see bridged traffic  
Check required ports

https://git.k8s.io/community/values.md

Search here

8:38 PM 6/24/2020

For more details please see the [Network Plugin Requirements](#) page.

## Check required ports

### Control-plane node(s)

Protocol	Direction	Port Range	Purpose	Used By
TCP	Inbound	6443*	Kubernetes API server	All
TCP	Inbound	2379-2380	etcd server client API	kube-apiserver, etcd
TCP	Inbound	10250	Kubelet API	Self, Control plane
TCP	Inbound	10251	kube-scheduler	Self
TCP	Inbound	10252	kube-controller-manager	Self

### Worker node(s)

```
[root@localhost ~]# systemctl stop firewalld
[root@localhost ~]# systemctl disable firewalld
Removed /etc/systemd/system/multi-user.target.wants/firewalld.service.
Removed /etc/systemd/system/dbus-org.fedoraproject.FirewallD1.service.
[root@localhost ~]# systemctl status firewalld
● firewalld.service - firewalld - dynamic firewall daemon
   Loaded: loaded (/usr/lib/systemd/system/firewalld.service; disabled; vendor preset: enabled)
   Active: inactive (dead) since Wed 2020-06-24 20:39:29 IST; 14s ago
     Docs: man:firewalld(1)
 Main PID: 802 (code=exited, status=0/SUCCESS)

Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -X DOCKER' failed: iptables: No chain/target/match by that name.
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -F DOCKER-ISOLATION-STAGE-1' failed: iptables: No
chain/target/match by that >
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -X DOCKER-ISOLATION-STAGE-1' failed: iptables: No
chain/target/match by that >
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -F DOCKER-ISOLATION-STAGE-2' failed: iptables: No
chain/target/match by that >
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -X DOCKER-ISOLATION-STAGE-2' failed: iptables: No
chain/target/match by that >
```

```
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -X DOCKER' failed: iptables: No chain/target/match by that name.
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -F DOCKER-ISOLATION-STAGE-1' failed: iptables: No
chain/target/match by that >
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -X DOCKER-ISOLATION-STAGE-1' failed: iptables: No
chain/target/match by that >
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -F DOCKER-ISOLATION-STAGE-2' failed: iptables: No
chain/target/match by that >
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:
'/usr/sbin/iptables -w10 -t filter -X DOCKER-ISOLATION-STAGE-2' failed: iptables: No
chain/target/match by that >
```

```
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:  
'/usr/sbin/iptables -w10 -t filter -F DOCKER-ISOLATION' failed: iptables: No chain/target/match  
by that name.  
Jun 24 20:38:19 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:  
'/usr/sbin/iptables -w10 -t filter -X DOCKER-ISOLATION' failed: iptables: No chain/target/match  
by that name.  
Jun 24 20:38:20 localhost.localdomain firewalld[802]: WARNING: COMMAND_FAILED:  
'/usr/sbin/iptables -w10 -D FORWARD -i docker0 -o docker0 -j DROP' failed: iptables: Bad rule  
(does a matching r>  
Jun 24 20:39:27 localhost.localdomain systemd[1]: Stopping firewalld - dynamic firewall  
daemon...  
Jun 24 20:39:29 localhost.localdomain systemd[1]: Stopped firewalld - dynamic firewall daemon.
```

```
[root@localhost ~]# cat <<EOF > /etc/yum.repos.d/kubernetes.repo  
> [kubernetes]  
> name=Kubernetes  
> baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-el7-\$basearch  
> enabled=1  
> gpgcheck=1  
> repo_gpgcheck=1  
> gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg  
https://packages.cloud.google.com/yum/doc/rpm-package-key.gpg  
> exclude=kubelet kubeadm kubectl  
> EOF  
[root@localhost ~]#  
[root@localhost ~]#  
[root@localhost ~]# yum install -y kubelet kubeadm kubectl --disableexcludes=kubernetes  
[root@localhost ~]# vim /etc/selinux/config
```

```
enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
      ether 08:00:27:c5:12:b9 txqueuelen 1000 (Ethernet)
        RX packets 30 bytes 1800 (1.7 KiB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 0 bytes 0 (0.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
      inet 127.0.0.1 netmask 255.0.0.0
        inet6 ::1 prefixlen 128 scopeid 0x10<host>
          loop txqueuelen 1000 (Local Loopback)
            RX packets 0 bytes 0 (0.0 B)
            RX errors 0 dropped 0 overruns 0 frame 0
            TX packets 0 bytes 0 (0.0 B)
            TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@localhost ~]# getenforce 0
Enforcing
[root@localhost ~]# setenforce 0
[root@localhost ~]# getenforce
Permissive
[root@localhost ~]# nmcli connection show
NAME      UUID                                  TYPE      DEVICE
enp0s3    7070a956-0ea6-4a94-9420-8440e1814013  ethernet  enp0s3
enp0s8    af7524db-3b25-42a0-b235-f2bfeceee734  ethernet  --
[root@localhost ~]# nmcli connection show
NAME      UUID                                  TYPE      DEVICE
enp0s3    7070a956-0ea6-4a94-9420-8440e1814013  ethernet  enp0s3
enp0s8    af7524db-3b25-42a0-b235-f2bfeceee734  ethernet  --
[root@localhost ~]# nmcli connection up enp0s8
Connection successfully activated (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection/2)
[root@localhost ~]# cd /etc/yum.repos.d
[root@localhost ~]# ls
docker-ce.repo  kubernetes.repo  lw.repo  redhat.repo
[root@localhost ~]# _
```

```
[root@localhost yum.repos.d]# vim /etc/docker/daemon.json
```

```
#  
# /etc/fstab  
# Created by anaconda on Mon May 25 09:11:09 2020  
#  
# Accessible filesystems, by reference, are maintained under '/dev/disk/'.  
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info.  
#  
# After editing this file, run 'systemctl daemon-reload' to update systemd  
# units generated from this file.  
#  
/dev/mapper/rhel-root   /          xfs      defaults        0 0  
UUID=e90e4554-31d8-49e5-b8c2-5a85d1d1b699 /boot    xfs      defaults        0 0  
/dev/mapper/rhel-home   /home     xfs      defaults        0 0  
#/dev/mapper/rhel-swap  swap      swap     defaults        0 0  
~  
~  
~  
~  
~  
~  
~  
~  
~  
-- INSERT --
```

```
[root@localhost yum.repos.d]# vim /etc/docker/daemon.json
```

```
[root@localhost yum.repos.d]# systemctl restart docker
```

```
[root@localhost yum.repos.d]# vim /etc/fstab
```

```
[root@localhost yum.repos.d]# yum install iproute-tc
```

<https://kubernetes.io/docs/setup/production-environment/tools/kubeadm/install-kubeadm/>

```
[root@localhost yum.repos.d]# sysctl -a | grep iptable  
net.bridge.bridge-nf-call-iptables = 1
```

```
[root@localhost yum.repos.d]# systemctl start kubelet
```

```
[root@localhost yum.repos.d]# systemctl enable kubelet
```

```
Created symlink /etc/systemd/system/multi-user.target.wants/kubelet.service →  
/usr/lib/systemd/system/kubelet.service.
```

```
[root@localhost yum.repos.d]# systemctl status kubelet
```

- kubelet.service - kubelet: The Kubernetes Node Agent

```
    Loaded: loaded (/usr/lib/systemd/system/kubelet.service; enabled; vendor preset: disabled)
```

```
    Drop-In: /usr/lib/systemd/system/kubelet.service.d
```

```
        └─10-kubeadm.conf
```

```
    Active: activating (auto-restart) (Result: exit-code) since Wed 2020-06-24 21:04:30 IST;  
        147ms ago
```

```
        Docs: https://kubernetes.io/docs/
```

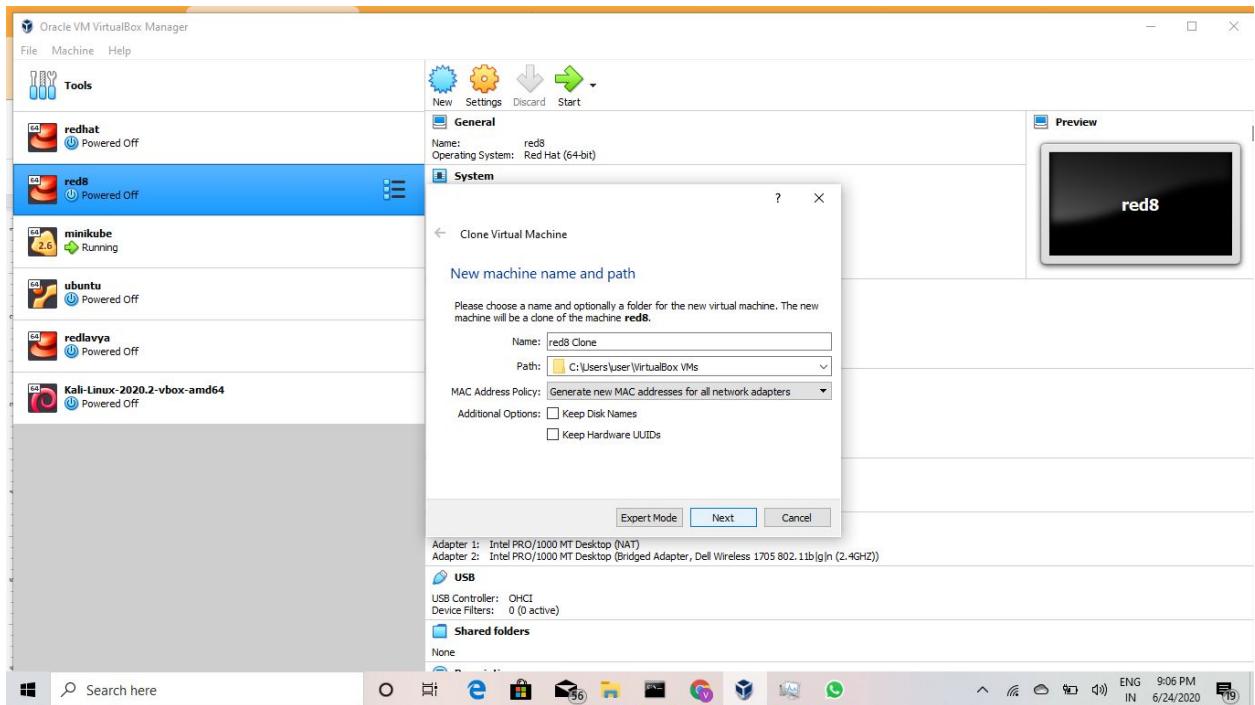
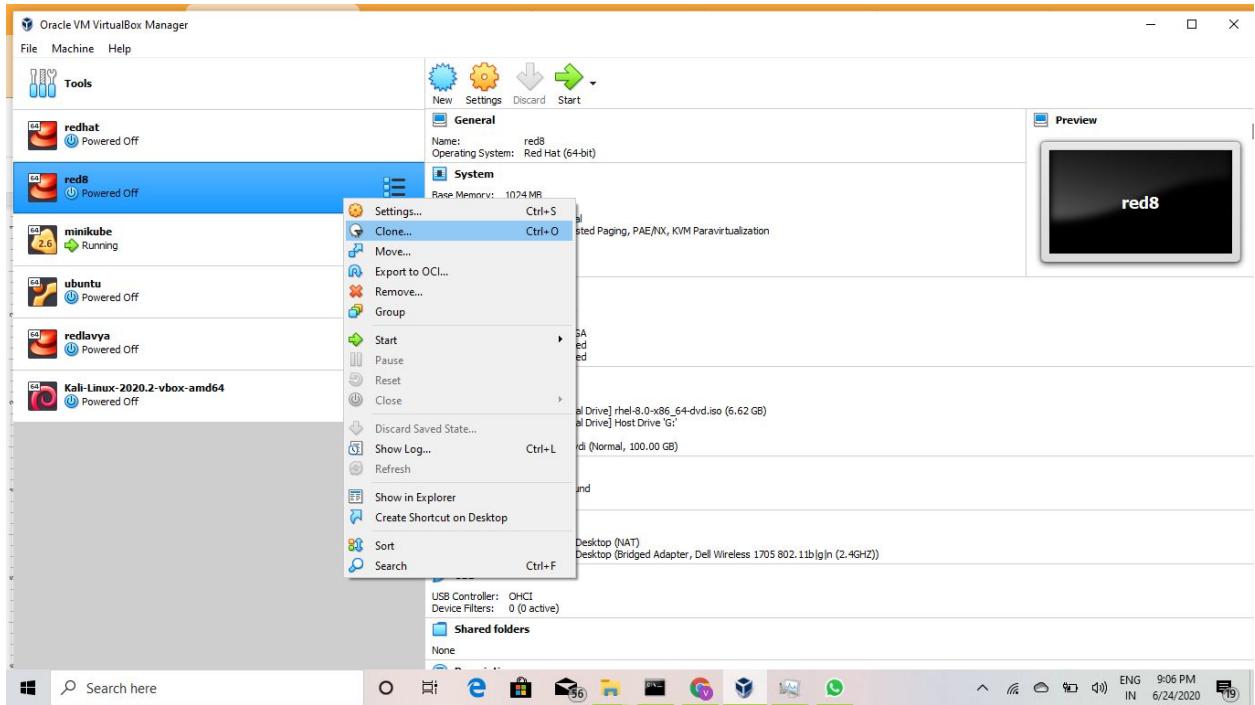
```
    Process: 12215 ExecStart=/usr/bin/kubelet $KUBELET_KUBECONFIG_ARGS
```

```
    $KUBELET_CONFIG_ARGS $KUBELET_KUBEADM_ARGS $KUBELET_EXTRA_ARGS (>  
    Main PID: 12215 (code=exited, status=255)
```

```
Jun 24 21:04:30 localhost.localdomain systemd[1]: kubelet.service: Main process exited,  
code=exited, status=255/n/a
```

```
Jun 24 21:04:30 localhost.localdomain systemd[1]: kubelet.service: Failed with result 'exit-code'.  
lines 1-11/11 (END)
```

**init 0**



**#Create one more slave as slave2**

```

root@master:~-
-k, --experimental-kustomize string
--feature-gates string

-h, --help
--ignore-preflight-errors strings
--image-repository string
--kubernetes-version string
--node-name string
--pod-network-cidr string
--service-cidr string
--service-dns-domain string
--skip-certificate-key-print
--skip-phases strings
--skip-token-print
--token string
0123456789abcdef
--token-ttl duration
--upload-certs

The path where kustomize patches for static pod manifests are stored
A set of key=value pairs that describe feature gates for various features
IPv6DualStack=true|false (ALPHA - default=false)
PublicKeysECDSA=true|false (ALPHA - default=false)
help for init
A list of checks whose errors will be shown as warnings. Example: '...
Choose a container registry to pull control plane images from (default ...
Choose a specific Kubernetes version for the control plane. (default ...
Specify the node name.
Specify range of IP addresses for the pod network. If set, the control ...
Use alternative range of IP address for service VIPs. (default "10. ...
Use alternative domain for services, e.g. "myorg.internal". (default ...
Don't print the key used to encrypt the control-plane certificates.
List of phases to be skipped
Skip printing of the default bootstrap token generated by 'kubeadm ...
The token to use for establishing bidirectional trust between nodes

The duration before the token is automatically deleted (e.g. 1s, 2m
Upload control-plane certificates to the kubeadm-certs Secret.

Global Flags:
--add-dir-header           If true, adds the file directory to the header
--log-file string          If non-empty, use this log file
--log-file-max-size uint   Defines the maximum size a log file can grow to. Unit is megabytes. If the value ...
[EXPERIMENTAL] The path to the 'real' host root filesystem.
--rootfs string             If true, avoid header prefixes in the log messages
--skip-headers              If true, avoid headers when opening log files
-v, --v Level               number for the log level verbosity

Use "kubeadm init [command] --help" for more information about a command.
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16

```

ENG 9:23 PM  
IN 6/24/2020 19

```

root@master:~-
--image-repository string
--kubernetes-version string
--node-name string
--pod-network-cidr string
--service-cidr string
--service-dns-domain string
--skip-certificate-key-print
--skip-phases strings
--skip-token-print
--token string
0123456789abcdef
--token-ttl duration
--upload-certs

Choose a container registry to pull control plane images from (default ...
Choose a specific Kubernetes version for the control plane. (default ...
Specify the node name.
Specify range of IP addresses for the pod network. If set, the control ...
Use alternative range of IP address for service VIPs. (default "10. ...
Use alternative domain for services, e.g. "myorg.internal". (default ...
Don't print the key used to encrypt the control-plane certificates.
List of phases to be skipped
Skip printing of the default bootstrap token generated by 'kubeadm ...
The token to use for establishing bidirectional trust between nodes

The duration before the token is automatically deleted (e.g. 1s, 2m
Upload control-plane certificates to the kubeadm-certs Secret.

Global Flags:
--add-dir-header           If true, adds the file directory to the header
--log-file string          If non-empty, use this log file
--log-file-max-size uint   Defines the maximum size a log file can grow to. Unit is megabytes. If the value ...
[EXPERIMENTAL] The path to the 'real' host root filesystem.
--rootfs string             If true, avoid header prefixes in the log messages
--skip-headers              If true, avoid headers when opening log files
-v, --v Level               number for the log level verbosity

Use "kubeadm init [command] --help" for more information about a command.
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16
[root@master ~]# docker images
REPOSITORY      TAG          IMAGE ID       CREATED        SIZE
[root@master ~]# docker ps
CONTAINER ID    IMAGE        COMMAND       CREATED        STATUS        PORTS
NAMES
[root@master ~]#

```

ENG 9:23 PM  
IN 6/24/2020 19

```
root@master:~  
  --token-ttl duration  
  --upload-certs  
  
The duration before the token is automatically deleted (e.g. 1s, 2m ^  
Upload control-plane certificates to the kubeadm-certs Secret.  
  
Global Flags:  
  --add-dir-header      If true, adds the file directory to the header  
  --log-file string    If non-empty, use this log file  
  --log-file-max-size uint  
  --rootfs string       Defines the maximum size a log file can grow to. Unit is megabytes. If the value  
  [EXPERIMENTAL] The path to the 'real' host root filesystem.  
  --skip-headers        If true, avoid header prefixes in the log messages  
  --skip-log-headers   If true, avoid headers when opening log files  
  -v, --v Level         number for the log level verbosity  
  
Use "kubeadm init [command] --help" for more information about a command.  
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16^C  
[root@master ~]# docker images  
REPOSITORY          TAG      IMAGE ID      CREATED      SIZE  
[root@master ~]# docker ps  
CONTAINER ID        IMAGE      COMMAND      CREATED      STATUS      PORTS  
 NAMES  
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16  
unknown shorthand flag: 'p' in -pod-network-cidr=10.10.1.0/16  
To see the stack trace of this error execute with --v=5 or higher  
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16  
W0624 21:24:31.773761 1863 configset.go:202] WARNING: kubeadm cannot validate component configs for API group  
s [kubelet.config.k8s.io kubeProxy.config.k8s.io]  
[init] Using Kubernetes version: v1.18.4  
[preflight] Running pre-flight checks  
[preflight] Pulling images required for setting up a Kubernetes cluster  
[preflight] This might take a minute or two, depending on the speed of your internet connection  
[preflight] You can also perform this action in beforehand using 'kubeadm config images pull'
```



```
59 name=Kubernetes
60 baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-el7-$basearch
61 enabled=1
62 gpgcheck=1
63 repo_gpgcheck=1
64 gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg https://packages.cloud.google.co
m/yum/doc/rpm-package-key.gpg
65 exclude=kubelet kubeadm kubectl
66 EOF
67 yum install -y kubelet kubeadm kubectl --disableexcludes=kubernetes
68 ls
69 cd /yum
70 getenforce
71 vim /etc/selinux/config
72 cd /etc/yum.repos.d/
73 ls
74 vim /etc/docker/daemon.json
75 vim /etc/docker/daemon.json[root@localhost yum.repos.d]# vim /etc/docker/daemon.json
76 vim /etc/docker/daemon.json
77 systemctl restart docker
78 vim /etc/fstab
79 yum install iproute-tc
80 sysctl -a
81 sysctl -a | iptable
82 sysctl -a | iptable -f
83 sysctl -a | grep iptable
84 systemctl start kubelet
85 systemctl enable kubelet
86 systemctl status kubelet
87 hostnamectl set-hostname slave2
88 hostname
89 nmcli connection up enp0s8
90 vim /etc/hosts
91 ifconfig
92 vim /etc/hosts
93 history
[root@localhost ~]#
```

```

62 gpgcheck=1
63 repo_gpgcheck=1
64 gpgkey=https://packages.cloud.google.com/yum/doc/yum-key.gpg https://packages.cloud.google.co
m/yum/doc/rpm-package-key.gpg
65 exclude=kubelet kubeadm kubectl
66 EOF
67 yum install -y kubelet kubeadm kubectl --disableexcludes=kubernetes
68 ls
69 cd /yum
70 getenforce
71 vim /etc/selinux/config
72 cd /etc/yum.repos.d/
73 ls
74 vim /etc/docker/daemon.json
75 vim /etc/docker/daemon.json[root@localhost yum.repos.d]# vim /etc/docker/daemon.json
76 vim /etc/docker/daemon.json
77 systemctl restart docker
78 vim /etc/fstab
79 yum install iproute-tc
80 sysctl -a
81 sysctl -a | iptable
82 sysctl -a | iptable -f
83 sysctl -a | grep iptable
84 systemctl start kubelet
85 systemctl enable kubelet
86 systemctl status kubelet
87 hostnamectl hostname master
88 hostnamectl set-hostname master
89 hostname
90 ifconfig
91 nmcli connection up enp0s8
92 ifconfig
93 scp /etc/hosts 192.168.43.85:/etc/hosts
94 ping slave2
95 ping slave1
96 history
[root@localhost ~]# _

```

[root@master ~]# kubeadm init -h

Run this command in order to set up the Kubernetes control plane

The "init" command executes the following phases:

...

preflight	Run pre-flight checks
kubelet-start	Write kubelet settings and (re)start the kubelet
certs	Certificate generation
/ca	Generate the self-signed Kubernetes CA to provision identities for other
Kubernetes components	
/apiserver	Generate the certificate for serving the Kubernetes API
/apiserver-kubelet-client	Generate the certificate for the API server to connect to kubelet
/front-proxy-ca	Generate the self-signed CA to provision identities for front proxy
/front-proxy-client	Generate the certificate for the front proxy client
/etcd-ca	Generate the self-signed CA to provision identities for etcd
/etcd-server	Generate the certificate for serving etcd
/etcd-peer	Generate the certificate for etcd nodes to communicate with each other
/etcd-healthcheck-client	Generate the certificate for liveness probes to healthcheck etcd

/apiserver-etcd-client	Generate the certificate the apiserver uses to access etcd
/sa	Generate a private key for signing service account tokens along with its public key
kubeconfig	Generate all kubeconfig files necessary to establish the control plane and the admin kubeconfig file
/admin	Generate a kubeconfig file for the admin to use and for kubeadm itself
/kubelet	Generate a kubeconfig file for the kubelet to use *only* for cluster bootstrapping purposes
/controller-manager	Generate a kubeconfig file for the controller manager to use
/scheduler	Generate a kubeconfig file for the scheduler to use
control-plane	Generate all static Pod manifest files necessary to establish the control plane
/apiserver	Generates the kube-apiserver static Pod manifest
/controller-manager	Generates the kube-controller-manager static Pod manifest
/scheduler	Generates the kube-scheduler static Pod manifest
etcd	Generate static Pod manifest file for local etcd
/local	Generate the static Pod manifest file for a local, single-node local etcd instance
upload-config	Upload the kubeadm and kubelet configuration to a ConfigMap
/kubeadm	Upload the kubeadm ClusterConfiguration to a ConfigMap
/kubelet	Upload the kubelet component config to a ConfigMap
upload-certs	Upload certificates to kubeadm-certs
mark-control-plane	Mark a node as a control-plane
bootstrap-token	Generates bootstrap tokens used to join a node to a cluster
kubelet-finalize	Updates settings relevant to the kubelet after TLS bootstrap
/experimental-cert-rotation	Enable kubelet client certificate rotation
addon	Install required addons for passing Conformance tests
/coredns	Install the CoreDNS addon to a Kubernetes cluster
/kube-proxy	Install the kube-proxy addon to a Kubernetes cluster

```

root@master:~-
-k, --experimental-kustomize string
--feature-gates string

-h, --help
--ignore-preflight-errors strings
--image-repository string
--kubernetes-version string
--node-name string
--pod-network-cidr string
--service-cidr string
--service-dns-domain string
--skip-certificate-key-print
--skip-phases strings
--skip-token-print
--token string
0123456789abcdef
--token-ttl duration
--upload-certs

The path where kustomize patches for static pod manifests are stored
A set of key=value pairs that describe feature gates for various features
IPv6DualStack=true|false (ALPHA - default=false)
PublicKeysECDSA=true|false (ALPHA - default=false)
help for init
A list of checks whose errors will be shown as warnings. Example: '...
Choose a container registry to pull control plane images from (default ...
Choose a specific Kubernetes version for the control plane. (default ...
Specify the node name.
Specify range of IP addresses for the pod network. If set, the control ...
Use alternative range of IP address for service VIPs. (default "10. ...
Use alternative domain for services, e.g. "myorg.internal". (default ...
Don't print the key used to encrypt the control-plane certificates.
List of phases to be skipped
Skip printing of the default bootstrap token generated by 'kubeadm ...
The token to use for establishing bidirectional trust between nodes

The duration before the token is automatically deleted (e.g. 1s, 2m
Upload control-plane certificates to the kubeadm-certs Secret.

Global Flags:
--add-dir-header           If true, adds the file directory to the header
--log-file string          If non-empty, use this log file
--log-file-max-size uint   Defines the maximum size a log file can grow to. Unit is megabytes. If the value ...
[EXPERIMENTAL] The path to the 'real' host root filesystem.
--rootfs string             If true, avoid header prefixes in the log messages
--skip-headers              If true, avoid headers when opening log files
-v, --v Level               number for the log level verbosity

Use "kubeadm init [command] --help" for more information about a command.
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16

```

ENG 9:23 PM  
IN 6/24/2020 19

```

root@master:~-
--image-repository string
--kubernetes-version string
--node-name string
--pod-network-cidr string
--service-cidr string
--service-dns-domain string
--skip-certificate-key-print
--skip-phases strings
--skip-token-print
--token string
0123456789abcdef
--token-ttl duration
--upload-certs

Choose a container registry to pull control plane images from (default ...
Choose a specific Kubernetes version for the control plane. (default ...
Specify the node name.
Specify range of IP addresses for the pod network. If set, the control ...
Use alternative range of IP address for service VIPs. (default "10. ...
Use alternative domain for services, e.g. "myorg.internal". (default ...
Don't print the key used to encrypt the control-plane certificates.
List of phases to be skipped
Skip printing of the default bootstrap token generated by 'kubeadm ...
The token to use for establishing bidirectional trust between nodes

The duration before the token is automatically deleted (e.g. 1s, 2m
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--log-file-max-size uint   Defines the maximum size a log file can grow to. Unit is megabytes. If the value ...
[EXPERIMENTAL] The path to the 'real' host root filesystem.
--rootfs string             If true, avoid header prefixes in the log messages
--skip-headers              If true, avoid headers when opening log files
-v, --v Level               number for the log level verbosity

Use "kubeadm init [command] --help" for more information about a command.
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16
[root@master ~]# docker images
REPOSITORY      TAG          IMAGE ID      CREATED       SIZE
[root@master ~]# docker ps
CONTAINER ID    IMAGE        COMMAND      CREATED       STATUS        PORTS
NAMES
[root@master ~]#

```

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```
root@master:~#
--token-ttl duration          The duration before the token is automatically deleted (e.g. 1s, 2m)
--upload-certs                Upload control-plane certificates to the kubeadm-certs Secret.

Global Flags:
  --add-dir-header      If true, adds the file directory to the header
  --log-file string    If non-empty, use this log file
  --log-file-max-size uint Defines the maximum size a log file can grow to. Unit is megabytes. If the value [EXPERIMENTAL] The path to the 'real' host root filesystem.
  --rootfs string       If true, avoid header prefixes in the log messages
  --skip-headers        If true, avoid headers when opening log files
  --skip-log-headers   If true, skip log headers
  -v, --v Level         number for the log level verbosity

Use "kubeadm init [command] --help" for more information about a command.
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16^C
[root@master ~]# docker images
REPOSITORY          TAG      IMAGE ID      CREATED     SIZE
[root@master ~]# docker ps
CONTAINER ID        IMAGE      COMMAND      CREATED     STATUS      PORTS
NAMES
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16
unknown shorthand flag: 'p' in -pod-network-cidr=10.10.1.0/16
To see the stack trace of this error execute with --v=5 or higher
[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16
W0624 21:24:31.773761 1863 configset.go:202] WARNING: kubeadm cannot validate component configs for API group s [kubelet.config.k8s.io kubeProxy.config.k8s.io]
[init] Using Kubernetes version: v1.18.4
[preflight] Running pre-flight checks
[preflight] Pulling images required for setting up a Kubernetes cluster
[preflight] This might take a minute or two, depending on the speed of your internet connection
[preflight] You can also perform this action in beforehand using 'kubeadm config images pull'


```

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[root@master ~]# kubeadm init --pod-network-cidr=10.10.1.0/16

```
root@master:~#
[bootstrap-token] configured RBAC rules to allow Node Bootstrap tokens to get nodes
[bootstrap-token] configured RBAC rules to allow Node Bootstrap tokens to post CSRs in order for nodes to get long term certificate credentials
[bootstrap-token] configured RBAC rules to allow the csrapprover controller automatically approve CSRs from a Node Bootstrap Token
[bootstrap-token] configured RBAC rules to allow certificate rotation for all node client certificates in the cluster
[bootstrap-token] Creating the "cluster-info" ConfigMap in the "kube-public" namespace
[kubelet-finalize] Updating "/etc/kubernetes/kubelet.conf" to point to a rotatable kubelet client certificate and key
[addons] Applied essential addon: CoreDNS
[addons] Applied essential addon: kube-proxy

Your Kubernetes control-plane has initialized successfully!
```

To start using your cluster, you need to run the following as a regular user:

```
mkdir -p $HOME/.kube
sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
sudo chown $(id -u):$(id -g) $HOME/.kube/config
```

You should now deploy a pod network to the cluster.

Run "kubectl apply -f [podnetwork].yaml" with one of the options listed at:  
<https://kubernetes.io/docs/concepts/cluster-administration/addons/>

Then you can join any number of worker nodes by running the following on each as root:

```
kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj \
  --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939ea55298a179fc9631cb24f8187e5a
[root@master ~]#
[root@master ~]# |
```

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```
root@master:~#
[bootstrapping] Creating the "cluster-info" ConfigMap in the "kube-public" namespace
[kubelet-finalize] Updating "/etc/kubernetes/kubelet.conf" to point to a rotatable kubelet client certificate and key
[addons] Applied essential addon: CoreDNS
[addons] Applied essential addon: kube-proxy

Your Kubernetes control-plane has initialized successfully!

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    --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939ea55298a179fc9631cb24f8187e5a
[root@master ~]#
[root@master ~]# mkdir -p $HOME/.kube
[root@master ~]# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
[root@master ~]# sudo chown $(id -u):$(id -g) $HOME/.kube/config
[root@master ~]#
[root@master ~]# kubectl get pods
No resources found in default namespace.
[root@master ~]#
```

```
[root@master ~]#
[root@master ~]# mkdir -p $HOME/.kube
[root@master ~]# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
[root@master ~]# sudo chown $(id -u):$(id -g) $HOME/.kube/config
[root@master ~]#
[root@master ~]# kubectl get pods
No resources found in default namespace.
```

```
[root@master ~]# kubectl get nodes
NAME     STATUS    ROLES   AGE     VERSION
master   NotReady master   3m15s  v1.18.4
```

```
root@master:~ d key
[addons] Applied essential addon: CoreDNS
[addons] Applied essential addon: kube-proxy

Your Kubernetes control-plane has initialized successfully!

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[root@master ~]#
[root@master ~]# mkdir -p $HOME/.kube
[root@master ~]# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
[root@master ~]# sudo chown $(id -u):$(id -g) $HOME/.kube/config
[root@master ~]#
[root@master ~]# kubectl get pods
No resources found in default namespace.
[root@master ~]# kubectl get nodes
NAME      STATUS    ROLES   AGE     VERSION
master   NotReady  master   3m15s   v1.18.4
[root@master ~]#
```

```
root@master:~ [addons] Applied essential addon: kube-proxy

Your Kubernetes control-plane has initialized successfully!

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[root@master ~]#
[root@master ~]# mkdir -p $HOME/.kube
[root@master ~]# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
[root@master ~]# sudo chown $(id -u):$(id -g) $HOME/.kube/config
[root@master ~]#
[root@master ~]# kubectl get pods
No resources found in default namespace.
[root@master ~]# kubectl get nodes
NAME      STATUS    ROLES   AGE     VERSION
master   NotReady  master   3m15s   v1.18.4
[root@master ~]# hostname
master
[root@master ~]# |
```

```

root@slave1:~#
user@visheshgarg MINGW64 ~/Desktop
$ ssh root@192.168.43.148
The authenticity of host '192.168.43.148 (192.168.43.148)' can't be established.
ECDSA key fingerprint is SHA256:J4E9nATwokawSqp.SdkpkNgntMmZaQxONRs1/Vz6ZYxQ.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.43.148' (ECDSA) to the list of known hosts.
root@192.168.43.148's password:
Last login: Wed Jun 24 21:14:26 2020
[root@slave1 ~]# kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj \
>   --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939e
a55298a179fc9631cb24f8187e5a
W0624 21:32:33.490292    2226 join.go:346] [preflight] WARNING: JoinControlPlane.
controlPlane settings will be ignored when control-plane flag is not set.
[preflight] Running pre-flight checks
^C
[root@slave1 ~]# kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj \
>   --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939ea55298a179fc9631cb24f8187e5a
W0624 21:32:41.952557    2336 join.go:346] [preflight] WARNING: JoinControlPlane.controlPlane settings will be ignored when control-plane
[preflight] Running pre-flight checks
^C
[root@slave1 ~]# 

```

## Overlay network

### Calico or flannel

<https://kubernetes.io/docs/concepts/extend-kubernetes/compute-storage-net/network-plugins/>

kubernetes cni plugin

About 67,300 results (0.31 seconds)

Kubernetes.io > extend-kubernetes > compute-storage-net ▾

[Network Plugins | Kubernetes](#)

Jump to AWS VPC [CNI for Kubernetes](#) - Using this CNI plugin allows Kubernetes pods to have the same IP address inside the pod as they do on the ...

The Kubernetes network ... · How to implement the ... · Google Compute Engine ...

People also ask

What is a CNI plugin?

What is Kubernetes CNI?

https://kubernetes.io/docs/concepts/extend-kubernetes/compute-storage-net/network-plugins/

The screenshot shows a Microsoft Edge browser window with the following details:

- Address Bar:** kubernetes.io/docs/concepts/extend-kubernetes/compute-storage-net/network-plugins/
- Tab Bar:** Devops - Google Drive, 24th june - Google Docs, Coronavirus Outbreak in India, Installing kubeadm | Kubernetes, Network Plugins | Kubernetes
- Page Content:**
  - Kubernetes Logo:** kubernetes
  - Navigation:** Documentation, Blog, Training, Partners, Community, Case Studies, Versions, English
  - Search:** Search
  - Left Sidebar:** Home, Getting started, Concepts, Overview, Cluster, Architecture, Containers, Workloads, Services, Load Balancing, and Networking, Storage, Configuration, Security.
  - Section:** Network Plugins
  - Text:** FEATURE STATE: Kubernetes v1.18 [alpha]
  - Caution:** Alpha features can change rapidly.
  - List:** Network plugins in Kubernetes come in a few flavors:
    - CNI plugins: adhere to the appc/CNI specification, designed for interoperability.
    - Kubenet plugin: implements basic `cbr0` using the `bridge` and `host-local` CNI plugins
  - Section:** Installation
  - Text:** The kubelet has a single default network plugin, and a default network common to the entire cluster. It probes for plugins when it starts up, remembers what it finds, and executes the selected plugin at appropriate times in the pod lifecycle (this is only true for
  - Right Sidebar:** Installation, Network Plugin Requirements, CNI, kubenet, Customizing the MTU (with kubenet), Usage Summary, What's next.

The screenshot shows a Microsoft Edge browser window with the following details:

- Address Bar:** google.com/search?q=github+kube-flannel.yaml&oq=github+kube+flan&aqs=chrome.1.69j57j0l2j69j64.8438j0j7&sourceid=chrome&ie=UTF-8
- Tab Bar:** Devops - Google Drive, 24th june - Google Docs, Coronavirus Outbreak in India, Installing kubeadm | Kubernetes, Cluster Networking | Kubernetes, github kube-flannel.yaml
- Page Content:**
  - Google Logo:** Google
  - Search Bar:** github kube-flannel.yaml
  - Search Options:** All, Images, Shopping, News, Videos, More, Settings, Tools
  - Text:** About 57,900 results (0.27 seconds)
  - Result 1:** [github.com/flannel/blob/master/Documentation/kube-flannel.yml](https://github.com/flannel-project/flannel/blob/master/Documentation/kube-flannel.yml) - GitHub
  - Text:** No information is available for this page.
  - Result 2:** [github.com/coreos/flannel/issues](https://github.com/coreos/flannel/issues) - network not ready after 'kubectl apply -f kube-flannel.yaml' in ...
  - Text:** Sep 18, 2019 - 16 cluster by `kubeadm` init and installing `flannel` cni by `kubectl apply -f https://raw.githubusercontent.com/coreos/flannel/...`
  - Result 3:** [raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml](https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml) - GitHub
  - Text:** ... secret - emptyDir - hostPath allowedHostPaths: - pathPrefix: "/etc/cni/net.d" - pathPrefix: "/etc/kube-flannel" - pathPrefix: "/run/flannel" readOnlyRootFilesystem: ...
  - Result 4:** [coreos.com/flannel/docs/latest/kubernetes](https://coreos.com/flannel/docs/latest/kubernetes) - Using flannel with Kubernetes - CoreOS
  - Text:** `kubectl apply -f https://raw.githubusercontent.com/coreos/flannel/master/Documentation/k8s-`

Devops - Google Drive | 24th june - Google Doc | Coronavirus Outbreak | Installing kubeadm | Kubernetes | Cluster Networking | GitHub | github kube-flannel plugin | +

← → C google.com/search?qsrf=ALeKk00XPYDX4iyJuFk-yKe79RKlxpkrvw%3A1593014998387&ei=1nrzXuuYF4jt9QPZhrToBg&q=github+kube-flannel+plugin&oq=github+kube-flannel+plugin&gs\_lcp=CgZwc3ktYWIQAzIFCCEQoAE6AggAOgYIABAWEBA6BwghEAoQoAFQ8h5Y6T9g30JoAHAeACAAZwCiAG1F5IBBDItMTKYAQCGAQGqA

Apps New Tab Search G Inbox (157) - 2019p... M Inbox (1,144) - vish... M Inbox (252) - 2019p... M Gmail YouTube Maps

Google

github kube-flannel plugin

All Images Shopping News Videos More Settings Tools

About 99,500 results (0.50 seconds)

github.com > coreos > flannel

**coreos/flannel: flannel is a network fabric for ... - GitHub**

However, **flannel** does provide a CNI plugin for **Kubernetes** and a guidance on integrating with Docker. **Flannel** is focused on networking. For network policy ...

People also search for

- install flannel kubernetes ubuntu
- latest flannel version
- flannel vxlan encryption
- flannel net-conf json
- kube-flannel evicted
- cni vs flannel

gist.github.com · karamandi

**Installing Kubernetes with the Flannel Network Plugin on ...**

Network Plugin on CentOS 7, install **kubernetes-flannel-centos7.md** ... Install kubelet and kubeadm on ALL (Worker and Master) Nodes. This is straight from ...

github.com > coreos > flannel > issues

**network not ready after `kubectl apply -f kube-flannel ... - GitHub**

Sep 18, 2019 - network not ready after `kubectl apply -f **kube-flannel.yaml**` in v1.16 ... There

Search here

Windows Taskbar: Search here, File, Start, Task View, Mail, Photos, Google, YouTube, Maps, etc.

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github.com/coreos/flannel

Devops - Google Drive | 24th june - Google Doc | Coronavirus Outbreak | Installing kubeadm | Kubernetes | Cluster Networking | GitHub | coreos/flannel: flannel | +

← → C https://www.google.com/search?qsrf=ALeKk00XPYDX4iyJuFk-yKe79RKlxpkrvw%3A1593014998387&ei=1nrzXuuYF4jt9QPZhrToBg&q=github+kube-flannel+plugin&oq=github+kube-flannel+plugin&gs\_lcp=CgZwc3ktYWIQAzIFCCEQoAE6AggAOgYIABAWEBA6BwghEAoQoAFQ8h5Y6T9g30JoAHAeACAAZwCiAG1F5IBBDItMTKYAQCGAQGqA

Apps New Tab Search G Inbox (157) - 2019p... M Inbox (1,144) - vish... M Inbox (252) - 2019p... M Gmail YouTube Maps

Search here

Windows Taskbar: Search here, File, Start, Task View, Mail, Photos, Google, YouTube, Maps, etc.

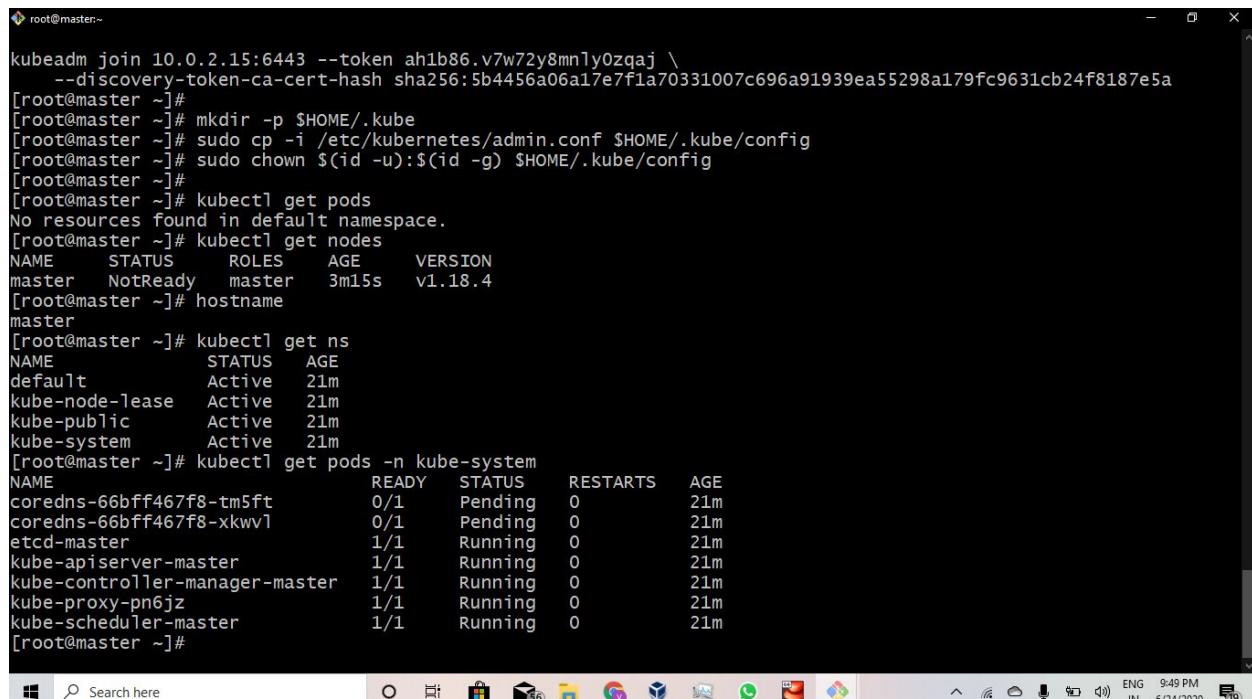
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[https://www.google.com/search?qsrf=ALeKk00XPYDX4iyJuFk-yKe79RKlxpkrvw%3A1593014998387&ei=1nrzXuuYF4jt9QPZhrToBg&q=github+kube-flannel+plugin&oq=github+kube-flannel+plugin&gs\\_lcp=CgZwc3ktYWIQAzIFCCEQoAE6AggAOgYIABAWEBA6BwghEAoQoAFQ8h5Y6T9g30JoAHAeACAAZwCiAG1F5IBBDItMTKYAQCGAQGqA](https://www.google.com/search?qsrf=ALeKk00XPYDX4iyJuFk-yKe79RKlxpkrvw%3A1593014998387&ei=1nrzXuuYF4jt9QPZhrToBg&q=github+kube-flannel+plugin&oq=github+kube-flannel+plugin&gs_lcp=CgZwc3ktYWIQAzIFCCEQoAE6AggAOgYIABAWEBA6BwghEAoQoAFQ8h5Y6T9g30JoAHAeACAAZwCiAG1F5IBBDItMTKYAQCGAQGqA)

[Qdnd3Mtd2l6&sclient=psy-ab&ved=0ahUKEwjr2-ao65rqAhWldn0KHVkDDW0Q4dUDC Aw&uact=5](#)

## **NAMESPACE**

In kubernetes ,in master all service are placed inside kube-system



```
root@master~  
kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj \  
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[root@master ~]#  
[root@master ~]# mkdir -p $HOME/.kube  
[root@master ~]# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config  
[root@master ~]# sudo chown $(id -u):$(id -g) $HOME/.kube/config  
[root@master ~]#  
[root@master ~]# kubectl get pods  
No resources found in default namespace.  
[root@master ~]# kubectl get nodes  
NAME     STATUS    ROLES   AGE     VERSION  
master   NotReady  master   3m15s  v1.18.4  
[root@master ~]# hostname  
master  
[root@master ~]# kubectl get ns  
NAME        STATUS   AGE  
default     Active   21m  
kube-node-lease  Active   21m  
kube-public   Active   21m  
kube-system   Active   21m  
[root@master ~]# kubectl get pods -n kube-system  
NAME          READY   STATUS    RESTARTS   AGE  
coredns-66bff467f8-tm5ft  0/1    Pending   0          21m  
coredns-66bff467f8-xkwvl  0/1    Pending   0          21m  
etcd-master    1/1    Running   0          21m  
kube-apiserver-master  1/1    Running   0          21m  
kube-controller-manager-master  1/1    Running   0          21m  
kube-proxy-pn6jz   1/1    Running   0          21m  
kube-scheduler-master  1/1    Running   0          21m  
[root@master ~]#
```

[root@master ~]# kubectl get ns

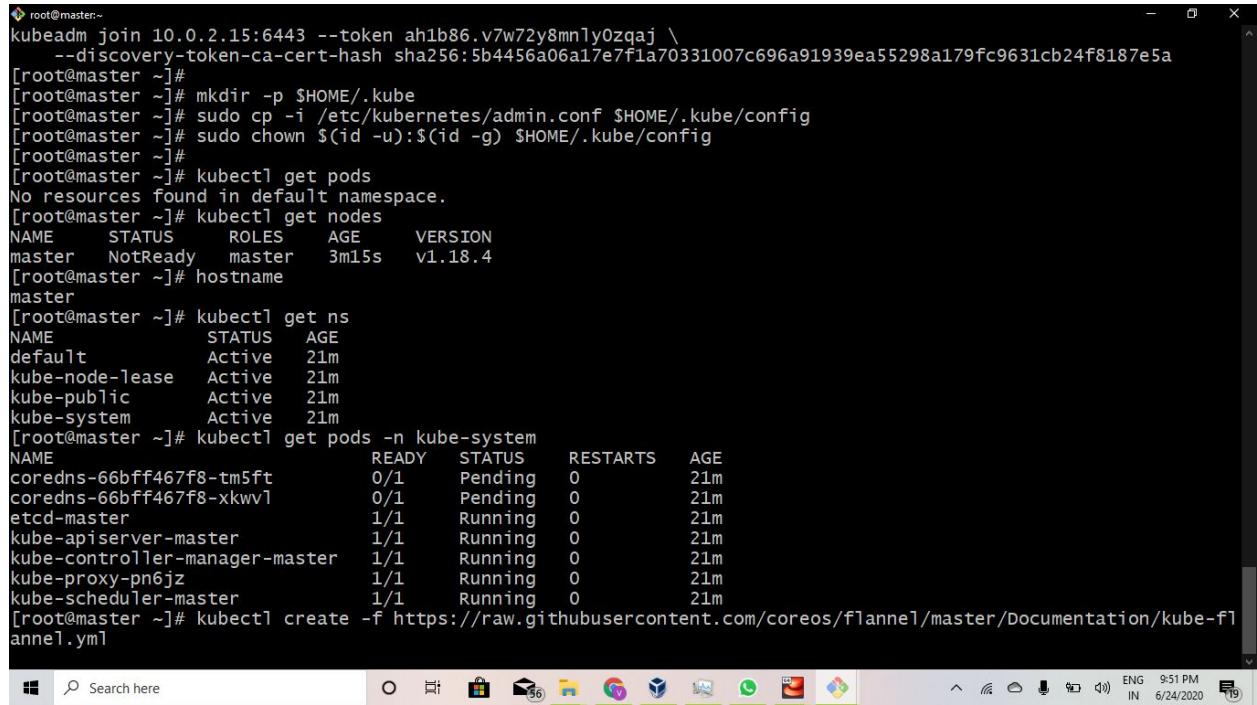
NAME	STATUS	AGE
default	Active	21m

```

kube-node-lease Active 21m
kube-public Active 21m
kube-system Active 21m
[root@master ~]# kubectl get pods -n kube-system
NAME READY STATUS RESTARTS AGE
coredns-66bff467f8-tm5ft 0/1 Pending 0 21m
coredns-66bff467f8-xkwvl 0/1 Pending 0 21m
etcd-master 1/1 Running 0 21m
kube-apiserver-master 1/1 Running 0 21m
kube-controller-manager-master 1/1 Running 0 21m
kube-proxy-pn6jz 1/1 Running 0 21m
kube-scheduler-master 1/1 Running 0 21m

```

<https://github.com/coreos/flannel>



```

root@master~#
kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mn1y0zqaj \
--discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939ea55298a179fc9631cb24f8187e5a
[root@master ~]#
[root@master ~]# mkdir -p $HOME/.kube
[root@master ~]# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
[root@master ~]# sudo chown $(id -u):$(id -g) $HOME/.kube/config
[root@master ~]#
[root@master ~]# kubectl get pods
No resources found in default namespace.
[root@master ~]# kubectl get nodes
NAME STATUS ROLES AGE VERSION
master NotReady master 3m15s v1.18.4
[root@master ~]# hostname
master
[root@master ~]# kubectl get ns
NAME STATUS AGE
default Active 21m
kube-node-lease Active 21m
kube-public Active 21m
kube-system Active 21m
[root@master ~]# kubectl get pods -n kube-system
NAME READY STATUS RESTARTS AGE
coredns-66bff467f8-tm5ft 0/1 Pending 0 21m
coredns-66bff467f8-xkwvl 0/1 Pending 0 21m
etcd-master 1/1 Running 0 21m
kube-apiserver-master 1/1 Running 0 21m
kube-controller-manager-master 1/1 Running 0 21m
kube-proxy-pn6jz 1/1 Running 0 21m
kube-scheduler-master 1/1 Running 0 21m
[root@master ~]# kubectl create -f https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml

```

<https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml>

```
root@master~  
master NotReady master 3m15s v1.18.4  
[root@master ~]# hostname  
master  
[root@master ~]# kubectl get ns  
NAME STATUS AGE  
default Active 21m  
kube-node-lease Active 21m  
kube-public Active 21m  
kube-system Active 21m  
[root@master ~]# kubectl get pods -n kube-system  
NAME READY STATUS RESTARTS AGE  
coredns-66bff467f8-tm5ft 0/1 Pending 0 21m  
coredns-66bff467f8-xkwv1 0/1 Pending 0 21m  
etcd-master 1/1 Running 0 21m  
kube-apiserver-master 1/1 Running 0 21m  
kube-controller-manager-master 1/1 Running 0 21m  
kube-proxy-pn6jz 1/1 Running 0 21m  
kube-scheduler-master 1/1 Running 0 21m  
[root@master ~]# kubectl apply -f https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml  
podsecuritypolicy.policy/psp.flannel.unprivileged created  
clusterrole.rbac.authorization.k8s.io/flannel created  
clusterrolebinding.rbac.authorization.k8s.io/flannel created  
serviceaccount/flannel created  
configmap/kube-flannel-cfg created  
daemonset.apps/kube-flannel-ds-amd64 created  
daemonset.apps/kube-flannel-ds-arm64 created  
daemonset.apps/kube-flannel-ds-arm created  
daemonset.apps/kube-flannel-ds-ppc64le created  
daemonset.apps/kube-flannel-ds-s390x created  
[root@master ~]#
```

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```
root@master~  
NAME READY STATUS RESTARTS AGE  
coredns-66bff467f8-tm5ft 0/1 Pending 0 21m  
coredns-66bff467f8-xkwv1 0/1 Pending 0 21m  
etcd-master 1/1 Running 0 21m  
kube-apiserver-master 1/1 Running 0 21m  
kube-controller-manager-master 1/1 Running 0 21m  
kube-proxy-pn6jz 1/1 Running 0 21m  
kube-scheduler-master 1/1 Running 0 21m  
[root@master ~]# kubectl apply -f https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flannel.yml  
podsecuritypolicy.policy/psp.flannel.unprivileged created  
clusterrole.rbac.authorization.k8s.io/flannel created  
clusterrolebinding.rbac.authorization.k8s.io/flannel created  
serviceaccount/flannel created  
configmap/kube-flannel-cfg created  
daemonset.apps/kube-flannel-ds-amd64 created  
daemonset.apps/kube-flannel-ds-arm64 created  
daemonset.apps/kube-flannel-ds-arm created  
daemonset.apps/kube-flannel-ds-ppc64le created  
daemonset.apps/kube-flannel-ds-s390x created  
[root@master ~]# kubectl get pods -n kube-system  
NAME READY STATUS RESTARTS AGE  
coredns-66bff467f8-tm5ft 0/1 Pending 0 24m  
coredns-66bff467f8-xkwv1 0/1 Pending 0 24m  
etcd-master 1/1 Running 0 24m  
kube-apiserver-master 1/1 Running 0 24m  
kube-controller-manager-master 1/1 Running 0 24m  
kube-flannel-ds-amd64-xrbcm 0/1 Init:0/1 0 21s  
kube-proxy-pn6jz 1/1 Running 0 24m  
kube-scheduler-master 1/1 Running 0 24m  
[root@master ~]#
```

Search here ENG 9:52 PM IN 6/24/2020 19

```
[root@master ~]# kubectl get ns  
NAME STATUS AGE  
default Active 21m  
kube-node-lease Active 21m  
kube-public Active 21m  
kube-system Active 21m  
[root@master ~]# kubectl get pods -n kube-system  
NAME READY STATUS RESTARTS AGE
```

```

coredns-66bff467f8-tm5ft      0/1    Pending   0        21m
coredns-66bff467f8-xkwvl      0/1    Pending   0        21m
etcd-master                    1/1    Running   0        21m
kube-apiserver-master         1/1    Running   0        21m
kube-controller-manager-master 1/1    Running   0        21m
kube-proxy-pn6jz               1/1    Running   0        21m
kube-scheduler-master         1/1    Running   0        21m
[root@master ~]# kubectl apply -f
https://raw.githubusercontent.com/coreos/flannel/master/Documentation/kube-flan
nel.yml
podsecuritypolicy.policy/psp.flannel.unprivileged created
clusterrole.rbac.authorization.k8s.io/flannel created
clusterrolebinding.rbac.authorization.k8s.io/flannel created
serviceaccount/flannel created
configmap/kube-flannel-cfg created
daemonset.apps/kube-flannel-ds-amd64 created
daemonset.apps/kube-flannel-ds-arm64 created
daemonset.apps/kube-flannel-ds-arm created
daemonset.apps/kube-flannel-ds-ppc64le created
daemonset.apps/kube-flannel-ds-s390x created
[root@master ~]# kubectl get pods -n kube-system
NAME                  READY   STATUS    RESTARTS   AGE
coredns-66bff467f8-tm5ft 0/1    Pending   0          24m
coredns-66bff467f8-xkwvl 0/1    Pending   0          24m
etcd-master           1/1    Running   0          24m
kube-apiserver-master 1/1    Running   0          24m
kube-controller-manager-master 1/1    Running   0          24m
kube-flannel-ds-amd64-xrbcm 0/1    Init:0/1  0          21s
kube-proxy-pn6jz       1/1    Running   0          24m
kube-scheduler-master 1/1    Running   0          24m
[root@master ~]# kubectl get pods -n kube-system
NAME                  READY   STATUS    RESTARTS   AGE
coredns-66bff467f8-tm5ft 1/1    Running   0          24m
coredns-66bff467f8-xkwvl 1/1    Running   0          24m
etcd-master           1/1    Running   0          24m
kube-apiserver-master 1/1    Running   0          24m
kube-controller-manager-master 1/1    Running   0          24m
kube-flannel-ds-amd64-xrbcm 1/1    Running   0          48s
kube-proxy-pn6jz       1/1    Running   0          24m
kube-scheduler-master 1/1    Running   0          24m
[root@master ~]# kubectl get nodes
NAME     STATUS   ROLES      AGE     VERSION
master   Ready    master    25m    v1.18.4

```

```
root@master:~# serviceaccount/flannel created
serviceaccount/kube-flannel-cfg created
daemonset.apps/kube-flannel-ds-amd64 created
daemonset.apps/kube-flannel-ds-arm64 created
daemonset.apps/kube-flannel-ds-arm created
daemonset.apps/kube-flannel-ds-ppc64le created
daemonset.apps/kube-flannel-ds-s390x created
[root@master ~]# kubectl get pods -n kube-system
NAME                  READY   STATUS    RESTARTS   AGE
coredns-66bff467f8-tm5ft  0/1     Pending   0          24m
coredns-66bff467f8-xkwv1  0/1     Pending   0          24m
etcd-master            1/1     Running   0          24m
kube-apiserver-master  1/1     Running   0          24m
kube-controller-manager-master  1/1     Running   0          24m
kube-flannel-ds-amd64-xrbcm  0/1     Init:0/1  0          21s
kube-proxy-pn6jz        1/1     Running   0          24m
kube-scheduler-master   1/1     Running   0          24m
[root@master ~]# kubectl get pods -n kube-system
NAME                  READY   STATUS    RESTARTS   AGE
coredns-66bff467f8-tm5ft  1/1     Running   0          24m
coredns-66bff467f8-xkwv1  1/1     Running   0          24m
etcd-master            1/1     Running   0          24m
kube-apiserver-master  1/1     Running   0          24m
kube-controller-manager-master  1/1     Running   0          24m
kube-flannel-ds-amd64-xrbcm  1/1     Running   0          48s
kube-proxy-pn6jz        1/1     Running   0          24m
kube-scheduler-master   1/1     Running   0          24m
[root@master ~]# kubectl get nodes
NAME      STATUS   ROLES   AGE   VERSION
master    Ready    master   25m   v1.18.4
[root@master ~]#
```

```
root@slave1:~#
user@visheshgarg MINGW64 ~/Desktop
$ ssh root@192.168.43.148
The authenticity of host '192.168.43.148 (192.168.43.148)' can't be established.
ECDSA key fingerprint is SHA256:J4E9nATwokawSqpdkpkNgntMmZaQxONRs1/Vz6ZYxQ.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '192.168.43.148' (ECDSA) to the list of known hosts.
root@192.168.43.148's password:
Last login: Wed Jun 24 21:14:26 2020
[root@slave1 ~]# kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj \
>   --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939e
a55298a179fc9631cb24f8187e5a
w0624 21:32:33.490292    2226 join.go:346] [preflight] WARNING: JoinControlPlane.
controlPlane settings will be ignored when control-plane flag is not set.
[preflight] Running pre-flight checks
^C
[root@slave1 ~]# kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj \
>   --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939e55298a179fc9631cb24f8187e5a
w0624 21:32:41.952557    2336 join.go:346] [preflight] WARNING: JoinControlPlane.controlPlane settings will be ignored when control-plane flag is not set.
[preflight] Running pre-flight checks
^C
[root@slave1 ~]# kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj \
>   --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939e55298a179fc9631cb24f8187e5a
w0624 21:33:20.671377    2469 join.go:346] [preflight] WARNING: JoinControlPlane.controlPlane settings will be ignored when control-plane flag is not set.
[preflight] Running pre-flight checks
^C
[root@slave1 ~]# docker images
REPOSITORY          TAG           IMAGE ID       CREATED        SIZE
[root@slave1 ~]# docker ps
CONTAINER ID        IMAGE          COMMAND       CREATED        STATUS        PORTS          NAMES
[root@slave1 ~]# kubeadm join 10.0.2.15:6443 --token ah1b86.v7w72y8mnly0zqaj   --discovery-token-ca-cert-hash sha256:5b4456a06a17e7f1a70331007c696a91939e55298a179fc9631cb24f8187e5a
w0624 21:54:52.140134    3624 join.go:346] [preflight] WARNING: JoinControlPlane.controlPlane settings will be ignored when control-plane flag is not set.
[preflight] Running pre-flight checks
```

```
C:\Users\Vimal Daga>kubectl get ns
NAME      STATUS   AGE
default   Active   4h43m
kube-node-lease   Active   4h43m
kube-public   Active   4h43m
kube-system   Active   4h43m
lwns       Active   4h30m

C:\Users\Vimal Daga>kubectl create namespace myteam
namespace/myteam created

C:\Users\Vimal Daga>kubectl get ns
NAME      STATUS   AGE
default   Active   4h43m
kube-node-lease   Active   4h43m
kube-public   Active   4h43m
kube-system   Active   4h43m
lwns       Active   4h31m
myteam     Active   2s

C:\Users\Vimal Daga>ku
```

```
←  Command Prompt
default   Active   4h43m
kube-node-lease   Active   4h43m
kube-public   Active   4h43m
kube-system   Active   4h43m
lwns       Active   4h30m

C:\Users\Vimal Daga>kubectl create namespace myteam
namespace/myteam created

C:\Users\Vimal Daga>kubectl get ns
NAME      STATUS   AGE
default   Active   4h43m
kube-node-lease   Active   4h43m
kube-public   Active   4h43m
kube-system   Active   4h43m
lwns       Active   4h31m
myteam     Active   2s

C:\Users\Vimal Daga>kubectl run mypod1 --image=httpd -n myteam
pod/mypod1 created

C:\Users\Vimal Daga>
```

```
Command Prompt
namespace/myteam created

C:\Users\Vimal Daga>kubectl get ns
NAME      STATUS   AGE
default   Active   4h43m
kube-node-lease   Active   4h43m
kube-public    Active   4h43m
kube-system    Active   4h43m
lwns        Active   4h31m
myteam      Active   2s

C:\Users\Vimal Daga>kubectl run mypod1 --image=httpd -n myteam
pod/mypod1 created

C:\Users\Vimal Daga>kubectl get pods
No resources found in default namespace.

C:\Users\Vimal Daga>kubectl get pods -n myteam
NAME      READY   STATUS    RESTARTS   AGE
mypod1   1/1     Running   0          42s

C:\Users\Vimal Daga>
```

```
Command Prompt
default   Active   4h43m
kube-node-lease   Active   4h43m
kube-public    Active   4h43m
kube-system    Active   4h43m
lwns        Active   4h31m
myteam      Active   2s

C:\Users\Vimal Daga>kubectl run mypod1 --image=httpd -n myteam
pod/mypod1 created

C:\Users\Vimal Daga>kubectl get pods
No resources found in default namespace.

C:\Users\Vimal Daga>kubectl get pods -n myteam
NAME      READY   STATUS    RESTARTS   AGE
mypod1   1/1     Running   0          42s

C:\Users\Vimal Daga>kubectl get all -n myteam
NAME      READY   STATUS    RESTARTS   AGE
pod/mypod1   1/1     Running   0          57s

C:\Users\Vimal Daga>
```

```
C:\Users\Vimal Daga>kubectl get pods -n myteam
NAME      READY   STATUS    RESTARTS   AGE
mypod1   1/1     Running   0          42s

C:\Users\Vimal Daga>kubectl get all -n myteam
NAME      READY   STATUS    RESTARTS   AGE
pod/mypod1 1/1     Running   0          57s

C:\Users\Vimal Daga>kubectl get pods
No resources found in default namespace.

C:\Users\Vimal Daga>kubectl get ns
NAME        STATUS   AGE
default     Active   4h45m
kube-node-lease Active  4h45m
kube-public  Active   4h45m
kube-system  Active   4h45m
lwns        Active   4h33m
myteam      Active   112s

C:\Users\Vimal Daga>kubectl get pods -n kube-system
```

```
kube-node-lease  Active  4h45m
kube-public     Active  4h45m
kube-system     Active  4h45m
lwns            Active  4h33m
myteam          Active  112s

C:\Users\Vimal Daga>kubectl get pods -n kube-system
NAME      READY   STATUS    RESTARTS   AGE
coredns-66bff467f8-bvzm9  0/1     Running   1          4h46m
coredns-66bff467f8-jcsq9  0/1     Running   1          4h46m
etcd-minikube             1/1     Running   0          5m51s
kube-apiserver-minikube  1/1     Running   0          5m51s
kube-controller-manager-minikube  1/1     Running   1          4h46m
kube-proxy-2kxmnn         1/1     Running   1          4h46m
kube-scheduler-minikube  1/1     Running   1          4h46m
storage-provisioner       0/1     CrashLoopBackOff 5          4h46m

C:\Users\Vimal Daga>kubectl get nodes
NAME      STATUS   ROLES    AGE   VERSION
minikube  Ready    master   4h46m  v1.18.0

C:\Users\Vimal Daga>
```



```
C:\Users\Vimal Daga>kubectl get pods
No resources found in default namespace.

C:\Users\Vimal Daga>kubectl get nodes
NAME      STATUS  ROLES   AGE    VERSION
minikube  Ready   master   5h    v1.18.0

C:\Users\Vimal Daga>cd Desktop

C:\Users\Vimal Daga\Desktop>kubectl get nodes
NAME      STATUS  ROLES   AGE    VERSION
minikube  Ready   master   5h    v1.18.0

C:\Users\Vimal Daga\Desktop>kubectl get nodes --kubeconfig config
NAME      STATUS  ROLES   AGE    VERSION
master   Ready   master   34m   v1.18.4
slave1   Ready   <none>  7m59s  v1.18.4
slave2   Ready   <none>  5m    v1.18.4

C:\Users\Vimal Daga\Desktop>
C:\Users\Vimal Daga\Desktop>kubectl get po --kubeconfig config
```

```
Type here to search
Select Command Prompt
C:\Users\Vimal Daga\Desktop>kubectl get nodes
NAME      STATUS  ROLES   AGE    VERSION
minikube  Ready   master   5h    v1.18.0

C:\Users\Vimal Daga\Desktop>kubectl get nodes --kubeconfig config
NAME      STATUS  ROLES   AGE    VERSION
master   Ready   master   34m   v1.18.4
slave1   Ready   <none>  7m59s  v1.18.4
slave2   Ready   <none>  5m    v1.18.4

C:\Users\Vimal Daga\Desktop>
C:\Users\Vimal Daga\Desktop>kubectl get pods --kubeconfig config
No resources found in default namespace.

C:\Users\Vimal Daga\Desktop>kubectl get ns --kubeconfig config
NAME          STATUS  AGE
default       Active  35m
kube-node-lease Active  35m
kube-public   Active  35m
kube-system   Active  35m

C:\Users\Vimal Daga\Desktop>
```

```
Type here to search
Select Command Prompt
C:\Users\Vimal Daga\Desktop>
```

```
Command Prompt
NAME      STATUS  AGE
default   Active  35m
kube-node-lease  Active  35m
kube-public  Active  35m
kube-system  Active  35m

C:\Users\Vimal Daga\Desktop>kubectl get pods -n kube-system --kubeconfig config
NAME          READY  STATUS    RESTARTS  AGE
coredns-66bff467f8-7ct7c  1/1   Running  0          35m
coredns-66bff467f8-7dvxrf 1/1   Running  0          35m
etcd-master    1/1   Running  0          35m
kube-apiserver-master  1/1   Running  0          35m
kube-controller-manager-master  1/1   Running  0          35m
kube-flannel-ds-amd64-6bpv1  1/1   Running  0          5m46s
kube-flannel-ds-amd64-dsslp  1/1   Running  0          8m45s
kube-flannel-ds-amd64-t62kq  1/1   Running  0          11m
kube-proxy-2hkwg  1/1   Running  0          8m45s
kube-proxy-8xdh2  1/1   Running  0          5m46s
kube-proxy-nv6v2  1/1   Running  0          35m
kube-scheduler-master  1/1   Running  0          35m

C:\Users\Vimal Daga\Desktop>
```



```
Command Prompt
kube-public      Active  35m
kube-system      Active  35m

C:\Users\Vimal Daga\Desktop>kubectl get pods -n kube-system --kubeconfig config
NAME                  READY   STATUS    RESTARTS   AGE
coredns-66bff467f8-7ct7c  1/1    Running   0          35m
coredns-66bff467f8-7dvxvf  1/1    Running   0          35m
etcd-master           1/1    Running   0          35m
kube-apiserver-master  1/1    Running   0          35m
kube-controller-manager-master  1/1    Running   0          35m
kube-flannel-ds-amd64-6bpvl  1/1    Running   0          5m46s
kube-flannel-ds-amd64-dsslp  1/1    Running   0          8m45s
kube-flannel-ds-amd64-t62kq  1/1    Running   0          11m
kube-proxy-2hkwg       1/1    Running   0          8m45s
kube-proxy-8xdh2        1/1    Running   0          5m46s
kube-proxy-nv6v2         1/1    Running   0          35m
kube-scheduler-master   1/1    Running   0          35m

C:\Users\Vimal Daga\Desktop>kubectl get pods --kubeconfig config
No resources found in default namespace.

C:\Users\Vimal Daga\Desktop>kubectl run mypod1 --image=httpd --kubeconfig config
```

```
Type here to search
kube-public      Active  35m
kube-system      Active  35m

C:\Users\Vimal Daga\Desktop>kubectl get pods -n kube-system --kubeconfig config
NAME                  READY   STATUS    RESTARTS   AGE
coredns-66bff467f8-7ct7c  1/1    Running   0          35m
coredns-66bff467f8-7dvxvf  1/1    Running   0          35m
etcd-master           1/1    Running   0          35m
kube-apiserver-master  1/1    Running   0          35m
kube-controller-manager-master  1/1    Running   0          35m
kube-flannel-ds-amd64-6bpvl  1/1    Running   0          5m46s
kube-flannel-ds-amd64-dsslp  1/1    Running   0          8m45s
kube-flannel-ds-amd64-t62kq  1/1    Running   0          11m
kube-proxy-2hkwg       1/1    Running   0          8m45s
kube-proxy-8xdh2        1/1    Running   0          5m46s
kube-proxy-nv6v2         1/1    Running   0          35m
kube-scheduler-master   1/1    Running   0          35m

C:\Users\Vimal Daga\Desktop>kubectl get pods --kubeconfig config
No resources found in default namespace.

C:\Users\Vimal Daga\Desktop>kubectl run mypod1 --image=httpd --kubeconfig config
```