Tugas 15

1. Sediakan 2 server k8s master alias di host dan worker-node1 edit di /etc/host dan pastikan node agar saling terhubung.

```
34.92.155.208 k8s-master
35.198.236.27 worker-node1
```

```
PING worker-node1 (35.198.236.27) 56(84) bytes of data.
64 bytes from worker-node1 (35.198.236.27): icmp_seq=1 ttl=58 time=75.1 ms
64 bytes from worker-node1 (35.198.236.27): icmp_seq=2 ttl=58 time=38.9 ms
64 bytes from worker-node1 (35.198.236.27): icmp_seq=3 ttl=58 time=39.4 ms
```

2. Cek apakah selinux sudah di disable pada node-master , disini harus disablekan terlebih dahulu , dan juga disablekan firewallnya

```
SELinux status:                 enabled
SELinuxfs mount:                /sys/fs/selinux
SELinux root directory:         /etc/selinux
Loaded policy name:             targeted
Current mode:                   enforcing
Mode from config file:          enforcing
Policy MLS status:              enabled
Policy deny_unknown status:     allowed
Max kernel policy version:      31
```

3. Masukan Repositori Kubernetes ke yum repos buat file baru

```
([kubernetes]
name=Kubernetes
baseurl=https://packages.cloud.google.com/yum/repos/kubernetes-e17-x86_64
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-packages-key.gpg)
```

4. Memastikan Agar swap pada sebuah pod mati

```
[muhammad_aulia_rahman68@instance-1 ~]$ swapoff -a
```

5. Jalankan repo pada repos untuk kubetcl docker

```
 * extras: centos.mirrors.estointernet.in
 * updates: mirrors.cat.net
Tidak ada paket kubeadm yang tersedia.
Sedang menyelesaikan Ketergantungan
--> Menjalankan pemeriksaan transaksi
---> Paket docker.x86_64 2:1.13.1-162.git64e9980.el7.centos akan terp
--> Mem-proses ketergantungan: docker-common = 2:1.13.1-162.git64e998
--> Mem-proses ketergantungan: docker-client = 2:1.13.1-162.git64e998
--> Menjalankan pemeriksaan transaksi
---> Paket docker-client.x86_64 2:1.13.1-162.git64e9980.el7.centos ak
---> Paket docker-common.x86_64 2:1.13.1-162.git64e9980.el7.centos ak
--> Mem-proses ketergantungan: container-selinux >= 2:2.51-1 untuk pa
--> Menjalankan pemeriksaan transaksi
---> Paket container-selinux.noarch 2:2.119.2-1.911c772.el7_8 akan te
--> Resolusi ketergantungan telah diselesaikan

Ketergantungan-ketergantungan telah Diselesaikan

================================================================================
 Package                                          Arst
================================================================================
Memasang:
 docker                                           x86_64
Melakukan instalasi untuk ketergantungan:
 container-selinux                                noarch
 docker-client                                    x86_64
 docker-common                                    x86_64

Ringkasan Transaksi
================================================================================
Instal  1 Paket (+3 Paket-paket yang tergantung)

Total ukuran pengunduhan: 22 M
Ukuran terpasang: 77 M
Downloading packages:
(1/4): container-selinux-2.119.2-1.911c772.el7_8.noarch.rpm
(2/4): docker-common-1.13.1-162.git64e9980.el7.centos.x86_64.rpm
(3/4): docker-client-1.13.1-162.git64e9980.el7.centos.x86_64.rpm
(4/4): docker-1.13.1-162.git64e9980.el7.centos.x86_64.rpm
```

6. Karena Keterbatasan space sehingga kubernetes tidak bisa di jalankan kan

```
W0709 07:08:27.739146   13028 configset.go:202] WARNING: kubeadm cannot validate component configs for API groups [kubelet.
[init] Using Kubernetes version: v1.18.5
[preflight] Running pre-flight checks
error execution phase preflight: [preflight] Some fatal errors occurred:
        [ERROR NumCPU]: the number of available CPUs 1 is less than the required 2
[preflight] If you know what you are doing, you can make a check non-fatal with `--ignore-preflight-errors=...`
To see the stack trace of this error execute with --v=5 or higher
```

7. Memakai allow 1 cpu dengan

```
[root@instance-1 muhammad_aulia_rahman68]# kubeadm init --ignore-preflight-errors=NumCPU
```

8. Setelah di allow lalu kubectl init

```
kubeadm join 10.170.0.2:6443 --token olrzfm.pee4b2fcoom30ak5 \
    --discovery-token-ca-cert-hash sha256:e0f599194bc85150f239816e65d8465f6214d6d216542a5aeab04d343300b076
```

9. Disini membuat folder untu setying k8s dan mengcopykan conf admin serta merubah permisi menjadi id dan uid sendiri

```
error: the server doesn't have a resource type "nodes"
[root@instance-1 muhammad_aulia_rahman68]# mkdir -p $HOME/.kube
[root@instance-1 muhammad_aulia_rahman68]# sudo cp -i /etc/kubernetes/admin.conf $HOME/.kube/config
[root@instance-1 muhammad_aulia_rahman68]# sudo chown $(id -u):$(id -g) $HOME/.kube/config
```

10. Melihat pod yang sudah terkoneksi

```
[root@instance-1 muhammad_aulia_rahman68]# kubectl get pod --all-namespaces
NAMESPACE     NAME                                  READY   STATUS    RESTARTS   AGE
kube-system   coredns-66bff467f8-h8m5t              0/1     Pending   0          32m
kube-system   coredns-66bff467f8-v5zcf              0/1     Pending   0          32m
kube-system   etcd-instance-1                       1/1     Running   0          32m
kube-system   kube-apiserver-instance-1             1/1     Running   0          32m
kube-system   kube-controller-manager-instance-1    1/1     Running   0          32m
kube-system   kube-proxy-tq7br                      1/1     Running   0          32m
kube-system   kube-scheduler-instance-1             1/1     Running   0          32m
```

11. Disini agar 1 master dan node ready tambahkan

```
[root@instance-1 muhammad_aulia_rahman68]# kubectl apply -f "https://cloud.weave.works/k8s/net?k8s-version=$kubever"
serviceaccount/weave-net created
clusterrole.rbac.authorization.k8s.io/weave-net created
clusterrolebinding.rbac.authorization.k8s.io/weave-net created
role.rbac.authorization.k8s.io/weave-net created
rolebinding.rbac.authorization.k8s.io/weave-net created
daemonset.apps/weave-net created
```

12. Cek node get pods

```
NAME         STATUS   ROLES    AGE   VERSION
instance-1   Ready    master   44m   v1.18.5
```

13. Join ke master

```
[root@centos-tugasakhir muhammad_aulia_rahman68]# kubeadm join 10.170.0.2:6443 --token olrzfm.pee4b2fcoom30ak5 \
>     --discovery-token-ca-cert-hash sha256:e0f599194bc85150f239816e65d8465f6214d6d216542a5aeab04d343300b076
W0709 09:41:41.781810   28799 join.go:346] [preflight] WARNING: JoinControlPane.controlPlane settings will be ignored when control-plane flag is not set.
[preflight] Running pre-flight checks
```

14. Dimaster sudah aja join

```
NAME                STATUS   ROLES    AGE    VERSION
centos-tugasakhir   Ready    <none>   10m    v1.18.5
instance-1          Ready    master   126m   v1.18.5
```