In pervious document, I have made a cluster already.

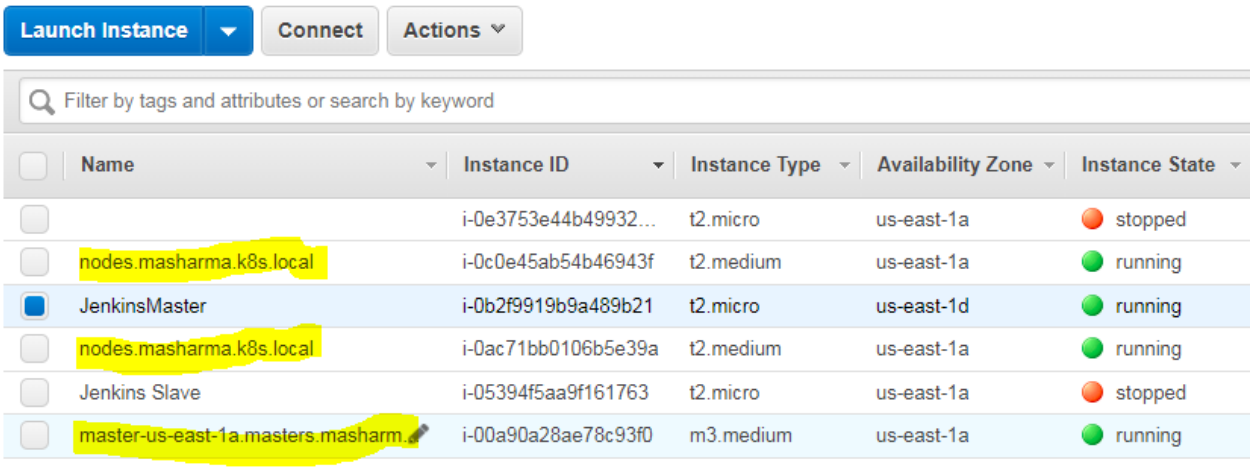
Now to bring up the already setup cluster:

kops update cluster --name=${KOPS_CLUSTER_NAME} –yes

```
[ec2-user@ip-172-31-84-37 ~]$ kops update cluster --name=${KOPS_CLUSTER_NAME} --yes

*********************************************************************************

A new kubernetes version is available: 1.10.6
Upgrading is recommended (try kops upgrade cluster)

More information: https://github.com/kubernetes/kops/blob/master/permalinks/upgrade_k8s.md#1.10.6

*********************************************************************************

I1124 07:31:38.281021   29233 apply_cluster.go:505] Gossip DNS: skipping DNS validation
I1124 07:31:38.546735   29233 executor.go:103] Tasks: 0 done / 77 total; 30 can run
I1124 07:31:38.897018   29233 executor.go:103] Tasks: 30 done / 77 total; 24 can run
I1124 07:31:39.073711   29233 executor.go:103] Tasks: 54 done / 77 total; 19 can run
I1124 07:31:39.692504   29233 executor.go:103] Tasks: 73 done / 77 total; 3 can run
I1124 07:31:40.258397   29233 executor.go:103] Tasks: 76 done / 77 total; 1 can run
I1124 07:31:40.459641   29233 executor.go:103] Tasks: 77 done / 77 total; 0 can run
I1124 07:31:40.935036   29233 update_cluster.go:290] Exporting kubecfg for cluster
kops has set your kubectl context to masharma.k8s.local

Cluster changes have been applied to the cloud.


Changes may require instances to restart: kops rolling-update cluster
```

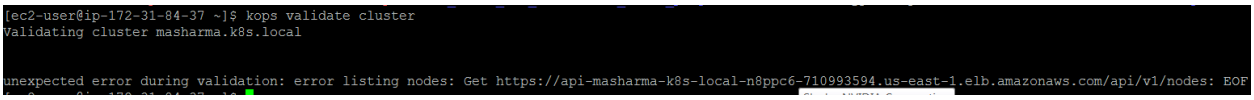
Here you see, one master and two slave nodes have come up. Reason being, at the time of creation, I kept the configurations like:

--node-count=2 \
--node-size=t2.medium \
--zones=us-east-1a \



Then I tried validating the cluster and it failed:

kops validate cluster



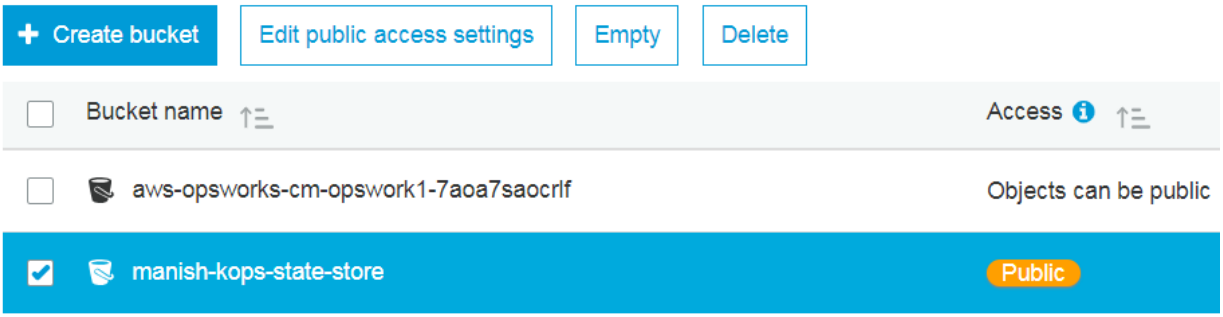
Now let me troubleshoot it:

My thought process:

Find Kops and kubectl versions:

After some debugging I got to know my S3 bucket that saves kops state is not public.

So I made it public:

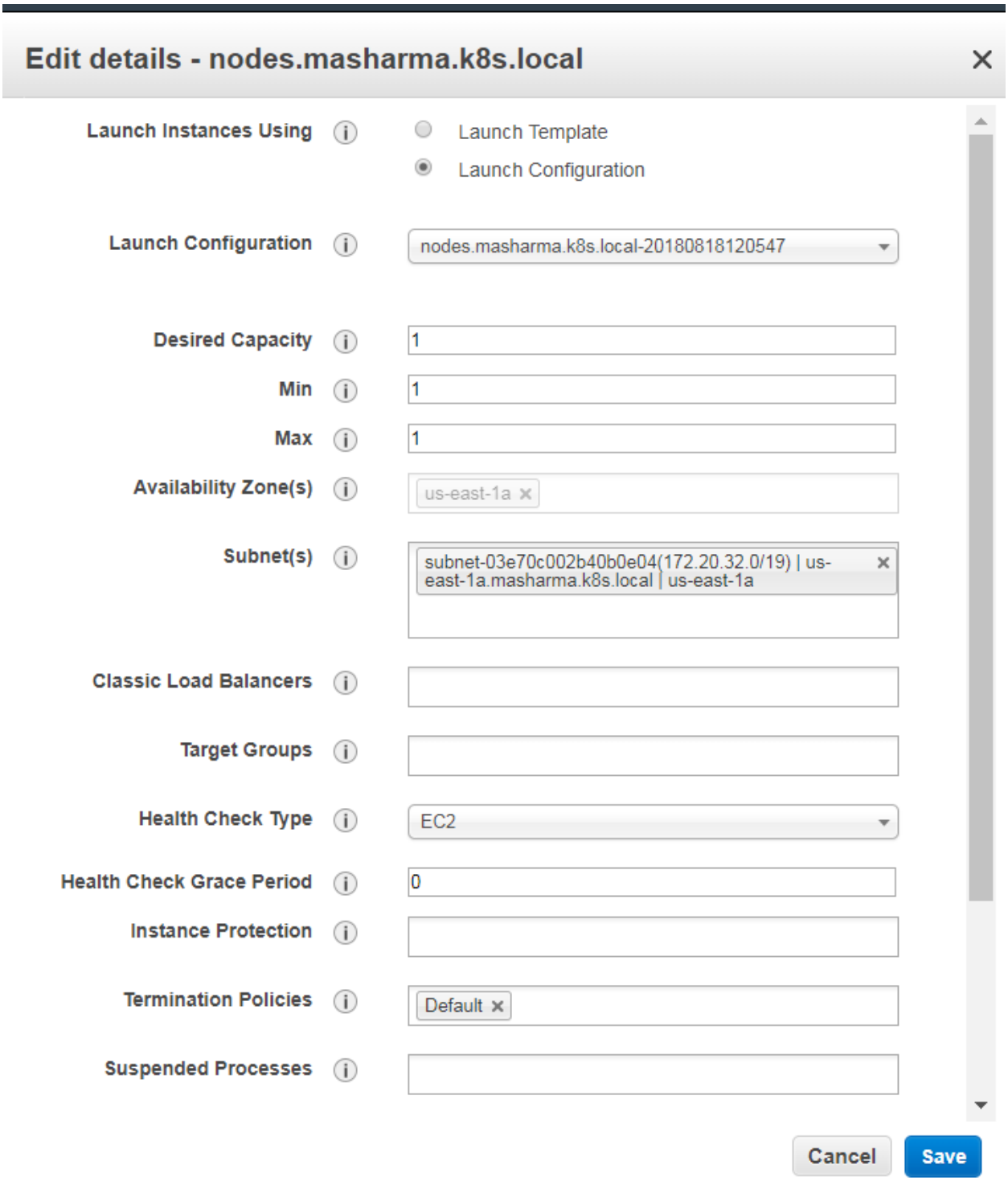


Again kops validation failed with new error this time:

```
[ec2-user@ip-172-31-84-37 ~]$ kops validate cluster
Validating cluster masharma.k8s.local

INSTANCE GROUPS
NAME                    ROLE    MACHINETYPE     MIN     MAX     SUBNETS
master-us-east-1a       Master  m3.medium       1       1       us-east-1a
nodes                   Node    t2.medium       2       2       us-east-1a

NODE STATUS
NAME                            ROLE    READY
ip-172-20-61-129.ec2.internal   master  True

VALIDATION ERRORS
KIND    NAME                                    MESSAGE
Machine i-0c23a535890da93d8                     machine "i-0c23a535890da93d8" has not yet joined cluster
Pod     kube-system/dns-controller-6d6b7f78b-g49br      kube-system pod "dns-controller-6d6b7f78b-g49br" is not healthy

Validation Failed
```

This says one of the node is not healty.

I know the reason It is because in AWS autoscaling, I have set node value as 1 (to save money). Whereas while defining the cluster, I set node values as 2.



So, I made the configuration of auto-scale group equal to the original config.

And validation passed

```
[ec2-user@ip-172-31-84-37 ~]$ kops validate cluster
Validating cluster masharma.k8s.local

INSTANCE GROUPS
NAME                    ROLE    MACHINETYPE     MIN     MAX     SUBNETS
master-us-east-1a       Master  m3.medium       1       1       us-east-1a
nodes                   Node    t2.medium       2       2       us-east-1a

NODE STATUS
NAME                            ROLE    READY
ip-172-20-40-34.ec2.internal    node    True
ip-172-20-54-5.ec2.internal     master  True

Your cluster masharma.k8s.local is ready
```

Now my cluster is ready.