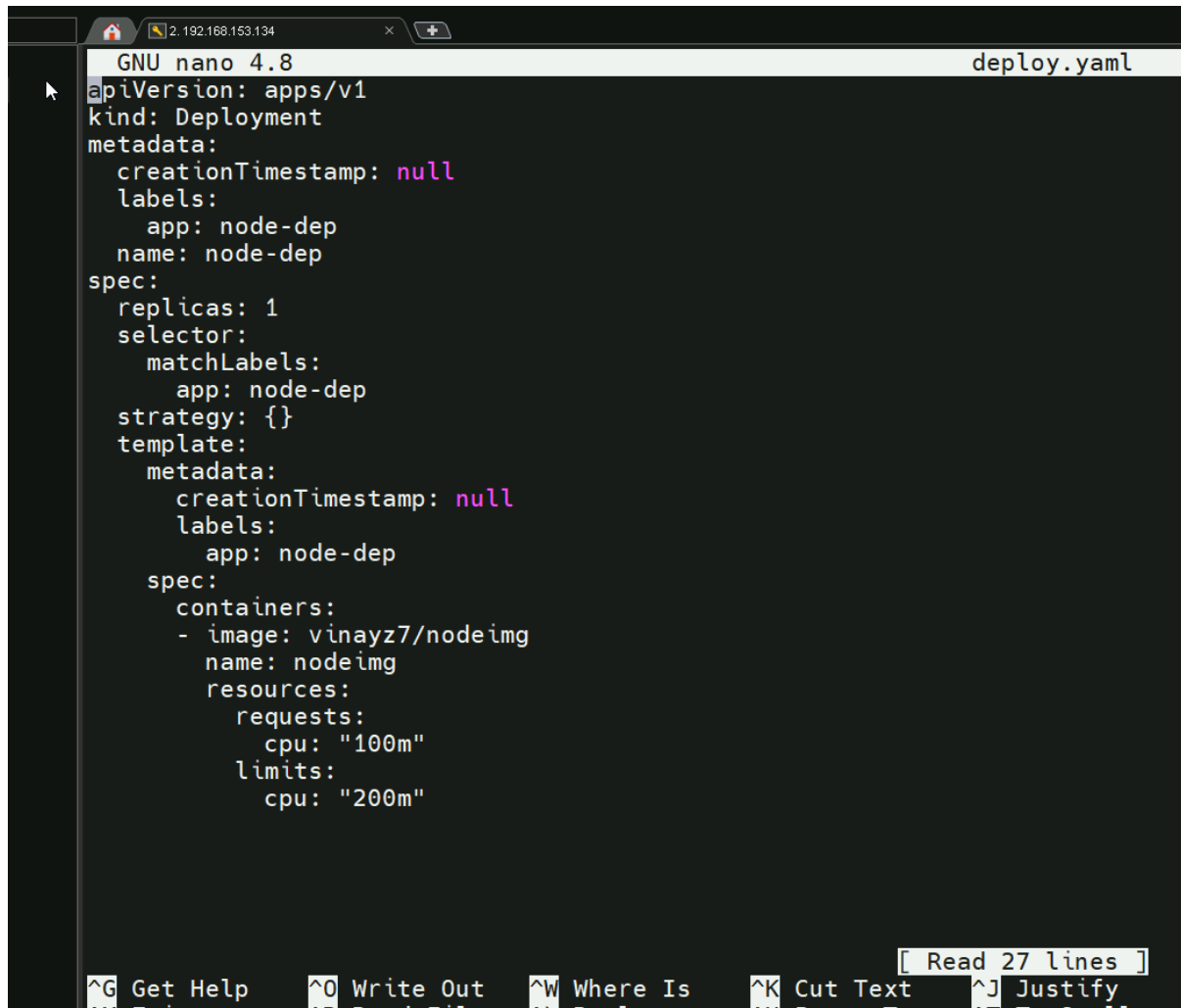


# Hpa(horizontal pod auto scaling) for nodejs app

## 1.deployment configuration

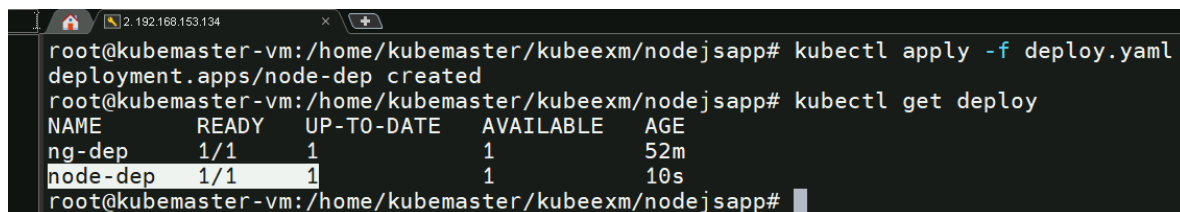


```
GNU nano 4.8 deploy.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: node-dep
  name: node-dep
spec:
  replicas: 1
  selector:
    matchLabels:
      app: node-dep
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: node-dep
    spec:
      containers:
      - image: vinayz7/nodeimg
        name: nodeimg
        resources:
          requests:
            cpu: "100m"
          limits:
            cpu: "200m"
```

Read 27 lines

^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify  
^X Exit ^D Read File ^\_ Undo ^\_ Redo ^U Paste Text ^T To Scroll

Using kubectl apply -f deployment.yaml



```
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp# kubectl apply -f deploy.yaml
deployment.apps/node-dep created
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp# kubectl get deploy
NAME      READY   UP-TO-DATE   AVAILABLE   AGE
ng-dep    1/1     1            1           52m
node-dep  1/1     1            1           10s
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp#
```

## Horizontal pod auto scaler configuration:

using this command – “`kubectl autoscale deployment node-dep --cpu-percent=50 --min=1 --max=5`”

```
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp# kubectl autoscale deployment node-dep --cpu-percent=50 --min=1 --max=5
horizontalpodautoscaler.autoscaling/node-dep autoscaled
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp# kubectl get hpa
NAME          REFERENCE          TARGETS          MINPODS  MAXPODS  REPLICAS  AGE
node-dep      Deployment/node-dep <unknown>/50%   1         5         0         7s
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp# kubectl get hpa
NAME          REFERENCE          TARGETS          MINPODS  MAXPODS  REPLICAS  AGE
node-dep      Deployment/node-dep 1%/50%          1         5         1         36s
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp#
```

## Testing :

Enter inside the pod and given a stress using this command

For stress: “`while true; do ;; done;`”

```
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp# kubectl get po
NAME          READY   STATUS    RESTARTS   AGE
ng-dep-55d6b9dbbd-rfqdq  1/1     Running   0          73m
node-dep-7b476fc5db-w9xdv 1/1     Running   0          20m
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp# kubectl exec -it node-dep-7b476fc5db-w9xdv -- /bin/sh
/app # while true; do ;; done;
^C/app # exit
command terminated with exit code 130
root@kubemaster-vm:/home/kubemaster/kubeexm/nodejsapp#
```

Replicas increased on cpu percentage:

```
root@kubemaster-vm:/home/kubemaster# kubectl get hpa
NAME          REFERENCE          TARGETS          MINPODS  MAXPODS  REPLICAS  AGE
node-dep      Deployment/node-dep 39%/50%          1         5         4         6m19s
root@kubemaster-vm:/home/kubemaster#
```