Hpa(horizontal pod auto scaling) for nodejs app

1.deployment configuration

```
2.192.168.153.134
  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
```

Using kubectl apply -f deployment.yaml

```
2.192.168.153.134
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#
```

Repicas 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#
```