

```
eksctl create cluster --name demo-k8s-autoscaling --region ap-southeast-1 --
nodegroup-name worker-nodes --node-type t3.small --nodes 2 --nodes-min 1 --
nodes-max 4 --managed --spot
```

```
2023-11-19 21:51:08 [✔] EKS cluster 'demo-k8s-autoscaling' in 'ap-southeast-1' region is ready
(base) PS C:\Users\elect> kubectl get nodes
NAME                                                    STATUS    ROLES    AGE    VERSION
ip-192-168-15-18.ap-southeast-1.compute.internal        Ready     <none>    2m45s  v1.32.9-eks-c39b1d0
ip-192-168-41-176.ap-southeast-1.compute.internal      Ready     <none>    2m45s  v1.32.9-eks-c39b1d0
(base) PS C:\Users\elect> |
```

Tạo cluster

Deploy nginx

```
Welcome x demo.yaml x
demo.yaml
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: php-apache
5  spec:
6    selector:
7      matchLabels:
8        run: php-apache
9    replicas: 1
10   template:
11     metadata:
12       labels:
13         run: php-apache
14     spec:
15       containers:
16       - name: php-apache
17         image: registry.k8s.io/hpa-example
18         ports:
19         - containerPort: 80
20         resources:
21           limits:
22             cpu: 500m
23           requests:
24             cpu: 200m
25   ---
26   apiVersion: v1
27   kind: Service
28   metadata:
29     name: php-apache
30     labels:
31       run: php-apache
32   spec:
33     ports:
34     - port: 80
35     selector:
36       run: php-apache
```

```
(base) PS E:\AWS-demo> kubectl apply -f demo.yaml
deployment.apps/php-apache created
service/php-apache created
(base) PS E:\AWS-demo> kubectl autoscale deployment php-apache --cpu-percent=50 --min=1 --max=10
Flag --cpu-percent has been deprecated. Use --cpu with percentage or resource quantity format (e.g., '70%' for utilization or '500m' for milliCPU).
horizontalpodautoscaler.autoscaling/php-apache autoscaled
```

Dùng 1 pod khác để bắn tải vào pod nginx

[illegible]

Kết quả pod nginx tăng replica từ 1 lên 6

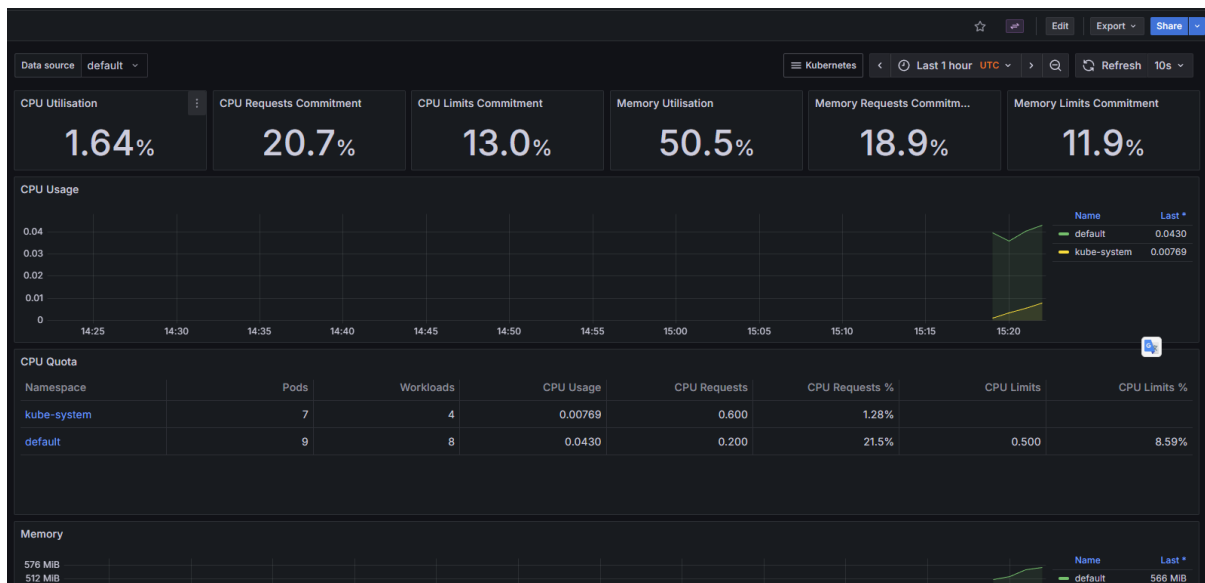
NAME	REFERENCE	TARGETS	MINPODS	MAXPODS	REPLICAS	AGE
php-apache	Deployment/php-apache	cpu: <unknown>/50%	1	10	1	20s
php-apache	Deployment/php-apache	cpu: 0%/50%	1	10	1	31s
php-apache	Deployment/php-apache	cpu: 238%/50%	1	10	1	76s
php-apache	Deployment/php-apache	cpu: 250%/50%	1	10	4	91s
php-apache	Deployment/php-apache	cpu: 96%/50%	1	10	5	106s
php-apache	Deployment/php-apache	cpu: 64%/50%	1	10	6	2m1s
php-apache	Deployment/php-apache	cpu: 54%/50%	1	10	6	2m16s

helm repo add prometheus-community <https://prometheus-community.github.io/helm-charts>

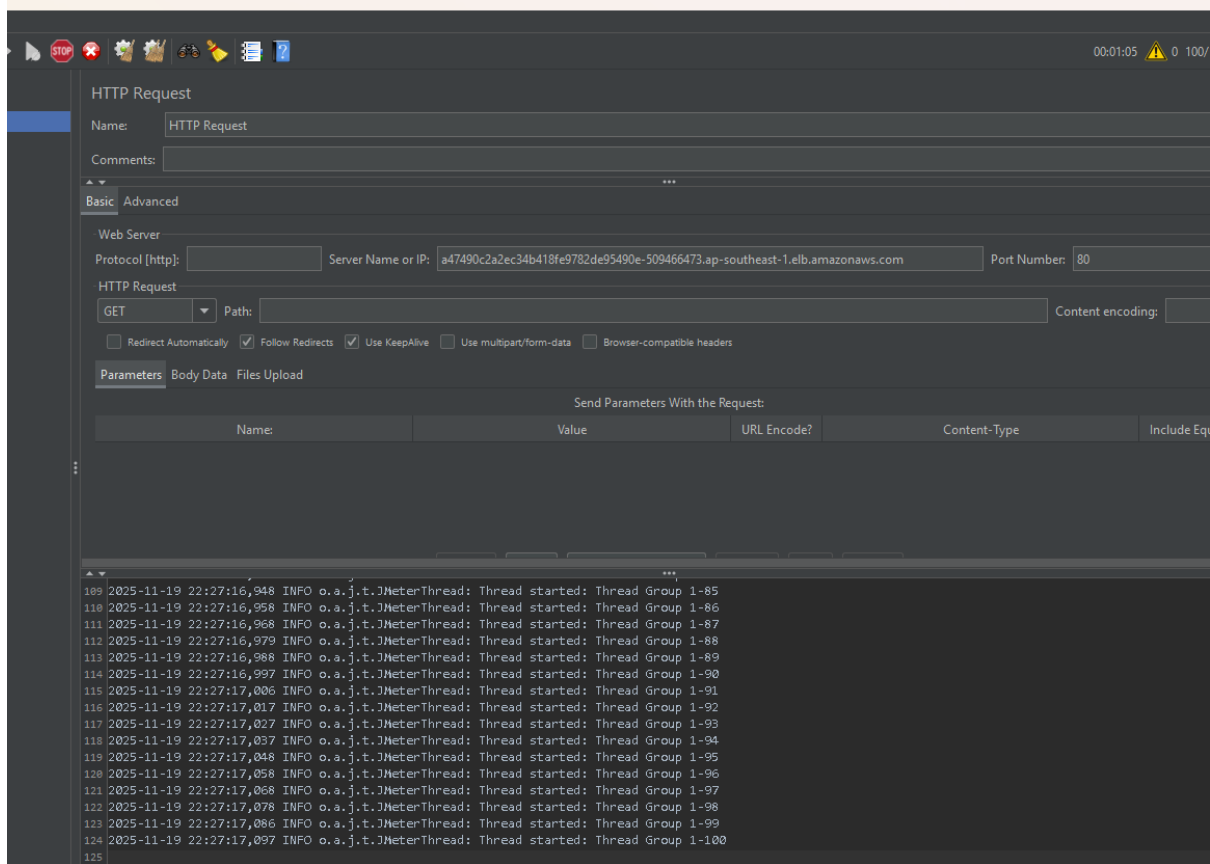
helm repo update

helm install monitor prometheus-community/kube-prometheus-stack --set grafana.adminPassword='admin'

kubectl port-forward svc/monitor-grafana 3000:80 (forward ra local)



Dung Jmeter de test tai



CPU nhảy lên gần 100% và đã scale đủ 10 replica

