<https://github.com/cloud-computing-cuhksz/assignment-2-Alfafa0702>

<https://awsacademy.instructure.com/courses/133663/modules/items/12833510>

github的个人令牌：

github\_pat\_11BELF2OA0f258CTCKCjnD\_HAUTcWjsyy0VNH005ln9KXiXNhcqjF7E9Vse7eWhEBSTW5WMSDRTgvGB4Dr

第一步：创建m4.large

在网页中connect，并运行Environment Setup和Running Minikube on EC2 Ubuntu

中的代码

第二步：Start the application

transfer the assignment zip file:

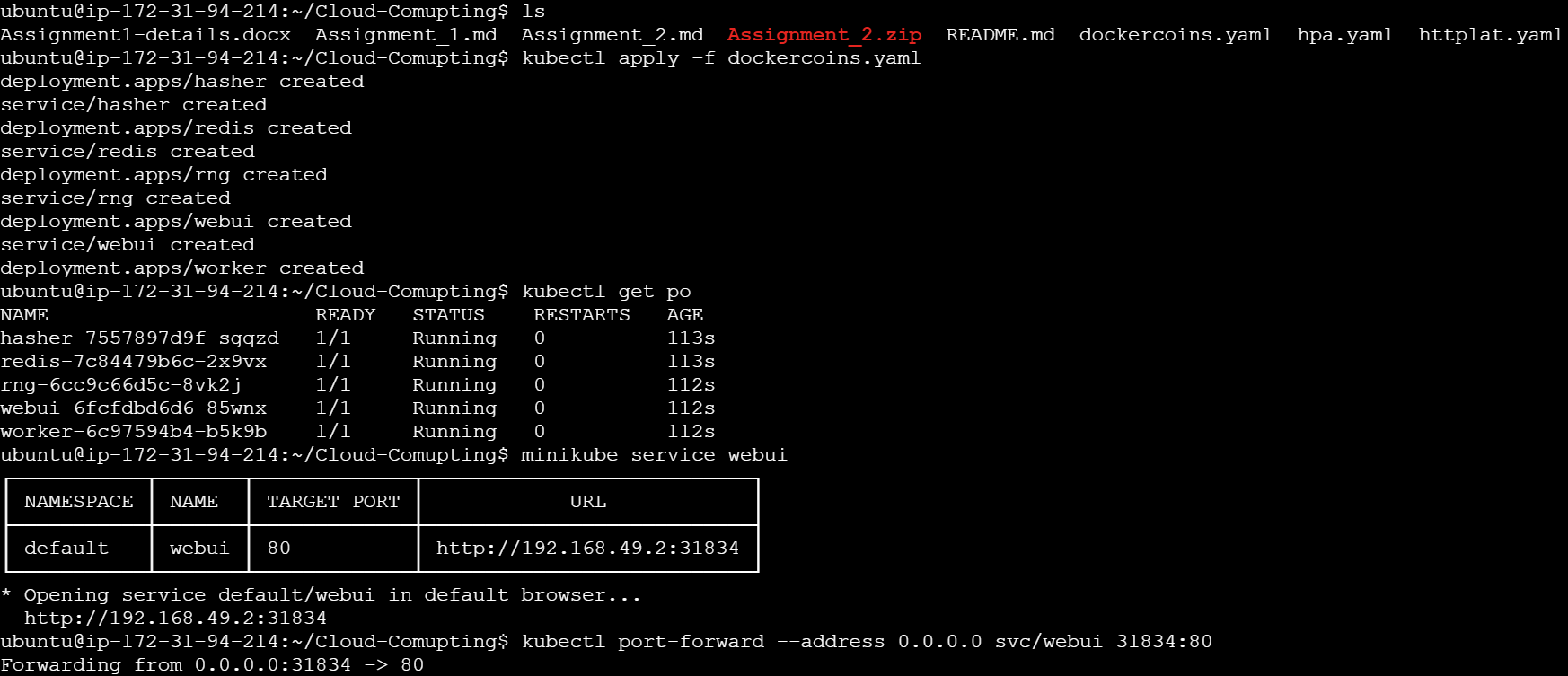
将作业2文件压缩为zip，上传到自己公开的github仓库中，在实例中git clone这个仓库

git clone <https://github.com/Alfafa0702/Cloud-Comupting.git>

cd Cloud-Comupting

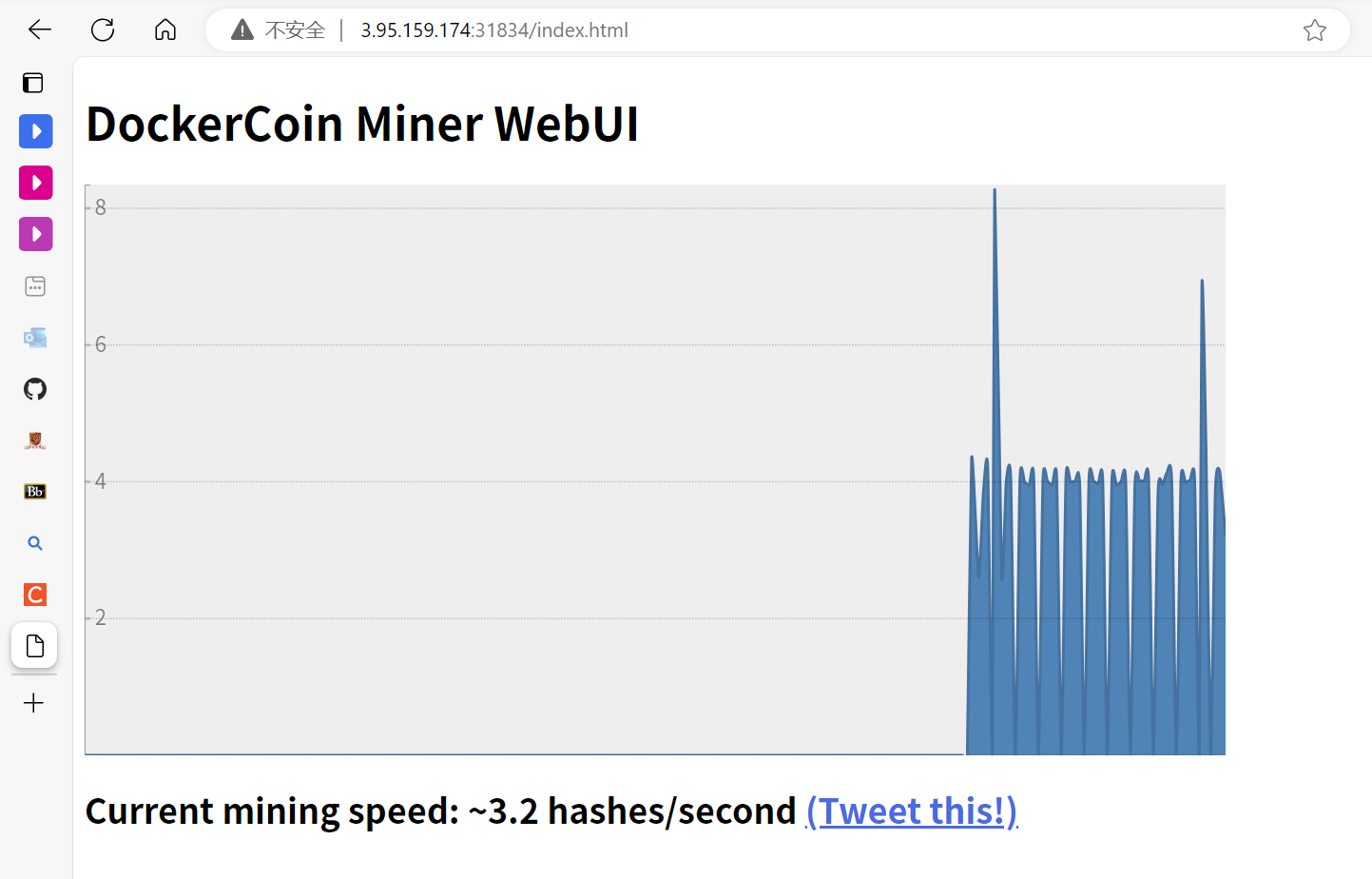
sudo apt install unzip

unzip Assignment\_2.zip



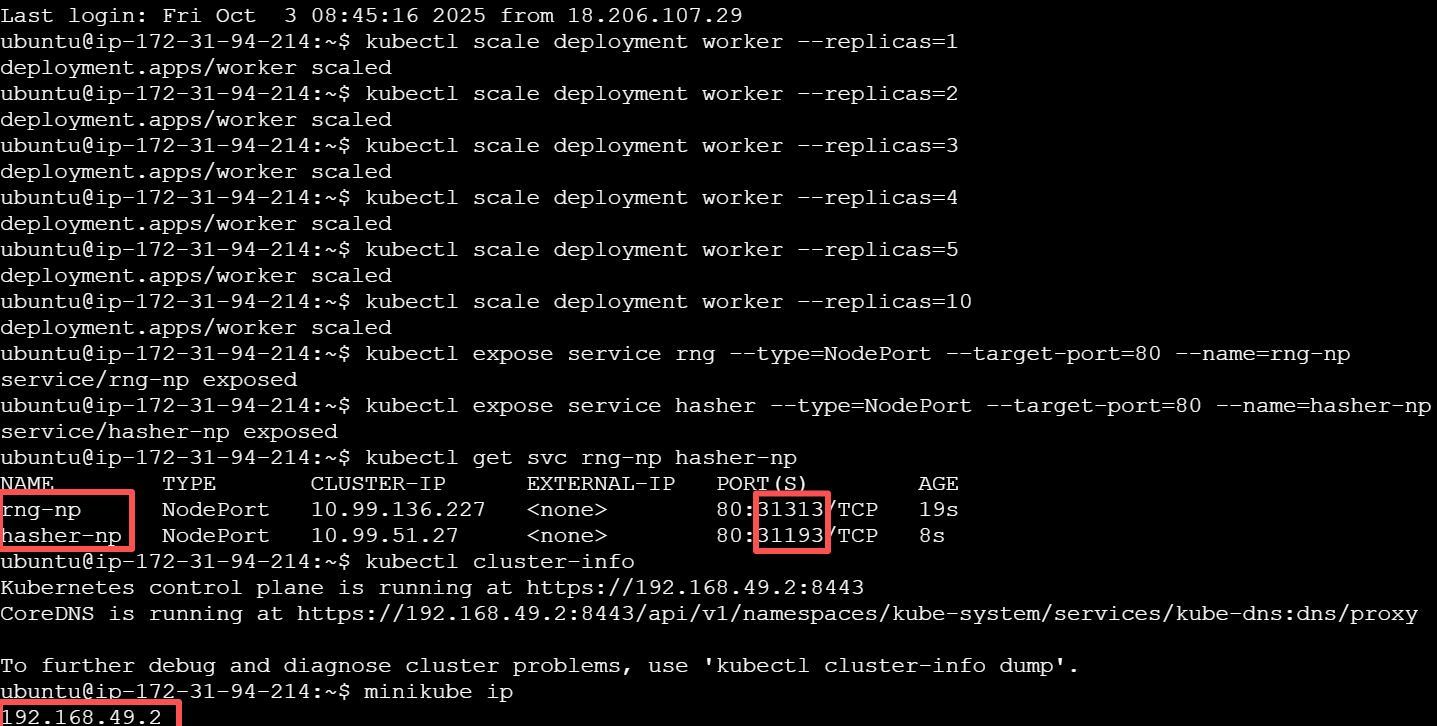
这里local port就显示再表格URL的最后31834

然后在浏览器访问<http://3.95.159.174:31834>

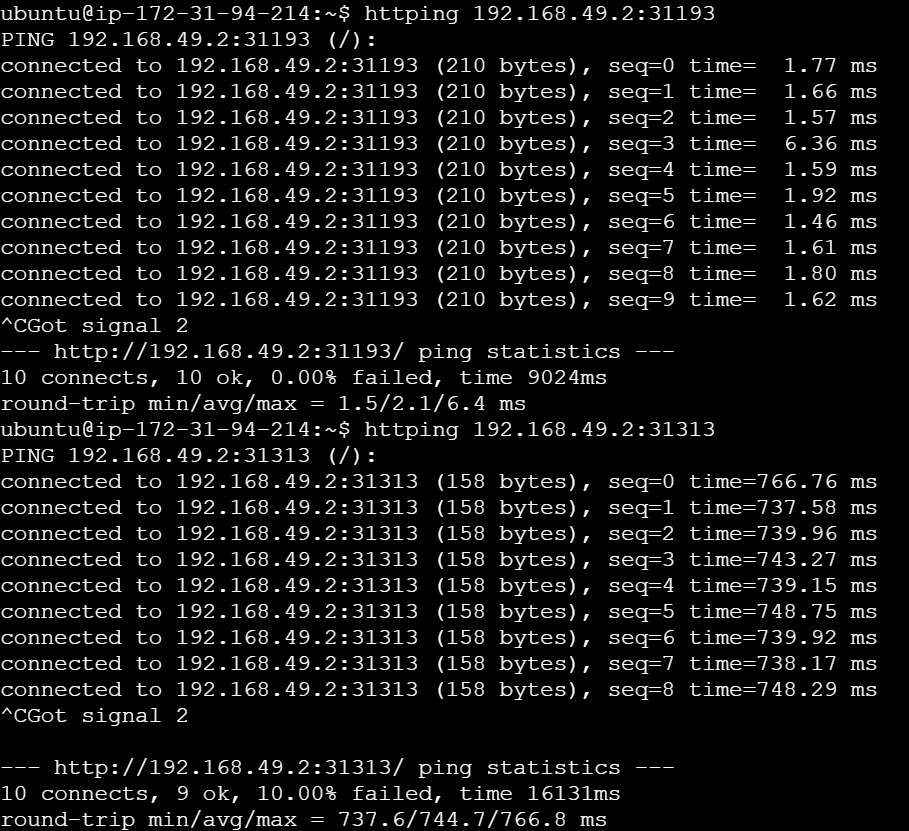


然后再重复打开这个实例，来运行

kubectl scale deployment worker --replicas=3



每次测试运行 10–15 秒，然后按 Ctrl+C 停止



下一个任务

如果重启了实例，需要

minikube start

kubectl get nodes

然后运行md中的部分

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

helm repo update

helm install prometheus prometheus-community/prometheus

kubectl expose service prometheus-server --type=NodePort --target-port=9090 --name=prometheus-server-np

minikube addons enable metrics-server

注意要到目录下

cd Cloud-Comupting/

修改文件的方法

nano httplat.yaml

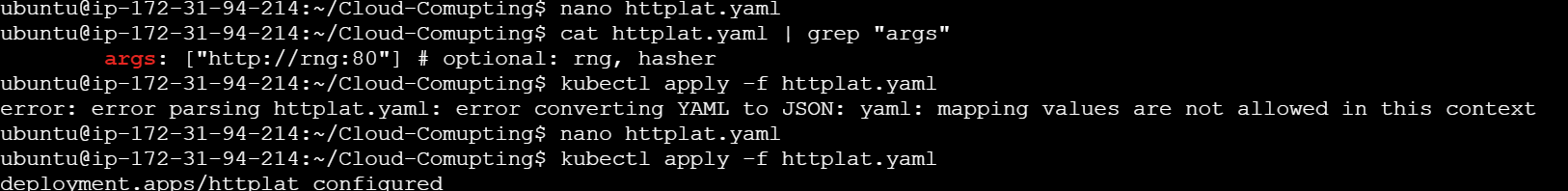
改成args: ["http://rng:80"]

按 Ctrl+O → **回车**（保存）

按 Ctrl+X（退出）



kubectl apply -f httplat.yaml



如果说格式不对，就重新nano进去全部删掉，复制

apiVersion: apps/v1

kind: Deployment

metadata:

name: httplat

namespace: default

labels:

app: httplat

spec:

replicas: 1

selector:

matchLabels:

app: httplat

template:

metadata:

labels:

app: httplat

spec:

containers:

- name: httplat

image: jpetazzo/httplat

imagePullPolicy: IfNotPresent

command: ["httplat"]

args: ["http://rng:80"]

如果之前运行了错误的，需要删掉

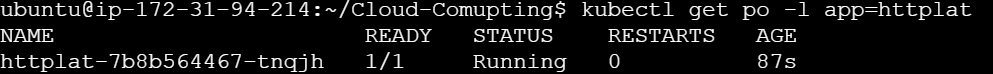
kubectl delete deployment httplat

重新部署

kubectl apply -f httplat.yaml

等待一会，验证

kubectl get po -l app=httplat



kubectl expose deployment httplat --port=9080

kubectl get deploy httplat

kubectl annotate service httplat \

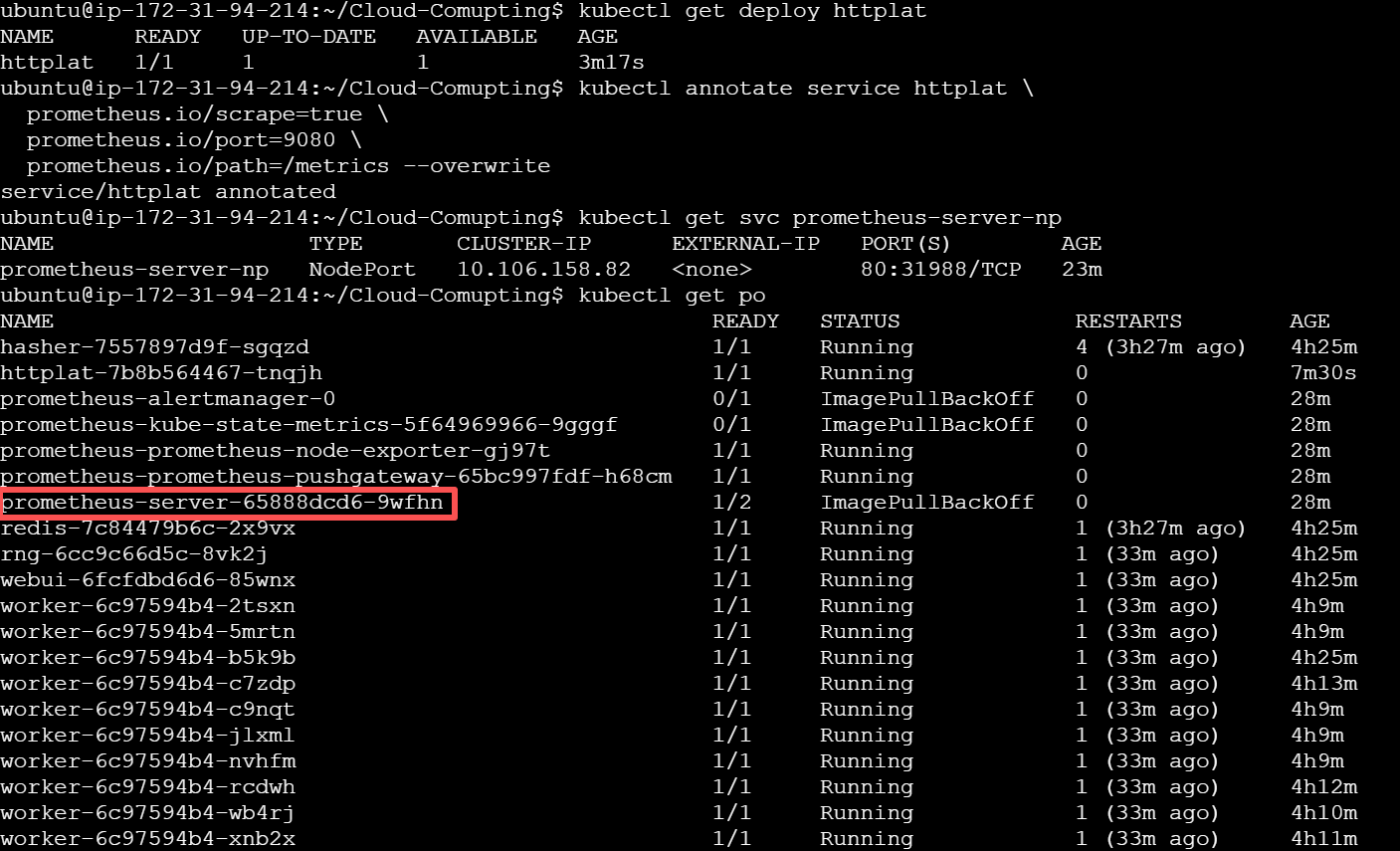
prometheus.io/scrape=true \

prometheus.io/port=9080 \

prometheus.io/path=/metrics

kubectl get svc prometheus-server-np

kubectl get po找到the Prometheus server pod name



kubectl port-forward --address 0.0.0.0 prometheus-server-65888dcd6-9wfhn 31834:9090

显示状态是pending且空间不足：

sudo rm -rf ~/.minikube

sudo rm -rf ~/.minikube

minikube delete

minikube start

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

helm repo update

helm install prometheus prometheus-community/prometheus

kubectl expose service prometheus-server --type=NodePort --target-port=9090 --name=prometheus-server-np

kubectl get svc prometheus-server-np

kubectl port-forward --address 0.0.0.0 service/prometheus-server-np 8080:80

这个命令还是不行，直接跳过到HPA

minikube addons list | grep metrics-server

查看是否enable然后

nano hpa.yaml

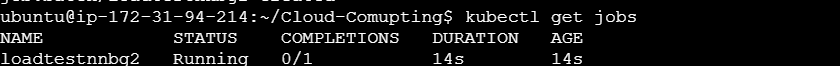
改里面两处<fill in>为rng保存退出

kubectl apply -f hpa.yaml

nano loadtest-job.yaml 黏贴内容修改<fill in>为rng:80

kubectl create -f loadtest-job.yaml

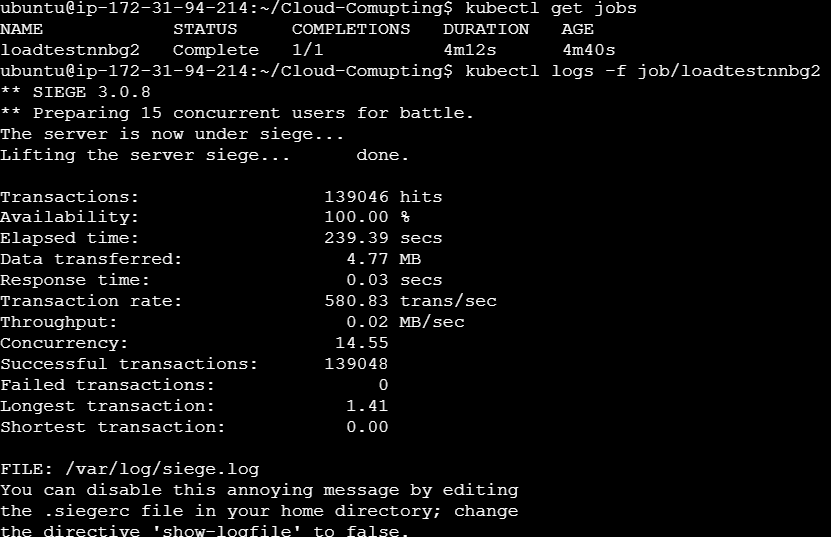
kubectl get jobs



kubectl describe job loadtestnnbg2

等待get jobs显示complete再看logs

kubectl logs  -f job/loadtestlrpdd



完成。

开始HPA自动扩容

kubectl apply -f hpa.yaml

kubectl describe hpa rng

kubectl get hpa rng

