

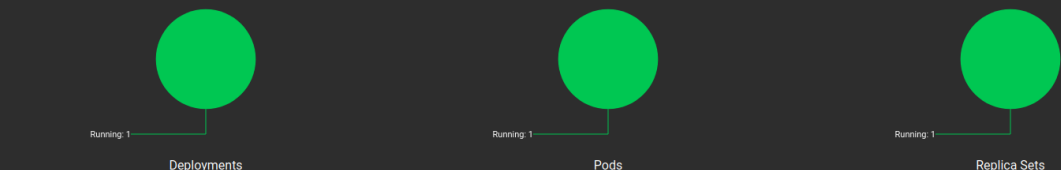
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Lab 4

Deploy Jenkins in a Kubernetes cluster using Helm charts , and run a pipeline in Jenkins that's deployed in a Kubernetes cluster

```
seif@seif-Alienware-17-R5:~/Documents$ helm package lab4
Successfully packaged chart and saved it to: /home/seif/Documents/lab4-0.1.0.tgz
seif@seif-Alienware-17-R5:~/Documents$ helm install lab4 lab4-0.1.0.tgz
NAME: lab4
LAST DEPLOYED: Sun Sep 24 15:11:00 2023
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
```

Workload Status

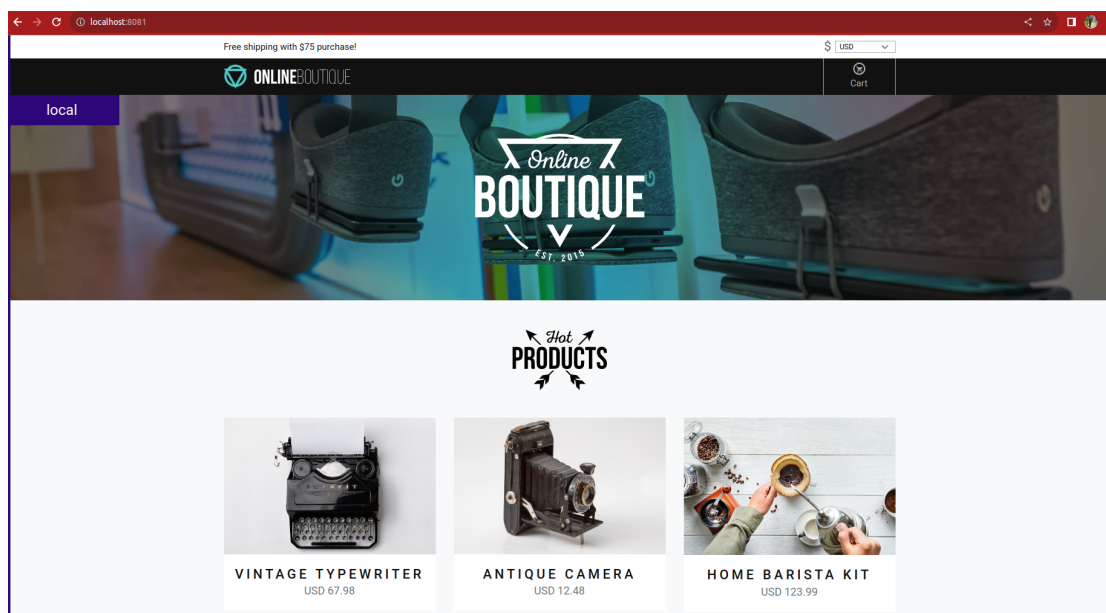


Deployments

Name	Images	Labels	Pods	Created ↑
frontend	gcr.io/google-samples/microservices-demo/frontend:v0.2.3	app.kubernetes.io/managed-by: Helm	1 / 1	2 minutes ago

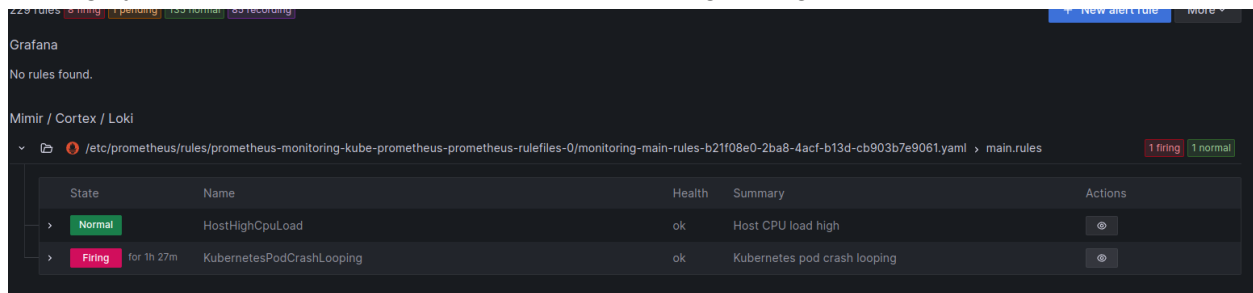
Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Created ↑
frontend-56c4b4d8d5-jqm8	gcr.io/google-samples/microservices-demo/frontend:v0.2.3	app: frontend pod-template-hash: 56c4b4d8d5	minikube	Running	0	-	-	2 minutes ago



lab 2:

Deploy some of services on specific namespace and setting up a complete monitoring and alerting system with Prometheus, Grafana, and alerting through email ?



```
receivers:
- name: "null"
- name: monitoring/main-rules-alert-config/email
email_configs:
- send_resolved: false
  to: seifhendawy1@gmail.com
  from: seifhendawy1@gmail.com
  hello: localhost
  smarthost: smtp.gmail.com:587
  auth_username: seifhendawy1@gmail.com
  auth_password: <secret>
  auth_identity: seifhendawy1@gmail.com
  headers:
    From: seifhendawy1@gmail.com
    Subject: '{{ template "email.default.subject" . }}'
    To: seifhendawy1@gmail.com
    html: '{{ template "email.default.html" . }}'
  require_tls: true
templates:
```

[FIRING:14] monitoring (KubernetesPodCrashLooping http 10.244.0.185:8080 kube-state-metrics monitoring/monitoring-kube-prometheus-prometheus monitoring-kube-state-metrics critical) [Inbox x](#)



seifhendawy1@gmail.com
to me ▾

9:07 PM (5 minutes ago) ☆ ↶

14 alerts for namespace=monitoring

[View In Alertmanager](#)

[14] Firing

Labels
alertname = KubernetesPodCrashLooping
container = controller
endpoint = http
instance = [10.244.0.185:8080](#)
job = kube-state-metrics
namespace = monitoring
pod = ingress-nginx-controller-7799c6795f-bct9l
prometheus = monitoring/monitoring-kube-prometheus-prometheus
service = monitoring-kube-state-metrics
severity = critical
uid = 5e06efae-a27c-4ef9-9197-dd5ad39c82f7

Annotations
description = Pod ingress-nginx-controller-7799c6795f-bct9l is crash looping
Value = 10
summary = Kubernetes pod crash looping
[Source](#)

Labels
alertname = KubernetesPodCrashLooping
container = controller



Test Email [Inbox x](#)



Seif Hendawy <seifhendawy1@gmail.com>
to me ▾

This is a test email from your Ubuntu machine.

↶ Reply

↷ Forward