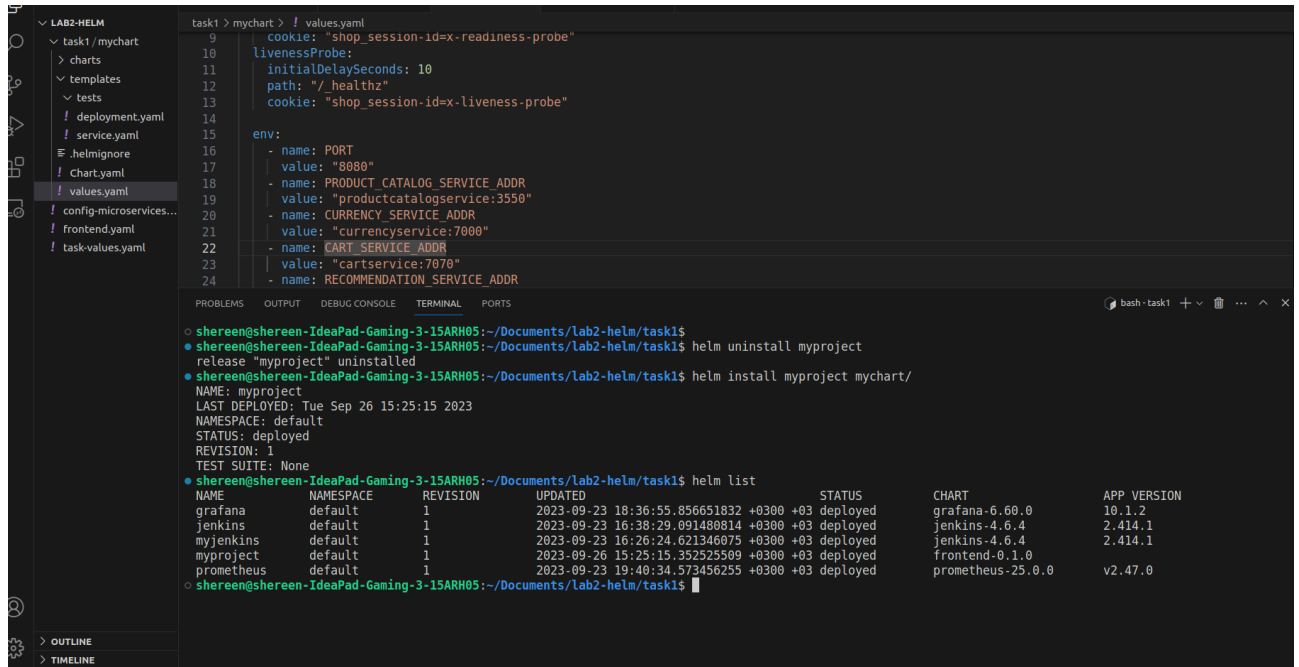


Name : Shereen makram  
lab2: Helm

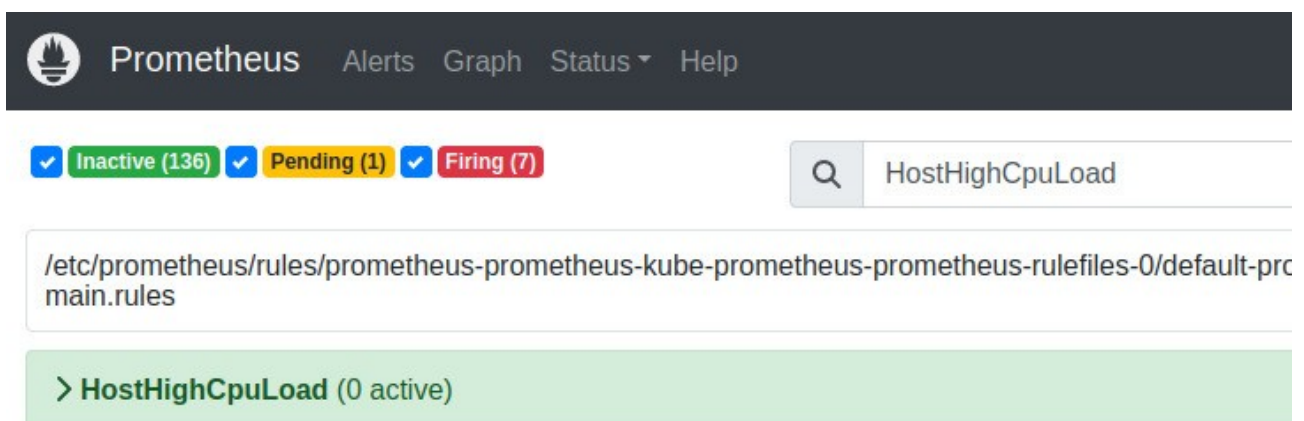
1-create a Helm chart from the provided Kubernetes Deployment and Service manifests




```
task1 > mychart > ! values.yaml
9      cookie: "shop_session-id=x-readiness-probe"
10
11      livenessProbe:
12        initialDelaySeconds: 10
13        path: "/.healthz"
14        cookie: "shop_session-id=x-liveness-probe"
15
16      env:
17        - name: PORT
18          value: "8080"
19        - name: PRODUCT_CATALOG_SERVICE_ADDR
20          value: "productcatalogservice:3550"
21        - name: CURRENCY_SERVICE_ADDR
22          value: "currencyservice:7000"
23        - name: CART_SERVICE_ADDR
24          value: "cartservice:7070"
25        - name: RECOMMENDATION_SERVICE_ADDR
```

```
shereen@shereen-IdeaPad-Gaming-3-15ARH05:~/Documents/lab2-helm/task1$ helm uninstall myproject
release "myproject" uninstalled
shereen@shereen-IdeaPad-Gaming-3-15ARH05:~/Documents/lab2-helm/task1$ helm install myproject mychart/
NAME: myproject
LAST DEPLOYED: Tue Sep 26 15:25:15 2023
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
shereen@shereen-IdeaPad-Gaming-3-15ARH05:~/Documents/lab2-helm/task1$ helm list
NAME            NAMESPACE    REVISION    UPDATED                               STATUS    CHART              APP VERSION
grafana         default       1           2023-09-23 18:36:55.856651832 +0300 +03 deployed  grafana-6.60.0    10.1.2
jenkins         default       1           2023-09-23 16:38:29.091480814 +0300 +03 deployed  jenkins-4.6.4     2.414.1
myjenkins       default       1           2023-09-23 16:26:24.621346075 +0300 +03 deployed  jenkins-4.6.4     2.414.1
myproject       default       1           2023-09-26 15:25:15.352525509 +0300 +03 deployed  frontend-0.1.0    2.414.1
prometheus      default       1           2023-09-23 19:40:34.573456255 +0300 +03 deployed  prometheus-25.0.0 v2.47.0
```


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



## -Stress Cpu

 Prometheus Alerts Graph Status ▾ Help

☐ Use local time ☐ Enable query history ☒ Enable autocomplete ☒ Enable highlighting ☒ Enable linter



100 - (avg by(instance) (rate(node\_cpu\_seconds\_total{mode="idle"}[2m])) \* 100) > 50

Table

Graph

<


Evaluation time

>

{instance="192.168.49.2:9100"}

85.23839683545008

☒ Inactive (134) ☒ Pending (2) ☒ Firing (8)



HostHighCpuLoad

☐ Show annotations

/etc/prometheus/rules/prometheus-prometheus-kube-prometheus-prometheus-rulefiles-0/default-prometheus-rule-dd732df4-5145-4116-bf7c-9c3c4e594540.yaml > **firing (1)**  
main.rules

▼ HostHighCpuLoad (1 active)

name: HostHighCpuLoad

expr: 100 - (avg by (instance) (rate(node\_cpu\_seconds\_total{mode="idle"}[2m])) \* 100) > 50

for: 2m

labels:

namespace: default

severity: warning

annotations:

description: CPU load on host is over 50%

Value = {{ \$value }}

Instance = {{ \$labels.instance }}

summary: Host CPU load high

Labels	State	Active Since	Value
alertname=HostHighCpuLoad instance=192.168.49.2:9100 namespace=default severity=warning	<b>FIRING</b>	2023-09-26T11:36:16.319694269Z	64.70833333333331

alerts for namespace=default 14

View In Alertmanager

**Firing [14]**

**Labels**

alertname = KubernetesPodCrashLooping

container = coredns

endpoint = http

instance = [10.244.0.66:8080](#)

job = kube-state-metrics

namespace = default

pod = coredns-5d78c9869d-m7wmk

prometheus = default/prometheus-kube-prometheus-prometheus

service = prometheus-kube-state-metrics

severity = critical