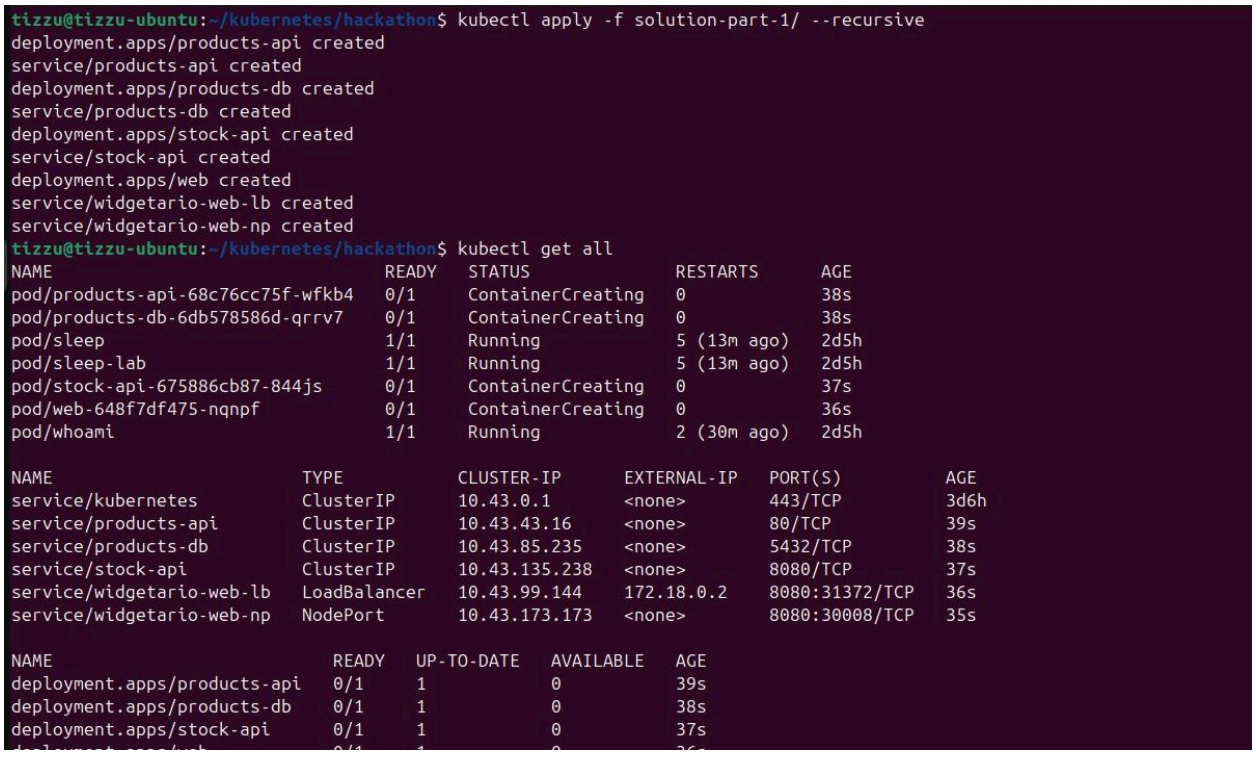
Test Screenshots

NB:(Solution Files were later renamed to 'Hackathon Part 1-7')

Group Members

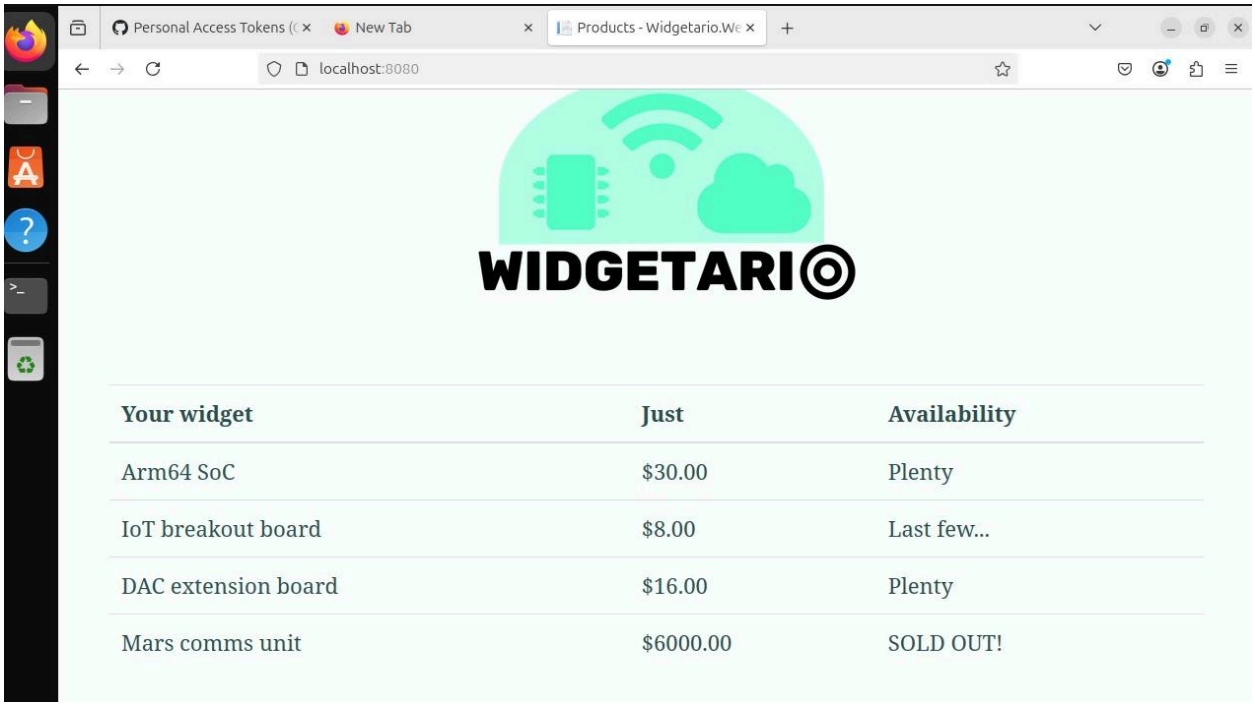
150770	Wetindi Shirley Thatcher
151711	Mwangi Lisa Wanjiku
151105	Waheho EllyJoy Wairimu
150198	Adhiambo Ashley Triza

Part 1 - Welcome to Widgetario



```
tizzu@tizzu-ubuntu:~/kubernetes/hackathon$ kubectl apply -f solution-part-1/products-db
deployment.apps/products-db unchanged
service/products-db unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon$ kubectl apply -f solution-part-1/products-api
deployment.apps/products-api unchanged
service/products-api unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon$ kubectl apply -f solution-part-1/stock-api
deployment.apps/stock-api unchanged
service/stock-api unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon$ web
Command 'web' not found, did you mean:
  command 'wnb' from deb wordnet-gui (1:3.0-37)
  command 'wmb' from deb wml (2.32.0~ds1-1)
  command 'we' from deb xwpe (1.5.30a-3)
  command 'wb' from deb node-wikibase-cli (15.15.4-5ubuntu4)
  command 'wev' from deb wev (1.0.0-2)
  command 'wob' from deb wob (0.14.2-1)
Try: sudo apt install <deb name>
tizzu@tizzu-ubuntu:~/kubernetes/hackathon$ kubectl apply -f solution-part-1/web
deployment.apps/web unchanged
service/widgetario-web-lb unchanged
service/widgetario-web-np unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon$
```

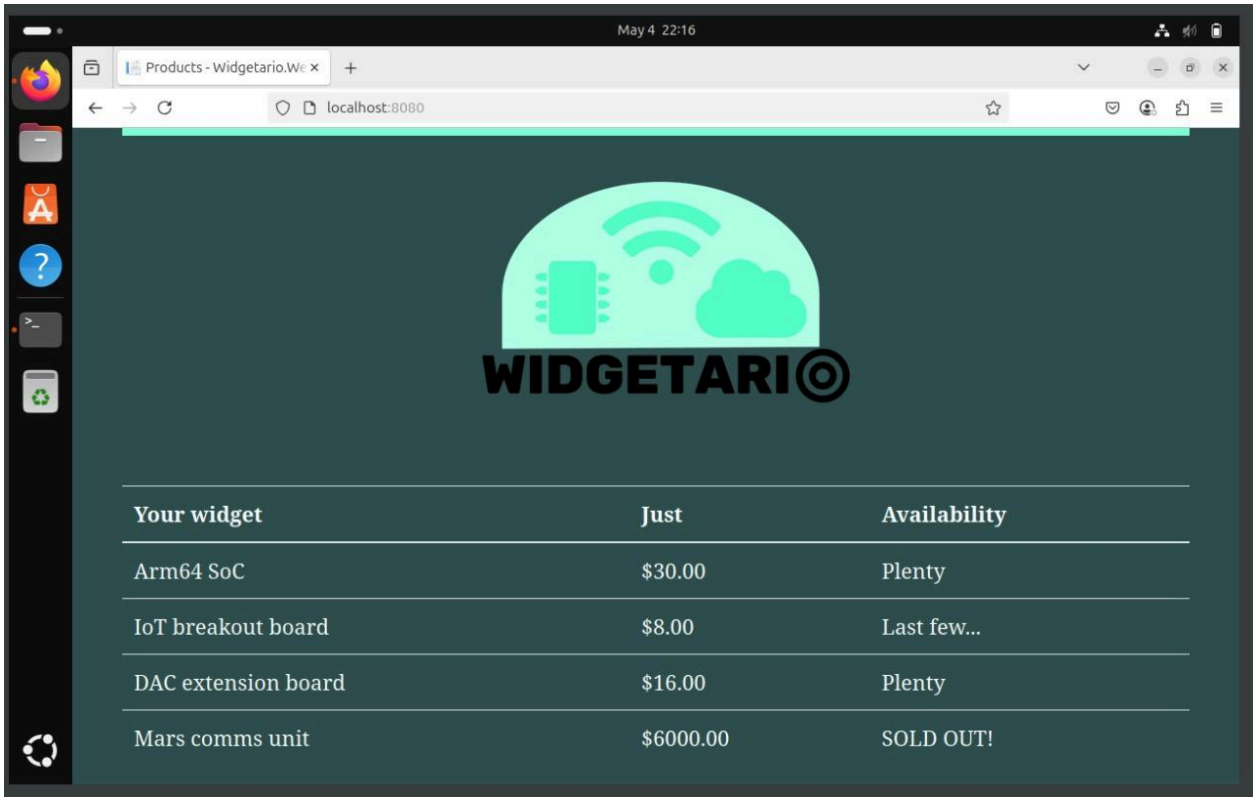
```
NAMESPACE     NAME                TYPE           CLUSTER-IP      EXTERNAL-IP   PORT(S)                      AGE
default       kubernetes          ClusterIP      10.43.0.1       <none>        443/TCP                      3d6h
default       products-api        ClusterIP      10.43.43.16     <none>        80/TCP                       9m54s
default       products-db         ClusterIP      10.43.85.235    <none>        5432/TCP                     9m53s
default       stock-api           ClusterIP      10.43.135.238   <none>        8080/TCP                     9m52s
default       widgetario-web-lb   LoadBalancer   10.43.99.144    172.18.0.2    8080:31372/TCP               9m51s
default       widgetario-web-np   NodePort       10.43.173.173   <none>        8080:30008/TCP               9m50s
kube-system   kube-dns            ClusterIP      10.43.0.10      <none>        53/UDP,53/TCP,9153/TCP       3d6h
kube-system   metrics-server      ClusterIP      10.43.211.250   <none>        443/TCP                      3d6h
kube-system   traefik             LoadBalancer   10.43.70.193    172.18.0.2    80:30824/TCP,443:32059/TCP   3d6h
tizzu@tizzu-ubuntu:~/kubernetes/hackathon$ kubectl port-forward svc/widgetario-web-np 8080:8080
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::1]:8080 -> 80
Handling connection for 8080
Handling connection for 8080
Handling connection for 8080
Handling connection for 8080
Handling connection for 8080
Handling connection for 8080
```



Your widget	Just	Availability
Arm64 SoC	$30.00	Plenty
IoT breakout board	$8.00	Last few...
DAC extension board	$16.00	Plenty
Mars comms unit	$6000.00	SOLD OUT!

Part 2 - Configuration

```
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-2$ kubectl apply -f products-api
deployment.apps/products-api unchanged
service/products-api unchanged
secret/products-api-db configured
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-2$ kubectl apply -f products-db
service/products-db unchanged
deployment.apps/products-db unchanged
secret/products-db-password configured
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-2$ kubectl apply -f stock-api
deployment.apps/stock-api unchanged
secret/stock-api-connection configured
service/stock-api unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-2$ kubectl apply -f web
configmap/web-features created
deployment.apps/web configured
secret/web-api created
service/widgetario-web-lb unchanged
service/widgetario-web-np configured
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-2$ kubectl port-forward svc/widgetario-web-np 8080:8080
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::1]:8080 -> 80
Handling connection for 8080
Handling connection for 8080
```

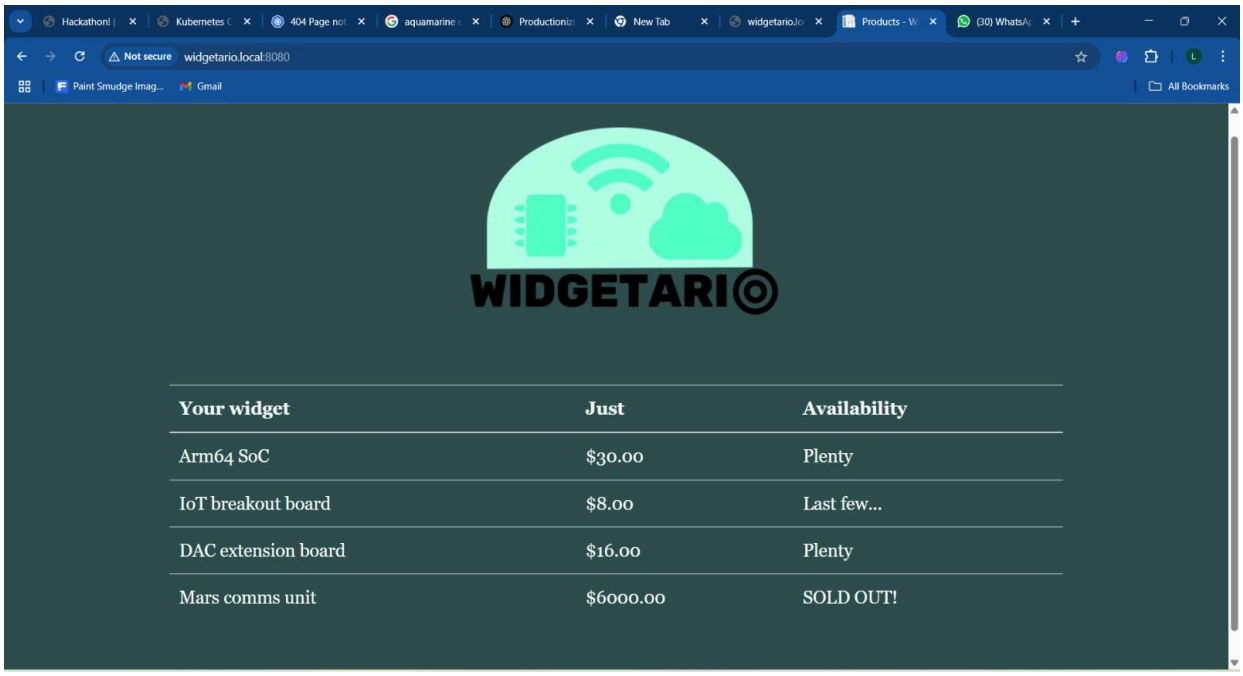


Part 3 - Storage

```
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-3$ ls
products-api  products-db  README.md  stock-api  web
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-3$ kubectl apply products-api
error: Unexpected args: [products-api]
See 'kubectl apply -h' for help and examples
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-3$ kubectl apply -f products-ap
i
deployment.apps/products-api configured
service/products-api configured
secret/products-api-db configured
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-3$ kubectl apply -f products-db
secret/products-db-password configured
statefulset.apps/products-db configured
The Service "products-db" is invalid: spec.clusterIPs[0]: Invalid value: []string{"None
"}: may not change once set
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-3$ kubectl apply -f stock-api
deployment.apps/stock-api configured
secret/stock-api-connection configured
service/stock-api unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-3$ kubectl apply -f web
configmap/web-features unchanged
deployment.apps/web configured
secret/web-api configured
service/widgetario-web-lb unchanged
service/widgetario-web-np unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-3$
```

Part 4 - Ingress

```
tizzu@tizzu-ubuntu:~$ cd kubernetes/hackathon/solution-part-4
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-4$ ls
ingress-controller  products-api  products-db  README.md  stock-api  web
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-4$ kubectl apply -f ingress-controller
namespace/ingress-nginx created
serviceaccount/ingress-nginx created
clusterrole.rbac.authorization.k8s.io/ingress-nginx created
clusterrolebinding.rbac.authorization.k8s.io/ingress-nginx created
role.rbac.authorization.k8s.io/ingress-nginx created
rolebinding.rbac.authorization.k8s.io/ingress-nginx created
configmap/ingress-nginx-controller created
daemonset.apps/ingress-nginx-controller created
ingressclass.networking.k8s.io/nginx created
service/ingress-nginx-controller-lb created
service/ingress-nginx-controller-np created
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-4$ kubectl apply -f products-api
deployment.apps/products-api configured
ingress.networking.k8s.io/api-widgetario-local created
service/products-api configured
secret/products-api-db configured
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-4$ kubectl apply -f products-db
secret/products-db-password configured
statefulset.apps/products-db configured
The Service "products-db" is invalid: spec.clusterIPs[0]: Invalid value: []string{"None"}: may not change once set
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-4$ kubectl apply -f stock-api
deployment.apps/stock-api unchanged
secret/stock-api-connection configured
service/stock-api unchanged
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-4$ kubectl apply -f web
deployment.apps/web unchanged
ingress.networking.k8s.io/widgetario-local created
configmap/web-features unchanged
```

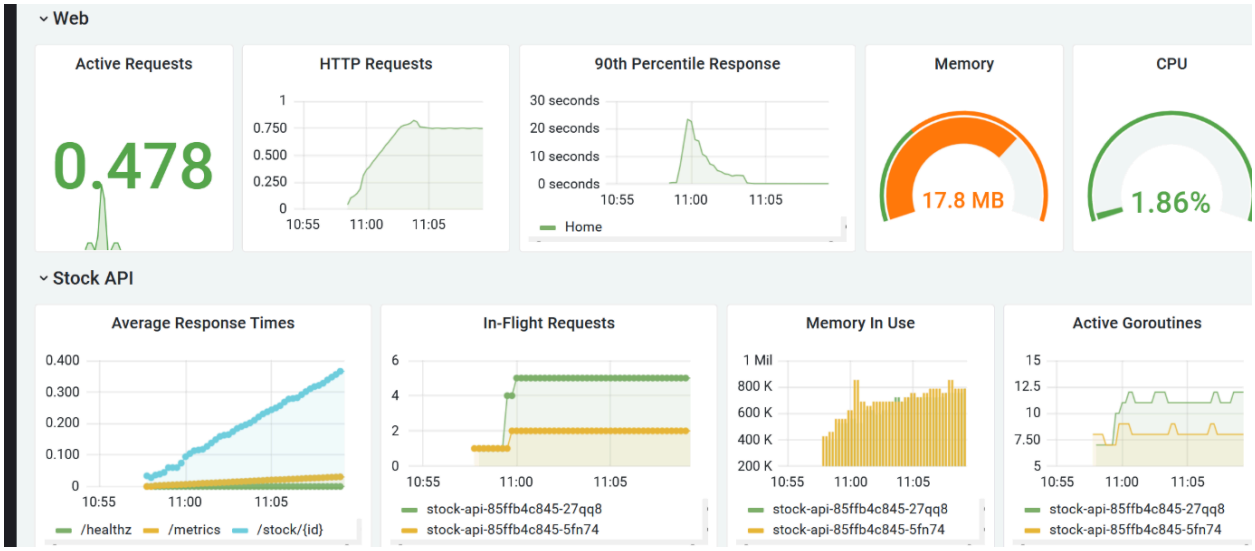


Part 5 - Productionizing

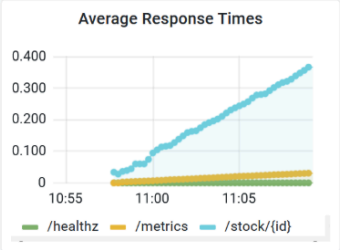
```
tizzu@tizzu-ubuntu:~/kubernetes/hackathon/solution-part-5$ kubectl apply -f ingress-controller -f products-db -f product
s-api -f stock-api -f web
namespace/ingress-nginx unchanged
serviceaccount/ingress-nginx unchanged
clusterrole.rbac.authorization.k8s.io/ingress-nginx unchanged
clusterrolebinding.rbac.authorization.k8s.io/ingress-nginx unchanged
role.rbac.authorization.k8s.io/ingress-nginx unchanged
rolebinding.rbac.authorization.k8s.io/ingress-nginx unchanged
configmap/ingress-nginx-controller unchanged
daemonset.apps/ingress-nginx-controller unchanged
ingressclass.networking.k8s.io/nginx unchanged
service/ingress-nginx-controller-lb unchanged
service/ingress-nginx-controller-np unchanged
secret/products-db-password configured
statefulset.apps/products-db configured
deployment.apps/products-api configured
ingress.networking.k8s.io/api-widgetario-local unchanged
service/products-api unchanged
secret/products-api-db configured
deployment.apps/stock-api configured
secret/stock-api-connection configured
service/stock-api unchanged
configmap/web-features unchanged
deployment.apps/web configured
ingress.networking.k8s.io/widgetario-local unchanged
secret/web-api configured
service/widgetario-web-internal unchanged
```

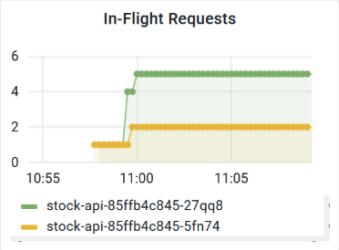
Part 6 - Observability

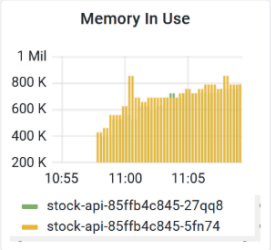
```
tizzu@tizzu-ubuntu:~/Kubernetes/Hackathon/solution-part-6$ kubectl apply -f monitoring -f logging -f ingress-controller -f widgetario
namespace/monitoring unchanged
configmap/grafana-config unchanged
service/grafana-lb unchanged
service/grafana-np unchanged
secret/grafana-creds configured
deployment.apps/grafana unchanged
configmap/prometheus-config unchanged
service/prometheus unchanged
service/prometheus-np unchanged
deployment.apps/prometheus unchanged
serviceaccount/prometheus unchanged
clusterrole.rbac.authorization.k8s.io/prometheus unchanged
clusterrolebinding.rbac.authorization.k8s.io/prometheus unchanged
namespace/logging unchanged
service/elasticsearch unchanged
deployment.apps/elasticsearch unchanged
configmap/fluent-bit-config unchanged
daemonset.apps/fluent-bit unchanged
serviceaccount/fluent-bit unchanged
clusterrole.rbac.authorization.k8s.io/fluent-bit unchanged
clusterrolebinding.rbac.authorization.k8s.io/fluent-bit unchanged
service/kibana-lb unchanged
service/kibana-np unchanged
deployment.apps/kibana unchanged
namespace/ingress-nginx unchanged
serviceaccount/ingress-nginx unchanged
clusterrole.rbac.authorization.k8s.io/ingress-nginx unchanged
clusterrolebinding.rbac.authorization.k8s.io/ingress-nginx unchanged
role.rbac.authorization.k8s.io/ingress-nginx unchanged
rolebinding.rbac.authorization.k8s.io/ingress-nginx unchanged
configmap/ingress-nginx-controller unchanged
daemonset.apps/ingress-nginx-controller unchanged
ingressclass.networking.k8s.io/nginx unchanged
service/ingress-nginx-controller-lb unchanged
service/ingress-nginx-controller-np unchanged
ingress.networking.k8s.io/api-widgetario-local unchanged
service/products-api unchanged
secret/products-api-db configured
deployment.apps/products-api configured
secret/products-db-password configured
statefulset.apps/products-db configured
service/stock-api unchanged
secret/stock-api-connection configured
deployment.apps/stock-api configured
ingress.networking.k8s.io/widgetario-local unchanged
service/widgetario-web-internal unchanged
secret/web-api configured
configmap/web-features unchanged
deployment.apps/web configured
```

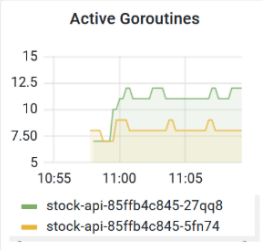
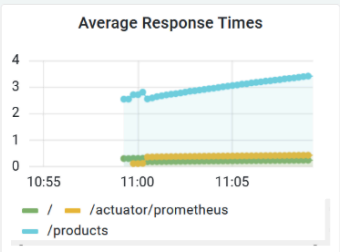
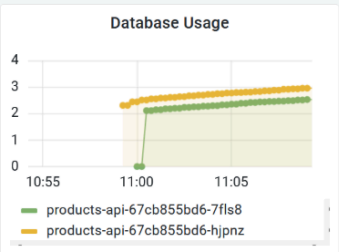
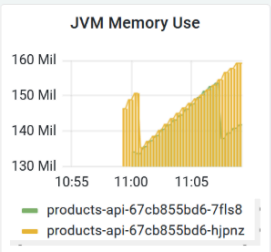
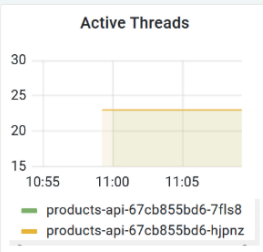


Stock API









Products API