

Create an EC2 instance

The screenshot shows the 'Launch an instance' wizard on the AWS CloudFormation console. The 'Summary' step is displayed, showing the configuration for launching one instance. The configuration includes:

- Number of instances:** 1
- Software Image (AMI):** Canonical, Ubuntu, 24.04, amd64... (ami-0866a3c8686eaebea)
- Virtual server type (instance type):** t2.micro
- Firewall (security group):** New security group
- Storage (volumes):** 1 volume(s) - 8 GiB

A tooltip for the 'Free tier' is shown, stating: "In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million IOPS, 1 GB of data transfer, 2 million API calls, and 1 million Lambda executions." A 'Launch instance' button is visible at the bottom right.

Choose t2.medium

The screenshot shows the AWS Services console with the 'Amazon EC2' service selected. The 'Launch Instance' wizard is open, showing the 'Summary' step. The configuration is identical to the previous screenshot, except for the instance type being selected as 't2.medium' in the 'Instance type' section. The 'Launch instance' button is highlighted in orange.

Network | [Info](#)

vpc-082939a3ed23f7468

Subnet | [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP | [Info](#)

Enable

Additional charges apply when outside of **free tier allowance**

Firewall (security groups) | [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

We'll create a new security group called '**launch-wizard-1**' with the following rules:

Allow SSH traffic from

Helps you connect to your instance

Anywhere



Allow HTTPS traffic from the internet

To set up an endpoint, for example when creating a web server

[Launch an instance](#)

Allow HTTP traffic from the internet

To set up an endpoint, for example when creating a web server

⚠️ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.



Increase storage to 15Gb

To set up an endpoint, for example when creating a web server

⚠️ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

▼ Configure storage Info

Advanced

1x 15| GiB gp3 Root volume (Not encrypted)

- Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage

Add new volume

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

 Click refresh to view backup information. [Launch an instance](#)

The tags that you assign determine whether the instance will be backed up by any Data Lifecycle Manager policies.

0 x File systems

Edit

► Advanced details Info

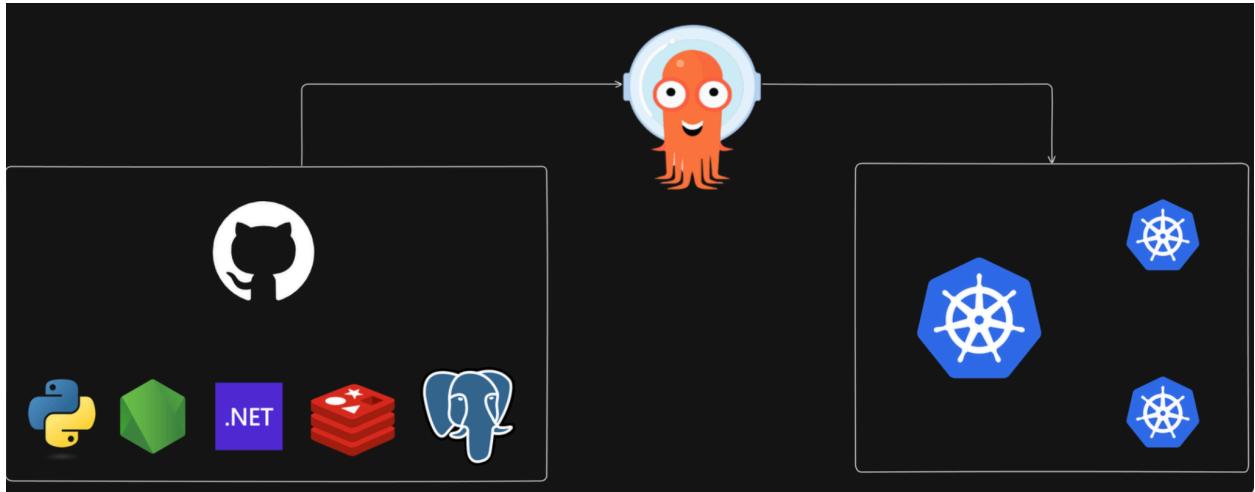
Login to the machine

```
ubuntu@ip-172-31-83-128:~$ sudo apt-get update -y
```

```
[ubuntu@ip-172-31-83-128:~$ sudo apt-get install docker.io -y  
Reading package lists... Done  
Building dependency tree... Done  

```

Architecture



```
[ubuntu@ip-172-31-98-211:~$ docker ps
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get "http://<2>var<2>run<2>fdocker.sock/v1.24/containers/json": dial unix /var/run/docker.sock: conne
ct: permission denied
ubuntu@ip-172-31-98-211:~$ sudo usermod -aG docker $USER && newgrp docker
ubuntu@ip-172-31-98-211:~$ docker ps
CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES
ubuntu@ip-172-31-98-211:~$ ]
```

```
[ubuntu@ip-172-31-90-211:~$ git clone https://github.com/Gopi1892/Devops-Learning-Material.git
Cloning into 'Devops-Learning-Material'...
remote: Enumerating objects: 695, done.
remote: Counting objects: 100% (285/285), done.
remote: Compressing objects: 100% (180/180), done.
remote: Total 695 (delta 148), reused 93 (delta 93), pack-reused 410 (from 1)
Receiving objects: 100% (695/695), 63.05 MiB | 47.12 MiB/s, done.
Resolving deltas: 100% (293/293), done.
ubuntu@ip-172-31-90-211:~$ ]
```

```
[ubuntu@ip-172-31-98-211:~$ ls
Devops-Learning-Material
[ubuntu@ip-172-31-98-211:~$ cd Devops-Learning-Material/
[ubuntu@ip-172-31-98-211:~/Devops-Learning-Material$ ls
AWS Ansible DevSecops Docker Git-Github Jenkins Linux Monitoring Network Terraform kubernetes
[ubuntu@ip-172-31-98-211:~/Devops-Learning-Material$ cd Monitoring/
[ubuntu@ip-172-31-98-211:~/Devops-Learning-Material/Monitoring$ ls
Observability_Theory Prometheus_Grafana_QA Prometheus_Grafana k8s-kind-voting-app-main prometheusarchitecture.gif
[ubuntu@ip-172-31-98-211:~/Devops-Learning-Material/Monitoring$ cd k8s-kind-voting-app-main/
[ubuntu@ip-172-31-98-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ ls
LICENSE README.md docker-compose.images.yml docker-stack.yml healthchecks k8s-specifications prometheus.png seed-data worker
MAINTAINERS architecture.excalidraw.png docker-compose.yml grafana.png k8s-kind-voting-app-main.png kind-cluster result vote
[ubuntu@ip-172-31-98-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ cd kind-cluster/
[ubuntu@ip-172-31-98-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ pwd
/home/ubuntu/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster
ubuntu@ip-172-31-98-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ ]
```

KIND stands for k8s in Docker. We will create using script.

```
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster]$ ls
commands.md config.yaml dashboard-adminuser.yaml install_kind.sh install_kubectl.sh
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster]$ cat config.yaml
kind:
  cluster:
    apiVersion: kind.x-k8s.io/v1alpha4
    nodes:
      - role: control-plane
        image: kindest/node:v1.30.0
      - role: worker
        image: kindest/node:v1.30.0
      - role: worker
        image: kindest/node:v1.30.0
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster]$ chmod +x install_kind.sh
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster]$ ./install_kind.sh
      % Total    % Received % Xferd  Average Speed   Time   Time  Current
          Dload Upload Total Spent   Left Speed
  100    0    0    0    0     0  138M  0:--:-- --:--:--:--:--:-- 138M
  0    0    0    0    0     0  138M  0:--:-- --:--:--:--:--:-- 138M
  100  6304k  100  6304k  0    0  26.5M  0:--:-- --:--:--:--:--:-- 130M
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster]$
```

Create Cluster

```
kind create cluster --config=config.yaml --name=my-cluster
```

```
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ Kind create cluster --config=config.yaml --name=my-cluster
Command 'Kind' not found, did you mean:
  command 'find' from deb findutils (4.9.0-5)
Try: sudo apt install <deb name>
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ kind create cluster --config=config.yaml --name=my-cluster
ERROR: unknown command "--config=config.yaml" for "kind create cluster"
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ kind create cluster --config=config.yaml --name=my-cluster
ERROR: unknown shorthand flag: 'à' in --name=my-cluster
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ kind create cluster --config=config.yaml --name=my-cluster
Creating cluster "my-cluster" ...
  ✓ Ensuring node image (kindest/node:v1.30.0) [!]
  ✓ Preparing nodes [!]
  ✓ Writing configuration [!]
  ✓ Starting control-plane [!]
```

```
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ kind create cluster --config=config.yaml --name=my-cluster
Creating cluster "my-cluster" ...
  ✓ Ensuring node image (kindest/node:v1.30.0) [!]
  ✓ Preparing nodes [!]
  ✓ Writing configuration [!]
  ✓ Starting control-plane [!]
  ✓ Installing CNI [!]
  ✓ Installing StorageClass [!]
  ✓ Joining worker nodes [!]
Set kubectl context to "kind-my-cluster"
You can now use your cluster with:
kubectl cluster-info --context kind-my-cluster
Not sure what to do next? 🤔 Check out https://kind.sigs.k8s.io/docs/user/quick-start/
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$
```

Execute kubectl.sh. We will create kubectl.

```

ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ ls
commands.md config.yml dashboard-adminuser.yaml install_kind.sh install_kubectl.sh
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ chmod +x install_kubectl.sh
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ ./install_kubectl.sh
bash: ./: Is a directory
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ ./install_kubectl.sh
      Total     % Received % Xferd  Average Speed   Time     Time   Current
                                         Dload  Upload   Total Spent    Left  Speed
100 138 100 138 0 0 2193 0 --:--:-- --:--:-- 2225
100 49.0M 100 49.0M 0 0 15.4M 0 0:00:03 0:00:03 --:--:-- 15.9M
Client Version: v1.30.0
Kustomize Version: v5.0.4-0.20230601165947-6ce0bf390ce3
kubectl installation complete.
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ kubectl get nodes
NAME           STATUS   ROLES      AGE   VERSION
my-cluster-control-plane   Ready   control-plane   4m6s   v1.30.0
my-cluster-worker        Ready   <none>       3m44s  v1.30.0
my-cluster-worker2       Ready   <none>       3m44s  v1.30.0
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ 

```

Grafana runs at 31000 port no.

Go to the k8s-specifications folder. Folder consists of applications. Install the application

```

ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ ls
commands.md config.yml dashboard-adminuser.yaml install_kind.sh install_kubectl.sh
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/kind-cluster$ cd ..
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ ls
LICENSE README.md docker-compose.images.yml docker-stack.yml healthcheck k8s-specifications prometheus.png seed-data worker
MAINTAINERS architecture.extraDiagram.png docker-compose.yml grafana.png k8s-kind-voting-app.png kind-cluster result vote
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ k8s-specifications
bash: cd: K8s-specifications: No such file or directory
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ k8s-specifications
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ pwd
/home/ubuntu/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ pwd
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ k8s-specifications$ ls
db-deployment.yaml db-service.yaml redis-deployment.yaml redis-service.yaml result-deployment.yaml result-service.yaml vote-deployment.yaml vote-service.yaml worker-deployment.yaml
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main$ k8s-specifications$ kubectl apply -f .
deployment.apps/db created
service/db created
deployment.apps/redis created
service/redis created
deployment.apps/result created
service/result created
deployment.apps/vote created
service/vote created
deployment.apps/worker created
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ 

```

```

ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get all
NAME          READY   STATUS  RESTARTS   AGE
pod/db-597b4ff8d7-zv4mr  1/1    Running   0          97s
pod/redis-79ddc594bb-jntvn 1/1    Running   0          97s
pod/result-d8c4c698b-g546q 1/1    Running   0          97s
pod/vote-69cb46fb-fdkz2   1/1    Running   0          97s
pod/worker-5dd767667f-hd2h4 1/1    Running   0          97s

NAME            TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
service/db     ClusterIP  10.96.4.233  <none>        5432/TCP  97s
service/kubernetes ClusterIP  10.96.0.1   <none>        443/TCP   10m
service/redis   ClusterIP  10.96.84.187  <none>        6379/TCP  97s
service/result  NodePort    10.96.144.57  <none>        5001:31001/TCP 97s
service/vote    NodePort    10.96.147.251 <none>        5000:31002/TCP 97s

NAME          READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/db  1/1     1          1          97s
deployment.apps/redis 1/1     1          1          97s
deployment.apps/result 1/1     1          1          97s
deployment.apps/vote  1/1     1          1          97s
deployment.apps/worker 1/1     1          1          97s

NAME          DESIRED   CURRENT   READY   AGE
replicaset.apps/db-597b4ff8d7  1        1        1        97s
replicaset.apps/redis-79ddc594bb 1        1        1        97s
replicaset.apps/result-d8c4c698b 1        1        1        97s
replicaset.apps/vote-69cb46fb-fdkz2 1        1        1        97s
replicaset.apps/worker-5dd767667f-hd2h4 1        1        1        97s
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ 

```

Now we have to monitor the application

We have k8s cluster which we have to monitor. We need to monitor metrics.

We use prometheus. Prometheus is a time series database. Ex if we create a graph plot CPU V/S time. So it will plot the data. This data is given to Prometheus so it is stored in a time series database. With the data we will create a graph. It has a server to scrap the data and also queries the data.

Now we need a manifest file to create prometheus. So we have a lot of packages. We will use helm to install prometheus

Use the following github location for link command

<https://github.com/Gopi1892/Devops-Learning-Material/blob/main/Monitoring/k8s-kind-voting-app-main/kind-cluster/commands.md>

```
[ubuntu@ip-172-31-98-211 ~]# Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ curl -fsSL -o get_helm.sh https://raw.githubusercontent.com/helm/helm/main/scripts/get-helm-3
[ubuntu@ip-172-31-98-211 ~]# Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ chmod +x get_helm.sh
[ubuntu@ip-172-31-98-211 ~]# Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ ./get_helm.sh
  % Total    % Received =========
```

```
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ curl -fsSL -o get_helm.sh https://raw.githubusercontent.com/helm/helm/master/scripts/get-helm.sh
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ chmod +x get_helm.sh
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ ./get_helm.sh
Download https://get.helm.sh/helm-v3.16.2-linux-amd64.tar.gz
Verifying checksum... Done.
Preparing to install helm into /usr/local/bin
helm installed into /usr/local/bin/helm
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ helm
The Kubernetes package manager
```

Common actions for Helm:

- helm search: search for charts
- helm pull: download a chart to your local directory to view
- helm install: upload the chart to Kubernetes
- helm list: list releases of charts

Environment variables:

Name	Description
\$HELM_CACHE_HOME	set an alternative location for storing cached files.
\$HELM_CONFIG_HOME	set an alternative location for storing Helm configuration.
\$HELM_DATA_HOME	set an alternative location for storing Helm data.
\$HELM_DEBUG	indicate whether or not Helm is running in Debug mode
\$HELM_DRIVER	set the backend storage driver. Values are: configmap, secret, memory, sql.
\$HELM_DRIVER_SQL_CONNECTION_STRING	set the connection string the SQL storage driver should use.
\$HELM_MAX_HISTORY	set the maximum number of helm release history.
\$HELM_NAMESPACE	set the namespace used for the helm operations.
\$HELM_NO_PLUGINS	disable plugins. Set \$HELM_NO_PLUGINS=1 to disable plugins.
\$HELM_PLUGINS	set the path to the plugins directory
\$HELM_REGISTRY_CONFIG	set the path to the registry config file.
\$HELM_REPOSITORY_CACHE	set the path to the repository cache directory
\$HELM_REPOSITORY_CONFIG	set the path to the repositories file.
\$KUBECONFIG	set an alternative Kubernetes configuration file (default "./.kube/config")
\$HELM_KUBEAPISERVER	set the Kubernetes API Server Endpoint for authentication
\$HELM_KUBECAFILE	set the Kubernetes certificate authority file.
\$HELM_KUBEASGROUPS	set the Groups to use for impersonation using a comma-separated list.
\$HELM_KUBEUSER	set the Username to impersonate for the operation.
\$HELM_KUBECONTEXT	set the name of the kubeconfig context.
\$HELM_KUBETOKEN	set the Bearer Kubetoken used for authentication.
\$HELM_KUBEINSECURE_SKIP_TLS_VERIFY	indicate if the Kubernetes API server's certificate validation should be skipped (insecure)
\$HELM_KUBETLS_SERVER_NAME	set the server name used to validate the Kubernetes API server certificate
\$HELM_BURST_LIMIT	set the default burst limit in the case the server contains many CRDs (default 100, -1 to disable)
\$HELM_QPS	set the Queries Per Second in cases where a high number of calls exceed the option for higher burst values

Helm stores cache, configuration, and data based on the following configuration order:

- If a \$HELM_*_HOME environment variable is set, it will be used
- Otherwise, on systems supporting the XDG base directory specification, the XDG variables will be used
- When no other location is set a default location will be used based on the operating system

By default, the default directories depend on the Operating System. The defaults are listed below:

Operating System	Cache Path	Configuration Path	Data Path
Linux	\$HOME/.cache/helm	\$HOME/.config/helm	\$HOME/.local/share/helm
macOS	\$HOME/Library/Caches/helm	\$HOME/Library/Preferences/helm	\$HOME/Library/helm
Windows	%TEMP%\helm		%APPDATA%\helm

Usage:

Install Kube Prometheus Stack

```
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ helm repo add prometheus-community https://prometheus-community.github.io/helm-charts/prometheus-community
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ helm repo add stable https://charts.helm.sh/stable
"stable" has been added to your repositories
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ helm repo update
Hang tight while we grab the latest from your chart repositories...
... Success! You have successfully updated the "prometheus-community" chart repository
... Successfully got an update from the "stable" chart repository
... Successfully got an update from the "stable" chart repository
Update Complete. *Happy Helm-ing!
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl create namespace monitoring
namespace/monitoring created
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ helm install kind-prometheus prometheus-community/kube-prometheus-stack --namespace monitoring
--service.prometheus.service.nodePort=30000 --set prometheus.service.type=NodePort --set grafana.service.nodePort=31000 --set grafana.service.type=NodePort --set alertmanager.service.nodePort=32000 --set a
ertmanager.service.type=NodePort --set prometheus-node-exporter.service.nodePort=32001 --set prometheus-node-exporter.service.type=NodePort
NAME: kind-prometheus
LAST DEPLOYED: Fri Nov 8 16:56:44 2024
NAMESPACE: monitoring
STATUS: deployed
REVISION: 1
NOTES:
kube-prometheus-stack has been installed. Check its status by running:
  kubectl --namespace monitoring get pods -l "release=kind-prometheus"
Visit https://github.com/prometheus-operator/kube-prometheus for instructions on how to create & configure Alertmanager and Prometheus instances using the Operator.
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get namespaces
NAME          STATUS   AGE
default        Active   22m
kube-node-lease Active   22m
kube-public    Active   22m
kube-system    Active   22m
local-path-storage Active   22m
monitoring     Active   67s
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ ]
```

```

ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get namespace
NAME          STATUS   AGE
default       Active   22m
kube-node-lease Active   22m
kube-public   Active   22m
kube-system   Active   22m
local-path-storage Active   22m
monitoring    Active   67s
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get pods -n monitoring
NAME                               READY   STATUS    RESTARTS   AGE
alertmanager-kind-prometheus-kube-prome-alertmanager-0   2/2    Running   0          109s
kind-prometheus-grafana-78ff889457-46hn2w                3/3    Running   0          2m5s
kind-prometheus-kube-prome-operator-6bbc58675d-2fnsp      1/1    Running   0          2m5s
kind-prometheus-kube-state-metrics-c8d989f8-h2f8d        1/1    Running   0          2m5s
Kind-prometheus-prometheus-node-exporter-42514           1/1    Running   0          2m5s
Kind-prometheus-prometheus-node-exporter-r89sg            1/1    Running   0          2m5s
Kind-prometheus-prometheus-node-exporter-z97pv            1/1    Running   0          2m5s
prometheus-kind-prometheus-kube-prome-prometheus-0        2/2    Running   0          108s
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ 

```

Node exporter will be used to export the details of the node.

Let's do port forwarding.

```

[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get svc -n monitoring
NAME          TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
alertmanager-operated   ClusterIP  None         <none>        9093/TCP,9094/TCP,9094/UDP   3m28s
kind-prometheus-grafana   NodePort   10.96.87.2   <none>        80:31000/TCP   3m43s
kind-prometheus-kube-prome-alertmanager   NodePort   10.96.223.11  <none>        9093:32000/TCP,8080:32596/TCP   3m43s
kind-prometheus-kube-prome-operator   ClusterIP  10.96.196.74  <none>        443/TCP        3m43s
kind-prometheus-kube-prome-prometheus   NodePort   10.96.58.105  <none>        9090:30000/TCP,8080:31330/TCP   3m43s
kind-prometheus-kube-state-metrics   ClusterIP  10.96.88.42   <none>        8080/TCP        3m43s
kind-prometheus-prometheus-node-exporter   NodePort   10.96.14.146  <none>        9100:32001/TCP   3m43s
prometheus-operated   ClusterIP  None         <none>        9090/TCP        3m27s
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ 

```

```

[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get svc -n monitoring
NAME          TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
alertmanager-operated   ClusterIP  None         <none>        9093/TCP,9094/TCP,9094/UDP   3m28s
kind-prometheus-grafana   NodePort   10.96.87.2   <none>        80:31000/TCP   3m43s
kind-prometheus-kube-prome-alertmanager   NodePort   10.96.223.11  <none>        9093:32000/TCP,8080:32596/TCP   3m43s
kind-prometheus-kube-prome-operator   ClusterIP  10.96.196.74  <none>        443/TCP        3m43s
kind-prometheus-kube-prome-prometheus   NodePort   10.96.58.105  <none>        9090:30000/TCP,8080:31330/TCP   3m43s
kind-prometheus-kube-state-metrics   ClusterIP  10.96.88.42   <none>        8080/TCP        3m43s
kind-prometheus-prometheus-node-exporter   NodePort   10.96.14.146  <none>        9100:32001/TCP   3m43s
prometheus-operated   ClusterIP  None         <none>        9090/TCP        3m27s
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl port-forward svc/kind-prometheus-kube-prome-prometheus -n monitoring 9090:9090 --add-ips 0.0.0.0 &
[1] 9988
ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ Forwarding from 0.0.0.0:9090 -> 9090

```

Open port 9090

Inbound rules (4)	<input type="button" value="C"/>	<input type="button" value="Manage tags"/>	<input type="button" value="Edit inbound rules"/>		
<input type="text" value="Search"/>	<	1	>	<input type="button" value="②"/>	
Op rule...	IP version	Type	Protocol	Port range	Source
2bb328faae7	IPv4	SSH	TCP	22	0.0.0.0/0
f0d3931d801	IPv4	HTTP	TCP	80	0.0.0.0/0
18c01c8beca	IPv4	HTTPS	TCP	443	0.0.0.0/0
2a781043...	IPv4	Custom TCP	TCP	9090	0.0.0.0/0

Login to server <http://3.84.60.43:9090>

The screenshot shows the Prometheus web interface. At the top, there's a navigation bar with links for Prometheus, Alerts, Graph, Status, and Help. Below the navigation bar, there are several configuration checkboxes: 'Use local time' (unchecked), 'Enable query history' (unchecked), 'Enable autocomplete' (checked), 'Enable highlighting' (checked), and 'Enable linter' (checked). A search bar labeled 'Expression (press Shift+Enter for newlines)' is present, along with a 'Table' and 'Graph' switch, where 'Graph' is selected. Below the search bar is an 'Evaluation time' dropdown set to 'Now'. The main area displays the message 'No data queried yet'. On the right side, there are icons for refresh, zoom, and a blue 'Execute' button. At the bottom right, there's a 'Remove Panel' link. A small 'Add Panel' button is located at the bottom left.

This is Prometheus dashboard.

Let go to status and target

The screenshot shows the Prometheus dashboard with the 'Status' dropdown menu open. The menu includes options like Runtime & Build Information, TSDB Status, Command-Line Flags, Configuration, Rules, Targets, and Service Discovery. The 'Targets' option is highlighted. The rest of the interface is similar to the previous screenshot, with the Graph tab selected, an 'Evaluation time' of 'Now', and a message 'No data queried yet'. On the right, there are execution and refresh buttons, and a 'Remove Panel' link. A small 'Add Panel' button is at the bottom left. A YouTube video player is visible on the right side of the screen.

The screenshot shows the Prometheus Targets page with three service monitors listed:

- serviceMonitor/monitoring/kind-prometheus-kube-prome-alertmanager/0** (1/1 up)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://10.244.2.8:9093/metrics	UP	containers="alertmanager" endpoint="http-web" instances="10.244.2.8:9093" job="kind-prometheus-kube-prome-alertmanager" namespace="monitoring" pod="alertmanager-kind-prometheus-kube-prome-alertmanager-0" service="kind-prometheus-kube-prome-alertmanager" v=1	3.488s ago	2.434ms	
- serviceMonitor/monitoring/kind-prometheus-kube-prome-alertmanager/1** (1/1 up)

Endpoint	State	Labels	Last Scrape	Scrape Duration	Error
http://10.244.2.8:8080/metrics	UP	containers="config-reloader" endpoint="reloader-web" instance="10.244.2.8:8080" job="kind-prometheus-kube-prome-alertmanager" namespace="monitoring" pod="alertmanager-kind-prometheus-kube-prome-alertmanager-0" service="kind-prometheus-kube-prome-alertmanager" v=1	20.13s ago	1.928ms	
- serviceMonitor/monitoring/kind-prometheus-kube-prome-apiserver/0** (1/1 up)

Display a menu	State	Labels	Last Scrape	Scrape Duration	Error

Metrics is imp as data is important.

Prometheus has a database and we need to query, so we need to write prom queries.

If you search metrics

<http://3.84.60.43:9090/metrics>. You need to queries to find database.

Apple iCloud Google Facebook Twitter LinkedIn The Weather Channel NDTV PT registration CodeGPT

```

# HELP go_gc_cycles_automatic_gc_cycles_total Count of completed GC cycles generated by the Go runtime. Sourced from /gc/cycles/automatic:gc-cycles
# TYPE go_gc_cycles_automatic_gc_cycles_total counter
go_gc_cycles_automatic_gc_cycles_total 28
# HELP go_gc_cycles_forced_gc_cycles_total Count of completed GC cycles forced by the application. Sourced from /gc/cycles/forced:gc-cycles
# TYPE go_gc_cycles_forced_gc_cycles_total counter
go_gc_cycles_forced_gc_cycles_total 0
# HELP go_gc_cycles_total_gc_cycles_total Count of all completed GC cycles. Sourced from /gc/cycles/total:gc-cycles
# TYPE go_gc_cycles_total_gc_cycles_total counter
go_gc_cycles_total_gc_cycles_total 28
# HELP go_gc_duration_seconds A summary of the wall-time pause (stop-the-world) duration in garbage collection cycles.
# TYPE go_gc_duration_seconds summary
go_gc_duration_seconds{quantile="0"} 3.8434e-05
go_gc_duration_seconds{quantile="0.25"} 4.7245e-05
go_gc_duration_seconds{quantile="0.5"} 8.0146e-05
go_gc_duration_seconds{quantile="0.75"} 0.000219112
go_gc_duration_seconds{quantile="1"} 0.002208647
go_gc_duration_seconds_sum 0.007149762
go_gc_duration_seconds_count 28
# HELP go_gc_percent_heap_size_target percentage configured by the user, otherwise 100. This value is set by the GOGC environment variable, and the runtime/debug.SetGCPercer function. Sourced from /gc/goc:percent
# TYPE go_gc_goc_percent_gauge
go_gc_goc_percent 75
# HELP go_gc_gomemlimit_bytes Go runtime memory limit configured by the user, otherwise math.MaxInt64. This value is set by the GOMEMLIMIT environment variable, and the runtime/debug.SetMemoryLimit function. Sourced from /gc/gomemlimit:bytes
# TYPE go_gc_gomemlimit_bytes gauge
go_gc_gomemlimit_bytes 9.223372036854776e+18
# HELP go_gc_heap_allocs_by_size_bytes Distribution of heap allocations by approximate size. Bucket counts increase monotonically. Note that this does not include tiny objects as defined by /gc/heap/tiny/allocs:objects, only tiny blocks. Sourced from /gc/heap/allocs-by-size:bytes
# TYPE go_gc_heap_allocs_by_size_bytes histogram
go_gc_heap_allocs_by_size_bytes_bucket{l="8..9999999999999998"} 83017
go_gc_heap_allocs_by_size_bytes_bucket{l="24..9999999999999996"} 2.137607e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="64..9999999999999997"} 4.778755e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="144..9999999999999997"} 6.166747e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="320..9999999999999994"} 6.768172e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="704..9999999999999999"} 6.910172e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="1536..9999999999999998"} 6.969337e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="3200..9999999999999995"} 6.984295e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="6528..999999999999999"} 6.993694e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="13568..999999999999998"} 6.998542e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="27264..999999999996"} 6.999459e+06
go_gc_heap_allocs_by_size_bytes_bucket{l="475396..Inf"} 7.000718e+06
go_gc_heap_allocs_by_size_bytes_sum 475396e+08
go_gc_heap_allocs_by_size_bytes_total 7.000718e+06
# HELP go_gc_heap_allocs_bytes_total Cumulative sum of memory allocated to the heap by the application. Sourced from /gc/heap/allocs:bytes
# TYPE go_gc_heap_allocs_bytes_total counter
go_gc_heap_allocs_bytes_total 9.47672696e+08
# HELP go_gc_heap_allocs_objects_total Cumulative count of heap allocations triggered by the application. Note that this does not include tiny objects as defined by /gc/heap/tiny/allocs:objects, only tiny blocks. Sourced from /gc/heap/allocs:objects
# TYPE go_gc_heap_allocs_objects_total counter
go_gc_heap_allocs_objects_total 7.000718e+06
# HELP go_gc_heap_frees_by_size_bytes Distribution of freed heap allocations by approximate size. Bucket counts increase monotonically. Note that this does not include tiny objects as defined by /gc/heap/tiny/allocs:objects, only tiny blocks. Sourced from /gc/heap/frees-by-size:bytes
# TYPE go_gc_heap_frees_by_size_bytes histogram
Display a menu.....  reee hv size bytes bucket{l="8..9999999999999998"} 1 20566

```

Lets run some queries

```
sum (rate(container_cpu_usage_seconds_total{namespace="default"}[1m])) / sum (machine_cpu_cores) * 100
```

Go to graph and run queries.

Prometheus Alerts Graph Status Help

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

sum (rate (container_cpu_usage_seconds_total{namespace="default"}[1m])) / sum (machine_cpu_cores) * 100

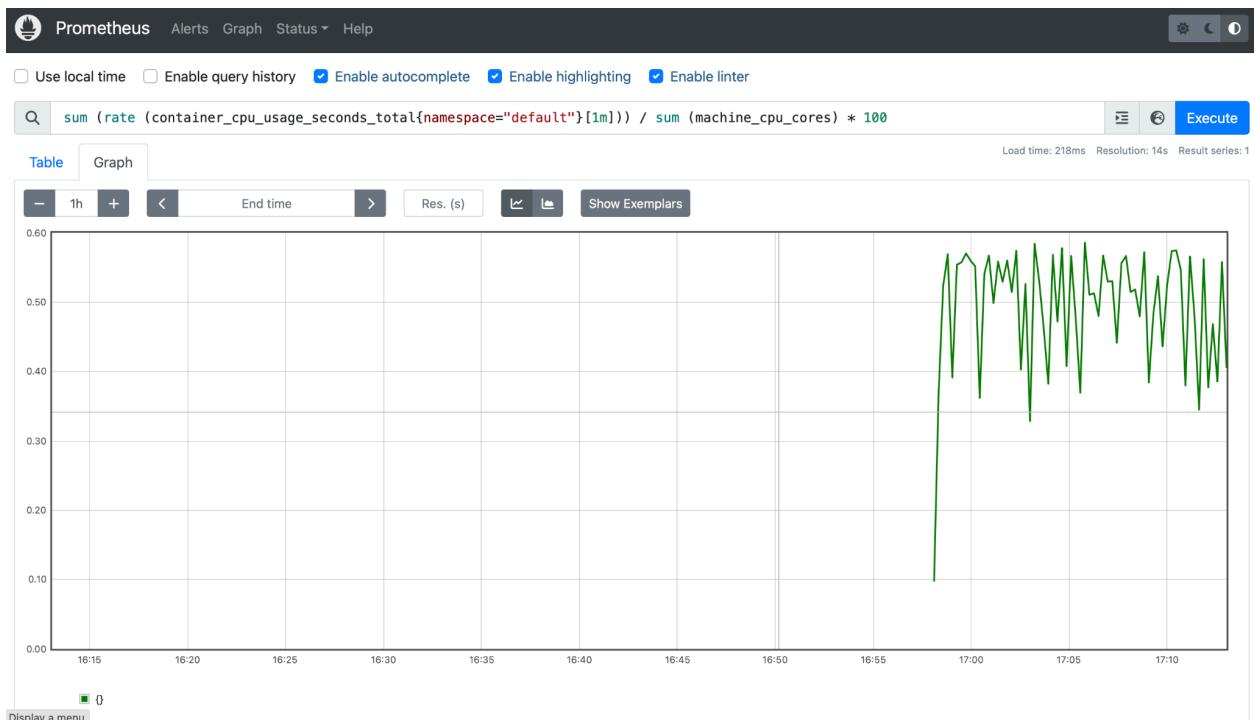
Table Graph Evaluation time < > 0 0.4324093698118074

Load time: 240ms Resolution: 14s Result series: 1

Add Panel Remove Panel

Display a menu

Check with graph

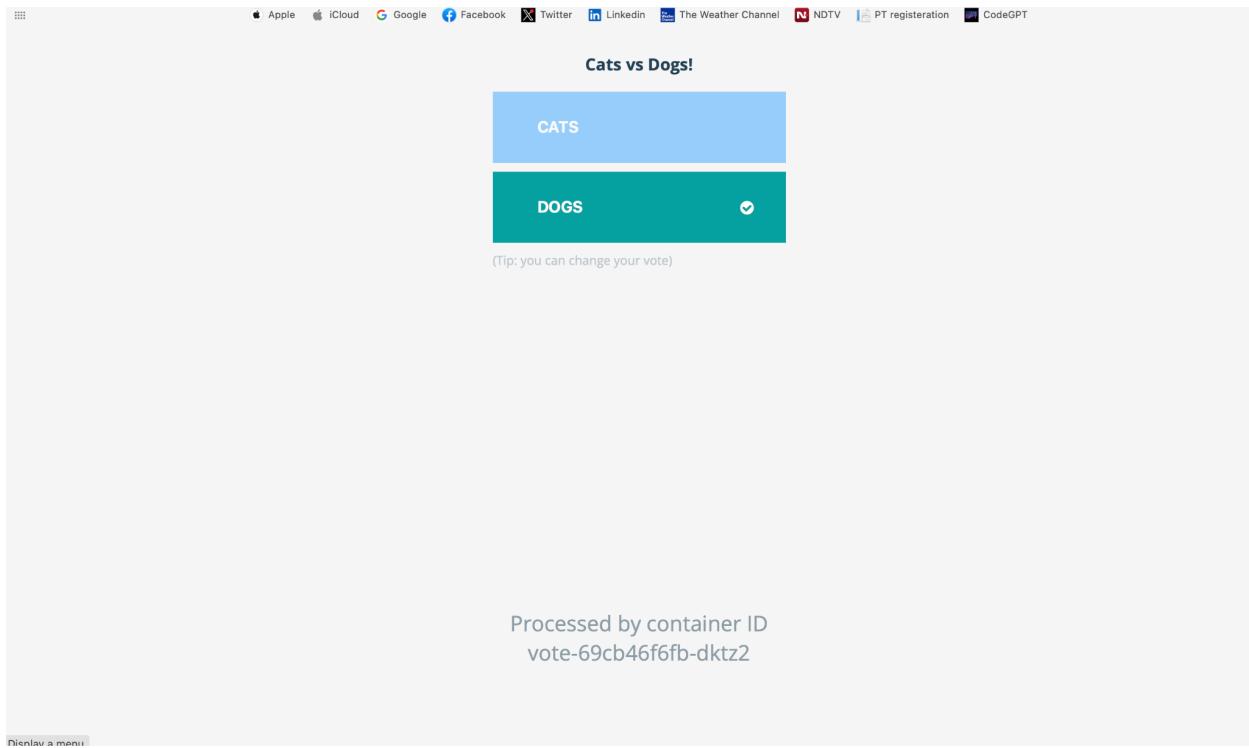


Lets expose vote app

```
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get svc
NAME          TYPE        CLUSTER-IP      EXTERNAL-IP    PORT(S)        AGE
db            ClusterIP   10.96.4.233    <none>        5432/TCP     29m
kubernetes   ClusterIP   10.96.0.1       <none>        443/TCP      38m
redis         ClusterIP   10.96.84.187   <none>        6379/TCP     29m
result        NodePort    10.96.144.57    <none>        5001:31001/TCP 29m
vote          NodePort    10.96.147.251   <none>        5000:31002/TCP 29m
[2] 10369
[ubuntu@ip-172-31-90-211:~/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl port-forward svc/vote 5000:5000 --address=0.0.0.0&
Forwarding from 0.0.0.0:5000 -> 80
```

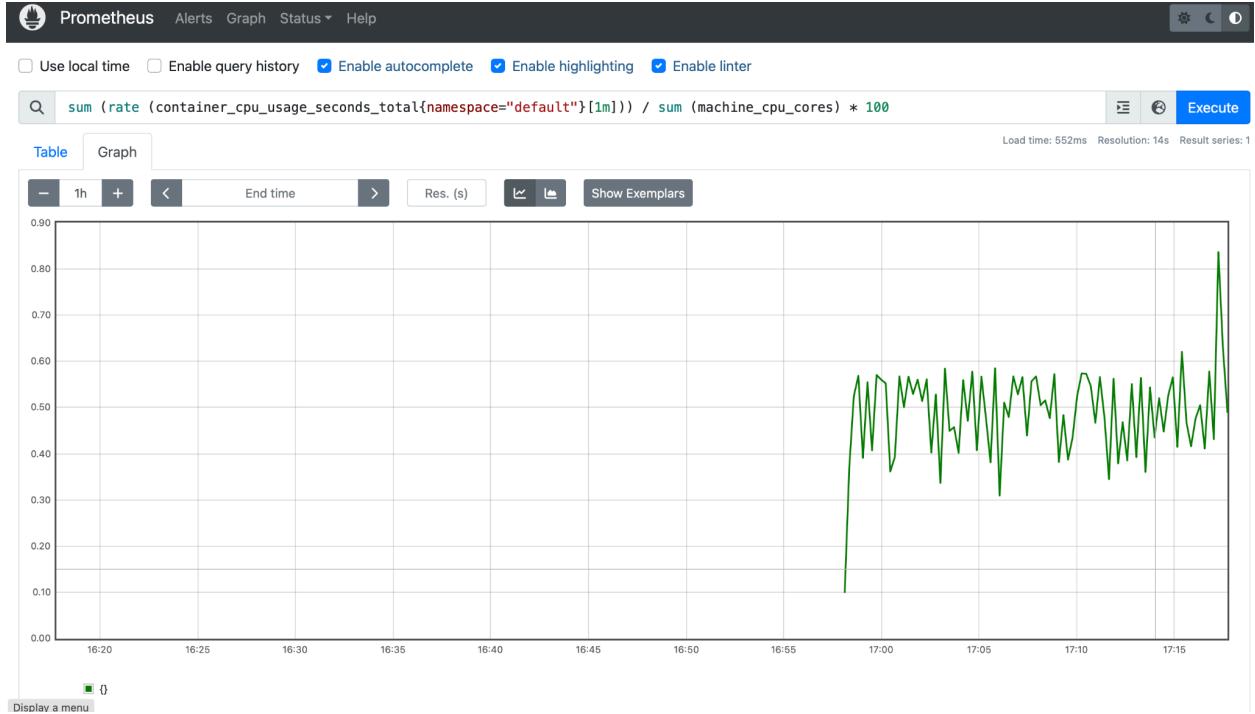
Add security group 5000

View application at port No 5000



Increase the traffic

Watch the spike difference



Let's analyze this with grafana. In between try with other commands. Lets create a grafana dashboard where we can see everything in one place.

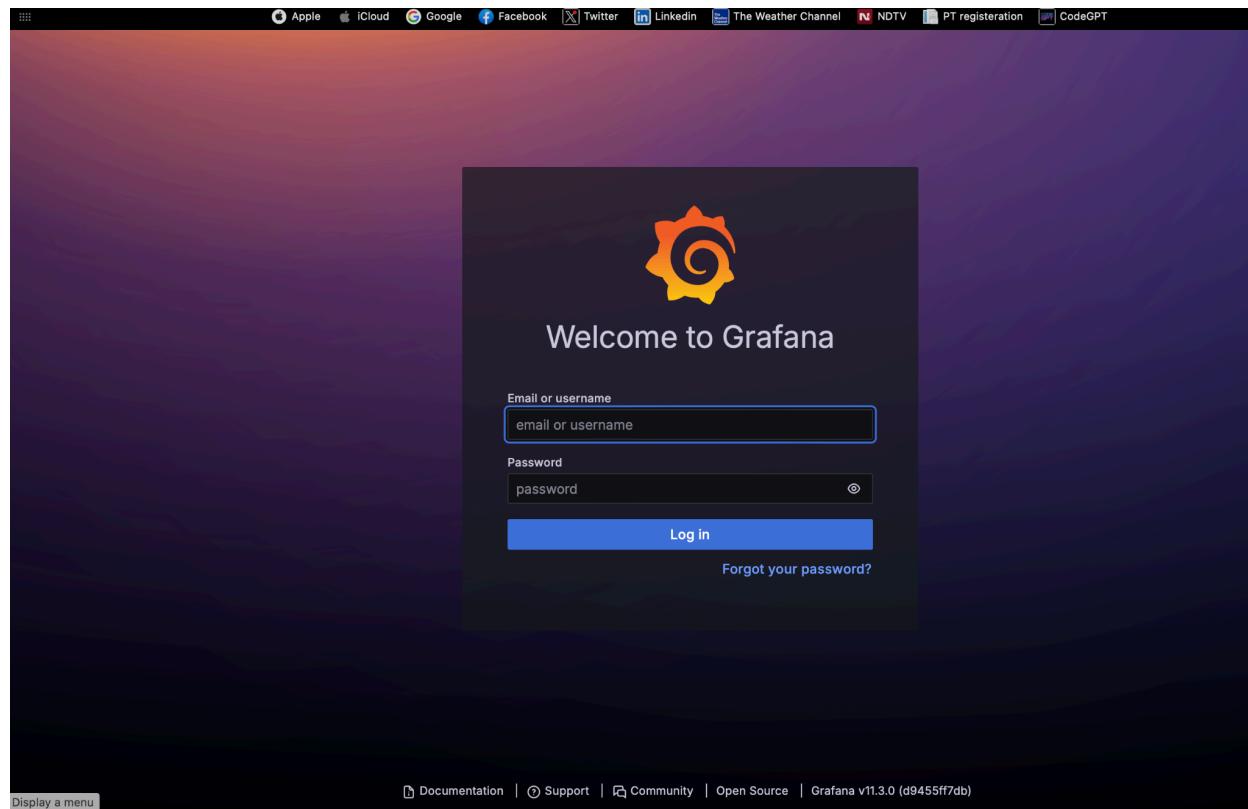
```
ubuntu@ip-172-31-90-211:/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get svc
NAME        TYPE      CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
db          ClusterIP 10.96.4.203 <none>        5432/TCP       35m
kubernetes  ClusterIP 10.96.0.1   <none>        443/TCP        44m
redis        ClusterIP 10.96.84.187 <none>        6379/TCP       35m
result      NodePort   10.96.144.57  <none>        5001:31001/TCP 35m
vote        NodePort   10.96.147.251 <none>        5008:31002/TCP 35m
ubuntu@ip-172-31-90-211:/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl get svc -n monitoring
NAME        TYPE      CLUSTER-IP   EXTERNAL-IP   PORT(S)          AGE
alertmanager-operated  ClusterIP  None         <none>        9093/TCP,9094/TCP,9094/UDP 23m
kind-prometheus-grafana  NodePort   10.96.87.2   <none>        80:31000/TCP           23m
kind-prometheus-kube-prime-alertmanager  NodePort   10.96.223.11 <none>        9093:32000/TCP,8080:32596/TCP 23m
kind-prometheus-kube-prime-operator    ClusterIP  10.96.196.74  <none>        443/TCP                 23m
kind-prometheus-kube-prime-prometheus  NodePort   10.96.50.185 <none>        9090:30000/TCP,8080:31330/TCP 23m
kind-prometheus-kube-state-metrics    ClusterIP  10.96.88.42   <none>        8080/TCP               23m
kind-prometheus-prometheus-node-exporter  NodePort   10.96.14.146 <none>        9100:32001/TCP           23m
prometheus-operated     ClusterIP  None         <none>        9090/TCP               23m
ubuntu@ip-172-31-90-211:/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ kubectl port-forward svc/kind-prometheus-grafana -n monitoring 31000:80 --address=0.0.0.0 &
[3] 10868
ubuntu@ip-172-31-90-211:/Devops-Learning-Material/Monitoring/k8s-kind-voting-app-main/k8s-specifications$ Forwarding from 0.0.0.0:31000 -> 3000
```

Expose grafana kubectl port-forward svc/kind-prometheus-grafana -n monitoring 3000:80 --address=0.0.0.0 &

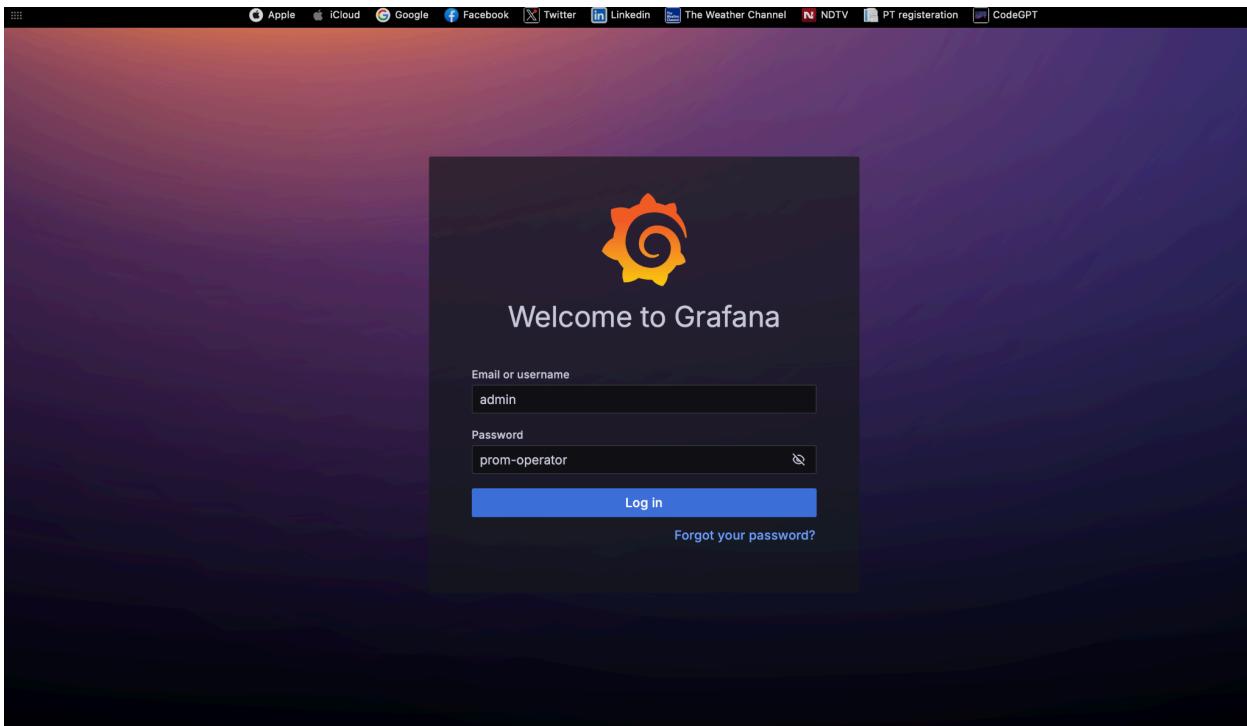
Inbound rules Info							
Security group rule ID	Type Info	Protocol Info	Port range	Source Info	Description - optional Info		
Info							
sgr-00a5f02bb328faae7	SSH	TCP	22	Custom ▾	<input type="text" value="0.0.0.0/0"/> X	Delete	
sgr-0e1f1ad0d3931d801	HTTP	TCP	80	Custom ▾	<input type="text" value="0.0.0.0/0"/> X	Delete	
sgr-0483d493b8e78341b	Custom TCP	TCP	5000	Custom ▾	<input type="text" value="0.0.0.0/0"/> X	Vote app	Delete
sgr-07be7018c01c8beca	HTTPS	TCP	443	Custom ▾	<input type="text" value="0.0.0.0/0"/> X	Delete	
sgr-0827302a781043128	Custom TCP	TCP	9090	Custom ▾	<input type="text" value="0.0.0.0/0"/> X	Prometheus	Delete
-	Custom TCP	TCP	3000	Anyw... ▾	<input type="text" value="0.0.0.0/0"/> X	Grafana	Delete

[Add rule](#)

Add Port No 3000



Login



Added data sources and create dashboards

A screenshot of the Grafana dashboard home page. The left sidebar shows navigation links: Home, Bookmarks, Starred, Dashboards, Explore, Alerting, Connections, and Administration. The main content area has a 'Welcome to Grafana' header and a 'Basic' section with a 'TUTORIAL' card about 'DATA SOURCE AND DASHBOARDS' and 'Grafana fundamentals'. Below this is a 'COMPLETE' card for 'Add your first data source' and another for 'Create your dashboard'. At the bottom, there are sections for 'Dashboards' (Starred dashboards and Recently viewed dashboards) and 'Latest from the blog' (a preview of a dashboard with various metrics and graphs). The overall layout is clean and modern, typical of Grafana's design.

The screenshot shows the Grafana Administration interface. On the left, there's a sidebar with links like Home, Bookmarks, Starred, Dashboards, Explore, Alerting, Connections, and Administration. The Administration link is highlighted with a red border. The main content area has a title "Administration" and a sub-header "Organization: Main Org.". A blue banner at the top says "Data sources have a new home! You can discover new data sources or manage existing ones in the Connections page, accessible from the main menu." with a "Go to connections" button. Below the banner are four cards: "General" (Manage default preferences and settings across Grafana), "Plugins and data" (Install plugins and define the relationships between data), "Users and access" (Configure access for individual users, teams, and service accounts), and "Authentication" (Manage your auth settings and configure single sign-on).

Create Users

Plugins

The screenshot shows the "Plugins and data" section of the Grafana Administration page. The sidebar shows the "Plugins" option under the "Administration" section is also highlighted with a red border. The main area is titled "Plugins" and contains a search bar, a type dropdown set to "All", and a state dropdown set to "All". It lists several plugins: Google Analytics (by blackcowmoo, signed), ACE.SVG (by Andrew Rodgers, signed), Adobe Analytics (by Grafana Labs, signed, enterprise), Aggregations.io (by aggregations.io, signed), Akvorado (by ovhcloudnetworkobservability, signed), Alert list (by Grafana Labs, core, installed), Alertmanager (by Grafana Labs, core, installed), Altinity plugin for ClickHouse (by Vertamedia, signed), and Amazon Athena (by Grafana Labs, signed). There's also a "Update all" button in the top right.

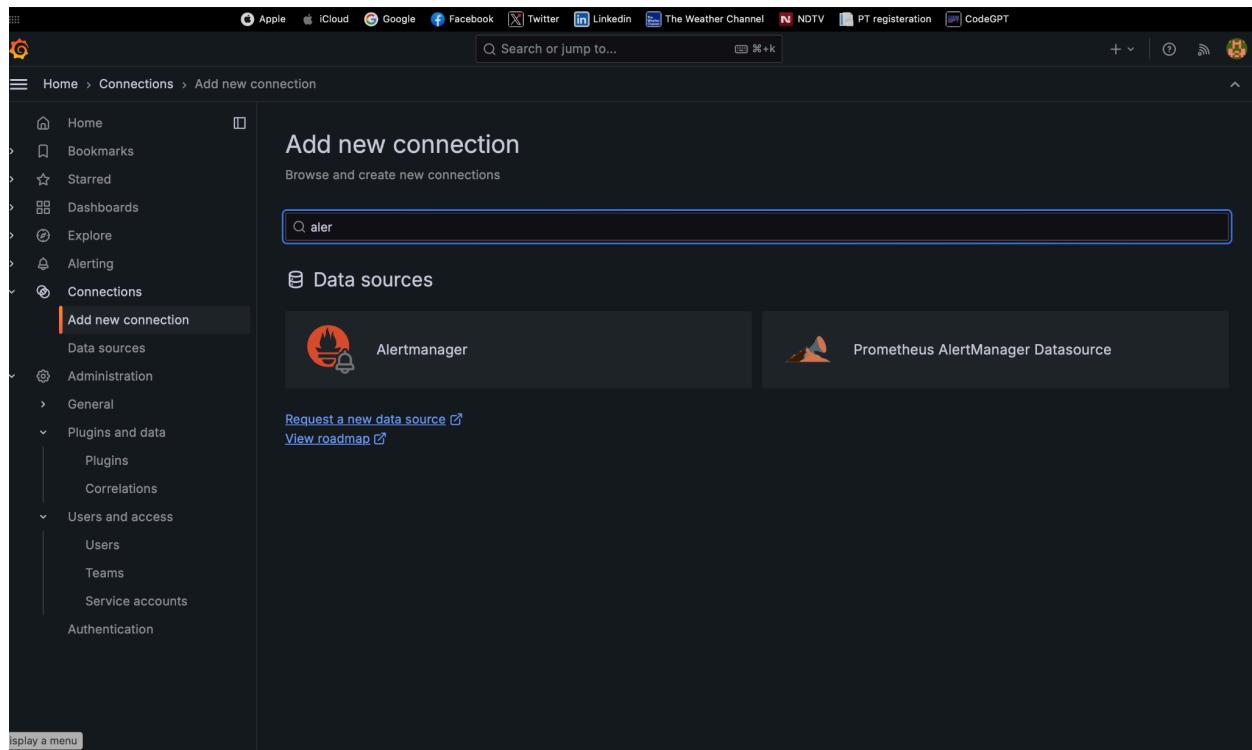
Let's create Dashboards

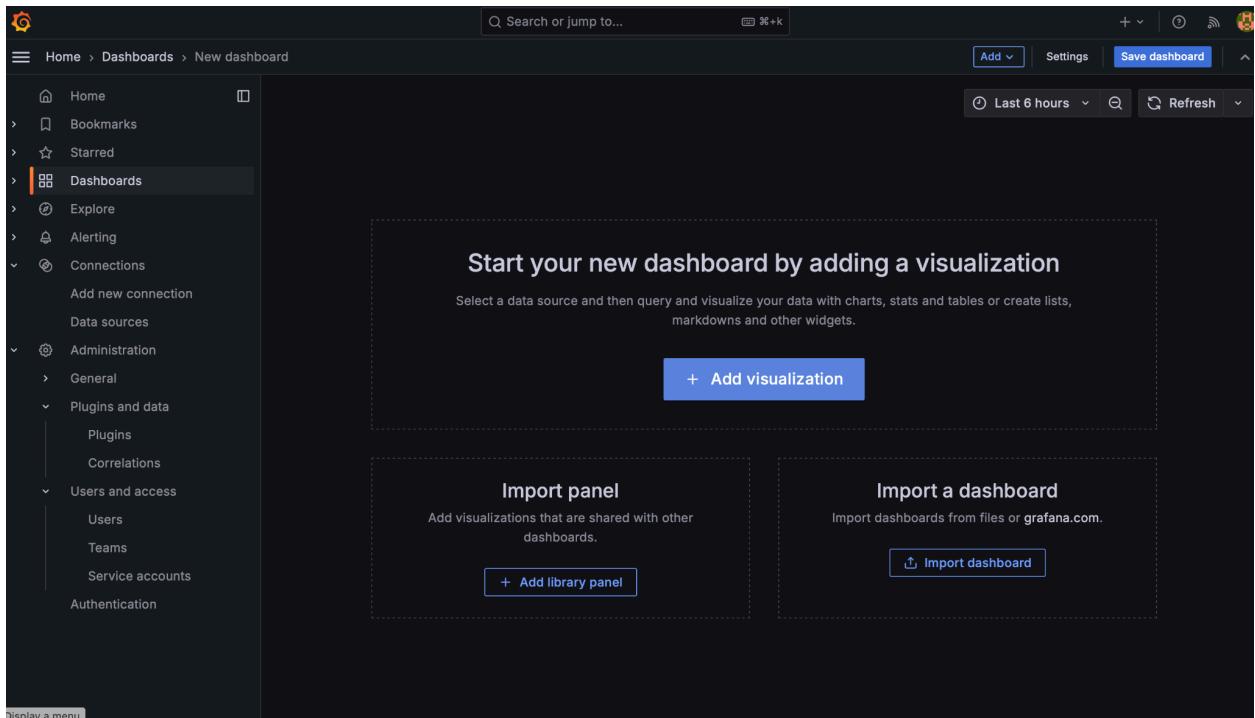
The screenshot shows the Grafana interface with the following details:

- Header:** Includes the Grafana logo, a search bar ("Search or jump to..."), and a "New" button.
- Sidebar:** A navigation menu with the following items:
 - Home
 - Bookmarks
 - Starred
 - Dashboards** (selected)
 - Explore
 - Alerting
 - Connections
 - Administration
 - General
 - Plugins and data
 - Plugins
 - Correlations
 - Users and access
 - Users
 - Teams
 - Service accounts
 - Authentication
- Main Content:** The "Dashboards" page with the heading "Create and manage dashboards to visualize your data". It features a search bar, a filter dropdown, and a "Starred" checkbox. Below is a table listing dashboards with their names and tags:

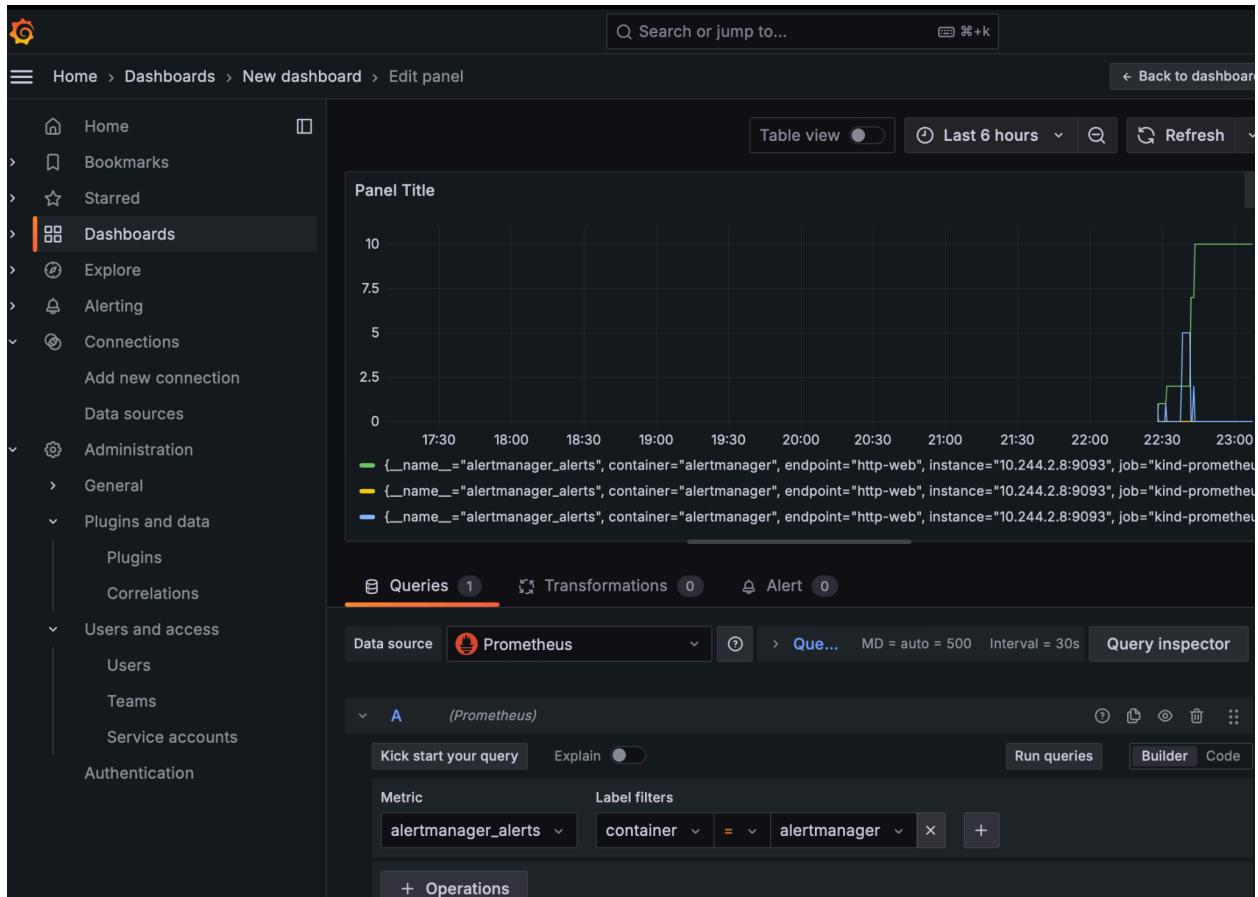
Name	Tags
Alertmanager / Overview	alertmanager-mixin
CoreDNS	coredns dns
etcd	etcd-mixin
Grafana Overview	kubernetes-mixin
Kubernetes / API server	kubernetes-mixin
Kubernetes / Compute Resources / Multi-Cluster	kubernetes-mixin
Kubernetes / Compute Resources / Cluster	kubernetes-mixin
Kubernetes / Compute Resources / Namespace (Pods)	kubernetes-mixin
Kubernetes / Compute Resources / Namespace (Workloads)	kubernetes-mixin
Kubernetes / Compute Resources / Node (Pods)	kubernetes-mixin
Kubernetes / Compute Resources / Pod	kubernetes-mixin
Kubernetes / Compute Resources / Workload	kubernetes-mixin
Kubernetes / Controller Manager	kubernetes-mixin

While creating data sources is already added

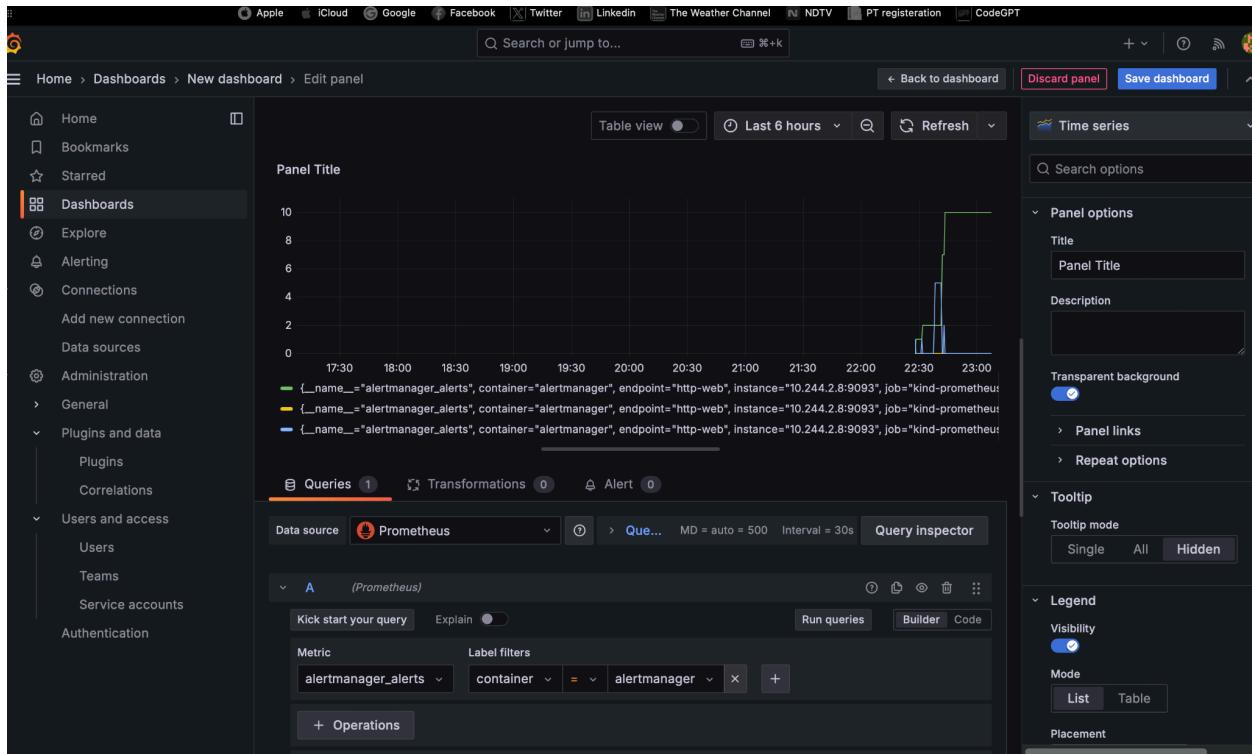




Add datasource, queries and labels



You will find a graph



Save dashboard

Now lets create a k8s dashboard.

Go to google and search grafana dashboards

Select dashboards

Grafana Labs Products Open Source Solutions Learn Docs Company 🔍 Downloads Contact us Sign in

New features Grafana 11.3 release: Scenes-powered dashboards, visualization and panel updates, and more See details → EN ▾

Grafana dashboards

From heatmaps to histograms, graphs to geomaps: fast and furious visualizations any way you want.

Getting started webinar Docs →



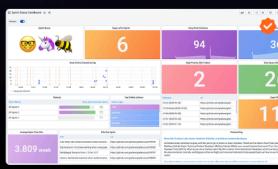
★ Featured



Prometheus
Monitor your Kubernetes deployment



MongoDB
Visualize your MongoDB data



Jira
Visualize your Jira data



InfluxDB
InfluxDB dashboards for telegraf metrics

Filters: Data Source

Search dashboards

Click on your dashboards

Grafana Labs Products Open Source Solutions Learn Docs Company Contact us Sign in

MinIO Grafana Dashboard - <https://minio.io/>

The dashboard displays the following key metrics:

- Uptime:** 36 seconds.
- Capacity:** Total S3 Ingress: 311 MB, Total S3 Egress: 635 kB. Used: 82%, Free: 18%.
- Data Usage Growth:** A bar chart showing growth from 200 MB at 08:00 to 372 MB at 09:00.
- Object Size Distribution:** A heatmap showing the distribution of object sizes (e.g., 1024B to 16MB) over time (08:00 to 10:00).
- Open FDs:** A heatmap showing the number of open file descriptors over time.
- Goroutines:** A heatmap showing the number of goroutines over time.
- Cluster Health Status:** On, Total Online Drives: 16, Total Online Servers: 4.
- Time Since Last Heal:** No data.
- S3 API Ingress Rate:** A line chart showing rates from 0 B/s to 96 B/s over the hour.
- S3 API Egress Rate:** A line chart showing rates from 0 B/s to 96 B/s over the hour.
- S3 API Request Rate (4xx):** A line chart showing error rates from -1 to 1 over the hour.
- S3 API Request Error Rate (5xx):** A line chart showing error rates from -1 to 1 over the hour.
- Health Breakdown:** A grid showing the status of 16 servers across 4 pools (Pool 0 to Pool 3) and 4 sets (Set 0 to Set 3). Most are green (online).
- Memory Usage:** A horizontal bar chart showing memory usage for each server, ranging from 165 MB to 167 MB.

Introduction

MinIO's high-performance object storage suite is software defined and enables customers to build cloud-native data infrastructure for machine learning, analytics and application data workloads. Read more [here](#).

for "<https://grafana.com/auth/sign-up/create-user?pg=dashboards&plcmt=minio-dashboard>"

Get this dashboard

1 Sign up for Grafana Cloud [Create free account](#)

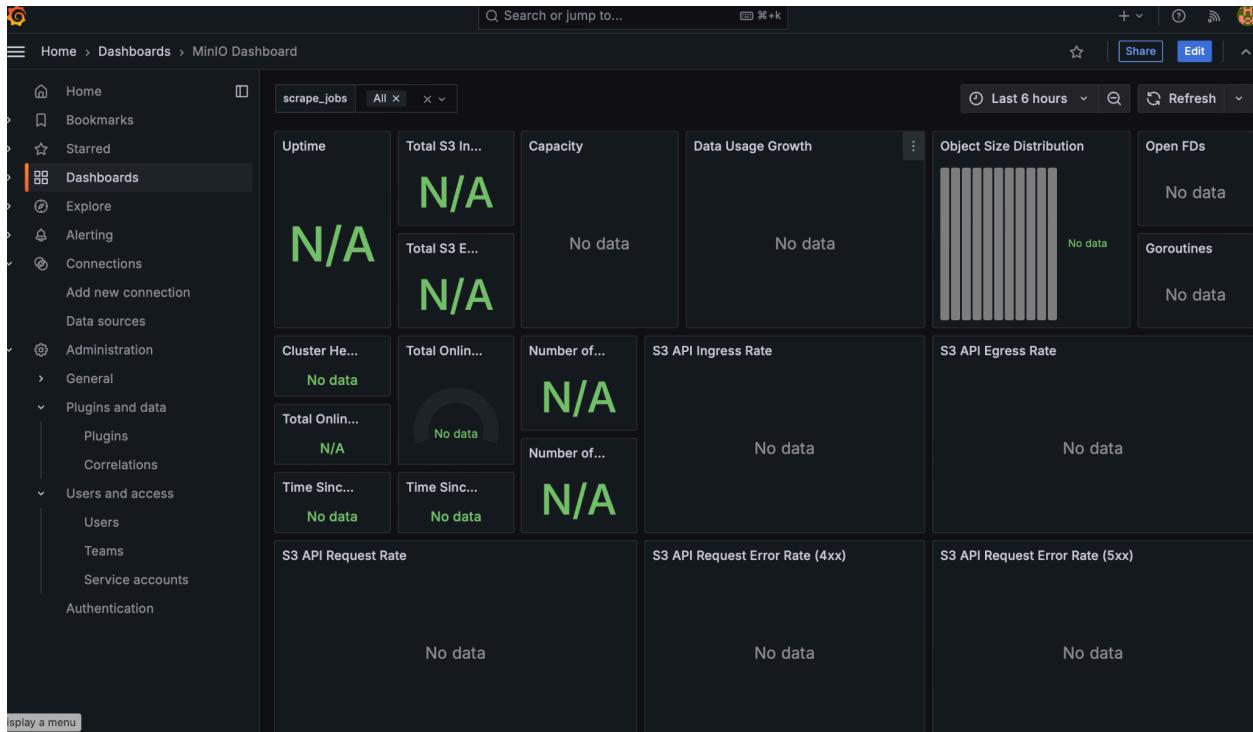
2 Import the dashboard template [Copy ID to clipboard](#) or [Download JSON](#)

Copy ID to clipboard

Go to import option and provide ID

The screenshot shows the Grafana interface with a dark theme. On the left is a sidebar with navigation links: Home, Bookmarks, Starred, Dashboards (which is selected and highlighted with an orange border), Explore, Alerting, Connections, Add new connection, Data sources, Administration, General, Plugins and data (with sub-options Plugins and Correlations), Users and access (with sub-options Users, Teams, Service accounts), and Authentication. At the bottom of the sidebar is a link to 'Display a menu'. The main content area has a header 'Import dashboard' with a subtitle 'Import dashboard from file or Grafana.com'. Below this, it says 'Importing dashboard from Grafana.com' and shows details: Published by MinIO, Inc, Updated on 2024-03-06 01:14:22. A section titled 'Options' contains fields for 'Name' (MinIO Dashboard) and 'Folder' (Dashboards). There is also a 'Unique identifier (UID)' field containing TgmJnqnk with a 'Change uid' button. Under 'Prometheus', there is a dropdown menu set to 'Select a Prometheus data source'. At the bottom are two buttons: 'Import' (blue) and 'Cancel'.

Import. Select a datasource



Dashboard will be created.