**Logging && Monitoring**

## **Monitor Cluster Components**

Kubernetes does not come up with a full featured built-in monitoring solution. However there are a number of open source solutions available today such as Metric server, Prometheus, Elastic Stack, DataDog and Dynatrace.

A picture containing timeline

Description automatically generated

Box and whisker chart

Description automatically generated with medium confidence

You can have one Metric Sever per cluster. The metric server retrives metrics from each of the Kubernetes nodes and pods , aggregate them and stores them in memory.

Note that the metric server is only an INMemory monitoring solution and does not store the metrics on the desk and as a result you cannot see the historical perfromace data. For the you must rely on one of the advanced monitoring solution.

How are the metrics generated for the PODS on these nodes ?? The kubelete contains subcomponenet known as cAdvisor or container advisor. Its responsible for retrieving performance metrics from pods, and exposing them through the kubelet API to make the metrics available for the metrics server.

**Metric Server Deployment/Installation**  
Graphical user interface, text

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**To View the Metrics**  
  
A screenshot of a computer

Description automatically generated with medium confidence

## **Managing Appplication Log**

For Docker

* $ docker run -d kodecloud/event-simulator
* $ docker log -f ecf # Live log trail

For Kubernetes

* $ kubectl create -f event-simulator.yaml
* $ kubectl logs -f event-simulator-pod # Live log stream

What if you multiple Contianer inside the POD ?? In that case you need to mention which container you need to monitor.

* $ kubectl logs -f event-simulator-pod containerName