

**\*\*CKA Curriculum Lab Part 2 - Logging and Monitoring Answers\*\***

**\*\*Lab Activity 1 - General cluster status\*\***

Leveraging a single kubectl command acquire the current status for the Scheduler, Controller-Manager and etcd components

```
kubectl get componentstatuses
NAME              STATUS    MESSAGE              ERROR
scheduler         Healthy   ok                   
controller-manager Healthy   ok                   
etcd-0            Healthy   {"health":"true"}
```

**\*\*Lab Activity 2 - Acquiring component logs\*\***

List the logs from the following components on a master node:

- Kube-APIServer

**First activity is to locate the logs, be it from a pod/log file/or systemd unit**

```
cat /var/log/kube-apiserver.log
or
journalctl -u kube-apiserver
or
kubectl logs kube-apiserver-k8s-master-03 -n kube-system
```

- Kube-Scheduler

```
cat /var/log/kube-scheduler.log
or
journalctl -u kube-scheduler
or
kubectl logs kube-scheduler-k8s-master-03 -n kube-system
```

- Kube-Controller-Manager

```
cat /var/log/kube-controller-manager.log
or
journalctl -u kube-controller-manager
or
kubectl logs kube-controller-manager-k8s-master-03 -n kube-system
```

List the logs from the following components on a worker node:

- CNI

**Flannel as an example:**

```
journalctl -u flanneld
```

**or**

```
kubectl logs kube-flannel-ds-amd64-9mrnj -n kube-system
```

- Kube-Proxy

```
journalctl -u kube-proxy
or
cat /var/log/kube-proxy.log
or
kubectl logs kube-flannel-ds-amd64-9mrnj -n kube-system
```

- Kubelet

```
journalctl -u kubelet
Or
cat /var/log/kubelet.log
```

- Container Runtime

```
journalctl -u docker.service
Or
cat /var/log/docker.log
```

**\*\*Lab Activity 3 - Application Monitoring\*\***

Run the following:

```
kubectl apply -f https://raw.githubusercontent.com/David-VTUK/CKAExampleYaml/master/nginx-svc-and-deployment.yamlhttps://raw.githubusercontent.com/David-VTUK/CKAExampleYaml/master/nginx-svc-and-deployment.yaml
```

- Gather the events from a given pod from this deployment:

```
kubectl get pods
kubectl describe pod nginx-deployment-6dd86d77d-7tm22
```

- Gather the events from the replicaset created from this deployment

```
kubectl describe replicaset nginx-deployment-6dd86d77d
```

- Gather the events from the service from this deployment

```
kubectl describe svc nginx-service
```

- Acquire the list of endpoints associated with this service

```
Endpoints:          10.244.1.73:80,10.244.1.74:80,10.244.2.53:80
```

- How are the endpoints determined?

```
Selector:           app=nginx
```

- Which kubectl command would display all the logs from the pods created from this deployment?

```
kubectl logs -l app=nginx --all-containers=true
```