99: Managing Application logs

Various logging mechanisms in K8s

Logging in Docker:-

⇒ I run a docker container called event-simulator & all that it does is generate random events, simulating a web-server

```
> docker run kodekloud/event-simulator
```

```
2018-10-06 15:57:15,937 - root - INFO - USER1   logged in
                                        USER2   logged out
                                        USER2   is viewing page2
                                        USER3   is viewing page3
                                        USER4   is viewing page1
                                        USER2   logged out
                                        USER    logged in
```

These are events streamed to the standard output by the application

⇒ Now, if I were to run the Docker container in the background in a detached mode using the -d option, I won't see the logs

⇒ If I wanted to view the logs, I could use the docker logs command followed by the container id, The -f option helps us see the live log trail

```
> docker logs -f ecf
```

Logs- kubernates

We create a pod with the Same Docker Image using the pod-definition file

event-simulator.yaml

```
apiVersion: v1
kind: Pod
metadata:
    name: event-simulator-pod
spec:
    containers:
    - name: event-simulator
      image: kodekloud/event-simulator
```

```
> kubectl create -f event-simulator.yaml
> kubectl logs -f event-simulator.yaml
```

⇒ Once the pod is running, we can view the logs this command, use the -f option to stream the log's file

⇒ These logs are specific to the containers running inside the pod

We know that K8S pods can have multiple docker images in them

Event-simulator.yaml

```
apiVersion: v1
kind: Pod
metadata:
    name: event-simulator-pod
spec:
    containers:
    - name: event-simulator
      image: kodekloud/event-simulator

    - name: image-processor
      image: some-image-processor
```

```
>kubectl logs -f event-simulator-pod
```

⇒ If there're multiple containers within a pod, you must specify the name of the container explecitly in the command like above [event-simulator-pod]

⇒ otherwise, it will fail asking you to specify a name

```
>kubectl logs -f event-simulator-pod event-simulator
```

In the above command, I will specify the name of the first container event-sumulator & that prints the relevant log messages