Lab08 – Configuring Health Probes for a Pod

In this exercise, you will create a Pod running a NodeJS application. The Pod will define readiness and liveness probes with different parameters.

1. Create a new Pod named `hello` with the image `brahimhamdi/nodejs-hello-world:1.0.0` that exposes the port 3000. Provide the name `nodejs-port` for the container port.

```
brahim@Training:~/lab08-pod-probes$ kubectl run hello --image=brahimhamdi/nodejs-hello-world:1.0.0 --port=3000 -oyaml --dry-run=client --resta
rt=Never > pod.yaml
brahim@Training:~/lab08-pod-probes$ cat pod.yaml
apiVersion: v1
kind: Pod
metadata:
  creationTimestamp: null
  labels:
    run: hello
  name: hello
spec:
  containers:
  - image: brahimhamdi/nodejs-hello-world:1.0.0
    name: hello
    ports:
    - containerPort: 3000
    resources: {}
  dnsPolicy: ClusterFirst
  restartPolicy: Never
status: {}
brahim@Training:~/lab08-pod-probes$
brahim@Training:~/lab08-pod-probes$
```

2. Add a Readiness Probe that checks the URL path / on the port referenced with the name `nodejs-port` after a 2 seconds delay. You do not have to define the period interval. Add a Liveness Probe that verifies that the app is up and running every 8 seconds by checking the URL path / on the port referenced with the name `nodejs-port`. The probe should start with a 5 seconds delay.

```
brahim@Training:~/lab08-pod-probes$ vim pod.yaml
brahim@Training:~/lab08-pod-probes$ cat pod.yaml
apiVersion: v1
kind: Pod
metadata:
  labels:
    run: hello
  name: hello
spec:
  containers:
  - image: brahimhamdi/nodejs-hello-world:1.0.0
    name: hello
    ports:
    - name: nodejs-port
      containerPort: 3000
    readinessProbe:
      httpGet:
        path: /
        port: nodejs-port
      initialDelaySeconds: 2
    livenessProbe:
      httpGet:
        path: /
        port: nodejs-port
      initialDelaySeconds: 5
      periodSeconds: 8

brahim@Training:~/lab08-pod-probes$ kubectl apply -f pod.yaml
pod/hello created
brahim@Training:~/lab08-pod-probes$
```

3. Shell into container and curl `localhost:3000`. Write down the output. Exit the container.

```
brahim@Training:~/lab08-pod-probes$ kubectl exec -ti hello -- sh
#
# curl localhost:3000
Hello World
# exit
brahim@Training:~/lab08-pod-probes$
brahim@Training:~/lab08-pod-probes$
```