

Kubernetes Liveness & Readiness Probes

Step 1.1: Create a YAML file

Step 1.2: Apply the YAML

```
controlplane ~ → nano busybox-probe.yaml

controlplane ~ → cat busybox-probe.yaml
apiVersion: v1
kind: Pod
metadata:
  name: busybox-probe
spec:
  containers:
  - name: busybox
    image: registry.k8s.io/busybox
    command: ["/bin/sh", "-c", "touch /tmp/healthy; sleep 30; rm -f /tmp/healthy; sleep 600"]
    livenessProbe:
      exec:
        command:
        - cat
        - /tmp/healthy
      initialDelaySeconds: 5
      periodSeconds: 5

controlplane ~ → kubectl apply -f busybox-probe.yaml
pod/busybox-probe created
```

Step 2.1: Create a YAML File

```
controlplane ~ → vi agnhost-probe.yaml
```

```
controlplane ~ → cat agnhost-probe.yaml
```

```
apiVersion: v1
```

```
kind: Pod
```

```
metadata:
```

```
  name: agnhost-probe
```

```
spec:
```

```
  containers:
```

```
  - name: agnhost
```

```
    image: registry.k8s.io/e2e-test-images/agnhost:2.40
```

```
    args: ["healthz"]
```

```
    ports:
```

```
    - containerPort: 8080
```

```
    livenessProbe:
```

```
      httpGet:
```

```
        path: /healthz
```

```
        port: 8080
```

```
        initialDelaySeconds: 5
```

```
        periodSeconds: 10
```

```
    readinessProbe:
```

```
      httpGet:
```

```
        path: /healthz
```

```
        port: 8080
```

```
        initialDelaySeconds: 5
```

```
        periodSeconds: 10
```

Step 2.2: Apply the YAML

Step 2.3: Monitor Pod Health

```
controlplane ~ → kubectl apply -f agnhost-probe.yaml
pod/agnhost-probe created

controlplane ~ → kubectl get pod agnhost-probe
NAME          READY   STATUS             RESTARTS   AGE
agnhost-probe 0/1     CrashLoopBackOff   1 (16s ago) 20s

controlplane ~ → kubectl describe pod agnhost-probe
Name:          agnhost-probe
Namespace:     default
Priority:       0
Service Account: default
Node:          node01/192.168.122.18
Start Time:    Tue, 29 Jul 2025 06:49:58 +0000
Labels:        <none>
Annotations:   cni.projectcalico.org/containerID: 7b67baff8f4a70ef4bdcc0ac01889d25f9f13b64
               912568b453cd9cf2c3b19d8d
               cni.projectcalico.org/podIP: 172.17.1.3/32
               cni.projectcalico.org/podIPs: 172.17.1.3/32
Status:        Running
IP:            172.17.1.3
IPs:
  IP: 172.17.1.3
Containers:
  agnhost:
    Container ID: containerd://8e3bec312435dbe58f8ae7bd5b5a801659653e9925725ea08ce0683762039
817
```