



ubuntu:24.04

Let us create one more pod on the cluster using below command kubectl run —image=ubuntu:24.04 -it -- /bin/bash

The above command takes us into the Pod instance bash. Let us install dnsutils inside the pod using below commands 1. apt update -y

2. apt install -y dnsutils

1. Let us try to perform an dnslookup on the ClusterIP Service we created above using the below command inside the ubuntu pod dnslooup hangoutipservice

The dns lookup on clusterIP service returns the ClusterIP address of the service with which it is running, it doesnt returns the pod ip addresses. Even we can access the pod application by using the ClusterIP service curl http://hangoutipservice:8088/hangout/actuator/health/readiness

2. Using Headless service

Let us do an dns query using headless service as below: dnslookup hangoutheadlesservice

The Headless service is created with clusterIP: None, which means dont assign ip address for this Service. So when we perform an dnsLookup on Headless Service it returns the ip addresses of all the pods that are registered with that service as below.

Server: 10.96.0.10 Address: 10.96.0.10#53

Name: hangoutheadless.default.svc.cluster.local Address: 10.1.1.168 Name: hangoutheadless.default.svc.cluster.local Address: 10.1.1.167

By using Headless service we cannot access the Pods on the cluster. curl http://hangoutheadless:8088/hangout/actuator/health/readiness = will fail.