

第

2

节

## 本地安装Minikube环境

# 本课内容

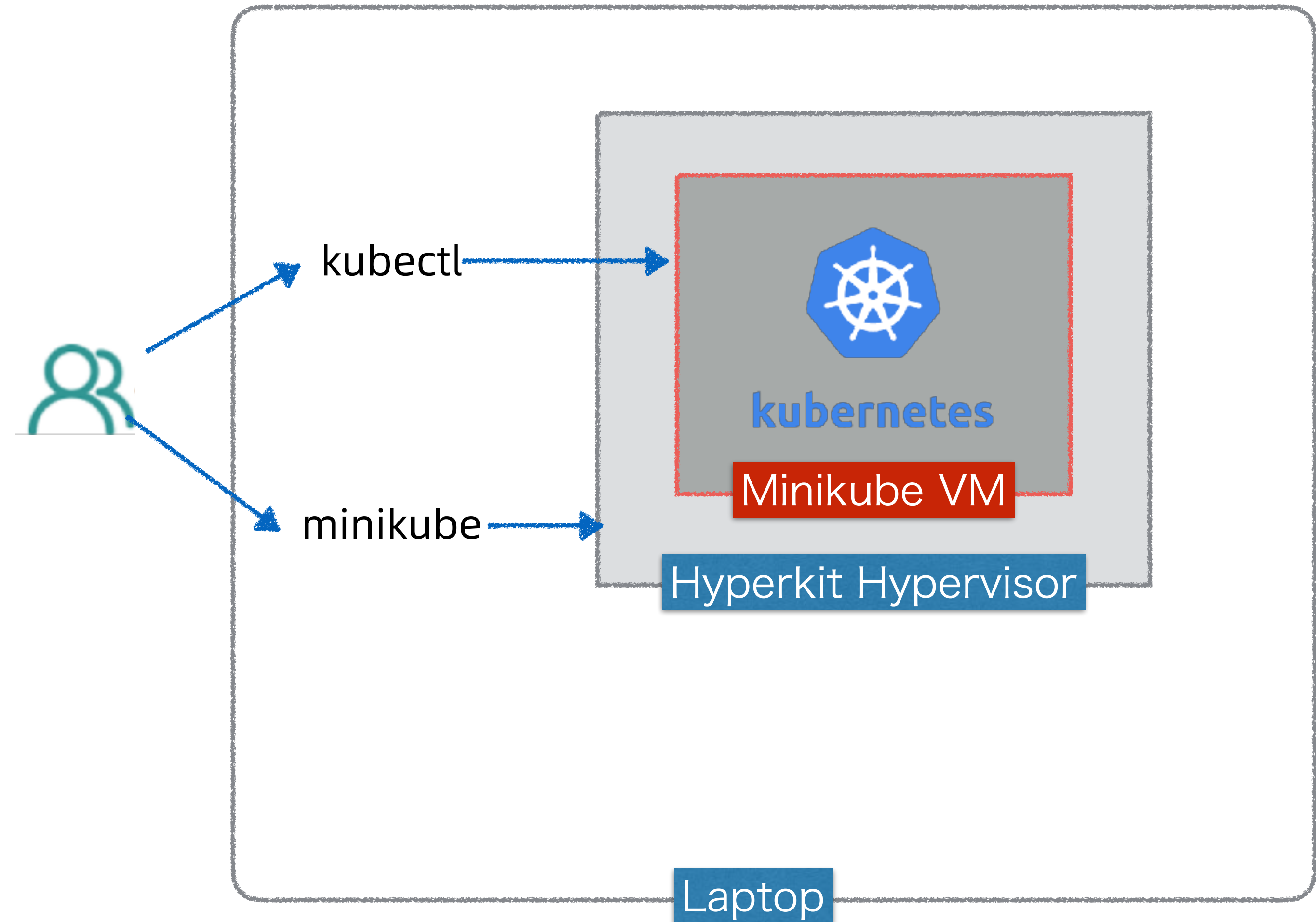
- 演示本地安装Minikube环境



# Minikube

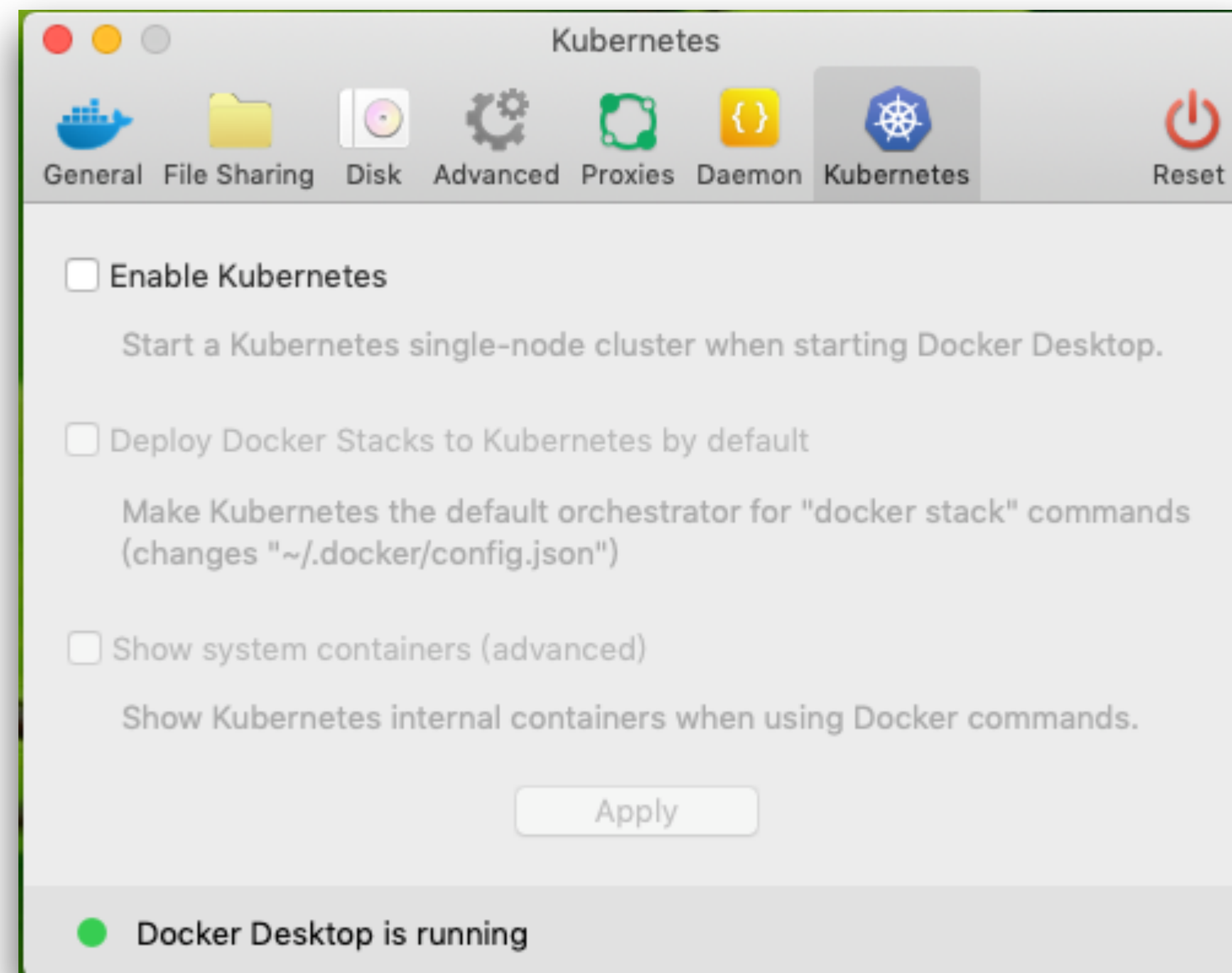
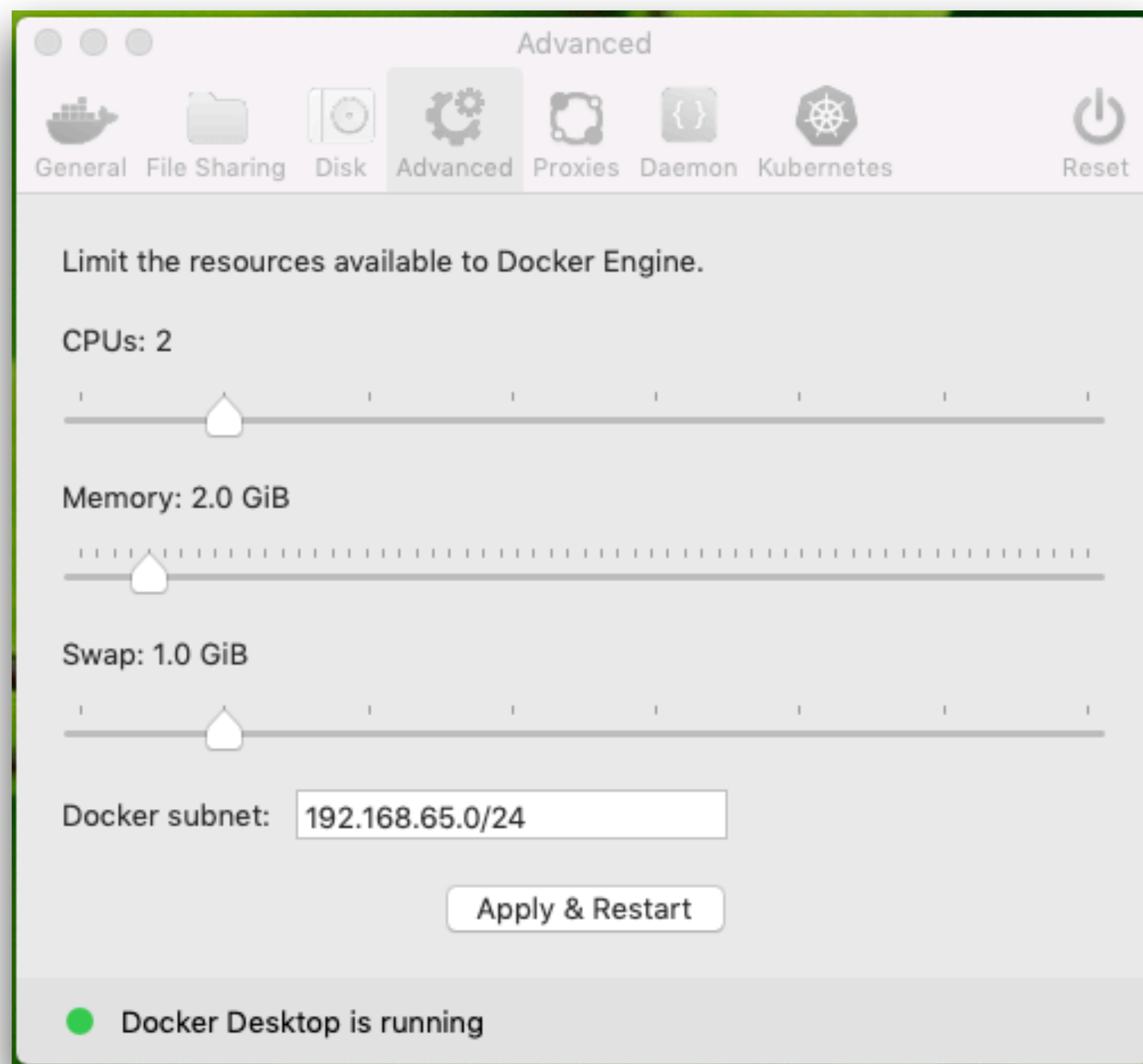
<https://minikube.sigs.k8s.io/>

<https://github.com/kubernetes/minikube>



参考安装步骤 <https://yq.aliyun.com/articles/221687>

# 关闭Docker Desktop中K8s



# 安装kubectl和minikube

安装kubectl      <https://kubernetes.io/docs/tasks/tools/install-kubectl/>

安装minikube      <https://minikube.sigs.k8s.io/docs/start/>

# 第一次启动minikube

```
1. william@jskill: ~ (zsh)
→ ~ minikube start --cpus=4 --memory='6000mb' --image-mirror-country='cn' --image-repository='registry.cn-hangzhou.aliyuncs.com/google_containers'
😊 Darwin 10.14.3 上的 minikube v1.6.2
✨ Automatically selected the 'hyperkit' driver (alternates: [virtualbox])
⚠️ 您所在位置的已知存储库都无法访问。正在将 registry.cn-hangzhou.aliyuncs.com/google_containers 用作后备存储库。
✅ 正在使用映像存储库 registry.cn-hangzhou.aliyuncs.com/google_containers
🔥 正在创建 hyperkit 虚拟机 (CPUs=4, Memory=6000MB, Disk=20000MB) ...
🐳 正在 Docker '19.03.5' 中准备 Kubernetes v1.17.0...
🚀 拉取镜像 ...
🚀 正在启动 Kubernetes ...
⌚ Waiting for cluster to come online ...
🎉 完成! kubectl 已经配置至 "minikube"
→ ~ minikube status
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
→ ~ kubectl config current-context
minikube
→ ~ kubectl config use-context minikube
Switched to context "minikube".
→ ~
```

`minikube start --cpus=4 --memory='6000mb' --image-mirror-country='cn' --image-repository='registry.cn-hangzhou.aliyuncs.com/google_containers'`



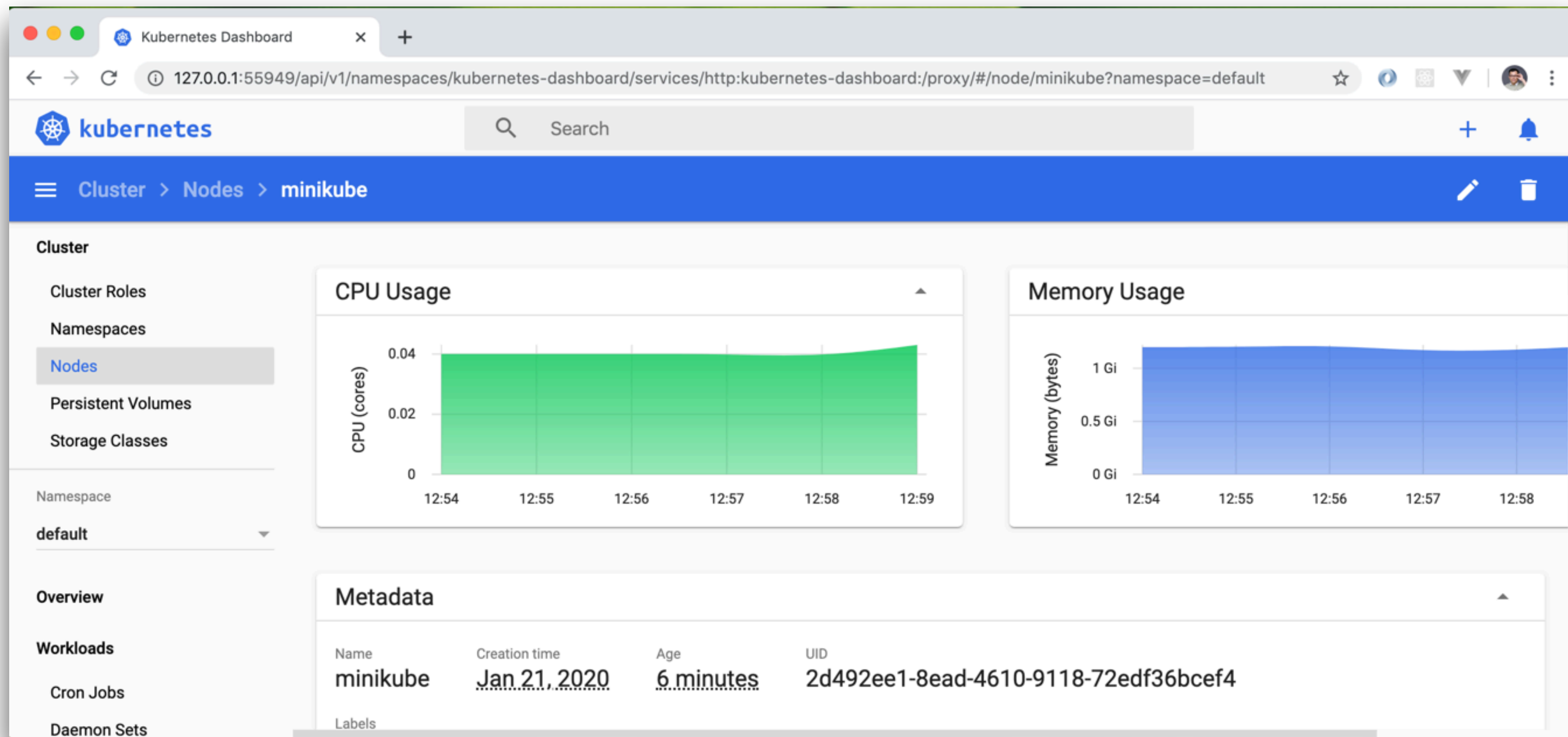
# 校验kubectl

```
1. william@jskill: ~ (zsh)
→ ~ kubectl version
Client Version: version.Info{Major:"1", Minor:"17", GitVersion:"v1.17.1", GitCommit:"d224476cd0730baca2b6e357d144171ed74192d6", GitTreeState:"clean", BuildDate:"2020-01-15T15:50:25Z", GoVersion:"go1.13.6", Compiler:"gc", Platform:"darwin/amd64"}
Server Version: version.Info{Major:"1", Minor:"17", GitVersion:"v1.17.0", GitCommit:"70132b0f130acc0bed193d9ba59dd186f0e634cf", GitTreeState:"clean", BuildDate:"2019-12-07T21:12:17Z", GoVersion:"go1.13.4", Compiler:"gc", Platform:"linux/amd64"}
→ ~ kubectl cluster-info
Kubernetes master is running at https://192.168.64.9:8443
KubeDNS is running at https://192.168.64.9:8443/api/v1/namespaces/kube-system/services/kube-dns:dns/proxy

To further debug and diagnose cluster problems, use 'kubectl cluster-info dump'.
→ ~ kubectl get no
NAME          STATUS    ROLES    AGE   VERSION
minikube      Ready    master   22m   v1.17.0
→ ~
```

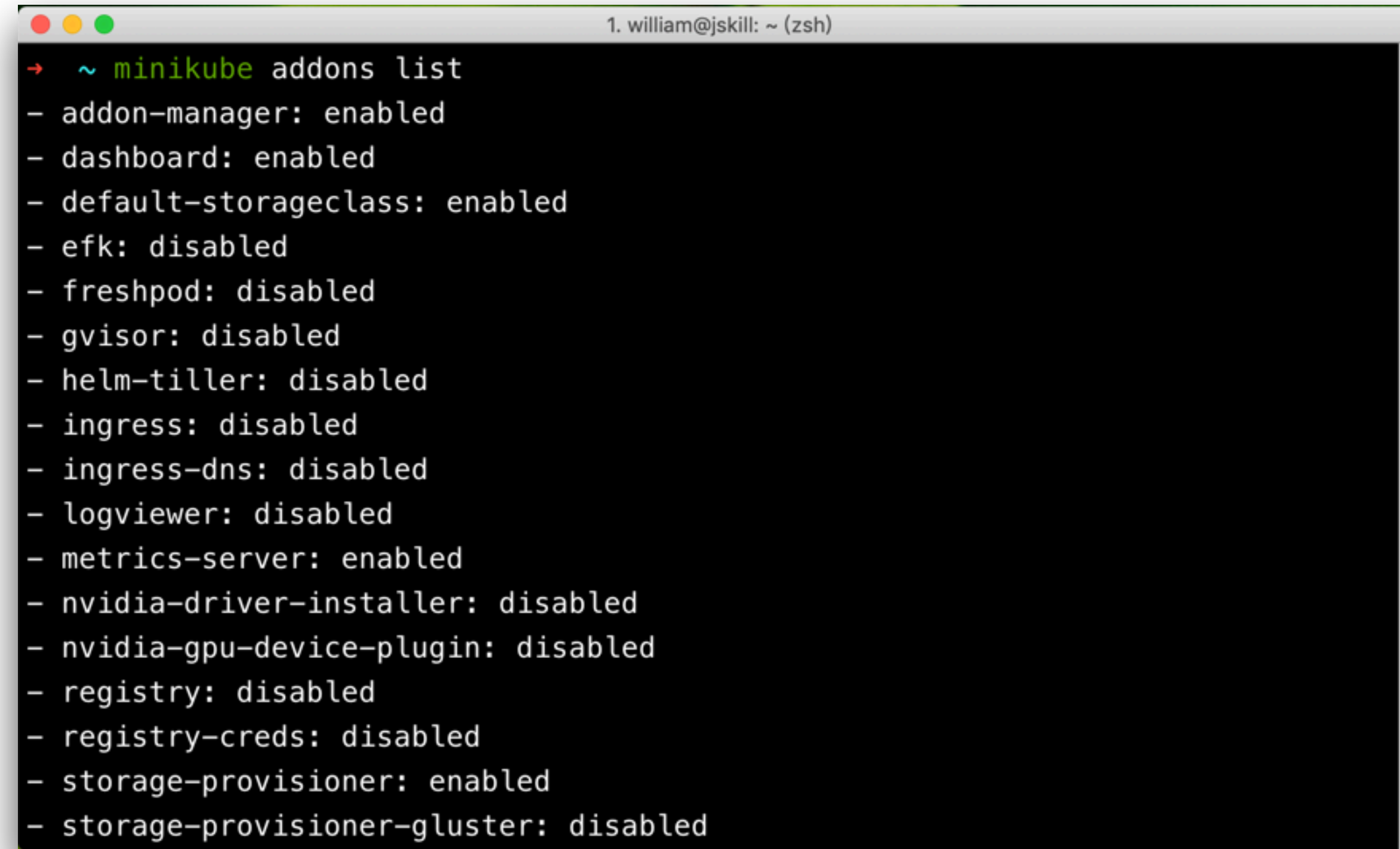
# 检验 kubernetes dashboard

```
1. minikube dashboard (docker-machine-d)
→ ~ minikube dashboard
😬 Verifying dashboard health ...
🚀 Launching proxy ...
😬 Verifying proxy health ...
🎉 Opening http://127.0.0.1:55949/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
```





# 查看和启用addons

A terminal window with a dark background and light green text. The window title bar shows '1. william@jskill: ~ (zsh)'. The command '~ minikube addons list' has been executed, resulting in a list of addons and their status. The list includes: addon-manager (enabled), dashboard (enabled), default-storageclass (enabled), efk (disabled), freshpod (disabled), gvisor (disabled), helm-tiller (disabled), ingress (disabled), ingress-dns (disabled), logviewer (disabled), metrics-server (enabled), nvidia-driver-installer (disabled), nvidia-gpu-device-plugin (disabled), registry (disabled), registry-creds (disabled), storage-provisioner (enabled), and storage-provisioner-gluster (disabled).

```
1. william@jskill: ~ (zsh)
→ ~ minikube addons list
- addon-manager: enabled
- dashboard: enabled
- default-storageclass: enabled
- efk: disabled
- freshpod: disabled
- gvisor: disabled
- helm-tiller: disabled
- ingress: disabled
- ingress-dns: disabled
- logviewer: disabled
- metrics-server: enabled
- nvidia-driver-installer: disabled
- nvidia-gpu-device-plugin: disabled
- registry: disabled
- registry-creds: disabled
- storage-provisioner: enabled
- storage-provisioner-gluster: disabled
```

# 本课小结



- 本地启用minikube环境
  - K8s in local VM
  - 开发/学习用，更贴近真实K8s环境
- Minikube参考文档
  - <https://minikube.sigs.k8s.io/docs/>