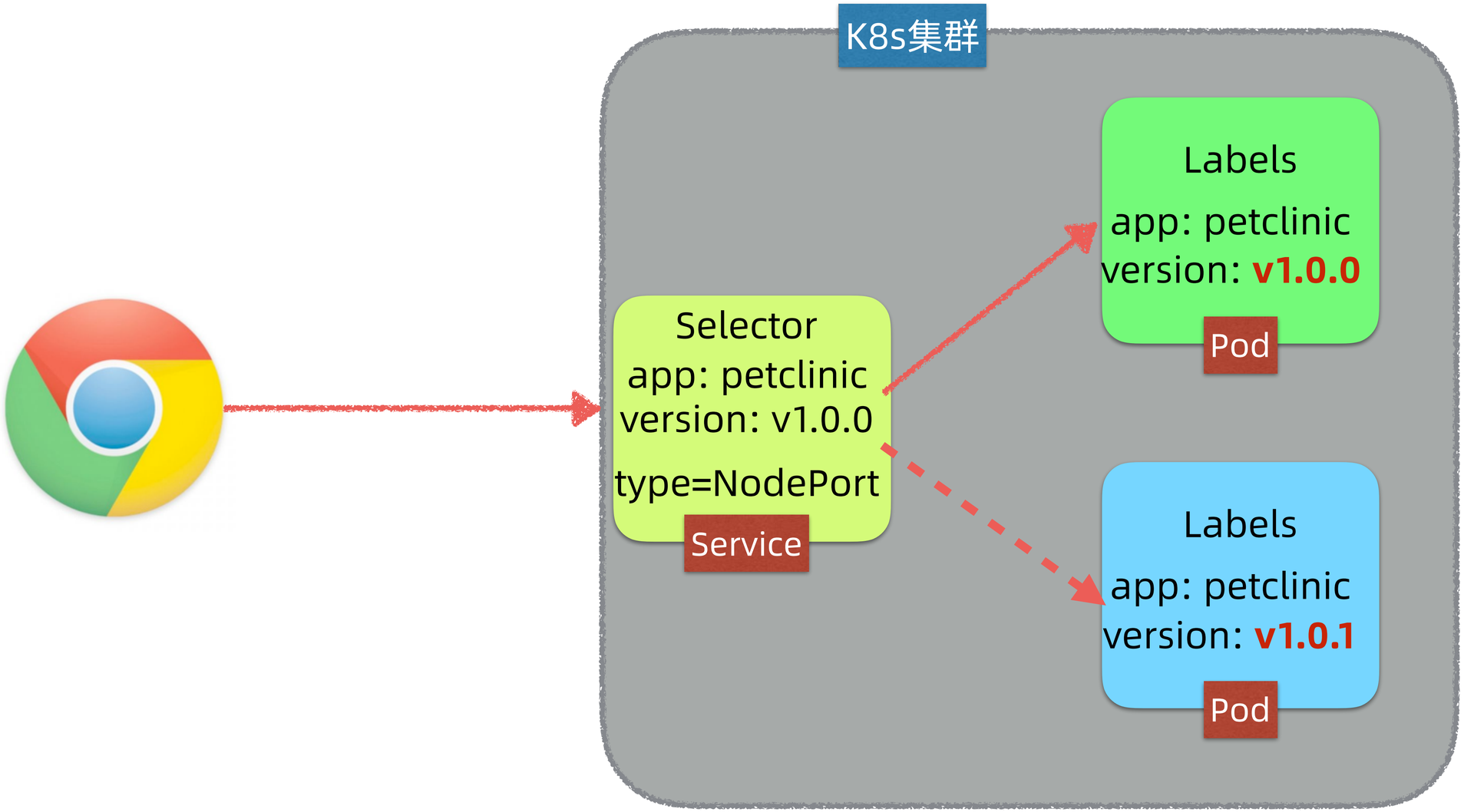
第 5 节

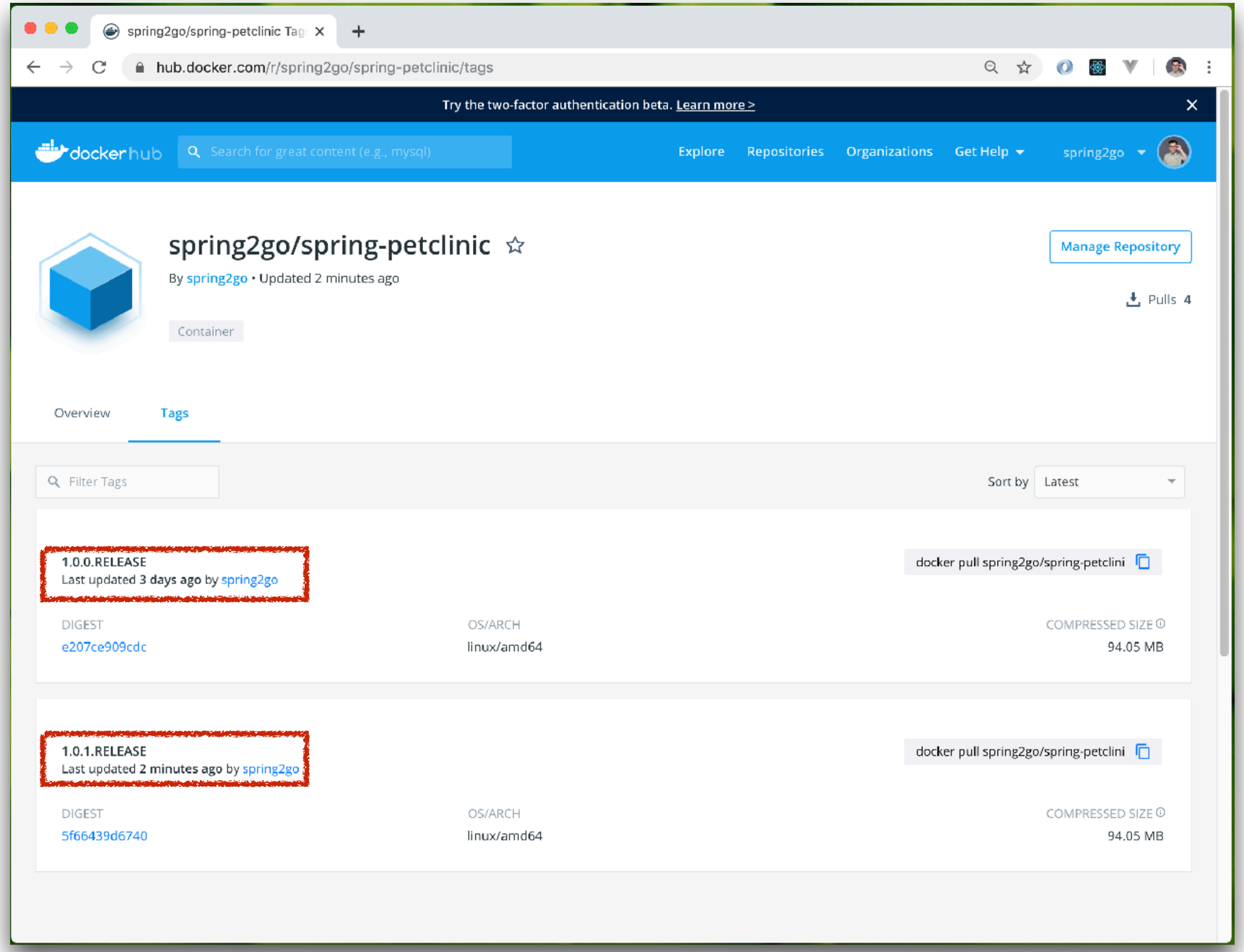
通过Service实现蓝绿发布

本课内容

- 蓝绿发布基本原理
- 基于Service/Selector/Label实现PetClinic的蓝绿发布

Selector/Label和蓝绿发布




spring2go/spring-petclinic Tag
hub.docker.com/r/spring2go/spring-petclinic/tags
Try the two-factor authentication beta. Learn more >
docker hub
Search for great content (e.g., mysql)
Explore
Repositories
Organizations
Get Help
spring2go
spring2go/spring-petclinic
By spring2go • Updated 2 minutes ago
Container
Manage Repository
Pulls 4
Overview
Tags
Filter Tags
Sort by
Latest
1.0.0.RELEASE
Last updated 3 days ago by spring2go
docker pull spring2go/spring-petclini
DIGEST
e207ce909cdc
OS/ARCH
linux/amd64
COMPRESSED SIZE
94.05 MB
1.0.1.RELEASE
Last updated 2 minutes ago by spring2go
docker pull spring2go/spring-petclini
DIGEST
5f66439d6740
OS/ARCH
linux/amd64
COMPRESSED SIZE
94.05 MB

petclinic-pod-v1.0.0.yml

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: petclinic-v1.0.0
  labels:
    app: petclinic
    version: v1.0.0
spec:
  containers:
    - name: petclinic
      image: spring2go/spring-petclinic:1.0.0.RELEASE
```

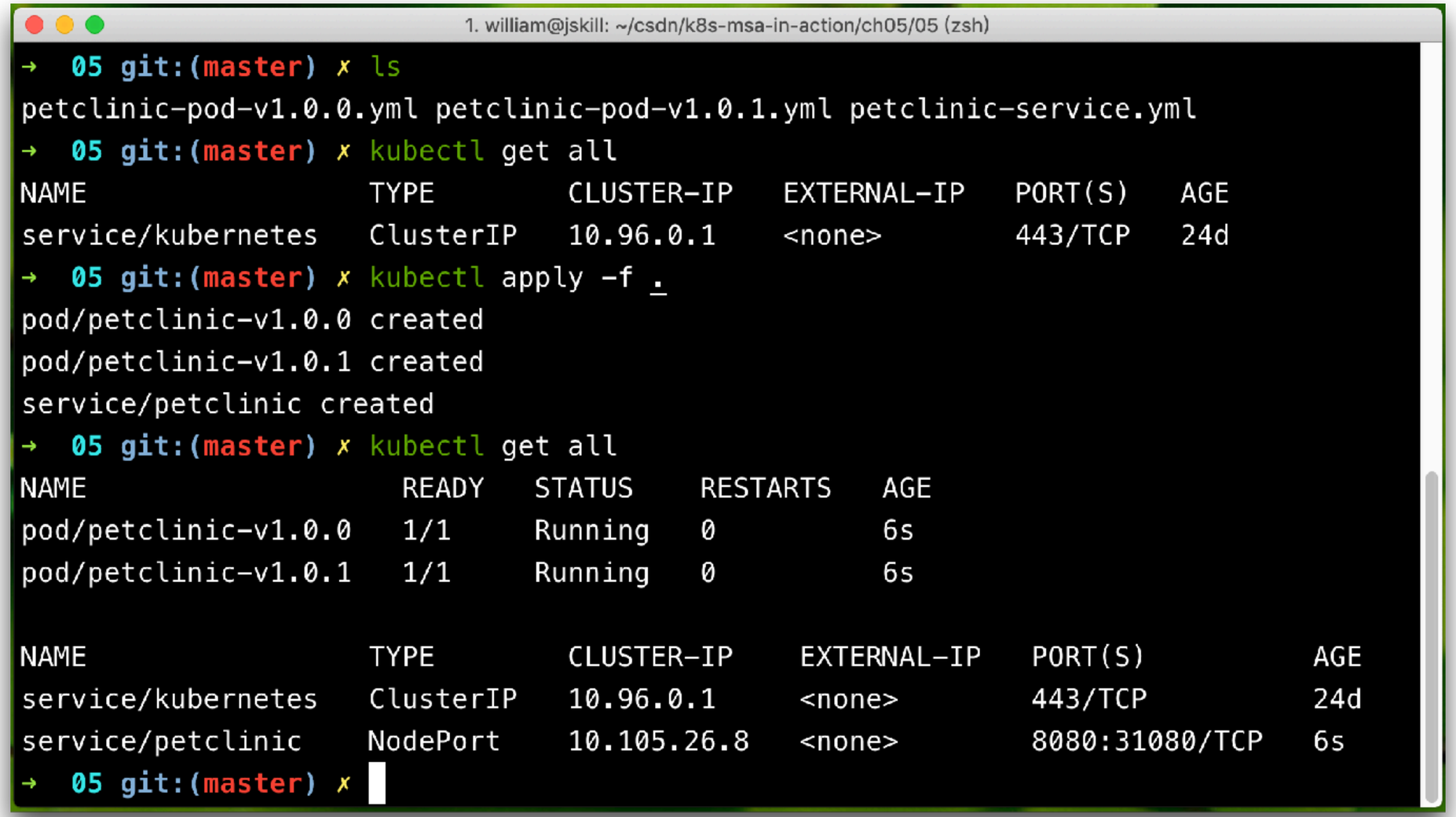
petclinic-pod-v1.0.1.yml

```yaml
apiVersion: v1
kind: Pod
metadata:
  name: petclinic-v1.0.1
  labels:
    app: petclinic
    version: v1.0.1
spec:
  containers:
    - name: petclinic
      image: spring2go/spring-petclinic:1.0.1.RELEASE
```

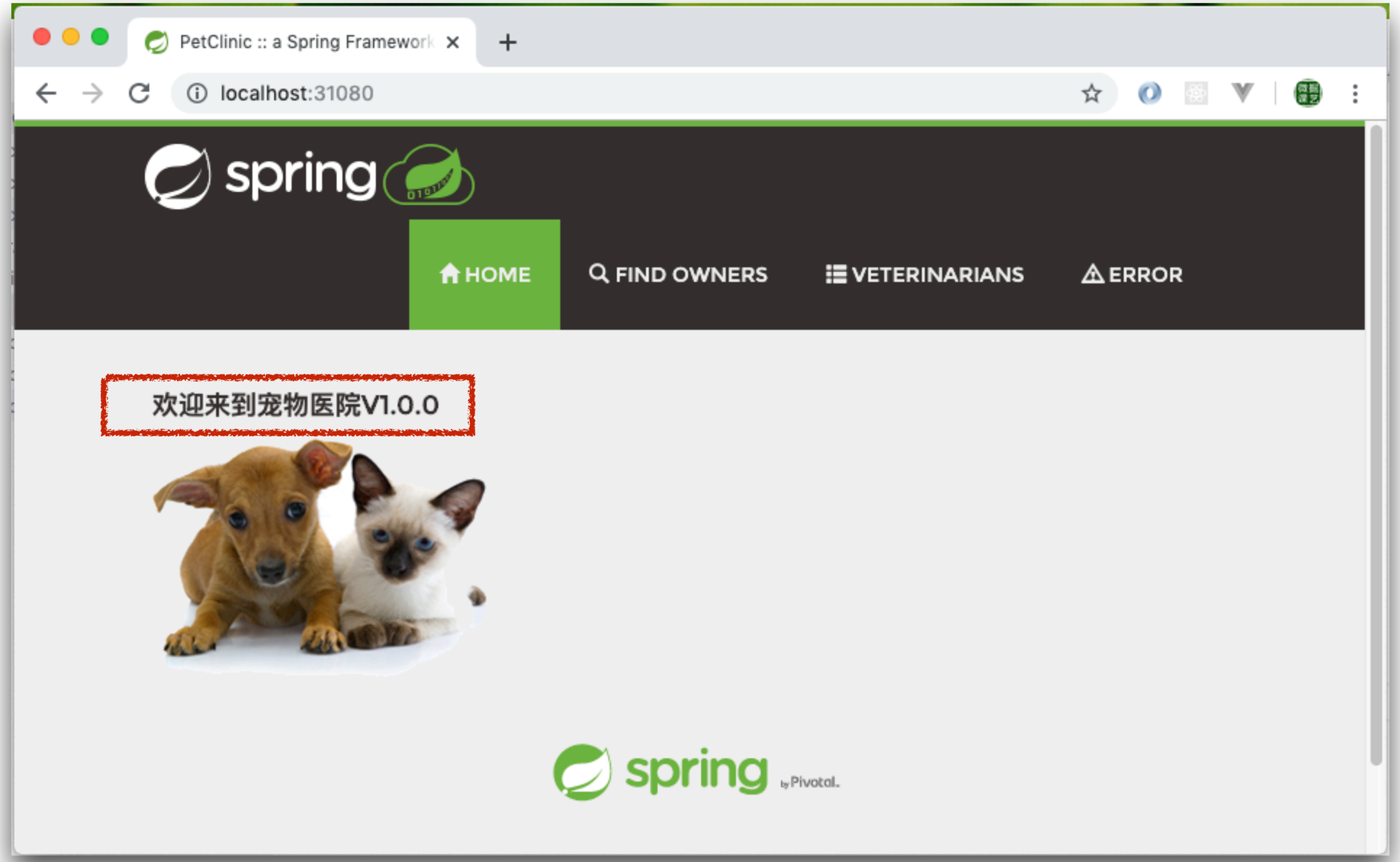
petclinic-service.yml

```yaml
apiVersion: v1
kind: Service
metadata:
  name: petclinic
spec:
  ports:
    - name: http
      port: 8080
      targetPort: 8080
      nodePort: 31080
  selector:
    app: petclinic
    version: v1.0.0
  type: NodePort
```

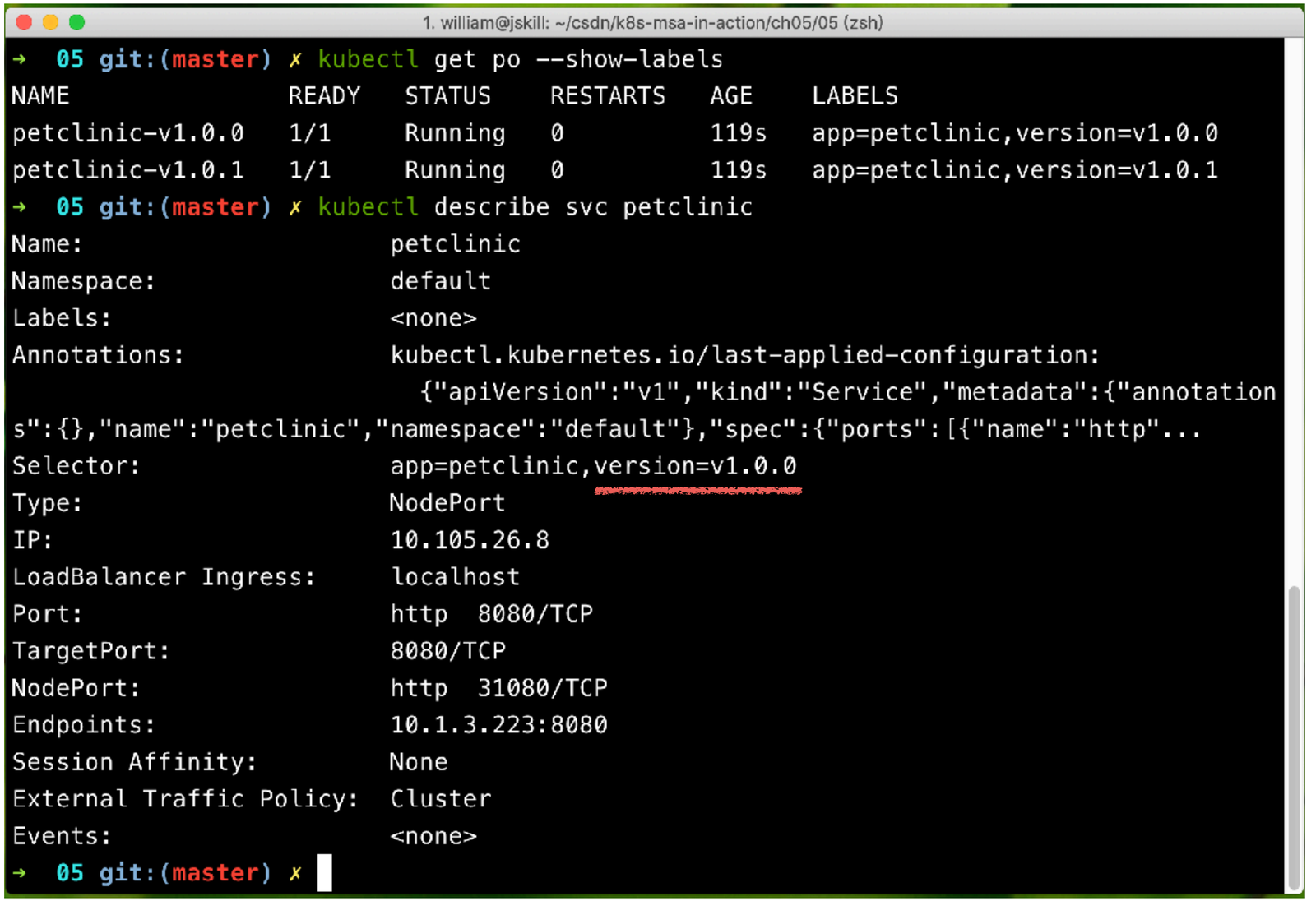
发布v1.0.0版本


1. william@jskill: ~/csdn/k8s-msa-in-action/ch05/05 (zsh)
→ 05 git:(master) ✗ ls
petclinic-pod-v1.0.0.yml petclinic-pod-v1.0.1.yml petclinic-service.yml
→ 05 git:(master) ✗ kubectl get all
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 24d
→ 05 git:(master) ✗ kubectl apply -f .
pod/petclinic-v1.0.0 created
pod/petclinic-v1.0.1 created
service/petclinic created
→ 05 git:(master) ✗ kubectl get all
NAME READY STATUS RESTARTS AGE
pod/petclinic-v1.0.0 1/1 Running 0 6s
pod/petclinic-v1.0.1 1/1 Running 0 6s
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 24d
service/petclinic NodePort 10.105.26.8 <none> 8080:31080/TCP 6s
→ 05 git:(master) ✗

v1.0.0校验成功


PetClinic :: a Spring Framework
localhost:31080
spring
HOME
FIND OWNERS
VETERINARIANS
ERROR
欢迎来到宠物医院V1.0.0
spring by Pivotal.

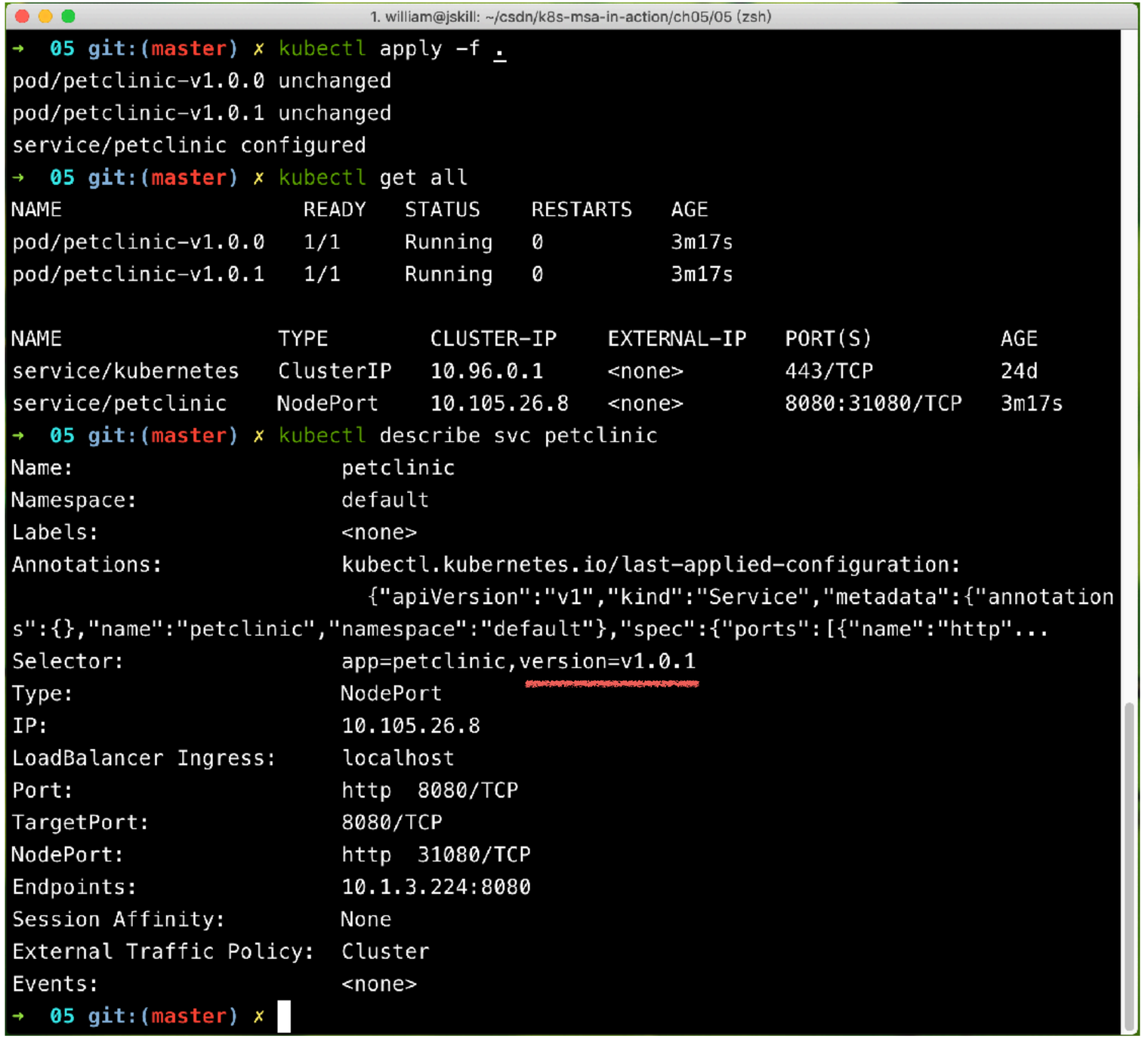
查看资源Label和Selector



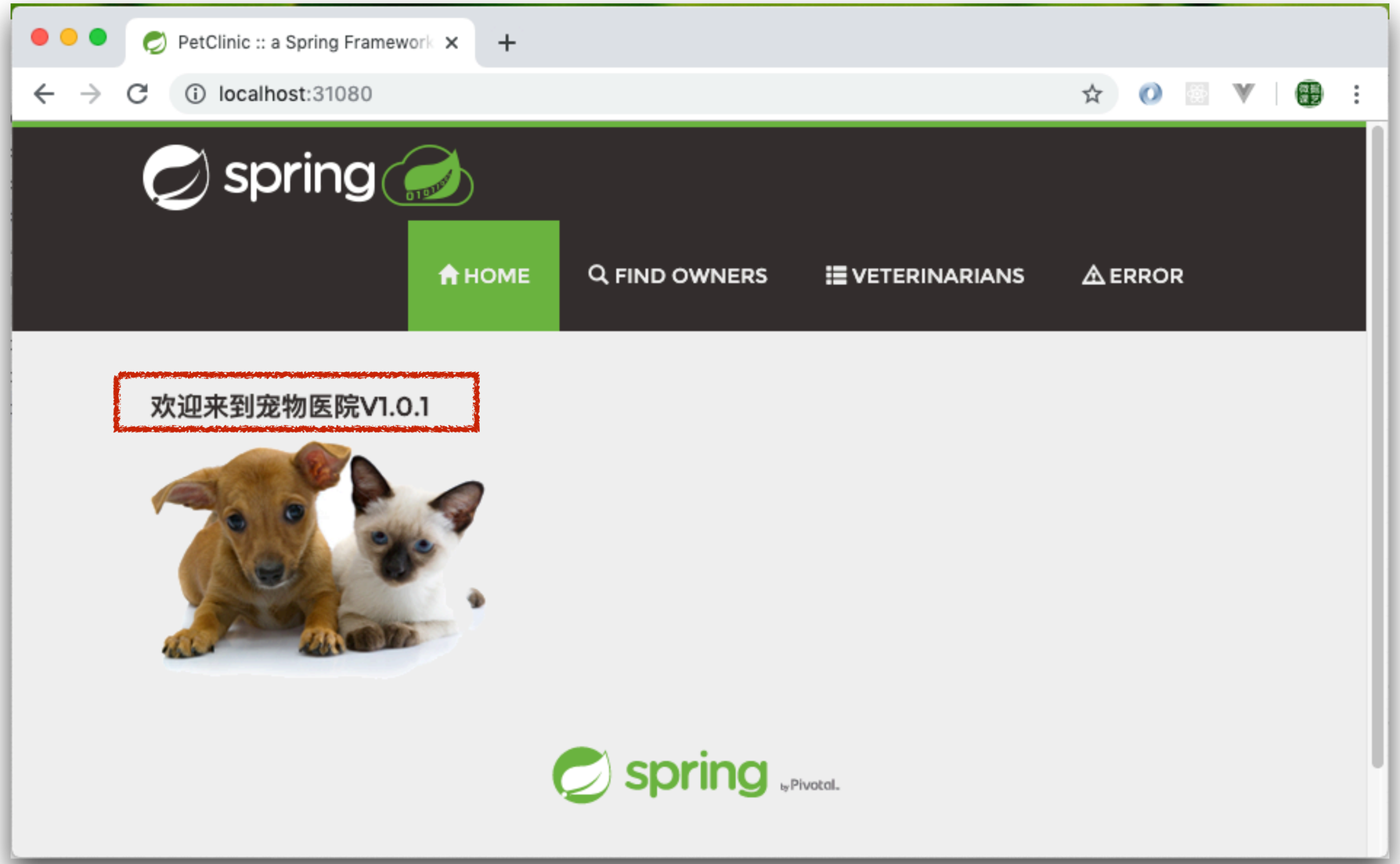
更新petclinic-service.yml，发布v1.0.1

```yaml
apiVersion: v1
kind: Service
metadata:
  name: petclinic-svc
spec:
  ports:
    - name: http
      port: 8080
      targetPort: 8080
      nodePort: 31080
  selector:
    app: petclinic
    version: v1.0.1
  type: NodePort
```

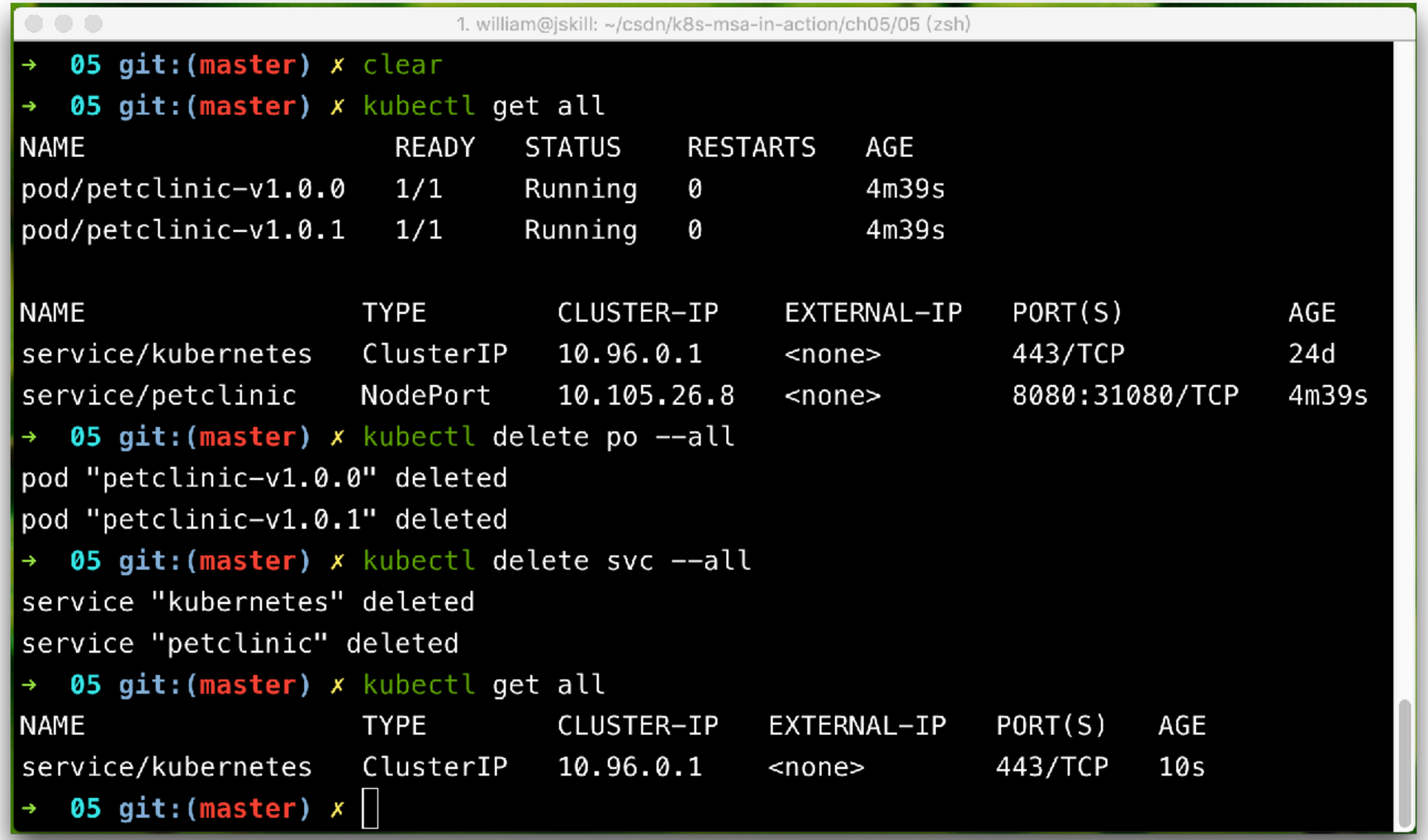
发布v1.0.1版本


1. william@jskill: ~/csdn/k8s-msa-in-action/ch05/05 (zsh)
→ 05 git:(master) ✗ kubectl apply -f .
pod/petclinic-v1.0.0 unchanged
pod/petclinic-v1.0.1 unchanged
service/petclinic configured
→ 05 git:(master) ✗ kubectl get all
NAME READY STATUS RESTARTS AGE
pod/petclinic-v1.0.0 1/1 Running 0 3m17s
pod/petclinic-v1.0.1 1/1 Running 0 3m17s
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 24d
service/petclinic NodePort 10.105.26.8 <none> 8080:31080/TCP 3m17s
→ 05 git:(master) ✗ kubectl describe svc petclinic
Name: petclinic
Namespace: default
Labels: <none>
Annotations: kubectl.kubernetes.io/last-applied-configuration:
{"apiVersion":"v1","kind":"Service","metadata":{"annotation
s":{},"name":"petclinic","namespace":"default"},"spec":{"ports":[{"name":"http"...
Selector: app=petclinic,version=v1.0.1
Type: NodePort
IP: 10.105.26.8
LoadBalancer Ingress: localhost
Port: http 8080/TCP
TargetPort: 8080/TCP
NodePort: http 31080/TCP
Endpoints: 10.1.3.224:8080
Session Affinity: None
External Traffic Policy: Cluster
Events: <none>
→ 05 git:(master) ✗

v1.0.1校验成功


PetClinic :: a Spring Framework
localhost:31080
spring
HOME
FIND OWNERS
VETERINARIANS
ERROR
欢迎来到宠物医院V1.0.1
spring by Pivotal.

环境清理


1. william@jskill: ~/csdn/k8s-msa-in-action/ch05/05 (zsh)
→ 05 git:(master) ✗ clear
→ 05 git:(master) ✗ kubectl get all
NAME READY STATUS RESTARTS AGE
pod/petclinic-v1.0.0 1/1 Running 0 4m39s
pod/petclinic-v1.0.1 1/1 Running 0 4m39s
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 24d
service/petclinic NodePort 10.105.26.8 <none> 8080:31080/TCP 4m39s
→ 05 git:(master) ✗ kubectl delete po --all
pod "petclinic-v1.0.0" deleted
pod "petclinic-v1.0.1" deleted
→ 05 git:(master) ✗ kubectl delete svc --all
service "kubernetes" deleted
service "petclinic" deleted
→ 05 git:(master) ✗ kubectl get all
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 10s
→ 05 git:(master) ✗

本课小结

- 蓝绿发布是一种应用升级发布方式
- 通过Service配合Label/Selector可以实现蓝绿发布