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节

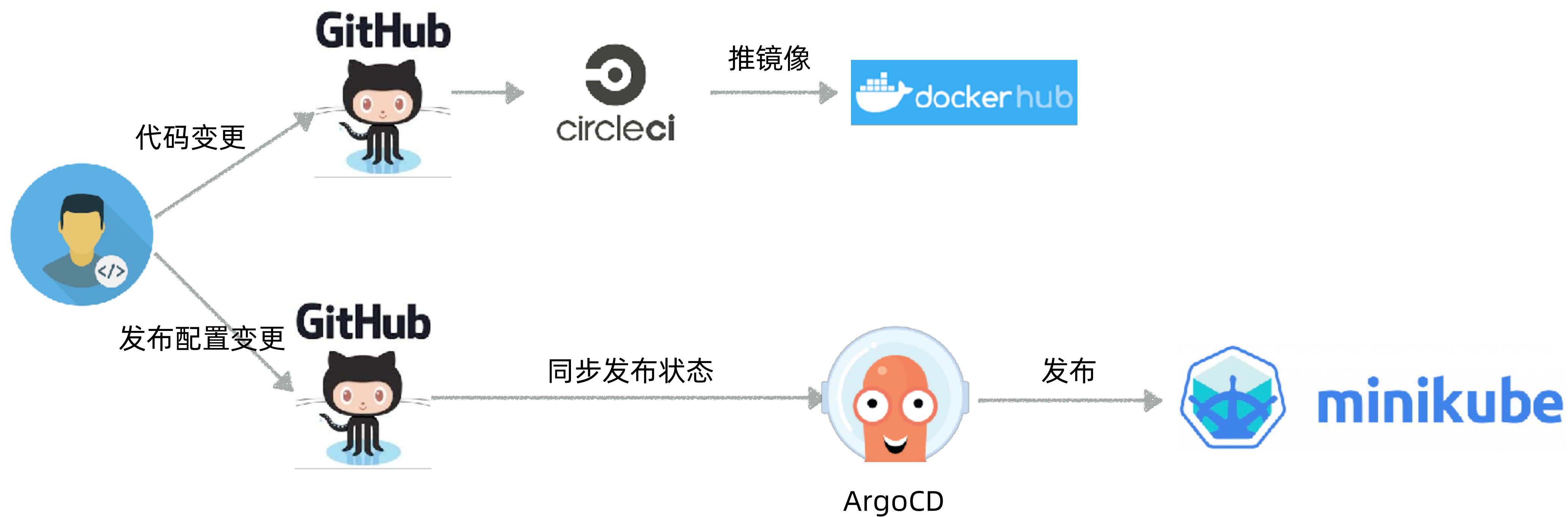
PetClinic微服务的GitOps流水线演示

本课内容

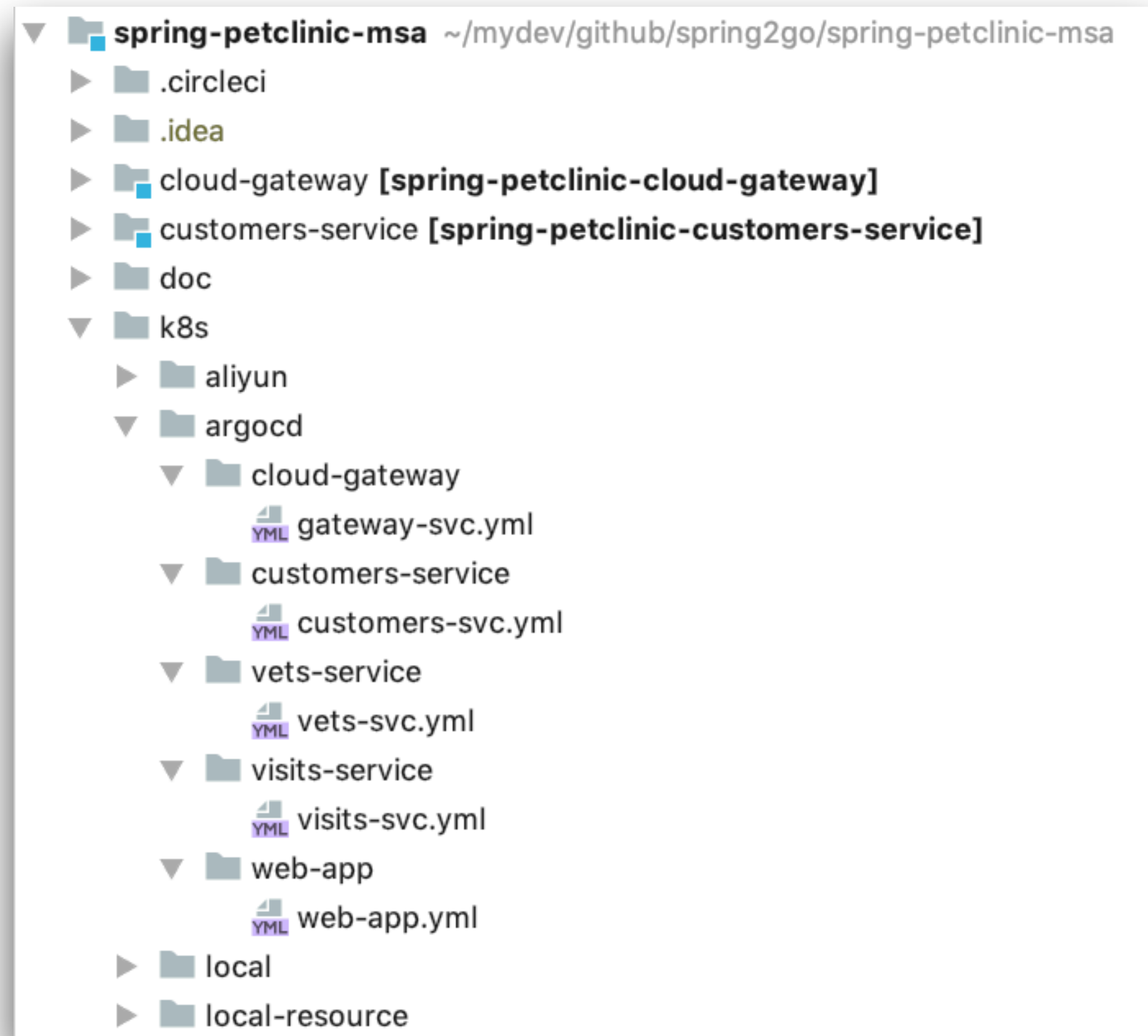


- 演示PetClinic微服务的端到端CI/CD/GitOps流水线，基于CircleCI和ArgoCD
 - PetClinic项目源码添加面向ArgoCD的K8s发布文件
 - ArgoCD应用配置
 - 发布原版PetClinic微服务
 - 修改微服务代码触发CI
 - 修改K8s发布文件触发CD
 - 校验PetClinic微服务更新
 - 环境清理

Petclinic微服务GitOps流水线



PetClinic微服务添加面向ArgoCD的发布文件



ArgoCD应用配置

The screenshot displays the Argo CD web interface for creating a new application. The left sidebar shows the 'Applications' section with a version indicator 'v1.5.0+e'. The main content area is titled 'Applications' and includes 'CREATE' and 'CANCEL' buttons. The application configuration is divided into several sections:

- GENERAL**:
 - Application Name: `petclinic-msa-web-app`
 - Project: `default`
- SYNC POLICY**:
 - Manual
- SYNC OPTIONS**:
 - ☒ USE A SCHEMA TO VALIDATE RESOURCE MANIFESTS
- SOURCE**:
 - Repository URL: `https://github.com/spring2go/spring-petclinic-msa` (GIT)
 - Revision: `HEAD`
 - Path: `k8s/argo/web-app`

A modal window titled 'DESTINATION' is open on the right, showing the following configuration:

- Cluster: `https://kubernetes.default.svc`
- Namespace: `default`

An 'EDIT AS YAML' button is visible in the top right corner of the modal.

初次同步应用

petclinic-msa-web-app

Project: default

Labels:

Status:  Healthy  Synced

Repository: <https://github.com/spring2go/spring-pe...>

Target R... HEAD

Path: k8s/argocd/web-app

Destinati... <https://kubernetes.default.svc>

Namesp... default

 SYNC

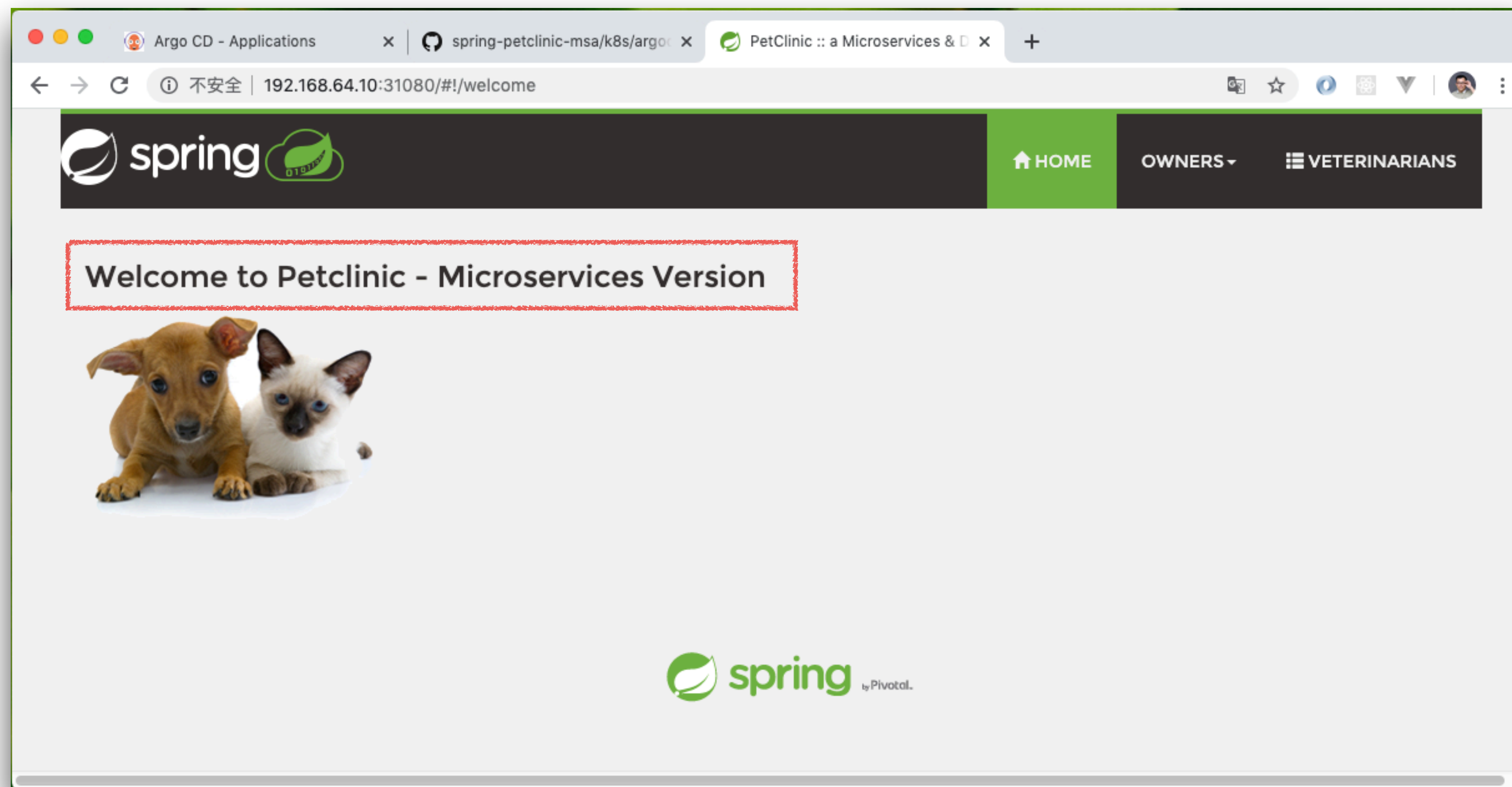
 REFRESH

 DELETE

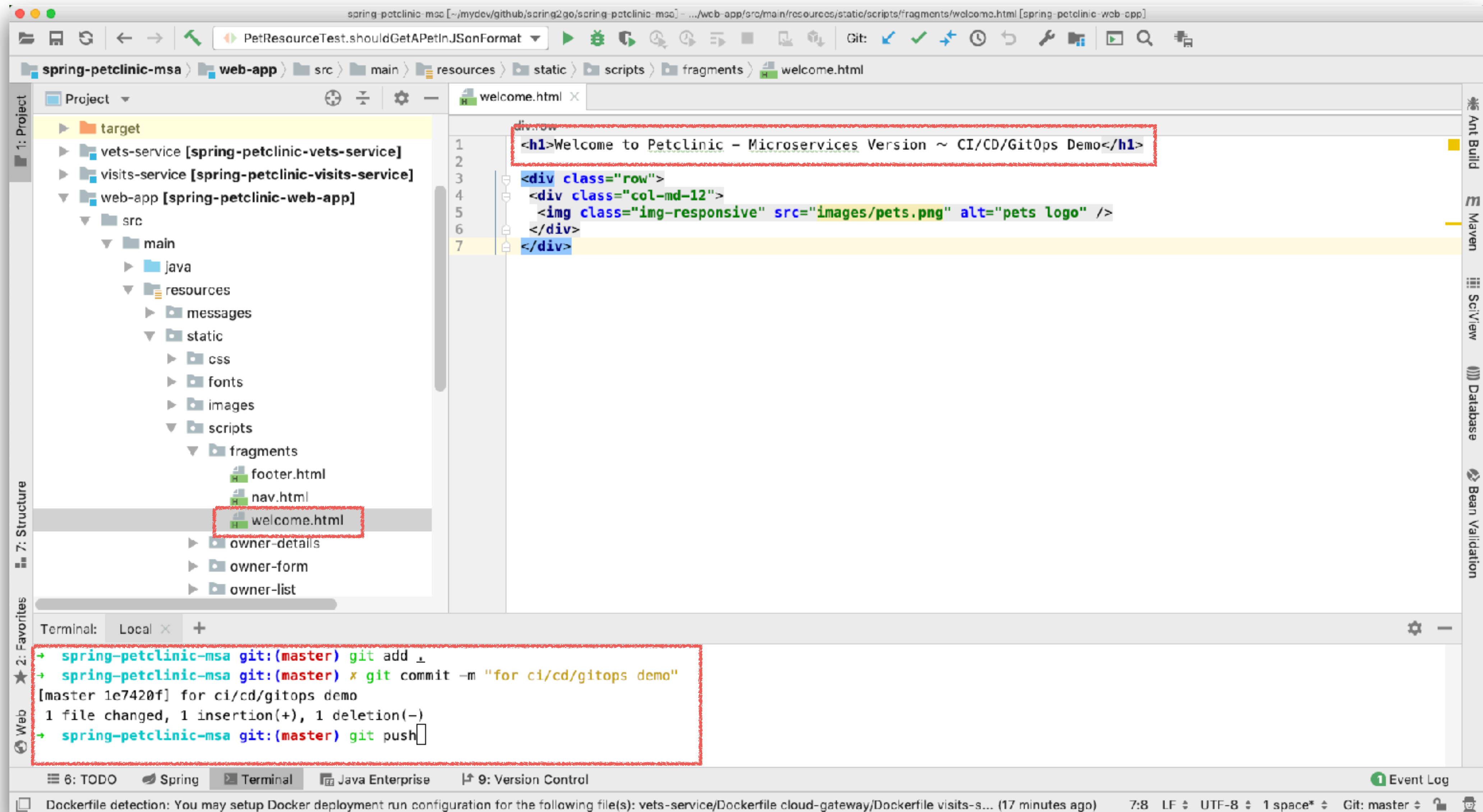
发布原版PetClinic微服务

```
1. william@jskill: ~/mydev/github/spring2go/spring-petclinic-msa/k8s/local (zsh)
kubectl (kubectl) 1/1 ..msa/k8s/local (zsh) 2/2
→ local git:(master) pwd
/Users/william/mydev/github/spring2go/spring-petclinic-msa/k8s/local
→ local git:(master) ls
customers-svc.yml ingress visits-svc.yml
gateway-svc.yml vets-svc.yml web-app.yml
→ local git:(master) kubectl apply -f .
deployment.apps/customers created
service/customers created
deployment.apps/gateway created
service/gateway created
deployment.apps/vets created
service/vets created
deployment.apps/visits created
service/visits created
deployment.apps/web created
service/web created
→ local git:(master) kubectl get po
NAME                                READY   STATUS    RESTARTS   AGE
customers-5468b6f54f-dtmwr          1/1     Running   0           12s
gateway-cf658f568-pxwlk             1/1     Running   0           12s
vets-fd6d6c964-gczxt               1/1     Running   0           12s
visits-58d7dbf5cd-qwhq2             0/1     Running   0           12s
web-7bc7767bbb-7nb42               1/1     Running   0           12s
→ local git:(master)
```

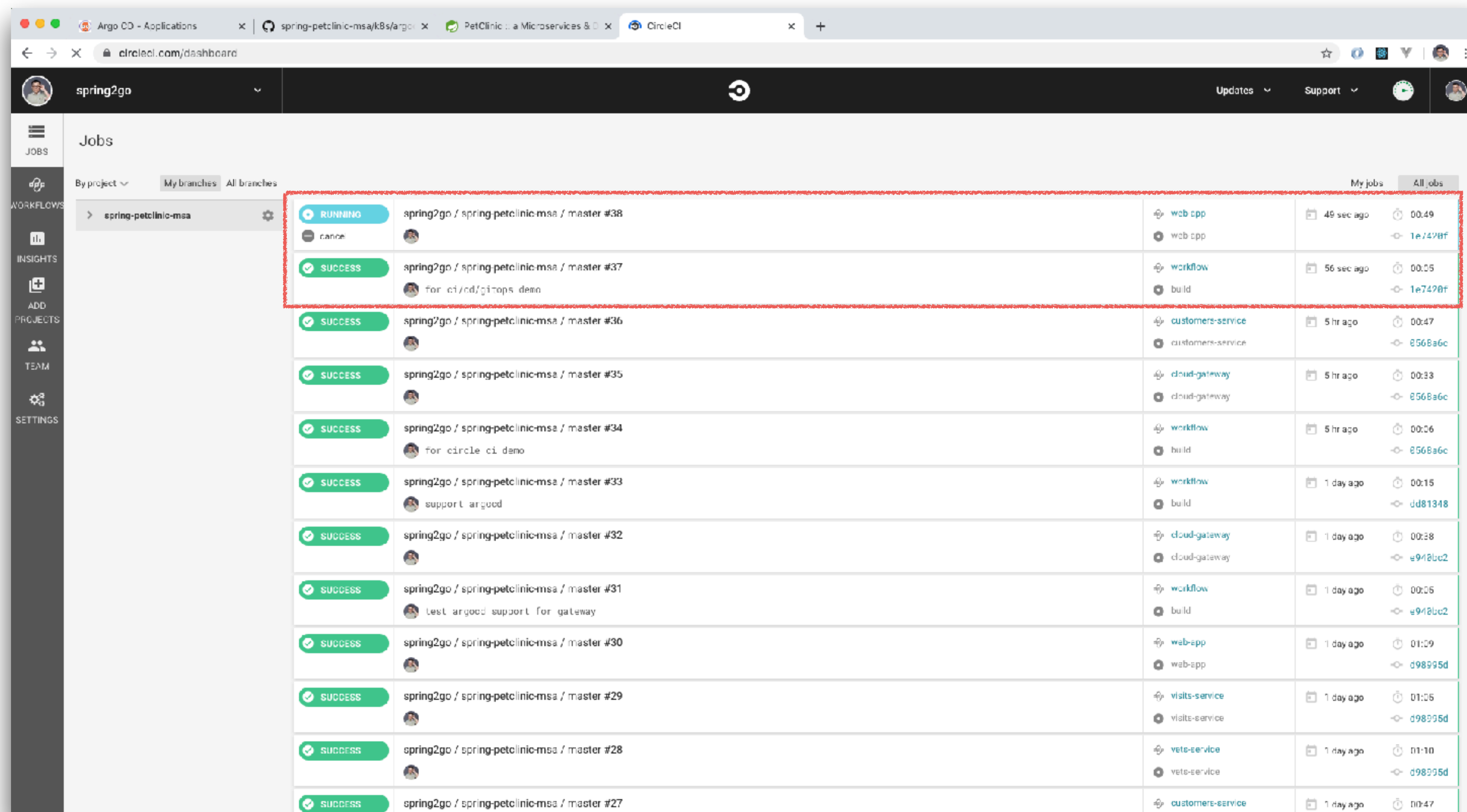
校验PetClinic发布成功



修改web-app代码并提交github



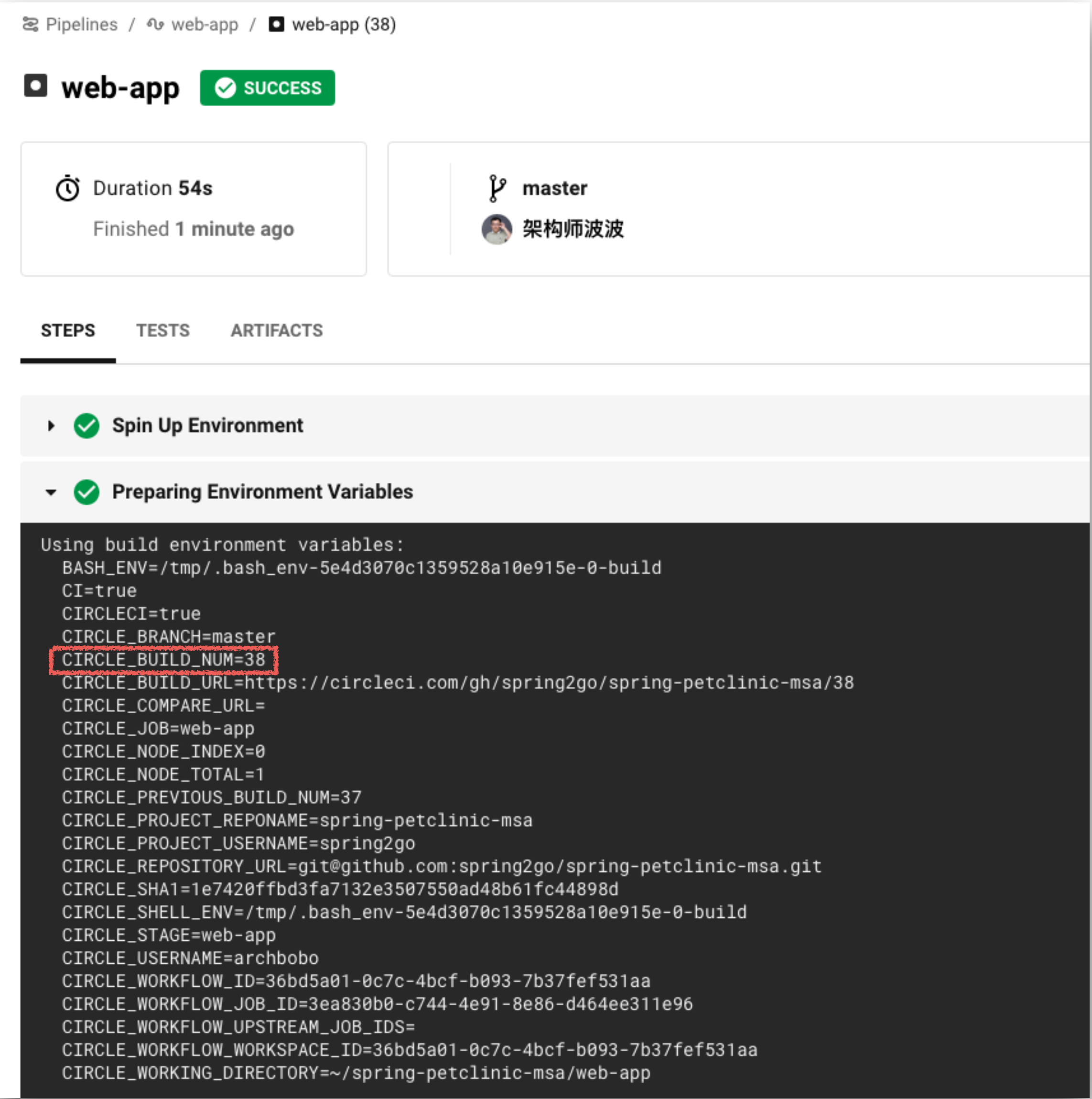
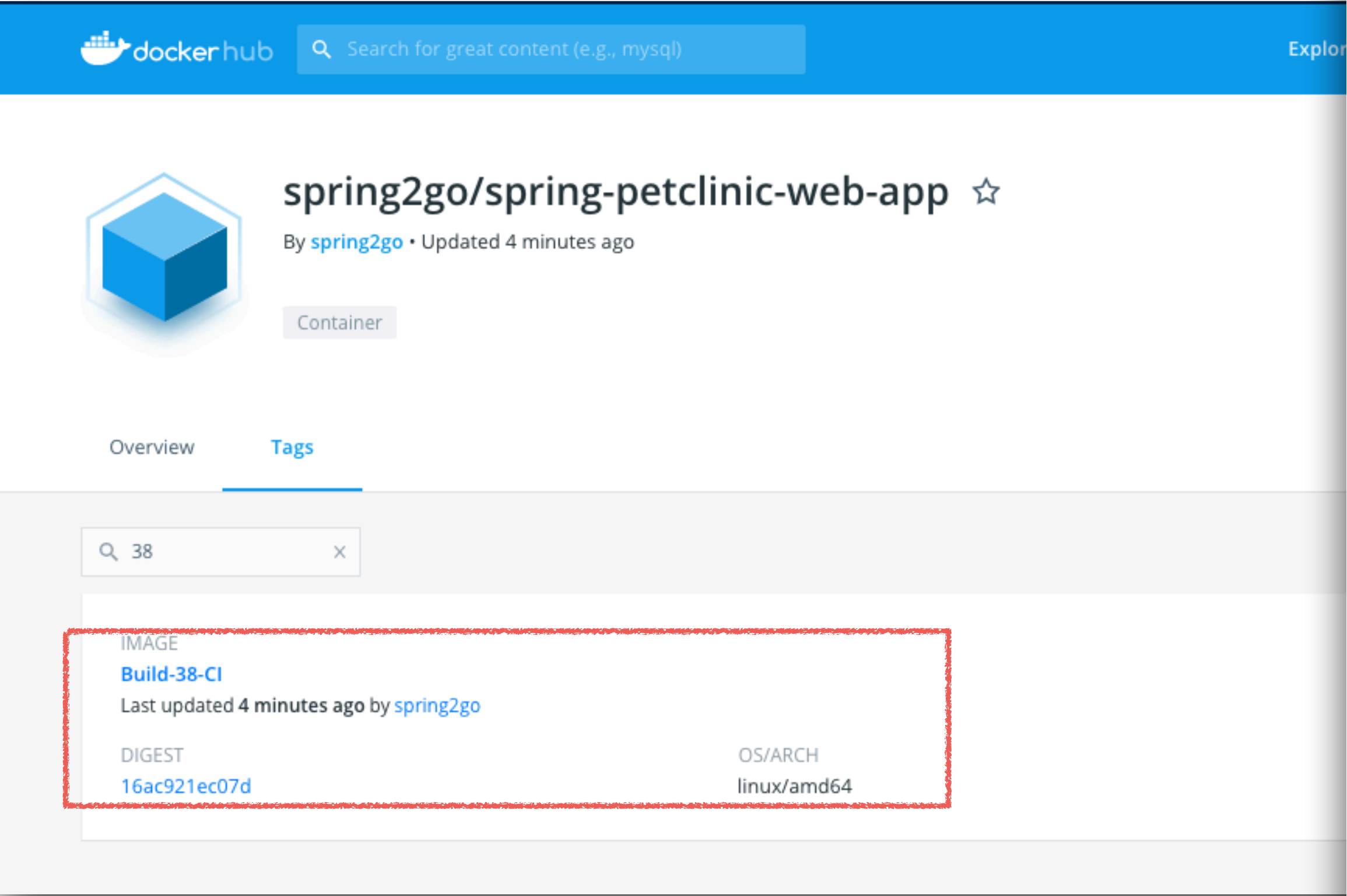
校验CircleCI触发



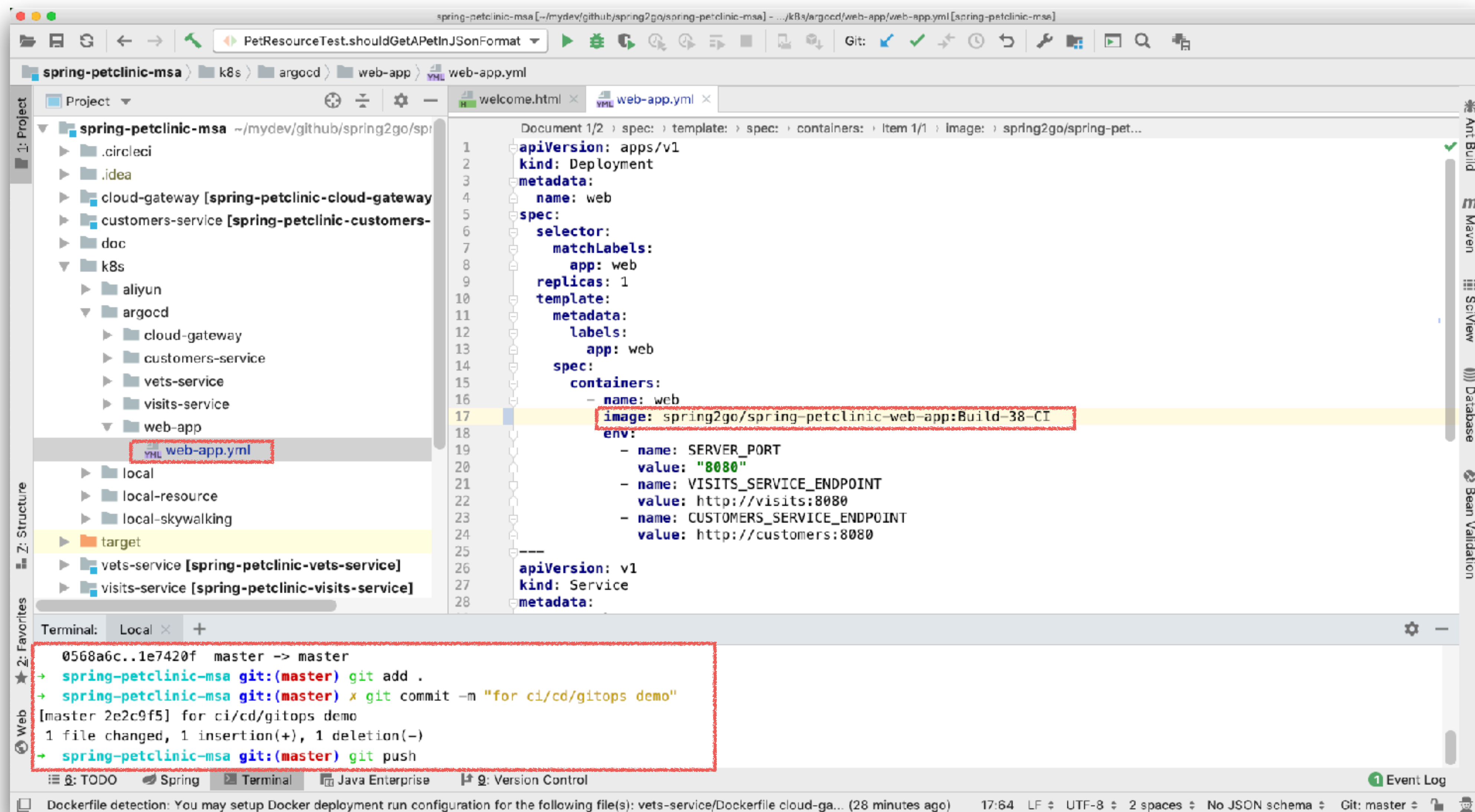
The screenshot shows the CircleCI dashboard for the 'spring2go' organization. The 'Jobs' section is active, displaying a list of jobs for the 'spring-petclinic-msa' project. A red box highlights the first two jobs in the list.

Job Status	Job Name	Job ID	Job Type	Job Duration	Job Link
RUNNING	spring2go / spring-petclinic-msa / master #38	1e7478f	web-app	49 sec ago	00:49
SUCCESS	spring2go / spring-petclinic-msa / master #37 for ci/cd/gitops demo	1e7478f	workflow build	56 sec ago	00:05
SUCCESS	spring2go / spring-petclinic-msa / master #36	8568a6c	customers-service	5 hr ago	00:47
SUCCESS	spring2go / spring-petclinic-msa / master #35	8568a6c	cloud-gateway	5 hr ago	00:33
SUCCESS	spring2go / spring-petclinic-msa / master #34 for circle ci demo	8568a6c	workflow build	5 hr ago	00:06
SUCCESS	spring2go / spring-petclinic-msa / master #33 support argued	dd81348	workflow build	1 day ago	00:15
SUCCESS	spring2go / spring-petclinic-msa / master #32	e948bc2	cloud-gateway	1 day ago	00:38
SUCCESS	spring2go / spring-petclinic-msa / master #31 test argued support for gateway	e948bc2	workflow build	1 day ago	00:06
SUCCESS	spring2go / spring-petclinic-msa / master #30	d98995d	web-app	1 day ago	01:09
SUCCESS	spring2go / spring-petclinic-msa / master #29	d98995d	visits-service	1 day ago	01:06
SUCCESS	spring2go / spring-petclinic-msa / master #28	d98995d	veto-service	1 day ago	01:10
SUCCESS	spring2go / spring-petclinic-msa / master #27		customers-service	1 day ago	00:47

校验镜像上传成功








修改web-app的k8s发布文件并提交github



ArgoCD检测到配置失去同步OutOfSync

petclinic-msa-web-app

Project:	default
Labels:	
Status:	 Healthy  OutOfSync
Repository:	https://github.com/spring2go/spring-pe...
Target R...	HEAD
Path:	k8s/argocd/web-app
Destinati...	https://kubernetes.default.svc
Namesp...	default



 SYNC  REFRESH  DELETE

点击SYNC同步配置

petclinic-msa-web-app

Project: default

Labels:

Status:  Healthy  OutOfSync




Reposito... <https://github.com/spring2go/spring-pe...>

Target R... HEAD

Path: k8s/argocd/web-app

Destinati... <https://kubernetes.default.svc>



Namesp... default

 SYNC  REFRESH  DELETE

petclinic-msa-web-app

Project: default

Labels:

Status:  Progressing  Synced




Reposito... <https://github.com/spring2go/spring-pe...>

Target R... HEAD

Path: k8s/argocd/web-app

Destinati... <https://kubernetes.default.svc>



Namesp... default

 SYNC  REFRESH  DELETE

petclinic-msa-web-app

Project: default

Labels:

Status:  Healthy  Synced




Reposito... <https://github.com/spring2go/spring-pe...>

Target R... HEAD

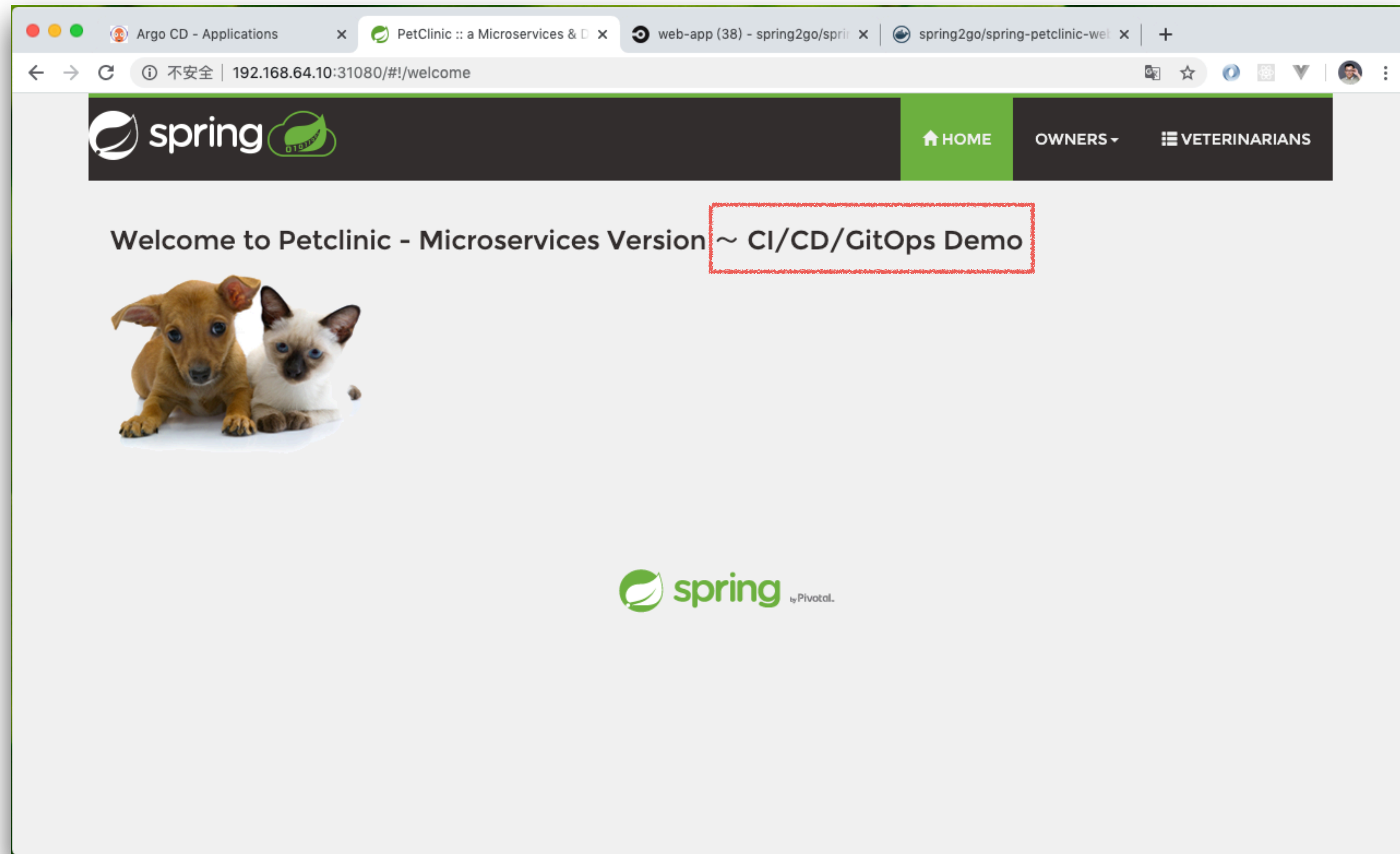
Path: k8s/argocd/web-app

Destinati... <https://kubernetes.default.svc>

Namesp... default

 SYNC  REFRESH  DELETE

校验PetClinic微服务更新



环境清理

```
1. william@jskill: ~/mydev/github/spring2go/spring-petclinic-msa/k8s/local
→ local git:(master) pwd
/Users/william/mydev/github/spring2go/spring-petclinic-msa/k8s/local
→ local git:(master) ls
customers-svc.yml ingress visits-svc.yml
gateway-svc.yml vets-svc.yml web-app.yml
→ local git:(master) kubectl delete -f .
deployment.apps "customers" deleted
service "customers" deleted
deployment.apps "gateway" deleted
service "gateway" deleted
deployment.apps "vets" deleted
service "vets" deleted
deployment.apps "visits" deleted
service "visits" deleted
deployment.apps "web" deleted
service "web" deleted
→ local git:(master) kubectl get po
NAME READY STATUS RESTARTS AGE
customers-5468b6f54f-dtmwr 0/1 Terminating 1 84m
gateway-cf658f568-pxwlk 0/1 Terminating 1 84m
vets-fd6d6c964-gczxt 0/1 Terminating 1 84m
visits-58d7dbf5cd-qwhq2 0/1 Terminating 1 84m
web-5bbd77664f-qtswr 0/1 Terminating 0 61m
→ local git:(master) kubectl get po
No resources found in default namespace.
→ local git:(master)
```

```
1. william@jskill: ~/temp/argo-cd-master/manifests (zsh)
→ temp cd argo-cd-master
→ argo-cd-master ls
CHANGELOG.md Procfile errors server
Dockerfile README.md examples test
Dockerfile.dev VERSION hack ui
Gopkg.lock assets manifests uid_entrypoint.sh
Gopkg.toml cmd mkdocs.yml util
LICENSE common pkg white-list
Makefile controller reposerver
OWNERS docs resource_customizations
→ argo-cd-master cd manifests
→ manifests ls
README.md cluster-rbac install.yaml
base crds namespace-install
cluster-install ha namespace-install.yaml
→ manifests kubectl delete -n argocd -f install.yaml
warning: deleting cluster-scoped resources, not scoped to the provided namespace
customresourcedefinition.apiextensions.k8s.io "applications.argoproj.io" deleted
customresourcedefinition.apiextensions.k8s.io "appprojects.argoproj.io" deleted
serviceaccount "argocd-application-controller" deleted
serviceaccount "argocd-dex-server" deleted
serviceaccount "argocd-server" deleted
role.rbac.authorization.k8s.io "argocd-application-controller" deleted
role.rbac.authorization.k8s.io "argocd-dex-server" deleted
role.rbac.authorization.k8s.io "argocd-server" deleted
clusterrole.rbac.authorization.k8s.io "argocd-application-controller" deleted
```

```
1. william@jskill: ~/temp/argo-cd-master/manifests (zsh)
→ manifests kubectl get ns
NAME STATUS AGE
argocd Active 5h9m
default Active 29d
kube-node-lease Active 29d
kube-public Active 29d
kube-system Active 29d
kubernetes-dashboard Active 29d
→ manifests kubectl delete ns argocd
namespace "argocd" deleted
→ manifests
```

本课小结



- PetClinic微服务的CI/CD/GitOps流水线
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 - ArgoCD应用配置
 - 发布原版PetClinic微服务
 - 修改微服务代码触发CI
 - 修改K8s发布文件触发CD
 - 校验PetClinic微服务更新