

# 使用 kubernetes 自定义 CRD 资源和 Controller

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原文链接: <https://ld246.com/article/1572871285715>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)



## 安装kustomize

kustomize在1.14+的kubectl中被集成，但是kubebuilder生成的项目Makefile用的还是kustomize命令

下载二进制文件安装

<https://github.com/kubernetes-sigs/kustomize/releases/tag/kustomize%2Fv3.3.0>

mac可以直接

```
brew install kustomize
```

## 二进制安装kubebuilder

```
os=$(go env GOOS)
```

```
arch=$(go env GOARCH)
```

```
# download kubebuilder and extract it to tmp
```

```
curl -sL https://go.kubebuilder.io/dl/2.0.1/${os}/${arch} | tar -xz -C /tmp/
```

```
# move to a long-term location and put it on your path
```

```
# (you'll need to set the KUBEBUILDER_ASSETS env var if you put it somewhere else)
```

```
sudo mv /tmp/kubebuilder_2.0.1_${os}_${arch} /usr/local/kubebuilder
```

```
export PATH=$PATH:/usr/local/kubebuilder/bin
```

## 创建项目

```
mkdir $GOPATH/src/example
```

```
cd $GOPATH/src/example
```

```
kubebuilder init --domain my.com
```

## 创建api

```
kubebuilder create api --group webapp --version v1 --kind Guestbook
```

## 安装CRDs到集群

```
make install
```

## 本地前台运行controller

```
make run
```

## 部署自定义资源的实例

```
kubectl apply -f config/samples/
```

## 修改Dockerfile

```
cp -a ~/.kube kube
```

```
vi Dockerfile
```

```
FROM golang:1.12.5 as builder
WORKDIR /example
COPY go.mod go.mod
COPY go.sum go.sum
RUN rm -rf $GOPATH/go.mod && export GOPROXY=https://goproxy.cn && go mod downl
ad
COPY main.go main.go
COPY api/ api/
COPY controllers/ controllers/
RUN CGO_ENABLED=0 GOOS=linux GOARCH=amd64 GO111MODULE=on go build -a -o ma
ager main.go
FROM gcr.azk8s.cn/distroless/static:nonroot
WORKDIR /
COPY kube /root/.kube
COPY --from=builder /example/manager .
#USER nonroot:nonroot
ENTRYPOINT ["/manager"]
```

## 构建/推送镜像

```
make docker-build docker-push IMG=<some-registry>/<project-name>:tag
```

## 部署到集群

```
make deploy IMG=<some-registry>/<project-name>:tag
```