

一.实验步骤

1.安装helm并配置环境变量

2.初始化chart目录结构

在 `goma11/k8s/helm` 目录下执行：

```
helm create gomall-chart
```

删除 `templates` 目录下的默认文件（如 `deployment.yaml` 、 `service.yaml` 等）

3.配置values.yaml文件，并参数化任务三中的yaml文件

需要将所有的 `*-deployment.yaml` 和 `*-configmap.yaml` 文件进行参数化，例如：
任务三的原yaml代码部分：

```
kitex:
  service: "cart"
  address: ":8883"
  metrics_port: ":9993"
  log_level: info
  log_file_name: "log/kitex.log"
  log_max_size: 10
  log_max_age: 3
  log_max_backups: 50
```

参数化后的yaml代码：

```
kitex:
  service: "{{ .Values.services.cart.name }}"
  address: ":{ .Values.services.cart.port }}"
  metrics_port: ":{ .Values.services.cart.metricsPort }}"
  log_level: {{ .Values.services.cart.logConfig.level | quote }}
  log_file_name: {{ .Values.services.cart.logConfig.fileName | quote }}
  log_max_size: {{ .Values.services.cart.logConfig.maxSize }}
  log_max_age: {{ .Values.services.cart.logConfig.maxAge }}
  log_max_backups: {{ .Values.services.cart.logConfig.backups }}
```

同时 `values.yaml` 需要更新配置：

```
cart:
  name: cart
  port: 8883
  metricsPort: 9993
  logConfig:
    level: info
    fileName: "log/kitex.log"
    maxSize: 10
    maxAge: 3
    backups: 50
```

4. 调试并运行

首先使用任务二中的yaml文件部署中间件，然后通过

```
helm template gomall-chart --debug
```

确保生成的YAML文件无错误,之后通过

```
helm install gomall-release ./gomall-chart
```

安装chart，随后检查Pod和Service状态：

```
kubectl get pods,svc
```

二、实验结果

```
Windows PowerShell
PS D:\课程学习资料\CNST\lab2\gomall-lab2\gomall\k8s> helm install gomall-release ./helm/gomall-chart
NAME: gomall-release
LAST DEPLOYED: Thu May 8 19:20:57 2025
NAMESPACE: default
STATUS: deployed
REVISION: 1
TEST SUITE: None
PS D:\课程学习资料\CNST\lab2\gomall-lab2\gomall\k8s> kubectl get pods,svc
NAME READY STATUS RESTARTS AGE
pod/cart-96bd449f9-5rmh2 1/1 Running 0 45s
pod/checkout-cf64cf97b-f2wm5 1/1 Running 0 45s
pod/email-678778d996-7v7h5 1/1 Running 0 45s
pod/frontend-8678f895b8-cnbqh 1/1 Running 0 45s
pod/gomall-mysql-0 1/1 Running 0 172m
pod/gomall-nats-66d85994dd-q9n7w 1/1 Running 0 172m
pod/gomall-redis-847b7fbb46-8ck2f 1/1 Running 0 172m
pod/order-cf4bfdb9-j2sb9 1/1 Running 0 45s
pod/payment-7c8b75f47d-4h6qf 1/1 Running 0 45s
pod/product-687588bcc5-qwl79 1/1 Running 0 45s
pod/user-7cdc686bbb-fth2b 1/1 Running 0 45s

NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
service/cart ClusterIP 10.106.213.140 <none> 8883/TCP 45s
service/checkout ClusterIP 10.108.229.37 <none> 8884/TCP 45s
service/email ClusterIP 10.96.201.180 <none> 8885/TCP 45s
service/frontend ClusterIP 10.97.185.180 <none> 8080/TCP 45s
service/gomall-mysql ClusterIP 10.106.55.186 <none> 3306/TCP 3h32m
service/gomall-nats ClusterIP 10.99.255.19 <none> 4222/TCP,8222/TCP 3h31m
service/gomall-redis ClusterIP 10.104.165.128 <none> 6379/TCP 3h31m
service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 18h
service/order ClusterIP 10.96.224.150 <none> 8886/TCP 45s
service/payment ClusterIP 10.106.152.64 <none> 8887/TCP 45s
service/product ClusterIP 10.103.163.2 <none> 8881/TCP 45s
service/user ClusterIP 10.100.184.168 <none> 8888/TCP 45s
PS D:\课程学习资料\CNST\lab2\gomall-lab2\gomall\k8s>
```