

1. Persiapan File Konfigurasi



1.1. Buka daftar image catalog di azure

https://portal.azure.com/#blade/Microsoft_Azure_ContainerRegistries/TagMetadataBlade/id/%2Fsubscriptions%2F1d290f77-e37d-4371-8b28-3ebc6dd0e727%2FresourceGroups%2Frl-ezmic-rg%2Fproviders%2FMicrosoft.ContainerRegistry%2Fregistries%2Frl-ezmic/repository/rl%2Fv1.3%2Fdev%2Fapi%2Fcatalog

Lihat last versionnya

rl/ezrx/dev/api/catalog

Repository

 Refresh  Delete repository

^ Essentials [JSON View](#)

Repository	Tag count
rl/ezrx/dev/api/catalog	4
Last updated date	Manifest count
4/7/2022, 12:37 PM GMT+7	4

Tags ↑↓

v1.3	...
v1.2	...
v1.1	...
v1.0	...

Dalam kasus ini last versionnya adalah v1.3, maka kita akan membuat versi v1.4

2. Ubah Config

2.1. Buka file `apl-ezrx-api\src\Services\Catalog.api\config\config.go`

```
// Load reads the settings written to the yml file
func Load() *Config {
    env := "staging-rl"
    if value := os.Getenv("WEB_APP_ENV"); value != "" {
        env = value
    }

    config := &Config{}
    if err := config.Load(config, "config/application."+env+".yaml"); err != nil {
        fmt.Printf("Failed to read application.%s.yml: %s", env, err)
        os.Exit(2)
    }
    config.ENV = env
    return config
}
```

Dalam kasus ini kita akan me-deploy ke staging RL

3. Configurasi version

3.1. Buka file `.yaml` sesuai dengan environment yang akan kita pakai dalam kasus ini saya membuka file **`application.staging-rl.yaml`** di folder

`apl-ezrx-api\src\Services\Catalog.api\config`

3.2. Ubah versi yang akan dibuat

```
api:
  name: Catalog API Staging RL
  port: 80
  version: v1.4
  host: localhost
  baseUrl: ezmichbus-aks.radyalabs.id/catalog
auth:
  jwtkey: "E0bX23RcZlXz1U6mh2qkwVN7LEivNZK7r8t6U5yw-MaSZJXpI2_2ocTtUGRA6CzX4uzJLGJdodzGRctHusSA6Ta51Qkq"
rpc:
  name: Catalog RPC
  port: 8882
database:
  product:
```

=====Membuat Image di Lokal=====

1. Buat image

docker build . --tag catalog-api:04 <== 04 adalah versi 4

Tunggu sampai muncul seperti dibawah ini

```
[+] Building 365.0s (11/11) FINISHED
=> [internal] load build definition from Dockerfile 1.8s
=> => transferring dockerfile: 32B 0.4s
=> [internal] load .dockerignore 2.0s
=> => transferring context: 2B 0.1s
=> [internal] load metadata for docker.io/library/golang:alpine 15.9s
=> [1/6] FROM docker.io/library/golang:alpine@sha256:a2ca4f4c0828b1b426a3153b068bf32a21868911c57a9fc4dccc5fb 0.1s
=> [internal] load build context 2.2s
=> => transferring context: 437.59kB 1.7s
=> CACHED [2/6] RUN apk update && apk add --no-cache git 0.0s
=> CACHED [3/6] WORKDIR /cmd 0.0s
=> [4/6] COPY . . 7.4s
=> [5/6] RUN go mod tidy 173.5s
=> [6/6] RUN go build cmd/main.go 144.0s
=> exporting to image 16.6s
=> => exporting layers 15.8s
=> => writing image sha256:b42c578c2488102cece5f72ee291ea9feee229eadca5c24a811f0d6a79711c7d 0.1s
=> => naming to docker.io/library/catalog-api:04 0.1s
```

C:\Users\RizQ\go-path\src\apl-ezrx-api\src\Services\Catalog.api>

2. Pastikan image sudah jalan di lokal
docker run catalog-api:04

```
C:\Users\RizQ\go-path\src\apl-ezrx-api\src\Services\Catalog.api>docker run catalog-api:04
Catalog RPC Starting at Port: 8882

  _ _ _ _ _
 / _ _ _ \
/_ _ _ _ \ v4.6.3
High performance, minimalist Go web framework
https://echo.labstack.com

-----O/-----
      O\
⇒ http server started on [::]:80
```

3. login ke azure
az login

Nb : login dengan akun radyalabs masing2. Jika belum punya akses bisa tanya langsung

```
C:\Users\RizQ\go-path\src\apl-ezrx-api\src\Services\Catalog.api>az login
A web browser has been opened at https://login.microsoftonline.com/organizations/oauth2/v2.0/authorize. Please continue the login in the web browser. If no web browser is available or if the web browser fails to open, use device code flow with `az login --use-device-code`.
[
  {
    "cloudName": "AzureCloud",
    "homeTenantId": "be9b8878-5c82-47db-bab7-9937544f7cf9",
    "id": "1d290f77-e37d-4371-8b28-3ebc6dd0e727",
    "isDefault": true,
    "managedByTenants": [],
    "name": "Pay-As-You-Go",
    "state": "Enabled",
    "tenantId": "be9b8878-5c82-47db-bab7-9937544f7cf9",
    "user": {
      "name": "rizky@radyalabs.id",
      "type": "user"
    }
  }
]
```

4. login ke rlezmic
az acr login --name rlezmic

5. Dapatkan rlezmicbus credential

```
az aks get-credentials --resource-group rl-ezmic-rg --name rlezmicbus
```

6. sikron docker local dengan yg di rlezmic
docker tag catalog-api:04 rlezmic.azurecr.io/rl/ezrx/dev/api/catalog:v1.4

7. push docker ke azure

docker push rlezmic.azurecr.io/rl/ezrx/dev/api/catalog:v1.4

```
C:\Users\RizQ\go-path\src\apl-ezrx-api\src\Services\Catalog.api>docker push rlezmic.azurecr.io/rl/ezrx/dev/api/catalog:v1.4
The push refers to repository [rlezmic.azurecr.io/rl/ezrx/dev/api/catalog]
f23db2038536: Pushed
109067224017: Pushed
44a1f4e12473: Pushed
4bf43da0cba3: Layer already exists
085543882858: Layer already exists
1fd9462a6428: Layer already exists
ca628b1899e2: Layer already exists
4e797c290268: Layer already exists
09e3373b9d9a: Layer already exists
4fc242d58285: Layer already exists
v1.4: digest: sha256:2f65944004721dc89c89f5d070f22a8d68e026b29d24f1b1fb27f348595eb783 size: 2418
C:\Users\RizQ\go-path\src\apl-ezrx-api\src\Services\Catalog.api>
```

=====Deploy Aplikasi=====

1. get credential rlezmicbus
az aks get-credentials --resource-group rl-ezmic-rg --name rlezmicbus
2. masuk ke rlezmicbus
kubectl config use-context rlezmicbus

```
C:\Users\RizQ\go-path\src\apl-ezrx-api\deploy>kubectl config use-context rlezmicbus
Switched to context "rlezmicbus".
```

3. pastikan config ada
kubectl config get-contexts

```
C:\Users\RizQ\go-path\src\apl-ezrx-api\deploy>kubectl config get-contexts
CURRENT  NAME          CLUSTER      AUTHINFO      NAMESPACE
*        rlezmicbus    rlezmicbus   clusterUser_rl-ezmic-rg_rlezmicbus
```

4. ubah version di deployment.yaml
Buka folder apl-ezrx-api\deploy\k8s\catalog-api
image: rlezmic.azurecr.io/rl/ezrx/dev/api/catalog:v1.4 <===== sesuaikan dengan versi image yang sudah dibuat sebelumnya

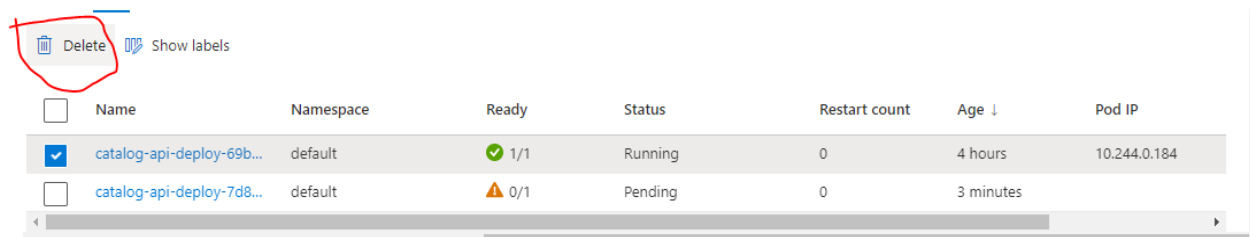
```
app: catalog-api
replicas: 1
template:
  metadata:
    labels:
      app: catalog-api
  spec:
    containers:
      - name: catalog-api
        image: rlezmic.azurecr.io/rl/ezrx/dev/api/catalog:v1.4
        ports:
          - containerPort: 80
          - containerPort: 8080
        env:
          - name: api_name
            value: "Catalog-API"
          - name: api_port
```

5. apply deployment aplikasi
kubectl apply -f .\k8s\catalog-api\deployment.yaml

6. Cek pods yang sedang build

Buka url

https://portal.azure.com/#blade/Microsoft_Azure_ContainerService/AksK8ResourceMenuBlade/overview-Service/aksClusterId/%2Fsubscriptions%2F1d290f77-e37d-4371-8b28-3ebc6dd0e727%2FresourceGroups%2Frl-ezmic-rg%2Fproviders%2FMicrosoft.ContainerService%2FmanagedClusters%2Frl-ezmicbus/resource/%7B%22kind%22%3A%22Service%22%2C%22metadata%22%3A%7B%22uid%22%3A%22765c7d21-2625-4611-8f4f-457dfab94eb9%22%2C%22name%22%3A%22catalog-api-svc%22%2C%22namespace%22%3A%22default%22%7D%7D



<input type="checkbox"/>	Name	Namespace	Ready	Status	Restart count	Age ↓	Pod IP
<input checked="" type="checkbox"/>	catalog-api-deploy-69b...	default	✓ 1/1	Running	0	4 hours	10.244.0.184
<input type="checkbox"/>	catalog-api-deploy-7d8...	default	⚠ 0/1	Pending	0	3 minutes	

Dalam kasus ini pods yg sedang kita buat pending, maka kita harus menghapus pods yang existing dahulu dengan mengklik tombol delete

7. Check pods kita sudah jalan atau belum

kubectl get pods

```
C:\Users\RizQ\go-path\src\apl-ezrx-api\deploy>kubectl get pods
NAME                                READY   STATUS    RESTARTS   AGE
account-api-deploy-654d6c4b8b-dbrkr 1/1     Running   0           5h35m
catalog-api-deploy-7d84d6f9f5-nw9c7 1/1     Running   0           4m19s
customer-apigw-deploy-59f574f884-mdpv9 1/1     Running   0           49d
nginx-ingress-controller-7d84c8d57-7vb75 1/1     Running   0           86d
notification-api-deploy-5ccd7b787d-j72h4 1/1     Running   0           7d3h
qa-ezrx-notification-6bd8b775b6-nnfzp 1/1     Running   13          72d
webcustgw-deploy-759f8cff4f-d7fsb 1/1     Running   0           120d

C:\Users\RizQ\go-path\src\apl-ezrx-api\deploy>
```

8. apply ingress

kubectl apply -f .\k8s\apicust-gw\ingress.yaml

9. Pastikan aplikasi berjalan

Buka <http://ezmicbus-aks.radyalabs.id/catalog/swagger/index.html>

Pastikan versi yg berhasil di deploy sama dengan yg kita deploy

