|  |  |
| --- | --- |
| **DOCUMENT RULES:** | |
| **Task Number / Name:** | **CloudNative & Crossplane** |
| **Task name & column name should be written:** | **Bold (CTRL+B)** |
| **Commands should be written in the after # sign:** | *Italic (CTRL+I) #hostname* |
| **Output photo should be cropped or compressed:**  **Photo could be more than one:**  **If you need extra lines, add the line next after it:** | ***Description photo should be with title bar (CTRL + I + B)*** |
| **All other text should be written:** | Standard |
| **Font name and text size:** | Calibri and 9 |
| **Group name:** | Dev\_ops\_ |
| **Student name and surname:** | Murad Abbaszade |
| **E-mail:** | [muradabbaszade6@gmail.com](mailto:muradabbaszade6@gmail.com) |
| **WhatsApp number:** | **+994703664205** |

**CloudNative & Crossplane**

K8s-configuration

Kubernetes natively supports 2 resources geared towards storing configuration consumed by pods. Both configuration types required data to be represented in a *key:value* pair format.

* *Config Maps*: use to store non-confidential data
* *Secrets*: use to store confidential data (tokens, SSH keys, passwords, certificates, etc)

## Config Maps

k apply -f <https://raw.githubusercontent.com/Piotr1215/dca-exercises/master/k8s/configuration/1-create-configmap.yaml>

****

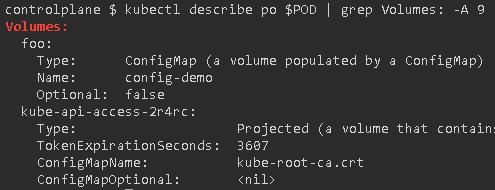
k apply -f <https://raw.githubusercontent.com/Piotr1215/dca-exercises/master/k8s/configuration/4-Create-deployment.yaml>

****

POD=$(kubectl get pods -n default | grep "nginx-test" | awk '{print $1}')

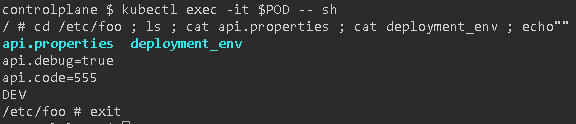
****

kubectl describe po $POD | grep Volumes: -A 9

****

kubectl exec -it $POD – sh

cd /etc/foo ; ls ; cat api.properties ; cat deployment\_env ; echo""

****

## Secrets

apply -f <https://raw.githubusercontent.com/Piotr1215/dca-exercises/master/k8s/configuration/3-create-secret-encoded.yaml>

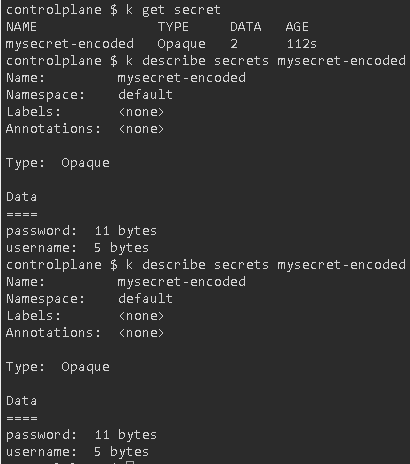
****

k apply -f <https://raw.githubusercontent.com/Piotr1215/dca-exercises/master/k8s/configuration/5-create-deployment-secret.yaml>

****

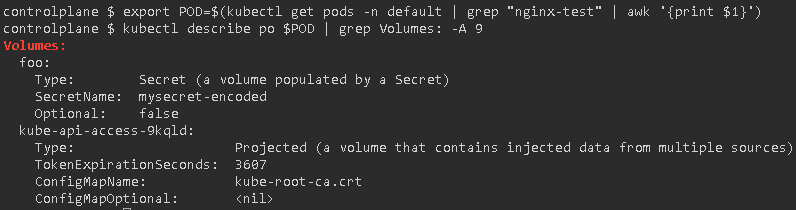
k get secret

k describe secrets mysecret-encoded

****

export POD=$(kubectl get pods -n default | grep "nginx-test" | awk '{print $1}')

kubectl describe po $POD | grep Volumes: -A 9

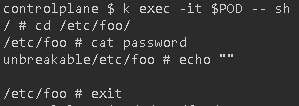
****

k exec -it $POD – sh

cd /etc/foo/

cat password

echo ""

****

kubectl get secrets mysecret-encoded -n default -o jsonpath='{@.data.password}'| base64 --decode && echo

****

## Config Update

k apply -f <https://raw.githubusercontent.com/Piotr1215/dca-exercises/master/k8s/configuration/1-create-configmap.yaml>

****

k apply -f <https://raw.githubusercontent.com/Piotr1215/dca-exercises/master/k8s/configuration/4-Create-deployment.yaml>

****

export POD=$(kubectl get pods -n default | grep "nginx-test" | awk '{print $1}')

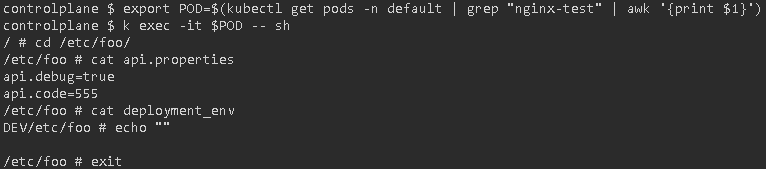
k exec -it $POD – sh

cd /etc/foo/

cat api.properties

cat deployment\_env

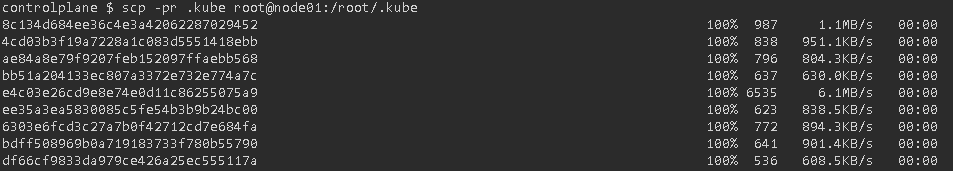
echo ""

****

# K8s-deployments

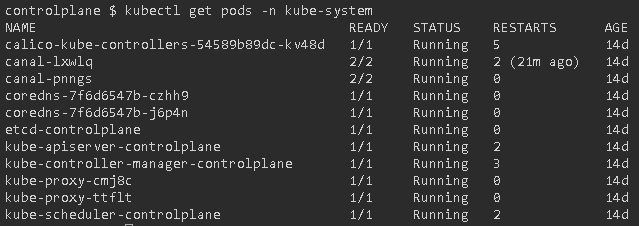
## Cluster Setup

scp -pr .kube [root@node01:/root/.kube](mailto:root@node01:/root/.kube)

****

kubectl wait node --all --for=condition=Ready --timeout=3m****

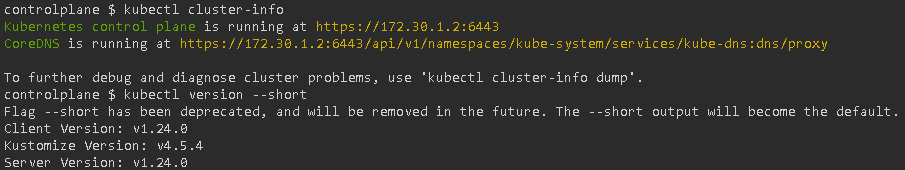
kubectl get pods -n kube-system

****

alias k=kubectl

kubectl cluster-info

kubectl version –short



## Configuration

# K8s-jobs