

Exercício devops

Nome: Gustavo Taufembach Bett

1)

apiVersion: v1 # versão do Kubernetes

kind: Pod # tipo de recurso a ser criado (neste caso, um Pod)

metadata:

name: nginx-pod # nome do pod

spec:

containers:

- name: nginx # nome do container dentro do pod

image: nginx:latest # imagem a ser usada no container (neste caso, nginx mais recente)

ports:

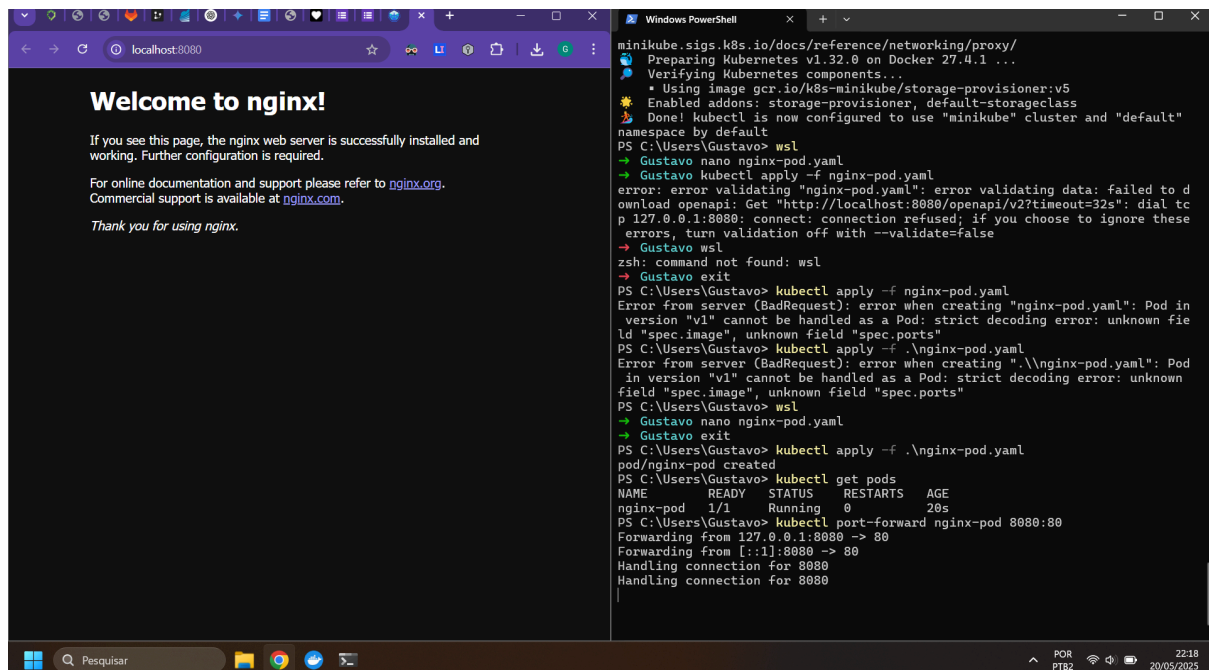
- containerPort: 80 # porta que o container irá expor

apiVersion: apps/v1 # Versão da API do Kubernetes para recursos do tipo Deployment

kind: Deployment # Tipo de recurso: Deployment (controla replicação de Pods)

metadata:

name: nginx-deployment # Nome do Deployment




```
minikube.sigs.k8s.io/docs/reference/networking/proxy/
Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
Verifying Kubernetes components...
  Using image gcr.io/k8s-minikube/storage-provisioner:v5
Enabled addons: storage-provisioner, default-storageclass
Done! kubectrl is now configured to use "minikube" cluster and "default"
namespace by default
PS C:\Users\Gustavo> wsl
-> Gustavo nano nginx-pod.yaml
error: error validating "nginx-pod.yaml": error validating data: failed to d
ownload openapi: Get "http://localhost:8080/openapi/v2?timeout=32s": dial tc
p 127.0.0.1:8080: connect: connection refused; if you choose to ignore these
errors, turn validation off with --validate=false
-> Gustavo wsl
zsh: command not found: wsl
-> Gustavo exit
PS C:\Users\Gustavo> kubectl apply -f nginx-pod.yaml
Error from server (BadRequest): error when creating "nginx-pod.yaml": Pod in
version "v1" cannot be handled as a Pod: strict decoding error: unknown fie
ld "spec.image", unknown field "spec.ports"
PS C:\Users\Gustavo> kubectl apply -f .\nginx-pod.yaml
Error from server (BadRequest): error when creating ".\nginx-pod.yaml": Pod
in version "v1" cannot be handled as a Pod: strict decoding error: unknown
field "spec.image", unknown field "spec.ports"
PS C:\Users\Gustavo> wsl
-> Gustavo nano nginx-pod.yaml
-> Gustavo exit
PS C:\Users\Gustavo> kubectl apply -f .\nginx-pod.yaml
pod/nginx-pod created
PS C:\Users\Gustavo> kubectl get pods
NAME      READY   STATUS    RESTARTS   AGE
nginx-pod 1/1     Running   0           20s
PS C:\Users\Gustavo> kubectl port-forward nginx-pod 8080:80
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::1]:8080 -> 80
Handling connection for 8080
Handling connection for 8080
```

2)

storage.satc.edu.br/arquivos/docentes/4382...

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```
template:
  metadata:
    labels:
      app: nginx
  spec:
    containers:
      - name: nginx
        image: nginx:latest
        ports:
          - containerPort: 80
```

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Aplique: kubectl apply -f nginx-deployment.yaml.
Verifique: kubectl get deployments e kubectl get pods.
Tarefa: Reduza o número de réplicas para 1, reaplique e observe o resultado com kubectl get pods.

Exercício 3: Expor um Serviço
Crie um arquivo nginx-service.yaml:

```
apiVersion: v1
kind: Service
metadata:
  name: nginx-service
spec:
```

Windows PowerShell

field "spec.image", unknown field "spec.ports"
PS C:\Users\Gustavo> wsl
→ Gustavo nano nginx-pod.yaml
→ Gustavo exit
PS C:\Users\Gustavo> kubectl apply -f .\nginx-pod.yaml
pod/nginx-pod created
PS C:\Users\Gustavo> kubectl get pods
NAME READY STATUS RESTARTS AGE
nginx-pod 1/1 Running 0 20s
PS C:\Users\Gustavo> kubectl port-forward nginx-pod 8080:80
Forwarding from 127.0.0.1:8080 -> 80
Forwarding from [::1]:8080 -> 80
Handling connection for 8080
Handling connection for 8080
PS C:\Users\Gustavo> wsl
→ Gustavo nano nginx-deployment.yaml
→ Gustavo exit
PS C:\Users\Gustavo> kubectl apply -f nginx-deployment.yaml
deployment.apps/nginx-deployment created
PS C:\Users\Gustavo> kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
nginx-deployment 3/3 3 15s
PS C:\Users\Gustavo> kubectl get pods
NAME READY STATUS RESTARTS AGE
nginx-deployment-96b9d695-28wzt 1/1 Running 0 26s
nginx-deployment-96b9d695-hc7k4 1/1 Running 0 26s
nginx-deployment-96b9d695-nqd64 1/1 Running 0 26s
nginx-pod 1/1 Running 0 8m13s
PS C:\Users\Gustavo> wsl
→ Gustavo nano nginx-deployment.yaml
→ Gustavo exit
PS C:\Users\Gustavo> kubectl apply -f nginx-deployment.yaml
deployment.apps/nginx-deployment configured
PS C:\Users\Gustavo> kubectl get deployments
NAME READY UP-TO-DATE AVAILABLE AGE
nginx-deployment 1/1 1 1 77s
PS C:\Users\Gustavo> kubectl get pods
NAME READY STATUS RESTARTS AGE
nginx-deployment-96b9d695-nqd64 1/1 Running 0 80s
nginx-pod 1/1 Running 0 9m7s
PS C:\Users\Gustavo> |

3)

127.0.0.1:63894

Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

Thank you for using nginx.

Windows PowerShell

nginx-service NodePort 10.105.205.138 <none> 80:32027/TCP 59s
PS C:\Users\Gustavo> minikube service .\nginx-service.yaml
✖ Exiting due to SVC_NOT_FOUND: Service '.\nginx-service.yaml' was not found in 'default' namespace.
You may select another namespace by using 'minikube service .\nginx-service.yaml -n <namespace>'. Or list out all the services using 'minikube service list'
PS C:\Users\Gustavo> minikube service [nginx-service.yaml
✖ Exiting due to SVC_NOT_FOUND: Service '['] was not found in 'default' namespace.
You may select another namespace by using 'minikube service] -n <namespace>'. Or list out all the services using 'minikube service list'
PS C:\Users\Gustavo> minikube service nginx-service.yaml
✖ Exiting due to SVC_NOT_FOUND: Service 'nginx-service.yaml' was not found in 'default' namespace.
You may select another namespace by using 'minikube service nginx-service.yaml -n <namespace>'. Or list out all the services using 'minikube service list'
PS C:\Users\Gustavo> minikube service nginx-service

NAMESPACE	NAME	TARGET PORT	URL
default	nginx-service	80	http://192.168.49.2:32027
-----	-----	-----	-----
★ Starting tunnel for service nginx-service.

NAMESPACE	NAME	TARGET PORT	URL
default	nginx-service		http://127.0.0.1:63894
-----	-----	-----	-----
🔗 Opening service default/nginx-service in default browser...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.