

TP2 - EVIDÊNCIAS - K8s

Arquivos:

The screenshot shows the IntelliJ IDEA interface with the 'tp2-kubernetes' project open. The left sidebar lists files: 'devcalc-deployment.yaml', 'namespace-tp2.yaml', 'pod-nginx-busybox.yaml', 'service-api-external.yaml' (which is selected), and 'service-nginx-internal.yaml'. The right pane displays the 'service-api-external.yaml' file content:

```
# service-api-external.yaml
apiVersion: v1
kind: Service
metadata:
  name: devcalc-api-external
  namespace: tp2
spec:
  type: NodePort # Expõe a porta 30003
  selector:
    app: devcalc-api # Rótulo do seu Deployment (DevCalc API)
  ports:
    - protocol: TCP
      port: 80
      targetPort: 7000 # Porta do Container DevCalc API
      nodePort: 30003 # Porta externa fixa (Requisito)
```

O seu TP deve estar dentro do namespace chamado: tp2.

```
C:\Users\Rodri\OneDrive\Área de Trabalho\cmdcr
λ tp2-kubernetes
'tp2-kubernetes' não é reconhecido como um comando interno
ou externo, um programa operável ou um arquivo em lotes.

C:\Users\Rodri\OneDrive\Área de Trabalho\cmdcr
λ mkdir tp2-kubernetes

C:\Users\Rodri\OneDrive\Área de Trabalho\cmdcr
λ cd tp2-kubernetes\

C:\Users\Rodri\OneDrive\Área de Trabalho\cmdcr\tp2-kubernetes
λ kubectl apply -f namespace-tp2.yaml
namespace/tp2 created

C:\Users\Rodri\OneDrive\Área de Trabalho\cmdcr\tp2-kubernetes
λ kubectl get ns
NAME          STATUS  AGE
default       Active  22h
kube-node-lease  Active  22h
kube-public    Active  22h
kube-system    Active  22h
tp2           Active  9s

C:\Users\Rodri\OneDrive\Área de Trabalho\cmdcr\tp2-kubernetes
```

Criacão dos PODS

```
C:\Users\Rodri\OneDrive\Área de Trabalho\cmder\tp2-kubernetes
λ kubectl apply -f devcalc-deployment.yaml
deployment.apps/devcalc-api-deployment created

C:\Users\Rodri\OneDrive\Área de Trabalho\cmder\tp2-kubernetes
λ kubectl get all -n tp2
NAME                                     READY   STATUS    RESTARTS   AGE
pod/devcalc-api-deployment-744bd898d-bsg2j  0/1     Running   1 (85s ago)  3m11s
pod/devcalc-api-deployment-744bd898d-pv9rs  0/1     Running   1 (85s ago)  3m11s
pod/nginx-busybox-pod                      2/2     Running   0          26m

NAME          READY   UP-TO-DATE   AVAILABLE   AGE
deployment.apps/devcalc-api-deployment      0/2      2           0          3m13s
replicaset.apps/devcalc-api-deployment-744bd898d  2        2           0          3m13s

C:\Users\Rodri\OneDrive\Área de Trabalho\cmder\tp2-kubernetes
λ |
```

Portas

```
C:\Users\Rodri\OneDrive\Área de Trabalho\cmder\tp2-kubernetes
λ kubectl exec nginx-busybox-pod -n tp2 -- wget -O /dev/stdout nginx-internal-service:8081
Defaulted container "nginx-container" out of: nginx-container, busybox-container
Connecting to nginx-internal-service:8081 (10.96.38.58:8081)
<!DOCTYPE html>
saving to '/dev/stdout'
<html>
<head>
<title>Welcome to nginx!</title>
'>/dev/stdout' saved
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
```

Escalonamento Inicial OK

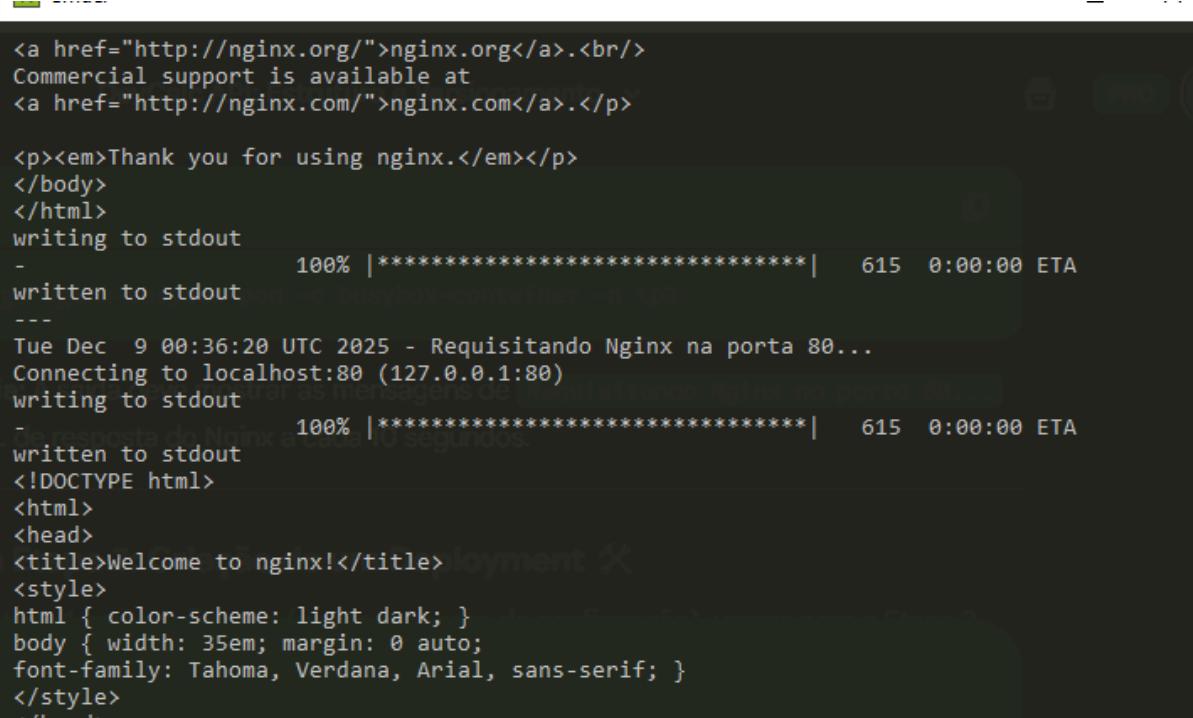
```
C:\Users\Rodri\OneDrive\Área de Trabalho\cmder\tp2-kubernetes
λ kubectl get deploy devcalc-api-deployment -n tp2
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
devcalc-api-deployment  2/2      2           2          18m

C:\Users\Rodri\OneDrive\Área de Trabalho\cmder\tp2-kubernetes
λ |
```

Escalonamento Final OK

```
C:\Users\Rodri\OneDrive\Área de Trabalho\cmder\tp2-kubernetes
λ kubectl get deploy devcalc-api-deployment -n tp2
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
devcalc-api-deployment  3/3      3           3          20m
```

Service A (ClusterIP)

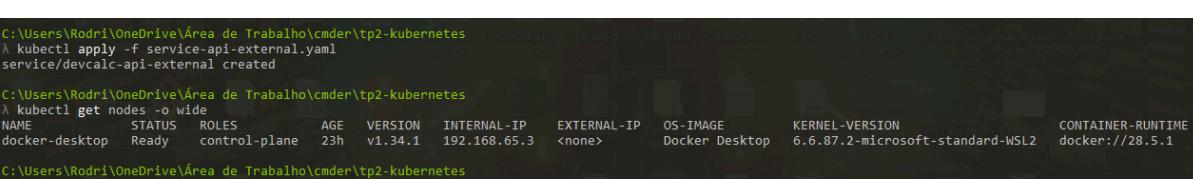


```
<a href="http://nginx.org/">nginx.org</a>.<br/>
Commercial support is available at
<a href="http://nginx.com/">nginx.com</a>.</p>

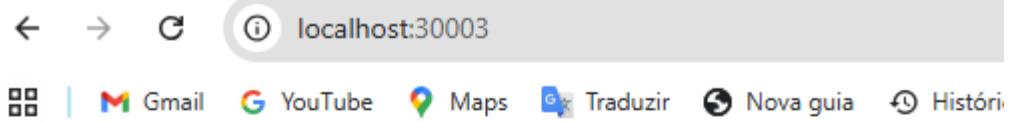
<p><em>Thank you for using nginx.</em></p>
</body>
</html>
writing to stdout
- 100% |*****| 615 0:00:00 ETA
written to stdout via /var/run/docker.sock in /tmp2
---
Tue Dec  9 00:36:20 UTC 2025 - Requisitando Nginx na porta 80...
Connecting to localhost:80 (127.0.0.1:80)
writing to stdout
- 100% |*****| 615 0:00:00 ETA
written to stdout
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
</style>
</head>
```




```
C:\Users\Rodri\OneDrive\Área de Trabalho\cmd\tp2-kubernetes
λ kubectl get nodes -o wide
NAME           STATUS   ROLES      AGE    VERSION   INTERNAL-IP   EXTERNAL-IP   OS-IMAGE          KERNEL-VERSION   CONTAINER-RUNTIME
docker-desktop   Ready    control-plane   23h   v1.34.1   192.168.65.3   <none>        Docker Desktop   6.6.87.2-microsoft-standard-WSL2   docker://28.5.1
```

```
C:\Users\Rodri\OneDrive\Área de Trabalho\cmd\tp2-kubernetes
λ kubectl apply -f service-api-external.yaml
service/devcalc-api-external created
```



Not Found