

Tarefa 4

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Link para o GitHub:

<https://github.com/giordanolima/curso-kubernetes>

- Considerando o uso do kind, crie um cluster com 3 nodes workrs representando o nodepool A e 2 nodes workers representando o nodepool B. A ideia é que os nodes pools tenham esta característica: (no caso do kind isso ficará apenas convencionalizado os nodepools serão iguais)
- **nodepool - tipo A**
 - hardware=low
 - Apps básicas = nginx
- **nodepool - tipo B**
 - hardware=high
 - Apps Críticas = apache

```
giordano@giordano:~/Documentos/KubernetesCurso/corso-kubernetes/tarefa4$ kind create cluster --config kind-config.yaml
Creating cluster "tarefa4" ...
 ✓ Ensuring node image (kindest/node:v1.33.1)
 ✓ Preparing nodes
 ✓ Writing configuration
 ✓ Starting control-plane
 ✓ Installing CNI
 ✓ Installing StorageClass
 ✓ Joining worker nodes
Set kubectl context to "kind-tarefa4"
You can now use your cluster with:

kubectl cluster-info --context kind-tarefa4

Thanks for using kind! 😊
giordano@giordano:~/Documentos/KubernetesCurso/corso-kubernetes/tarefa4$ kubectl get nodes
NAME                STATUS    ROLES    AGE   VERSION
tarefa4-control-plane NotReady  control-plane  19s   v1.33.1
tarefa4-worker       NotReady  <none>       9s    v1.33.1
tarefa4-worker2      NotReady  <none>       9s    v1.33.1
giordano@giordano:~/Documentos/KubernetesCurso/corso-kubernetes/tarefa4$
```

- Fazer o deploy do nginx sem ter configurado taints e tolerations
- Configurar taint e tolerations
- Fazer o deploy de apache

```
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl get nodes
NAME                STATUS    ROLES    AGE   VERSION
tarefa4-control-plane NotReady  control-plane 19s   v1.33.1
tarefa4-worker       NotReady  <none>       9s    v1.33.1
tarefa4-worker2      NotReady  <none>       9s    v1.33.1
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl apply -f nginx-deployment.yaml
deployment.apps/nginx-deployment created
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl get pods
NAME                READY    STATUS    RESTARTS   AGE
nginx-deployment-96b9d695-7w7b9 1/1      Running   0           9s
nginx-deployment-96b9d695-9pt87 1/1      Running   0           9s
nginx-deployment-96b9d695-nlsj9 0/1      ContainerCreating 0           9s
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl get pods
NAME                READY    STATUS    RESTARTS   AGE
nginx-deployment-96b9d695-7w7b9 1/1      Running   0           16s
nginx-deployment-96b9d695-9pt87 1/1      Running   0           16s
nginx-deployment-96b9d695-nlsj9 1/1      Running   0           16s
```

```
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl taint nodes tarefa4-worker apps=low:NoSchedule
node/tarefa4-worker tainted
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl taint nodes tarefa4-worker apps=high:NoSchedule
error: node tarefa4-worker already has apps taint(s) with same effect(s) and --overwrite is false
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl taint nodes tarefa4-worker apps=low:NoSchedule
error: node tarefa4-worker already has apps taint(s) with same effect(s) and --overwrite is false
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl taint nodes tarefa4-worker2 apps=high:NoSchedule
node/tarefa4-worker2 tainted
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl get nodes
NAME                STATUS    ROLES    AGE   VERSION
tarefa4-control-plane Ready     control-plane 5m31s   v1.33.1
tarefa4-worker       Ready     <none>       5m21s   v1.33.1
tarefa4-worker2      Ready     <none>       5m21s   v1.33.1
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl get pods
NAME                READY    STATUS    RESTARTS   AGE
nginx-deployment-96b9d695-7w7b9 1/1      Running   0           3m29s
nginx-deployment-96b9d695-9pt87 1/1      Running   0           3m29s
nginx-deployment-96b9d695-nlsj9 1/1      Running   0           3m29s
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl get pods -o wide
NAME                READY    STATUS    RESTARTS   AGE   IP            NODE                NOMINATED NODE   READINESS GATES
nginx-deployment-96b9d695-7w7b9 1/1      Running   0           3m34s  10.244.2.2    tarefa4-worker      <none>            <none>
nginx-deployment-96b9d695-9pt87 1/1      Running   0           3m34s  10.244.1.2    tarefa4-worker2     <none>            <none>
nginx-deployment-96b9d695-nlsj9 1/1      Running   0           3m34s  10.244.2.3    tarefa4-worker      <none>            <none>
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl apply -f nginx-deployment.yaml
The request is invalid: patch: Invalid value: "map[metadata:map[annotations:map[kubectl.kubernetes.io/last-applied-configuration:{\"apiVersion\":\"apps/v1\",\"kind\":\"Deployment\",\"metadata\":{\"annotations\":{\"\"\": \"\"},\"labels\":{\"\"app\":\"nginx\"},\"name\":\"nginx-deployment\",\"namespace\":\"default\"},\"spec\":{\"\"replicas\":3,\"selector\":{\"\"matchLabels\":{\"\"app\":\"nginx\"}}},\"template\":{\"\"metadata\":{\"\"labels\":{\"\"app\":\"nginx\"}}},\"spec\":{\"\"containers\":[{\"\"image\":\"nginx:latest\",\"name\":\"nginx\",\"ports\":[{\"\"containerPort\":80}]}],\"tolerations\":[{\"\"effect\":\"NoSchedule\",\"key\":\"apps\",\"operator\":\"Equal\",\"value\":\"low\"}]}]}]\" spec:map[template:map[spec:map[tolerations:[map[effect:NoSchedule key:apps operator:Equal value:low]]]]]\": strict decoding error: unknown field \"spec.template.spec.tolerations\"
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl apply -f nginx-deployment.yaml
deployment.apps/nginx-deployment configured
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl apply -f apache-deployment.yaml
deployment.apps/apache-deployment created
giordano@giordano:~/Documentos/KubernetesCurso/curso-kubernetes/tarefa4$ kubectl get pods -o wide
NAME                READY    STATUS    RESTARTS   AGE   IP            NODE                NOMINATED NODE   READINESS GATES
apache-deployment-77f45dd558-7m5l4 1/1      Running   0           9s    10.244.1.3    tarefa4-worker2     <none>            <none>
apache-deployment-77f45dd558-8nn2z 0/1      ContainerCreating 0           9s    <none>        tarefa4-worker2     <none>            <none>
apache-deployment-77f45dd558-tl5lb 1/1      Running   0           9s    10.244.1.4    tarefa4-worker2     <none>            <none>
nginx-deployment-546b474996-gcvlq 1/1      Running   0           20s   10.244.2.6    tarefa4-worker      <none>            <none>
nginx-deployment-546b474996-pjwhq 1/1      Running   0           24s   10.244.2.4    tarefa4-worker      <none>            <none>
nginx-deployment-546b474996-shsvp 1/1      Running   0           22s   10.244.2.5    tarefa4-worker      <none>            <none>
```