



The logo features a stylized orange and white icon resembling a flame or a lightning bolt, positioned to the left of the word "Accelerating." The word is written in a large, white, sans-serif font. A small trademark symbol (TM) is located at the top right of the letter "g".

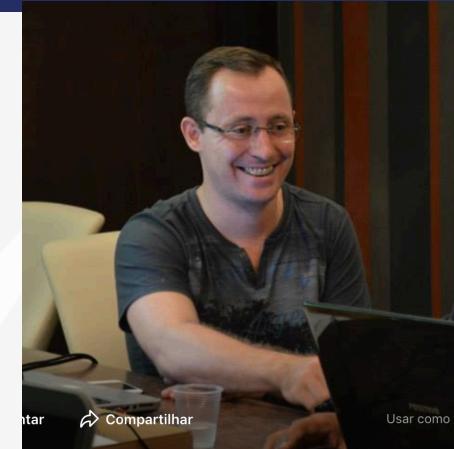
Managing Docker Containers with Kubernetes

Anselmo Pfeifer

Anselmo Pfeifer

About me:

- ✓ Desde 2007 **estudando** e trabalhando com automação de infraestrutura linux,
- ✓ De 02/2009 a 11/2015 fui sargento no Exército Brasileiro onde trabalhei como Analista de Infraestrutura e Desenvolvedor,
- ✓ De 11/2015 a 08/2017 trabalhei no time de DevOps da Tecsinapse (Home Office),
- ✓ Desde 08/2017 estou trabalhando na Daitan Group em Campinas SP, atuando como DevOps no time de CI &CD.



KUBERNETES

kubernetes.io



What is Kubernetes?

Kubernetes is an open-source system for automating deployment, scaling, and management of containerized applications.

Kubernetes.io

=

k8s

What is Kubernetes?

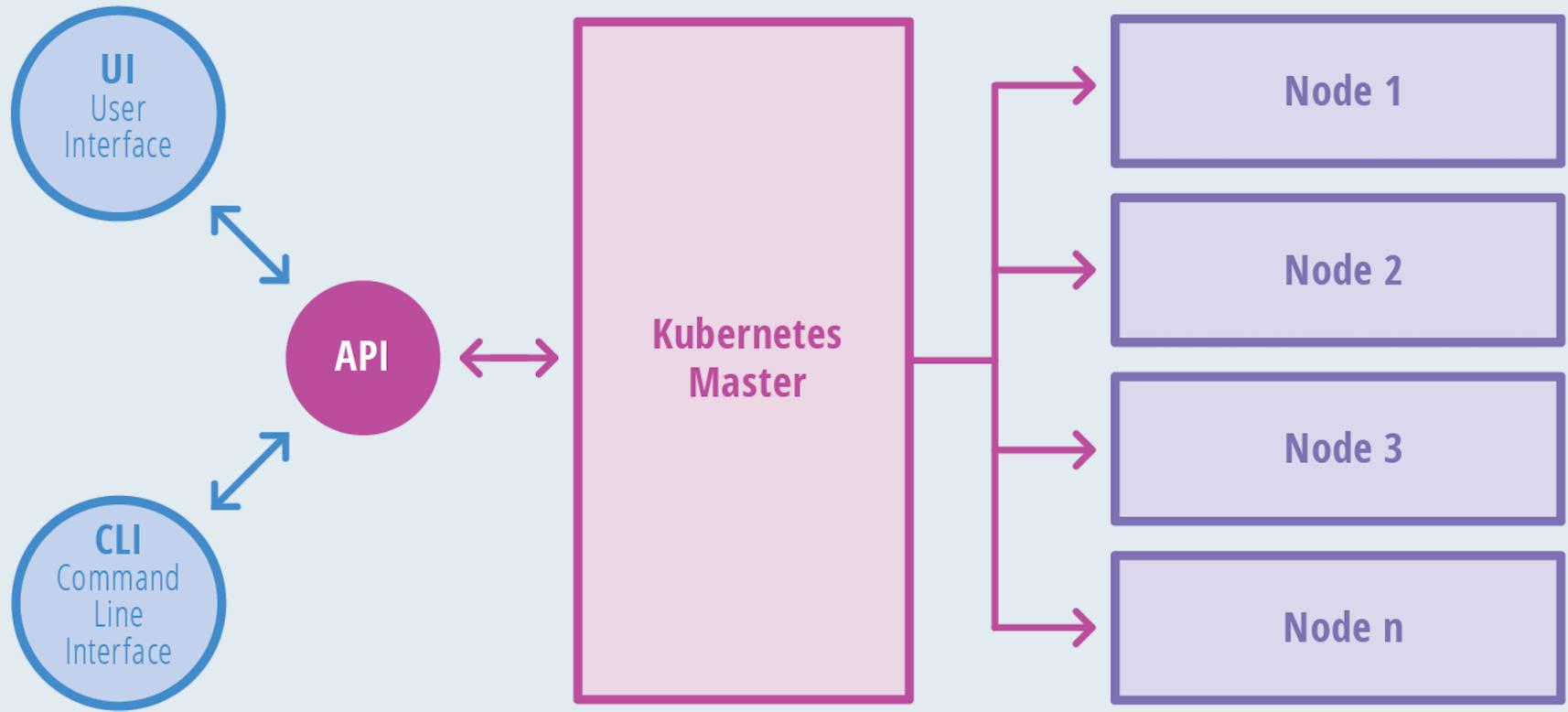
- ✓ **Portable:** public, private, multi-cloud...
- ✓ **Extensible:** modular, pluggable...
- ✓ **Self-healing:** auto-restart, auto-replication, auto-scaling.

What Kubernetes is not

Kubernetes is not a traditional all-inclusive PaaS (Platform as a Service) system. It preserves user choice where it is important.

- Does not limit the types of applications supported,
- Does not provide middleware
- Does not have a click-to-deploy service marketplace

Architecture kubernetes



Terms for certain functions on kubernetes

- ✓ **Nodes**
- ✓ **Roles**
- ✓ **Storage Class**
- ✓ **Namespace**
 - ✓ Deployments
 - ✓ Jobs
 - ✓ Pods
 - ✓ Replica Sets
 - ✓ Replication Controllers
 - ✓ Stateful Sets
- ✓ **Discovery and load balancing**
- ✓ **Ingresses**
- ✓ **Services**
- ✓ **Config and storage**
 - ✓ Config Maps
 - ✓ Persistent Volume Claims
 - ✓ Secrets

Overview

Kubernetes Dashboard Piotr Bryk

localhost:9090/#/pod?namespace=kube-system

kubernetes Workloads > Pods + CREATE

Admin

- Namespaces
- Nodes
- Persistent Volumes
- Namespace
- kube-system**

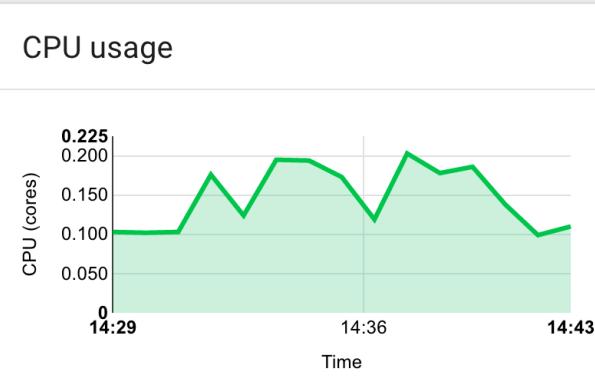
Workloads

- Deployments
- Replica Sets
- Replication Controllers
- Daemon Sets
- Stateful Sets
- Jobs
- Pods**

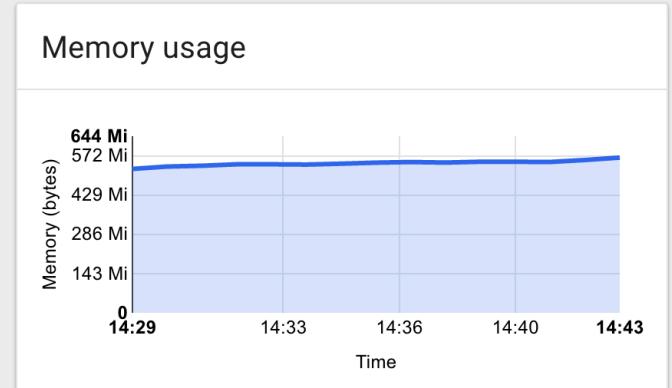
Services and discovery

- Services

CPU usage



Memory usage



Pods

Name	Status	Restarts	Age	CPU (cores)	Memory (bytes)
dashboard-same-i...	Running	0	14 minutes	0	5.4 Mi
fluentd-cloud-logg...	Running	0	2 months	0.01	120.8 Mi
fluentd-cloud-logg...	Running	0	2 months	0.009	94.3 Mi
fluentd-cloud-logg...	Running	0	2 months	0.014	174.3 Mi
heapster-v1.2.0-4...	Running	0	10 days	0.002	44.8 Mi

Hands-On

Local:

- VirtualBox
- Minekube
- Kubectl

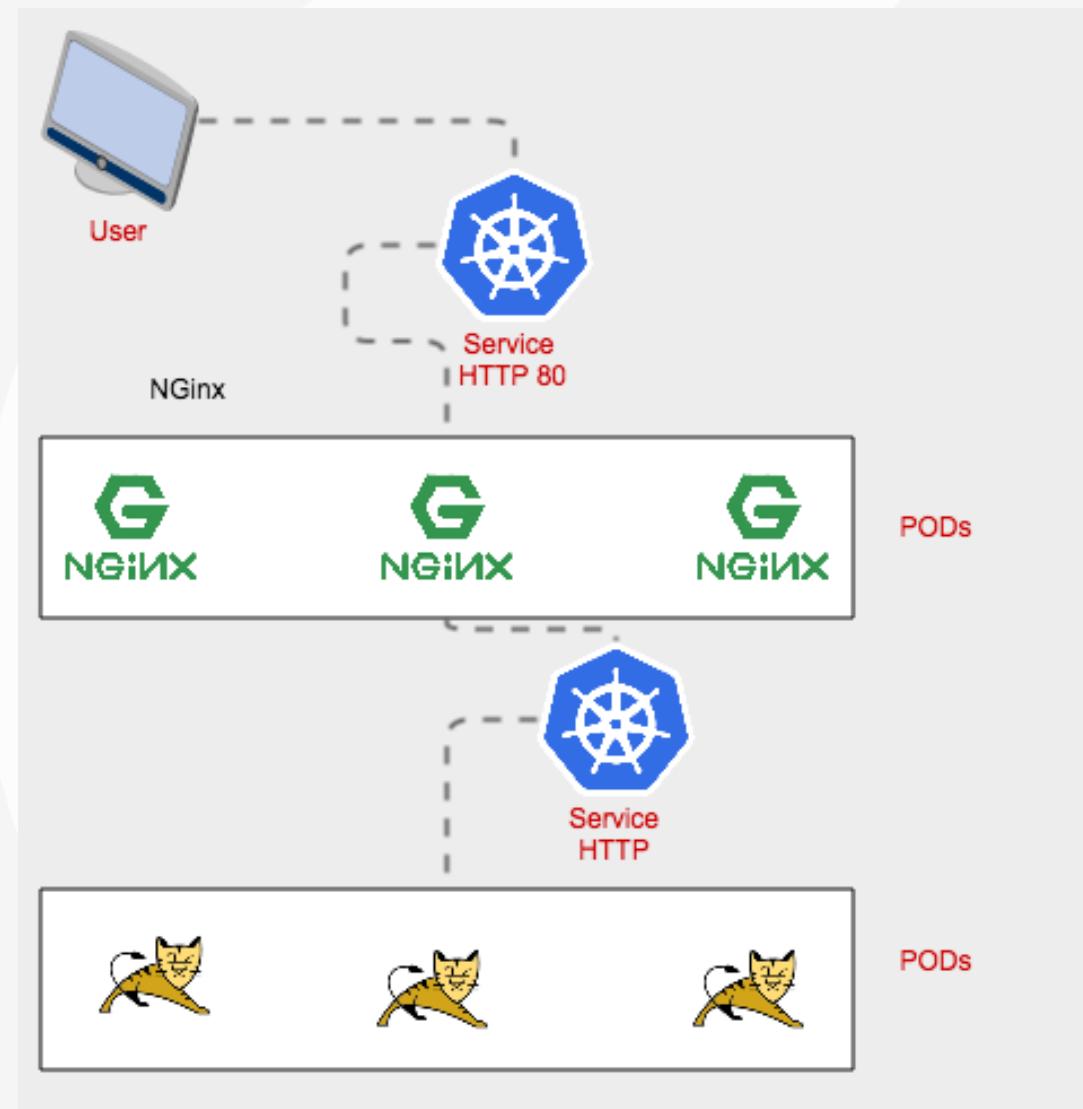


GCE:

- Gcloud
- kubectl

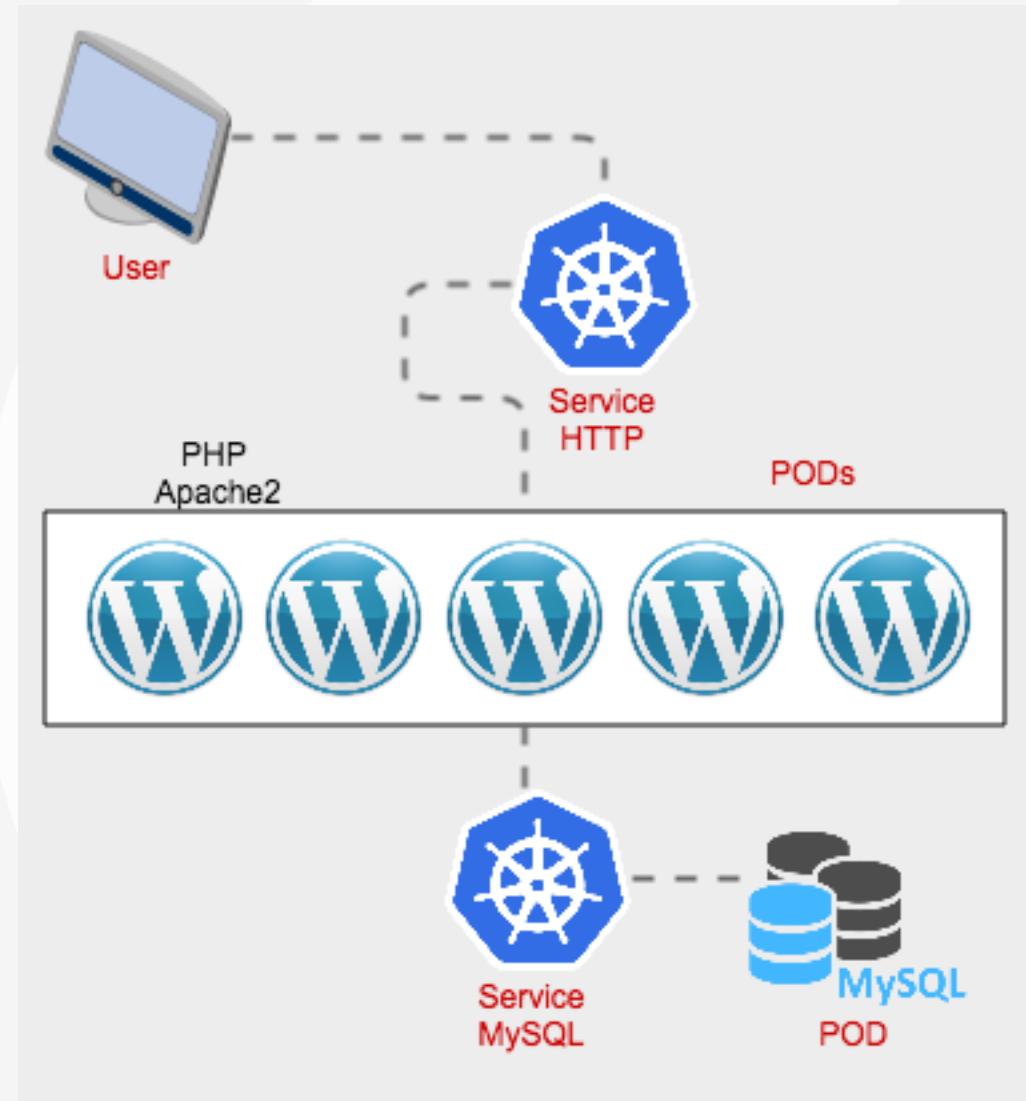


Hands-On 01



Hands-On

02



Deploy to GCE

- ✓ kubectl config use-context minikube / gce
- ✓ kubectl config current-context
- ✓ kubectl config set-context gce

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Java FullStack

Java FullStack – Analytics Solution

Java FullStack / Salesforce Developer

Java/Python Backend Developer

Oracle R12 Consultant – Temporary Job (3 months)

Python Backend Developer

Senior Backend Architect

Software Developer - Test Automation Framework

Tech Lead – Java FullStack

Estágio em Desenvolvimento de Software

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Contact Information

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- Github
 - [AnselmoPfeifer/learning-kubernetes](https://github.com/AnselmoPfeifer/learning-kubernetes)



A background image showing a person's hands on a keyboard and a computer monitor displaying lines of code, all under a blue diagonal striped overlay.

 Accelerating.TM

The background image depicts a workspace with a computer monitor showing code and a keyboard in the foreground, all set against a blue-toned diagonal striped pattern.

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significantly accelerates your time-to-market.*

Thank You!