

# kubernetes 101

@agonzalezro

# what's Kubernetes?

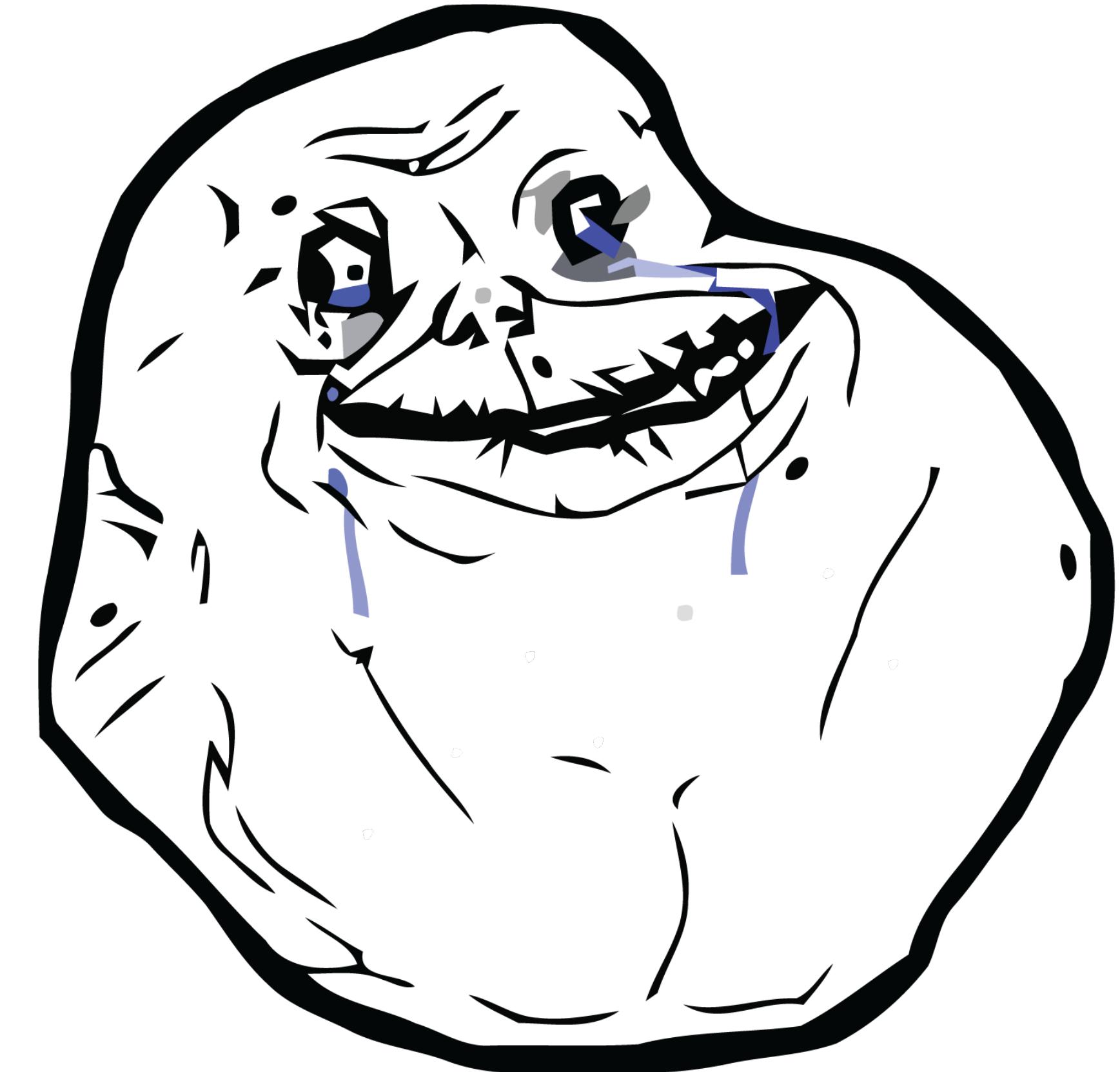
*"Kubernetes is an open source orchestration system ~~for Rocket~~  
~~containers~~ for Docker containers."*



# Concepts

**NOTE:** all the names link to their documentation.

**Pod**



# Replication Controller



Label

# Namespace



# Service

***ClusterIP  
NodePort  
LoadBalancer***

# Ingress





**{scheduled,}Job**



**Secrets**

**New in 1.2**

RENÉE  
ZELLWEGER

# MyOne and Only

An almost perfect portrait of a family comedy



# DaemonSet

logan  
LERMAN

eric  
McCORMACK

chris  
NOTH

nick  
STAHL

steven  
WEBER and kevin  
BACON

HERRICK ENTERTAINMENT PRESENTS A RAYGUN PRODUCTION IN ASSOCIATION WITH MERV GRIFFIN ENTERTAINMENT AND GEORGE HAMILTON PRODUCTIONS A FILM BY RICHARD LONCRANE RENÉE ZELLWEGER LOGAN LERMAN AND KEVIN BACON "MY ONE AND ONLY" ERIC McCORMACK CHRIS NOTH MARK RENDALL NICK STAHL STEVEN WEBER CAST BY MARY GAIL ARTZ & SHANI GINSBERG, CSA MUSIC SUPERVISOR STEVE LINDSEY MUSIC EXECUTIVE HOWARD HERRICK SCENE COMPRISED MARK ISHAM DESIGNER DOUG HALL EDITOR HUMPHREY DIXON PRODUCED BY BRIAN MORRIS PRODUCTION DESIGNER MARCO PONTECORVO, A.I.C. CO-PRODUCER VICKI DEE ROCK DIRECTOR OF PHOTOGRAPHY RONNIE WARD ROBERT PRITCHARD ROBERT KOSBERG PROPS GEORGE HAMILTON ELAYNE HERRICK PROPS AARON RYDER NORTON HERRICK WRITER CHARLIE PETERS DIRECTED BY RICHARD LONCRANE



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Deploy( $\beta$ )





# ConfigMap



**One more thing**

# **Readiness & liveness**

## **probes**

**DEMO!!**

**DEMO!**

**DEMO!**

# AWS

```
export AWS_DEFAULT_PROFILE=myawsprofile
export KUBE_AWS_ZONE=eu-west-1c
export MASTER_SIZE=m3.medium
export NODE_SIZE=m3.medium
... # config/aws/default-config.sh
export KUBERNETES_PROVIDER=aws; wget -q -O - https://get.k8s.io | bash
```

**or GKE**

```
gcloud config set project k8s-jobandtalent
```

```
gcloud container clusters get-credentials cluster-1
```

# Cluster thingies

kubectl cluster-info

kubectl config view

# Your first cattle

```
kubectl run nginx --image=nginx:1.9.12 # Thanks Kelsey!  
kubectl expose deployment nginx --port=80 --type=LoadBalancer
```

```
kubectl get services
```

```
<<<
```

NAME	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
kubernetes	10.3.240.1	<none>	443/TCP	25m
nginx	10.3.247.144	146.148.8.48	80/TCP	1m

```
kubectl exec -it nginx...
```

# Let's yamlized it

```
cat examples/k8s/*.yml
```

```
kubectl create -f ... # Change ... for your yaml :)
```

# Rolling upgrade

```
kubectl rolling-update hello-rc -f api-rc2.yml
```

# Or... (since 1.2)

```
# edit file  
kubectl replace -f ... # where ... is your yaml
```

# And {auto,}scaling

```
kubectl scale rc hello-rc --replicas=5
```

```
kubectl autoscale rc hello-rc --min=X --max=Y
```

**thanks!**

**@agonzalezro**