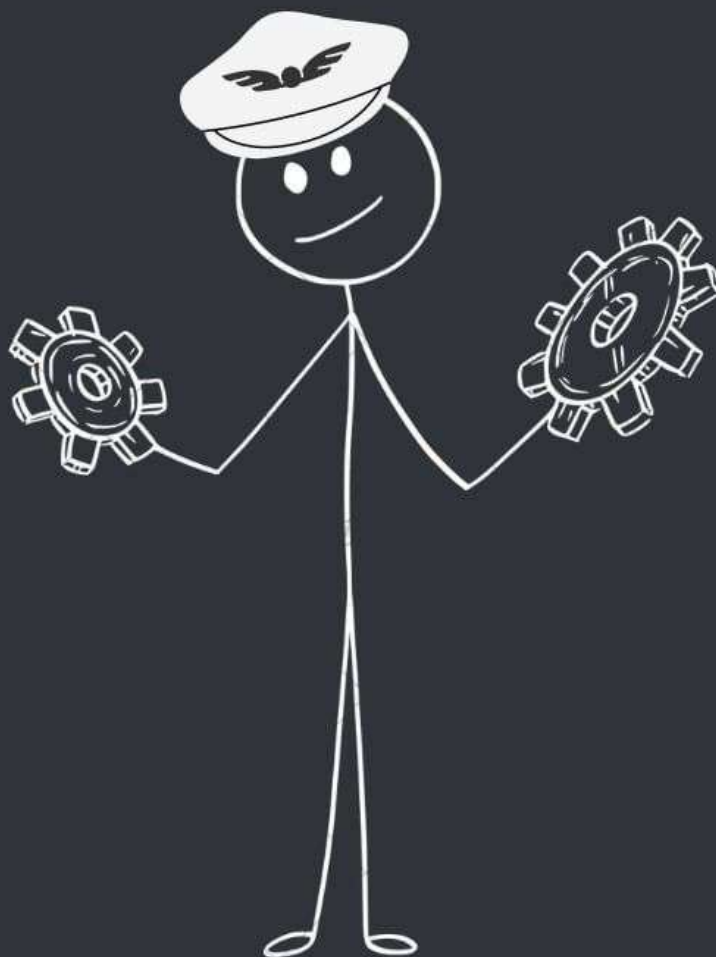





WHAT IS KUBERNETES



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APPLICATION



Lets say you have
created an application



DOCKER



And used **Docker containers** to package the application

*My app works the same
regardless of the environment*



DEPLOYED



Say you have deployed on **3 different** servers using Docker

Wow my application is getting a lot of traffic



SCALING



Now you need to scale up fast; how will you go from 3 servers to 40 servers that you may require?

How to decide which container should go where? Monitor all containers? & make sure they restart if they die?



OUT OF CONTROL



How am I going to manage all this?

ah I need to restart them



huh I need to create more instances

Wouldn't it be easier if this behavior was handled by a system?

KUBERNETES



This is where **Kubernetes** comes into play

Kubernetes (aka k8s or “kube”) is an open source **container orchestration** platform that automates deploying, managing, and scaling containerized applications.



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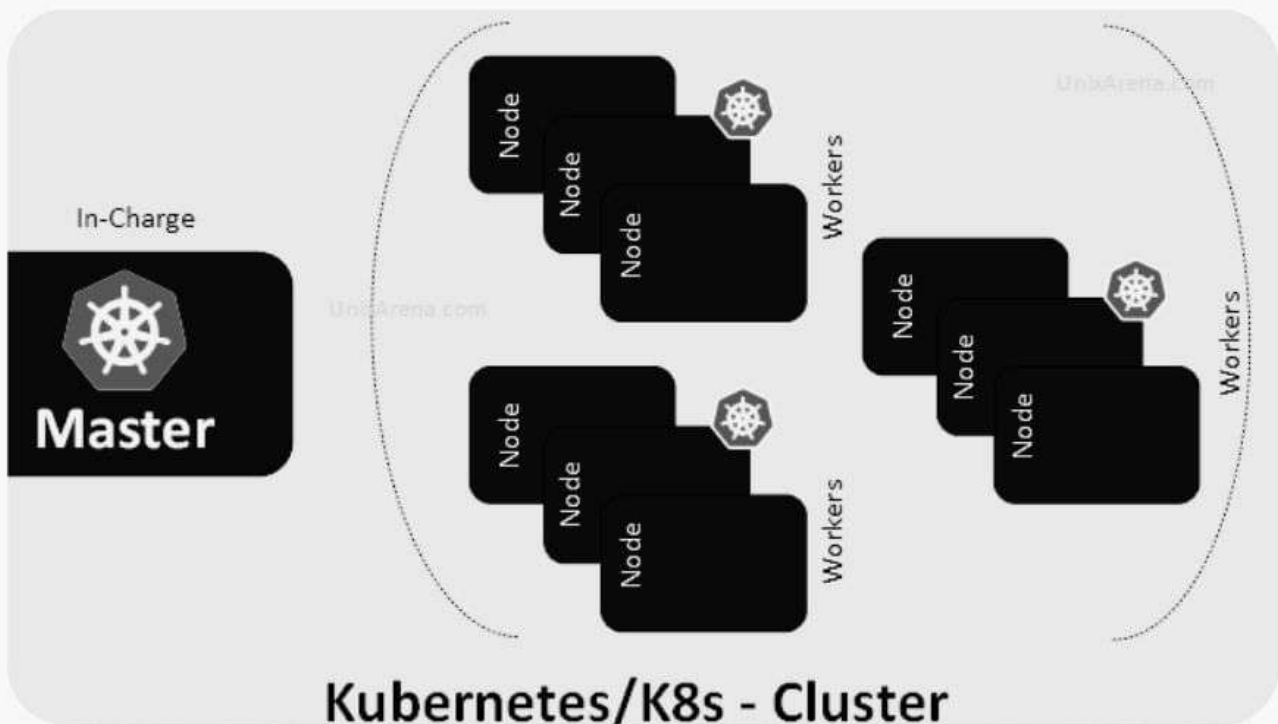
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HOW IT WORKS ?

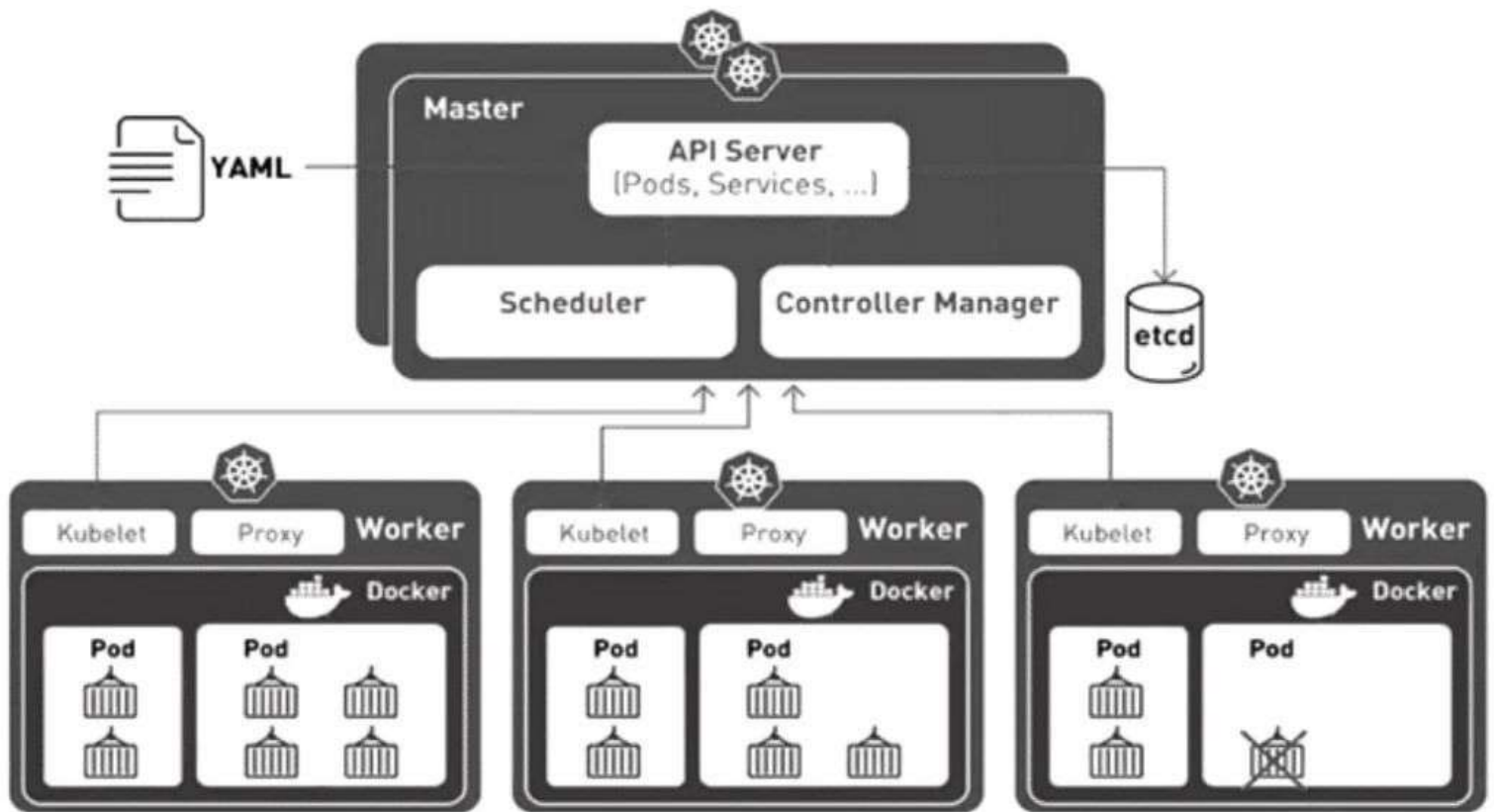


A Kubernetes cluster consists of a set of worker machines, called **nodes**, that run containerized applications



Every cluster has at least one worker node. Hence if a node fails, your application will still be accessible from the other nodes as in a cluster, **multiple nodes are grouped**.

ARCHITECTURE

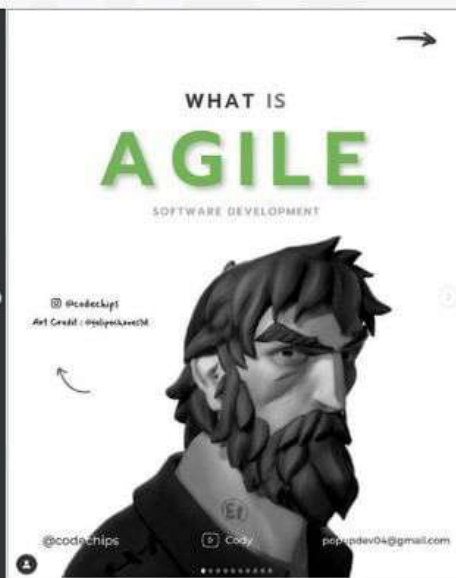
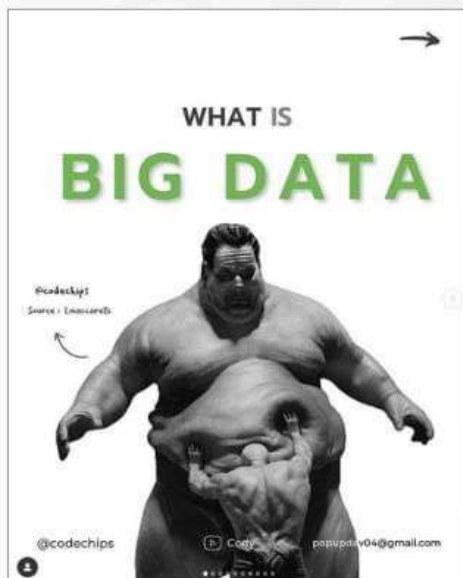
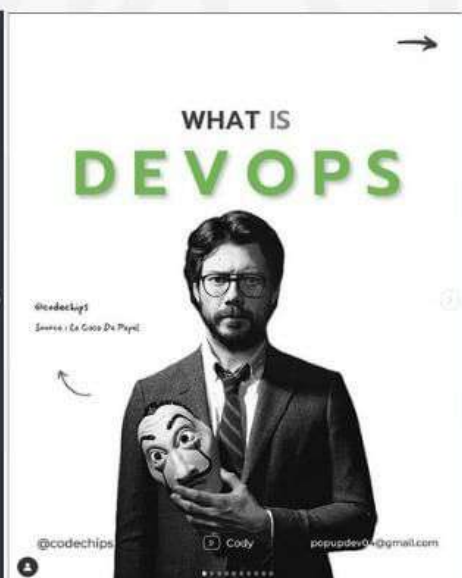
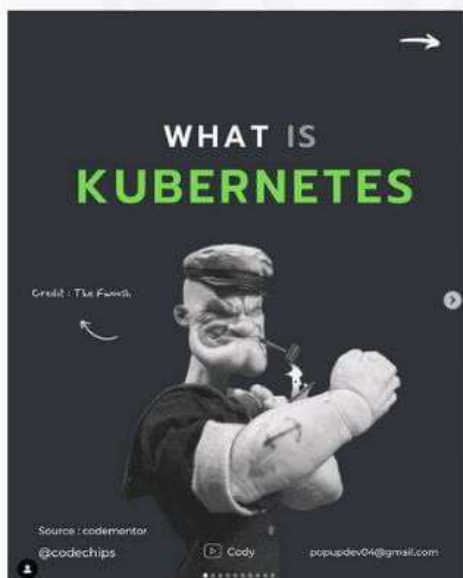


Every node contains a container runtime, Kubelet (for starting, stopping, and managing individual containers by requests from the Kubernetes control plane), and kube-proxy (for networking and load balancing).




Find more explanations on our page

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