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Kubernetes - K8s

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It is an opensource software and it is free

It is developed by Google and later donated to CNF

This is developed by using Go programming language

K8s provides orchestration (management)

k8s is used to manage the containers (create/start/stop/delete/scaleup/scale down)

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Advantages of k8s

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1 Autoscaling - depends on the load of our application the container count can be increased and can be decreased automatically

2 load balancing - When your application is running in multiple containers, then the load will be distributed automatically in all the containers

3 self-healing - If any container got removed, damaged then k8s will recreate it. if any container got damaged then k8s will replace with a new one

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Difference between docker and K8s

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Docker is containerization platform

Packaging our app code and dependencies as single unit for execution is called as Containerization.

Kubernetes is a Orchestration platform

Orchestration means managing the containers.

(management software means to start/stop/create/delete/scaleup/scale down)

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K8s Architecture

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K8s will follow the cluster architecture

cluster means group of servers will be available

In k8s cluster we will have a Master node and worker node

Master node is also called control plane

master node will manage the entire cluster and worker node will create our container