**What is Kubernetes ?**

It is a tool for container Orchestration. That means managing & Controlling multiple docker containers as a single service.

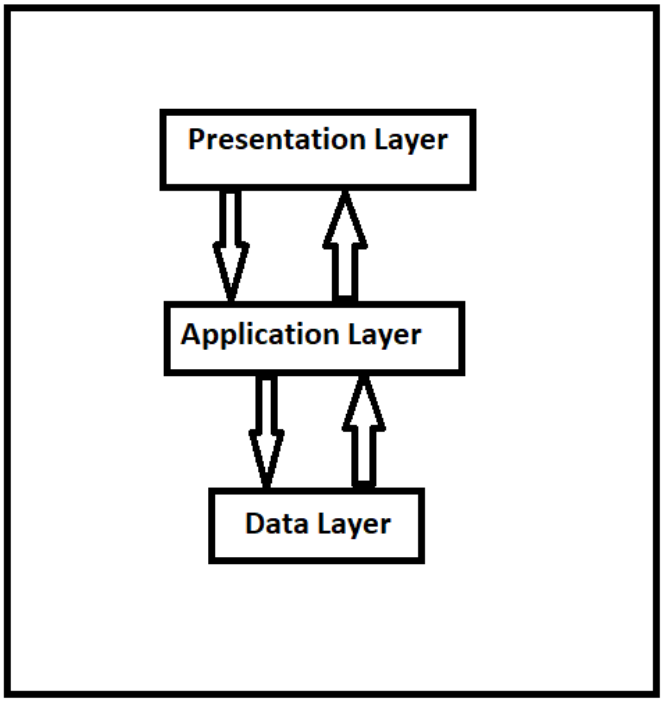
Also it is a tool that automates the deployment, Management, Scaling, Networking and availability of container based applications.

In other words you can cluster together groups of hosts running linux containers and kubernetes helps you easily and efficiently manage those clusters. Kubernetes clusters can span across on-premise, Public Cloud, Private or Hybrid Clouds. For this reason Kubernetes is an ideal platform to host cloud-native applications that required rapid scaling etc.

- Kubernetes was developed by google labs and later donated to CNCF ( Cloud native computing Foundation.
- Kubernetes is the greek word for captian of ship.
- Kubernetes is also refered as K8'S as there are 8 characters between K & S.

In Real world Applications are develop using Monolithic Architecture & Microservices Architecture.

**Monolithic Architecture :**




It Consists of 3 Layers, SO its called as 3 tier Architecture. A monolithic architecture is the traditional unified model for the design of a software program. Monolithic, in this context, means composed all in

one piece, Which means all these layers are packaged & deployed together as single unit and that's the reason its called as Monolithic Architecture.

**Advantages :**

1)Easy to Develop, Test and Deploy
2)Greater Compatability

**Disadvantages :**

1)Very Large ( If one component has issues it will impact everything )
2)Locked in with initial decisions and Technology.
3)Implemented using single development stack ( We have to use the same Technology to develop all the other components )
4)Frequent deployments are not possible
5)Need to scale an entire application stack