K8s Architecture:-

- It's a management Architecture, that comprises various managable components into it.

- Which gives an Orchestration system

- Master Node

1) API server - Its a front end, to communicate & maintain configurations of Cluster

2) Controller Manager - Controls the number of POD replicas & creations.

3) Scheduler - Schedules the Pod activities.

4) etcd - Distributed key value db. All the details of the cluster will be stored & kept here.

- Worker Node

1) Kubelet - It is an agent/connectivity, to Monitor/ manage the containers in the Pod.

2) Kubeproxy - Bridge between App\_user & Application. It is a logical endpoint.

3) POD - Grouped containers, functional units in K8S.

4) Containers - Container runtime, K8S suppports Docker, Mesos, OpenVZ, Marathon.

- Kubectl

1) Its a tool used to communicate with the Kubernetes cluster.

2) It connected with the APIServer for the communication

3) ~/.kube/config file contains the cluster information and shares to kubectl

4) kubectl command format,

kubectl <Operation\_command> <Type\_command> <Name\_command>

- Operations:- Get, Create, Delete, Describe, Logs, etc

- Type:- Pods, Deployments, Jobs, Namespace, etc

- Name:- Seach-pod, Cart-Deployment, Ui-Service, mail-jobs, etc

eg:- kubectl get pod test-pod