**Kubernetes Assignment 1**

1. What is a Kubernetes cluster?

Ans: A Kubernetes cluster is a set of nodes that run containerized applications

1. What are the different parts of the Kubernetes architecture?

Ans: The Control plane (master)

Cloud-controller-manager

Etcd

Kubelet

Kube-proxy

Kube-controller-manager

1. What exactly do you mean by "container orchestration"?

Ans: The automation of much of the operational effort required to run containerized workloads and services

1. What are the various features of Kubernetes?

Ans: Portable, extensible, open-source platform for managing containerized workloads and services, self-monitorng.

1. Explain the relationship between Kubernetes and Docker?

Ans: Docker runs on a single node, whereas Kubernetes is designed to run across a cluster.