**Kubernetes Assignment 1**

1. What is a Kubernetes cluster?

* Kubernetes cluster is a set of machines which can run multiple applications or multiple copy of same applications inform of pods/containers.

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

* 2 main components of Kubernetes architecture at a high level namely master/control plane node and workers nodes (1 or more). There are multiple services running inside this node like control plane node or cp node API server, Scheduler, Controller Manager and etcd while any worker node has services like kubelet and kube-proxy, software like docker (to create containers) and pods which contains 1…n containers. We can interact with the Kubernetes cluster via CP node using kubectl command line interface or Kubernetes UI.

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

* In terms of kubernates which is a container orchestration tool it means a software that manages entire lifecycle of containers right from creation, health check to deployment, resource allocation, maintenance etc.

1. What are the various features of Kubernetes?

* Kubernetes allows easy creation, deployment and management of a kubernets cluster which uses Docker and other technologies which eanable multiple applications to be deployed and managed.

1. Explain the relationship between Kubernetes and Docker?

* Kubernetes is the manager/management software which helps maintain and manage oentire life cycle of a docker container which is used for creating multiple virtual machines to host applications. Thus Kubernetes can be termed as manager of Docker applications/softwares.