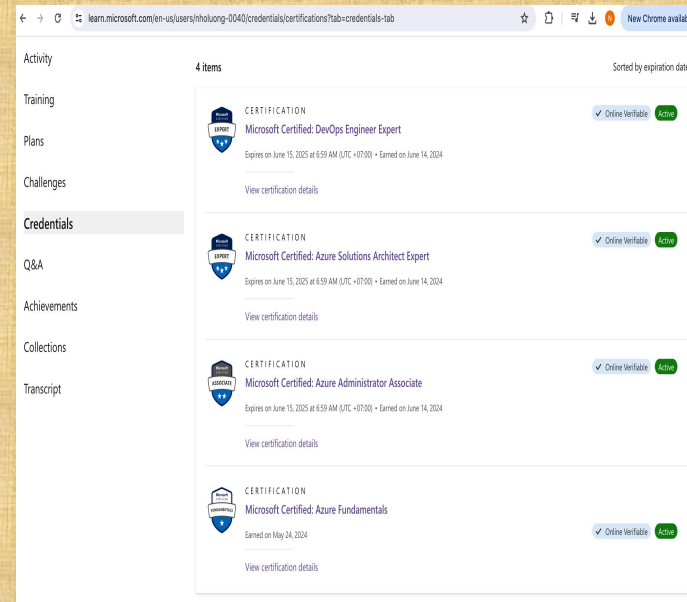
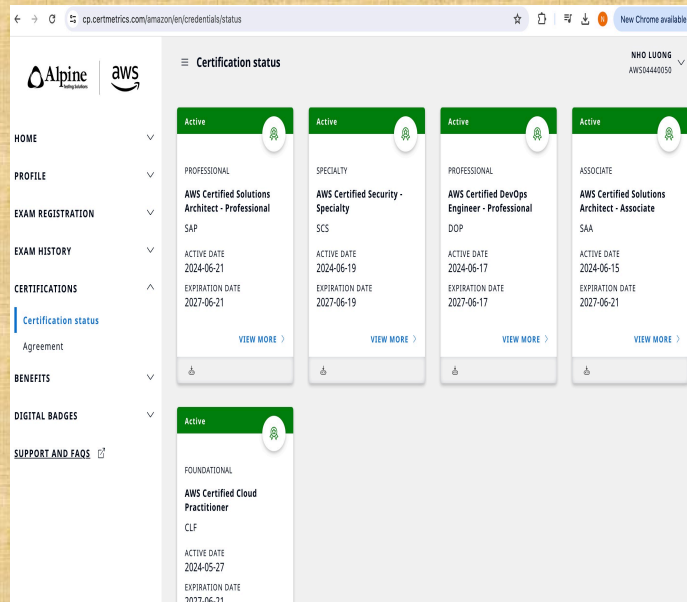


Kubernetes Orchestration

Author: Nho Luong

Skill: DevOps Engineer Lead



Application Pods

- Application Components and number of replicas

Below are the restriction for K8s

- 5000 Nodes
- 150,000 pods
- 300,000 containers
- 100 pods per node

Resource Requirements

- Processor, HDD and Memory requirement for the cluster.
- Application Data Storage

Resource Requirements

- Processor, HDD and Memory requirement for the cluster.
- Application Data Storage

Worker Nodes in a Cluster

- Worker node size depends upon pods resource requirements.
- $\text{Total Number of Nodes} = \text{Maximum Pods per cluster} / \text{Expected Pods per Nodes}$.
- Plan for the node failure at any point.

Master Node Configuration

1-5 Nodes	2 vCPU/4GB RAM
6-10 Nodes 11 to	2 vCPU/7.5GB RAM
100 Nodes 101 to	4 vCPU/15GB RAM 8
250 Nodes 251to	vCPU/30GB RAM 16
500 Nodes > 500	vCPU/30GB RAM 36
Nodes	vCPU/60GB RAM



Thank You