**CKA LAB PART 4 - SCHEDULING**

Requirements

•A pre-constructed Kubernetes lab with kubectl

Guidelines

Before you begin:

• Open a ssh connection so you can run “kubectl” commands

• Open a browser window to https://kubernetes.io/docs/home/

During the activity

• Leverage https://kubernetes.io/docs/home/ as much as you need

**Lab Activity 1 - Label Selectors**

Deploy two pods:

• One pod with a label of “Tier = Web”

• One pod with a label of “Tier = App”

Use any container image you see fit.

Verify the labels are applied.

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**Lab Activity 2 - DaemonSets**

• Deploy a DaemonSet that leverages the nginx image

• Verify the DaemonSet has been created successfully

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**Lab Activity 3 - Resource Limits**

• Create a new namespace called “Tenant-B-100Mi”

• Create a memory limit of 100Mi for this namespace

• Create a pod with a memory request of 150Mi, ensure the limit has been set by verifying you get anerror message

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**Lab Activity 4 - Multiple Schedulers**

Assume another scheduler “CustomScheduler” has been created in your environment.

• Configure a pod to use this scheduler.

• Validate the pod using this scheduler.

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**Lab Activity 5 - Schedule Pod without a scheduler**

On one of the worker nodes:

• Create the directory /etc/staticpods

• Create a pod manifest file in this directory

• Configure the kubelet service on this worker node to create pods from /etc/staticpods

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**Lab Activity 6 - Display Scheduler Events**

• Create a pod manifest file using the nginx image which will create a pod called “nginx-web” (Alternatively do this via kubectl run)

• Extract the events from the cluster, particularly those pertaining to scheduling to find where this pod was scheduled to.

• Extract the logs from the pod running the default scheduler, or from the respective file if running as a deamon service on your master node.

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**Lab Activity 7 - Know how to configure the Kubernetes Scheduler**

• Configure the Kube-Scheduler by adding --logtostderr=true to the existing configuration.

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