# Kubernetes

# CKAD

# Core Concepts

# API Primitives 4 %

# For Exp: -

# Move a POD from one name space to another given a container name

# Input nginx

# Create a Nginx 1.7.3 container with name as nginxpod and container name as nginxcontainer

# Multi container Design Patterns

# Side Car, Adapter and Ambassador

# Container with name X on deployment Y on a namespace Z. Container writes a log to file called app.log. Inside the deployment, create a side car with name S on the deployment file and save it with a different name ensure the container is running.

# Rolling Updates

# Given a POD running in namespace N, create a deployment with replica 5 with deployment name as ‘dep1’. Save the Yaml file with specific name.

# How to create a deployment with POD, replica.

# Rollback

# There is an existing deployment named apple in a namespace fruits. Current version is broken, how to rollback to a previous version.

# Jobs and CronJobs

# Create a job template with pineapple\_job.yaml. Make it execute 3 pods in parallel with 5 Iterations. Each POD which will be created should have a label color=yellow and container name should be pineapple.

# Labels, Selectors and Annotations

# Identify a set of PODS in a namespace vegetables using a label (one more more with OR ) and add couple of labels into those matching ones.

# Persistent Volumes

# Create a PV with name strawberry-pv with Capacity 2GB. Access mode ReadWrite and hostPath /data/berry and storage class berries

# Create a PVC with Capacity 1GB.

# Create a deployment with name as strawberry-dep on namespace ‘berries. This POD should use the PVC as a volume at /tmp/mydata. The container needs to run with nginx1.7. version

# ConfigMap / Secrets

# Create a config map named ‘x’ containing a file ‘index.htm’. A deployment with name ‘Y’ is already set up to run. Make sure the container is running.

# Resource Limits

# Create a deployment with X and with 5 replicas and with container name as ‘Y’. Configure it to use Request limit of 15 MB and limit of 30MB.

# Service Accounts

# Tie a POD to a service account.

# Liveliness and Readiness Probe

# Create a single POD named ‘X’ with busybox:1.13 and add a readiness probe check if /tmp/berry exists. It should wait for 3 seconds before verify and there after wait for 6 sec.

# Container Logs

# Create a container with pod name busy box and log with echo. Copy the logs and paste it in a file.

# Monitor POD resources

# kubectl top command

# Debugging PODs

# Fix a deployment which is broken and ensure it is running with 3 replicas.

# Services:

# Create a service as NodePort listen on specific port. POD is running with a label fruit=mulberry

# Networking

# Basic Network policy example. Configure Ingress/Egress.