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| **DOCUMENT RULES:** | |
| **Task Number / Name:** | **Killer Shell CKAD** |
| **Task name & column name should be written:** | **Bold (CTRL+B)** |
| **Commands should be written in the after # sign:** | *Italic (CTRL+I) #hostname* |
| **Output photo should be cropped or compressed:**  **Photo could be more than one:**  **If you need extra lines, add the line next after it:** | ***Description photo should be with title bar (CTRL + I + B)*** |
| **All other text should be written:** | Standard |
| **Font name and text size:** | Calibri and 9 |
| **Group name:** | Dev\_ops\_ |
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| 1.VIM Setup |  |
| First create or open (if already exists) file .vimrc :  vim ~/.vimrc |  |
| 2.SSH Basics |  |
| ssh node01  ssh node01  touch /root/node01 |  |
| exit  touch /root/controlplane |  |
| 3.Kubectl Contexts |  |
| k config get-contexts  k config get-contexts > /root/contexts |  |
| k config use-context purple  k get pod |  |
| k config use-context yellow  k get pod |  |
| 4.Pod with resources |  |
| 5.ConfigMap access in Pods |  |
| kubectl create cm trauerweide --from-literal tree=trauerweide |  |
| kubectl -f /root/cm.yaml create |  |
| cm.yaml |  |
| Create a *Pod* named pod1 of image nginx:alpine |  |
| kubectl exec pod1 -- env | grep "TREE1=trauerweide" |  |
| kubectl exec pod1 -- cat /etc/birke/tree  kubectl exec pod1 -- cat /etc/birke/level  kubectl exec pod1 -- cat /etc/birke/department |  |
| 6.Readiness Probe |  |
| First we generate a Deployment  yaml:  k create deploy space-alien-welcome-message-generator --image=httpd:alpine -oyaml --dry-run=client > deploy.yaml |  |
| Deploy.yaml |  |
| kubectl apply -f deploy.yaml |  |
| k get deploy |  |
| k exec space-alien-welcome-message-generator-5c945bc5f9-m9nkb -- touch /tmp/ready  k get deploy |  |
| 6.Build and run a Container |  |
| nano /root/Dockerfile |  |
| podman build -t pinger . |  |
| podman image ls |  |
| podman run --name my-ping pinger |  |
| podman tag pinger local-registry:5000/pinger  podman image ls |  |
| podman push local-registry:5000/pinger |  |
| podman tag pinger pinger:v1  podman tag pinger local-registry:5000/pinger:v1  podman image ls |  |
| podman push local-registry:5000/pinger:v1 |  |
| 7.Rollout Rolling |  |
| podman push local-registry:5000/pinger:v1 |  |
| 8.Rolout Green-Blue |  |
| 9.Custom Resource Definitions |  |
| k get crd > /root/crds  k get db-backups -A > /root/db-backups |  |
| k -f /code/crd.yaml apply  k get crd | grep shopping |  |
| 10.Helm |  |
| helm ls -A > /root/releases |  |
| helm ls –A  helm -n team-yellow uninstall apiserver |  |
| helm -n team-yellow install devserver nginx-stable/nginx-ingress |  |
| 11.Ingress Create |  |
| k -n world expose deploy europe --port 80  k -n world expose deploy asia --port 80 |  |
| nano world.yaml |  |
| kubectl create –f world.yaml |  |
| 12.Network policy namespace selector |  |
| nano space1.yaml |  |
| Kubectl create –f space1.yaml |  |
| 13.Admission Controllers |  |
| cat /etc/kubernetes/manifests/kube-apiserver.yaml | grep admission-plugins  nano /root/admission-plugins | NodeRestriction  LimitRanger  Priority |
| cp /etc/kubernetes/manifests/kube-apiserver.yaml ~/kube-apiserver.yaml  nano /etc/kubernetes/manifests/kube-apiserver.yaml |  |
| watch crictl ps |  |
| k delete ns space1  k delete ns default # error |  |
| cp /etc/kubernetes/manifests/kube-apiserver.yaml ~/kube-apiserver.yaml  nano /etc/kubernetes/manifests/kube-apiserver.yaml |  |
| 14.Api Deprecations |  |
| k version |  |
| k version --short |  |
| nano /root/versions |  |
| k explain deploy  echo apps > /root/group |  |
| nano /api/cronjob.yaml |  |
| k -f /apps/cronjob.yaml create |  |