**CKA**

**EXAM READINESS**

**Storage 10%**

***Knowledge Check***

* Understand storage classes, persistent volumes
* Understand volume mode, access modes, and reclaim policies for volumes
* Understand persistent volume claims primitive
* Know how to configure applications with persistent storage

**Troubleshooting 30%**

* Evaluate cluster and node logging
* Understand how to monitor applications
* Manage container stdout & stderr logs
* Troubleshoot application failure
* Troubleshoot cluster component failure
* Troubleshoot networking

**Workloads & Scheduling 15%**

* Understand deployments and how to perform rolling updates and rollbacks
* Use ConfigMaps and Secrets to configure applications
* Know how to scale applications
* Understand the primitives used to create robust, self-healing, application deployments
* Understand how resource limits can affect Pod scheduling
* Awareness of manifest management and common templating tools

**Cluster Architecture, Installation & Configuration 25%**

* Manage role-based access control (RBAC)
* Use Kubeadm to install a basic cluster
* Manage a highly-available Kubernetes cluster
* Provision underlying infrastructure to deploy a Kubernetes cluster
* Perform a version upgrade on a Kubernetes cluster using Kubeadm
* Implement etcd backup and restore

**Services & Networking 20%**

* Understand host networking configuration on the cluster nodes
* Understand connectivity between Pods
* Understand ClusterIP, NodePort, LoadBalancer service types and endpoints
* Know how to use Ingress controllers and Ingress resources
* Know how to configure and use CoreDNS
* Choose an appropriate container network interface plugin

**Experience -1**

* Make yourself familiar with the required tools, such as openssl, cfssl, systemd, etcdctl, systemctl, journalctl, grep, wc and do Kubernetes the hard way. Then do it again. And again.
  + **Tip:** Learn to create objects imperatively. You won't have time to use declarative yaml files. (e.g. kubectl run, kubectl expose, etc.)
  + **Tip:** Get really, really comfortable with kubectl.
  + **Tip:** Use kubectl explain if you're stuck. There's also a kubectl cheat sheet in the official documentation.
  + **Tip:** Get familiar with vim or nano.
  + **Tip:** Write down how many questions you completed and their weight, to know where you stand.
  + **Tip:** Leave time for revising your previous answers: I completed most of the questions in the first 2 hours, and used the half of the remaining hour to revise all my previous answers (thank God I did, I corrected a few of them). Then, I used the remaining 30 minutes for the hardest question.
* Tips for the exam
  + Learn to create objects imperatively. You won't have time to use declarative yaml files. (e.g. kubectl run, kubectl expose, etc.)
  + Get really, really comfortable with kubectl.
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* Final words
  + Finally, keep in mind that you have one free re-take if you didn't clear the exam on your first attempt. I hope you won’t need it but knowing this will definitely help you to calm down during the exam.
* Useful links and study materials
  + <https://github.com/walidshaari/Kubernetes-Certified-Administrator>
  + <https://docs.google.com/spreadsheets/d/10NltoF_6y3mBwUzQ4bcQLQfCE1BWSgUDcJXy-Qp2JEU/edit#gid=0>
  + <https://github.com/cncf/presentations/blob/master/kubernetes/README.md?utm_sq=g22izm7poa>
  + <https://github.com/dgkanatsios/CKAD-exercises>
  + <https://training.linuxfoundation.org/wp-content/uploads/2019/05/Important-Tips-CKA-CKAD-May.pdf>
  + <https://github.com/mmumshad/kubernetes-the-hard-way>
  + <https://github.com/dgkanatsios/CKAD-exercises/blob/master/a.core_concepts.md>
  + <https://training.linuxfoundation.org/cncf-certification-candidate-resources/>
  + <https://kubedex.com/7-5-tips-to-help-you-ace-the-certified-kubernetes-administrator-cka-exam/>
  + <https://github.com/arush-sal/cka-practice-environment>

Some tips to save time during the exam:

* Use the alias of *kubectl* (already set up in the exam environment), so you can write the k8s command with just " *k run my-pod --image=nginx:alpine* " instead of " *kubectl run my-pod --image=nginx:alpine"* .
* Use short resource names instead of full-name, like *po* for *pod* , *netpol* for *networkpolicy* , *ing* for *ingress* … It will help to save time and reduce typo mistakes. Run this command for the complete list: " *kubectl api-resources* ".
* Use *kubectl explain {resource\_name} --recursive | less* to get the schema of any K8S resource, copy the needed part & paste it into the YAML file.
* Use the *–dry-run=client -o yaml* flag, do not write the YAML from scratch, always use this flag or copy the YAML template from [Kubernetes Documentation | Kubernetes 7](https://kubernetes.io/docs/) sites.
* Use *–grace-period=0 --force* flag when deleting pods, it will save 30 seconds of waiting time.

**CNCF-official**

* <https://docs.linuxfoundation.org/tc-docs/certification/tips-cka-and-ckad>

**Experience -2**

* <https://blog.devgenius.io/passing-the-2023-certified-kubernetes-administrator-cka-exam-693d8f9bc711>
* <https://www.unixarena.com/2022/09/prepare-like-a-pro-certified-kubernetes-administrator-cka-exam-study-tips.html/?amp=1>

**From Linkedin**

<https://github.com/leandrocostam/cka-preparation-guide>

[Kubernetes - CKA - CKAD - Preparation Tips Explained](https://youtu.be/Y-CupBJBUHA)

[Sudhakar Mangipudi on LinkedIn: #kubernetes #cka #devops #certifications #udemycourse #kodekloud | 14 comments](https://www.linkedin.com/posts/sudhakar-mangipudi-633a8225_kubernetes-cka-devops-activity-7036241990761529344-bTfK?utm_source=share&utm_medium=member_ios)

**Prepare on**

* Vpc, vp
* Kubeadm upgrade
* Kubelet failure debugging
* Network policy
* Ingress rules
* etcd backup n restore
* Mock test in [killer.sh](http://killer.sh/) 3 days before exam will give confidence.
* If you score 80% on the <https://killer.sh> exam simulator, you will definitely ace the exams

[Acing the Certified Kubernetes Administrator Exam](https://www.manning.com/books/acing-the-certified-kubernetes-administrator-exam)

**CKAD**

<https://github.com/dgkanatsios/CKAD-exercises>

**Experience-3**

On the first attempt my time management was off, I got caught into the perfectionism trap and ended up attempting only 12 out 16 questions. CKAD involves working with manifests files in Vi editor.

* Here I practiced more navigating vi editor, this vim basics video was useful to get me started -

<https://youtu.be/ggSyF1SVFr4>

* Also, try to use the official documentation provides templates and simply adopt them to the question specific requirements as you go.

In regards to CKA, Kodekloud course was the main source I used for preparation. It is well organized and it covers all the curriculum for the exam. After completing the course I practiced the killer shell k8s labs and the Linux Foundation provided exam simulator tests like 3 days before the exam. The exam simulator was actually harder than the actual exam.

**KodeKloud CKA Course Github Link**

-Bu linkte KodeKloud CKA dersinin dokumanlari var ama practice ve mock testlerin sadece cevaplari var.

📌 <https://github.com/kodekloudhub/certified-kubernetes-administrator-course>

**Exoerience-4**

The first thing make sure you practice their mock exams atleast 3 to 4 times, there are few questions on topic etcd, ingress, deployment, RBAC which definitely comes for examination, make sure you also get hands on on the [killer.sh](http://killer.sh/) simulator which is provided free for us for examination, this will give u an example of the real examination, the simulator questions are hard you can try to attempt those, real examination questions are not that hard, the best way is to practice continuously so that you finish easy questions fast and take time for the hard ones...