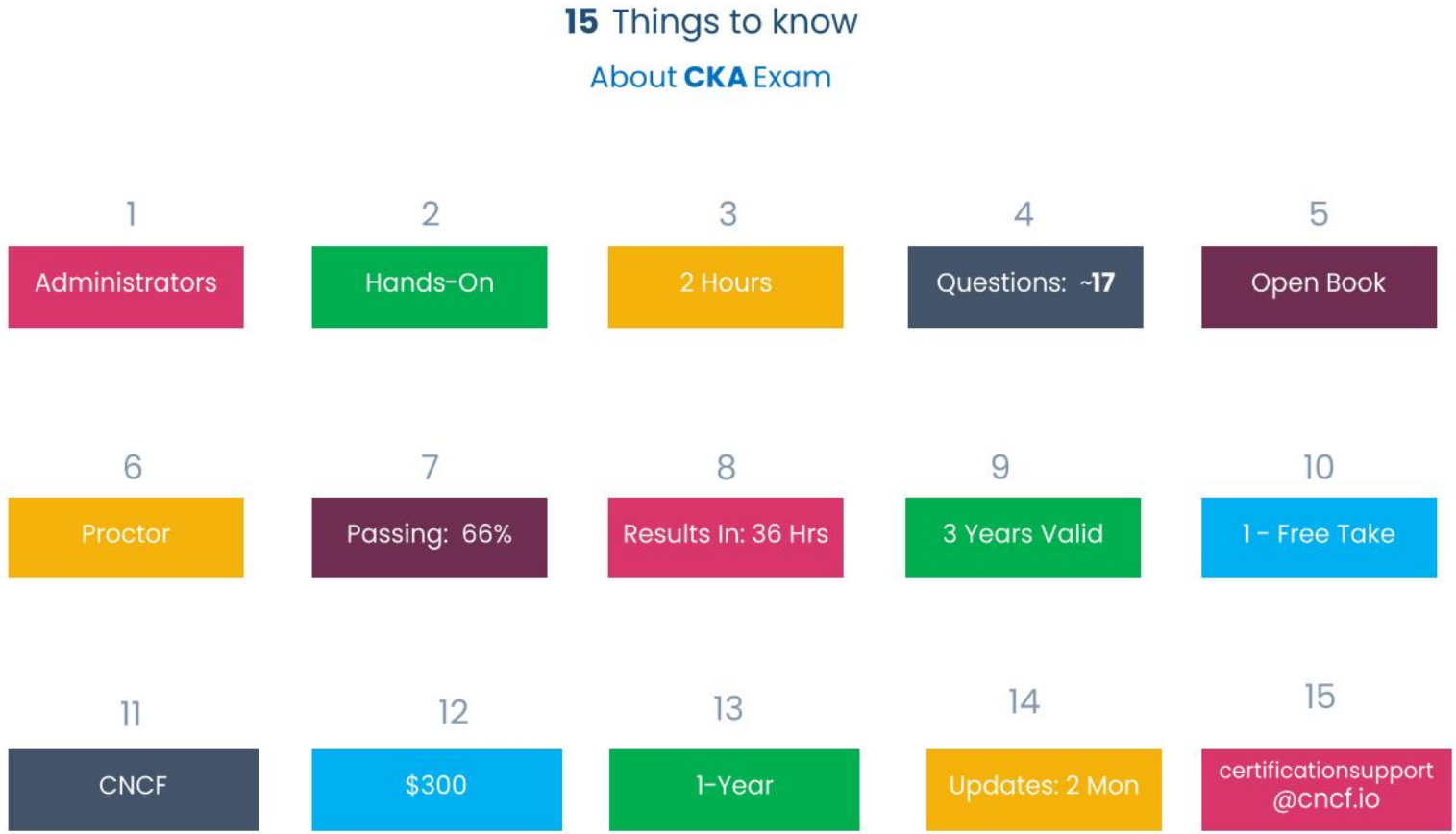
CKA Exam

Ghazela Tech

Exam Strategy & time management

CKA Exam


15 Things to know
About CKA Exam
1
Administrators
2
Hands-On
3
2 Hours
4
Questions: ~17
5
Open Book
6
Proctor
7
Passing: 66%
8
Results In: 36 Hrs
9
3 Years Valid
10
1 - Free Take
11
CNCF
12
$300
13
1-Year
14
Updates: 2 Mon
15
certificationsupport
@cncf.io

CKA Exam Tips

Know the Kubernetes **DOCS**

https://kubernetes.io/**docs**/
https://kubernetes.io/docs/**concepts**/
https://kubernetes.io/docs/**tasks**/
https://kubernetes.io/docs/**reference**/
https://kubernetes.io/docs/reference/kubectl/**cheatsheet**/

https://kubernetes.io/**blog**/

https://**github**.com/**kubernetes**/

CKA Exam Tips

Track Your **PROGRESS**

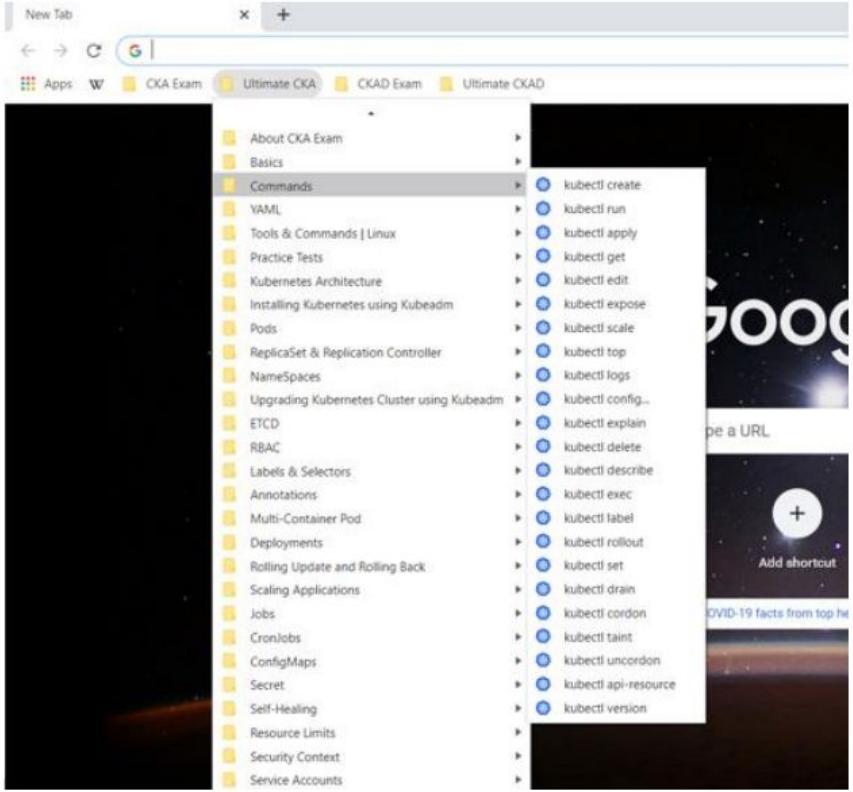
CKA Exam Tracker

1	1. **Cluster Architecture, Installation & Configuration** 25%	Kubernetes Architecture	CKA & CKAD	*Yet to Start*
2		Installing Kubernetes using Kubeadm	CKA & CKAD	*Yet to Start*
3		Pods	CKA & CKAD	*Yet to Start*
4		ReplicaSet	CKA & CKAD	*Yet to Start*
5		Namespaces	CKA & CKAD	*Yet to Start*
6		Upgrading Kubernetes Version	CKA	*Yet to Start*
7		Managing Highly-Available K8s Cluste	CKA	*Yet to Start*
8		ETCD	CKA	*Yet to Start*
9		RBAC	CKA	*Yet to Start*
10	2. **Workloads & Scheduling** 15%	Deployments	CKA & CKAD	*Yet to Start*
11		Rolling Update & Rollback	CKA & CKAD	*Yet to Start*
12		Scaling Applications	CKA	*Yet to Start*
13		ConfigMaps	CKA & CKAD	*Yet to Start*
14		Secrets	CKA & CKAD	*Yet to Start*
15		Node-Selectors	CKA	*Yet to Start*
16		Resource Limits	CKA & CKAD	*Yet to Start*
17		Self-Healing	CKA	*Yet to Start*
18		Manifest Managing & Templating Tool	CKA	*Yet to Start*
19	3 - **Services & Networking** 20%	Networking Basics	CKA	*Yet to Start*
20		CNI	CKA	*Yet to Start*
21		Connectivitiy (Pod-To-Pod & More)	CKA	*Yet to Start*
22		Services	CKA & CKAD	*Yet to Start*
23		KubeProxy	CKA	*Yet to Start*
24		DNS in Kubernetes | CoreDNS & KubeDNS	CKA	*Yet to Start*
25		Service Discovery	CKA	*Yet to Start*
26		EndPoints	CKA	*Yet to Start*
27		Ingress	CKA	*Yet to Start*
28	4 - **Storage** 10%	Volumes	CKA	*Yet to Start*
29		HostPath Volume	CKA & CKAD	*Yet to Start*
30		Persistent Stroage	CKA & CKAD	*Yet to Start*
31		Access Modes | Volume Modes | Reclaim Polic	CKA & CKAD	*Yet to Start*
32		GCE Persistent Storage	CKA	*Yet to Start*
33		Persistent Volume (PV)	CKA & CKAD	*Yet to Start*
34		Persistent Volume Claim (PVC)	CKA & CKAD	*Yet to Start*
35		Storage Classes	CKA	*Yet to Start*
36	5 - **Troubleshooting** 30%	Logging	CKA & CKAD	*Yet to Start*
37		Monitoring	CKA & CKAD	*Yet to Start*
38		Troubleshooting Cluster Components	CKA & CKAD	*Yet to Start*
39		Troubleshooting Application	CKA & CKAD	*Yet to Start*
40		Troubleshooting Networking	CKA & CKAD	*Yet to Start*
	Done with - Concepts, Demos, and "Practice"?			*Not Yet*
	Ready to get your CKA Cert?			*Not Yet*

CKA Exam Prep Tracker

CKA Exam Tips

Use **BOOKMARKS**



CKA Exam Tips

Get Comfortable with Linux **COMMANDS** & Text **EDITOR**

Linux Commands

Linux Commands for CKA/CKAD

VIM

10 Things to Know about "**VIM**" Text Editor

CKA Exam Tips

PRACTICE is the Key

25 Exercises To Solve - **CKA**

20 Exercises To Solve - **CKAD**

More on the way . . .

CKA Exam Tips

Get Familiar with Exam **ENVIRONMENT** & **USER INTERFACE**

Exam Environment

CKA Clusters

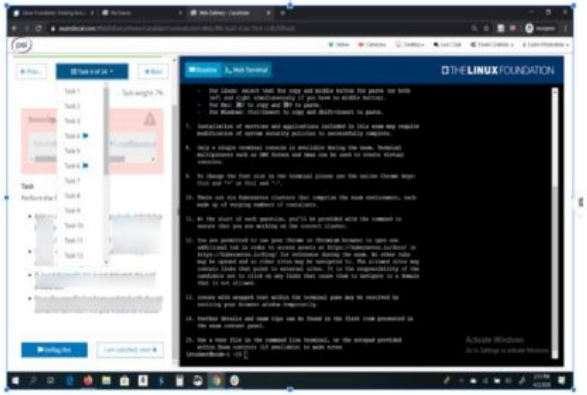
Cluster	Members	CNI	Description
k8s	1 master, 2 worker	flannel	k8s cluster
hk8s	1 master, 2 worker	calico	k8s cluster
bk8s	1 master, 1 worker	flannel	k8s cluster
wk8s	1 master, 2 worker	flannel	k8s cluster
ek8s	1 master, 2 worker	flannel	k8s cluster
ik8s	1 master, 1 base node	loopback	k8s cluster – missing worker node

CKAD Clusters

Cluster	Members	CNI	Description
k8s	1 master, 2 worker	flannel	k8s cluster
dk8s	1 master, 1 worker	flannel	k8s cluster
nk8s	1 master, 2 worker	calico	k8s cluster
sk8s	1 master, 1 worker	flannel	k8s cluster

Reference:
https://docs.linuxfoundation.org/tc-docs/certification/tips-cka-and-ckad#cka-and-ckad-environment

Exam UI



Reference:
https://docs.linuxfoundation.org/tc-docs/certification/lf-candidate-handbook/exam-user-interface

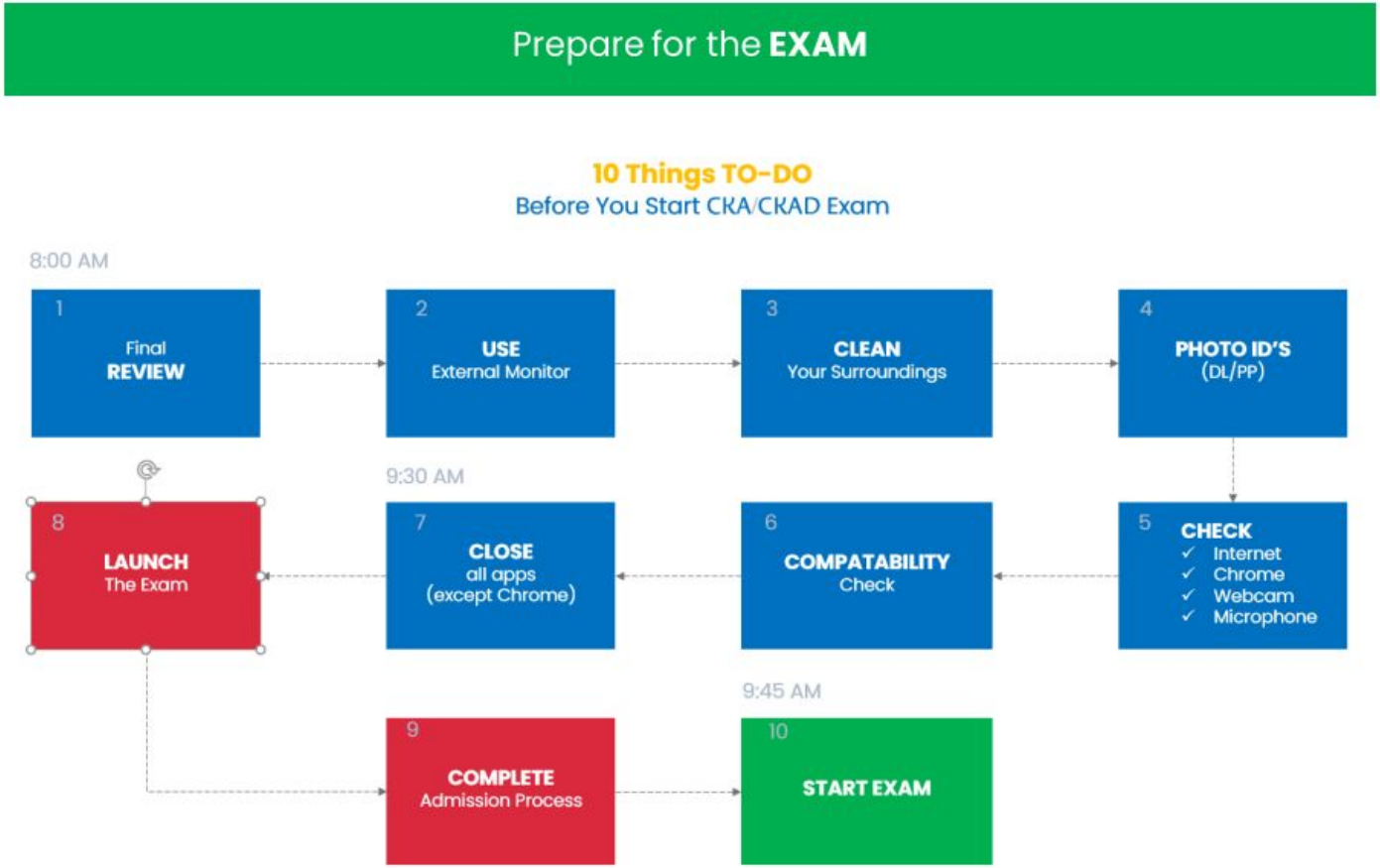
CKA Exam Tips

Know how the Exam **SCORING** is done

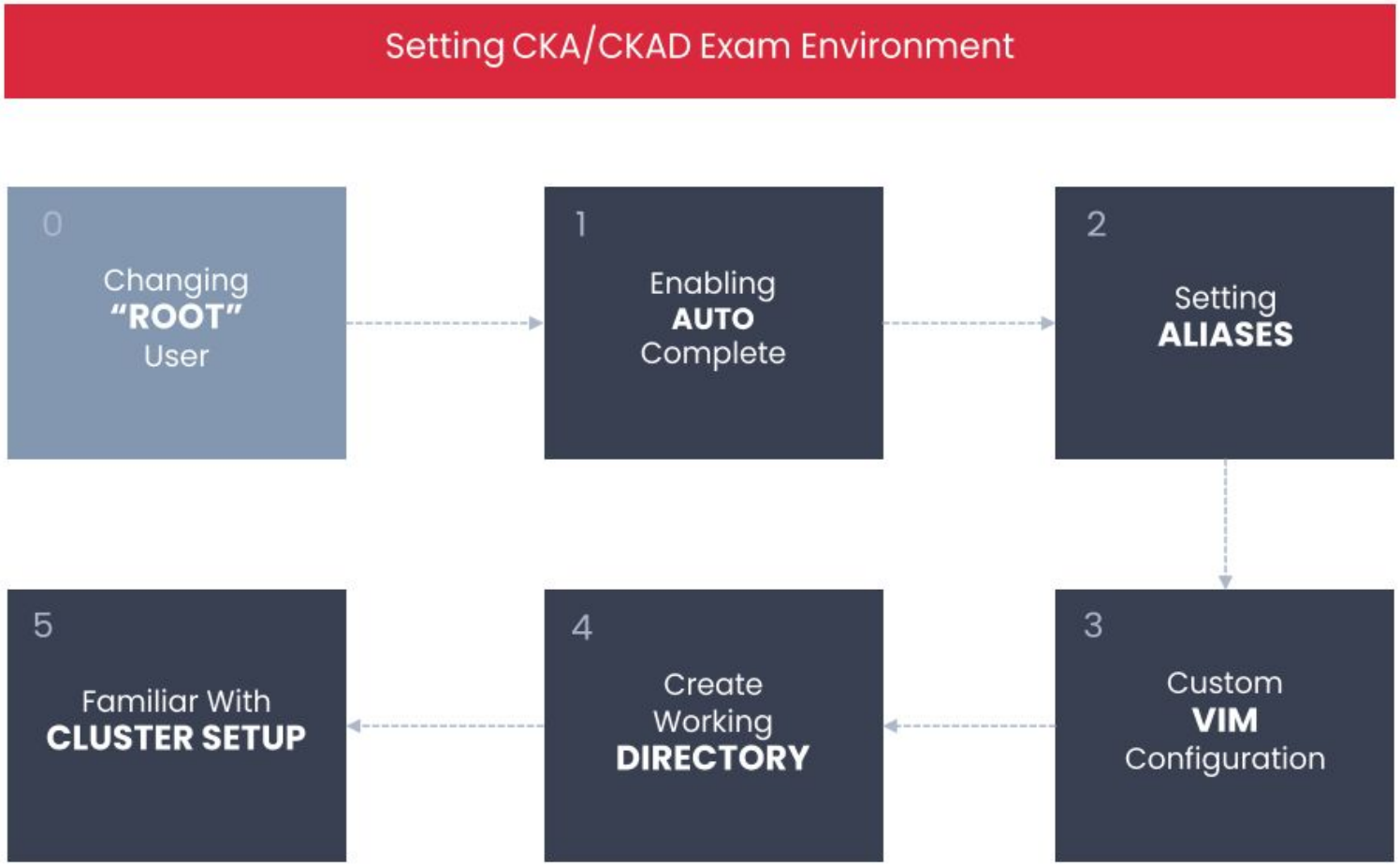
"There may be more than one way to perform a task on an Exam and unless otherwise specified, the candidate can pick any available path to perform the task as long as it produces the correct result."

Reference:
https://docs.linuxfoundation.org/tc-docs/certification/lf-candidate-handbook/exam-scoring-and-notification

CKA Exam Tips



CKA Exam Tips



CKA Exam Tips

Read The Question **COMPLETELY**

CKA Exam Tips

Use Right **"CONTEXT"**

CKA/CKAD Exam Environment

CKA Clusters

Cluster	Members	CNI	Description
k8s	1 master, 2 worker	flannel	k8s cluster
hk8s	1 master, 2 worker	calico	k8s cluster
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CKAD Clusters

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nk8s	1 master, 2 worker	calico	k8s cluster
sk8s	1 master, 1 worker	flannel	k8s cluster

Setting the default context to "**hk8s-context**"

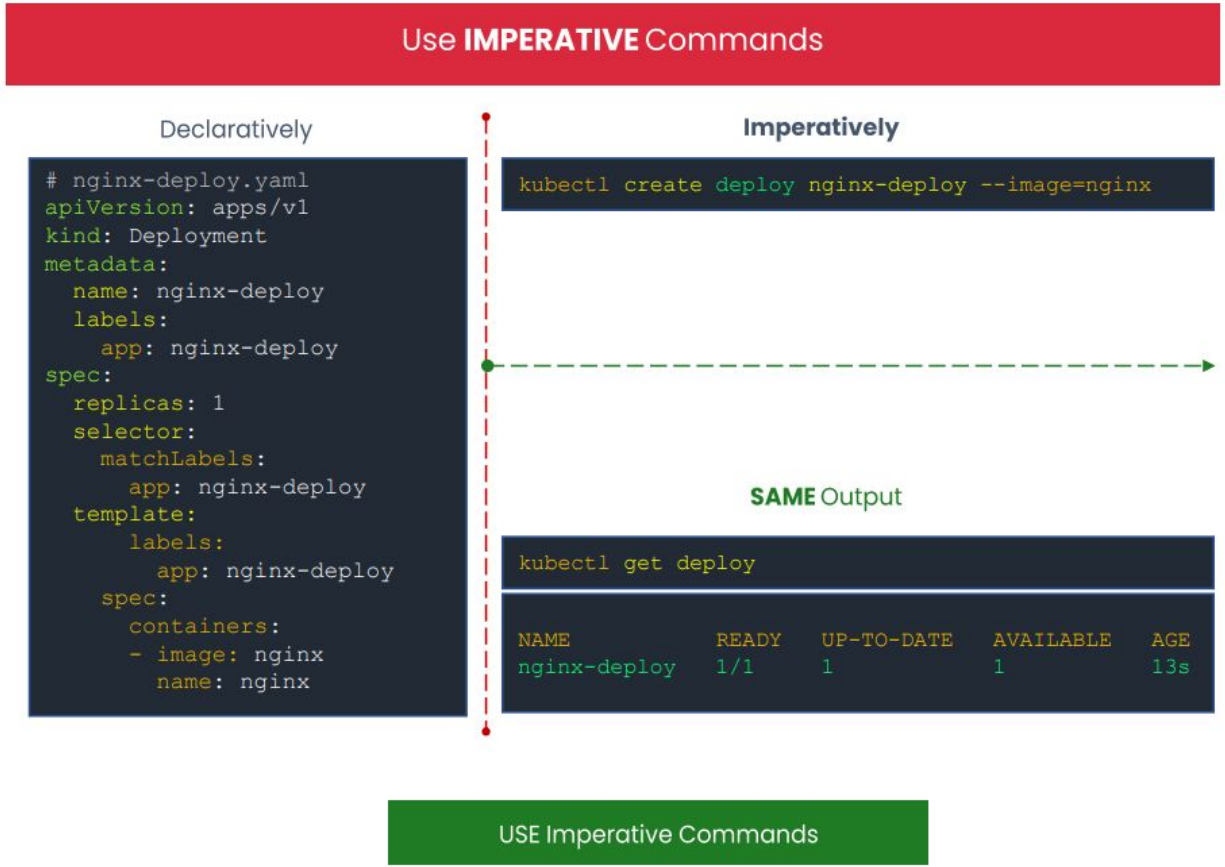
```
kubectl config use-context hk8s-context
```

NOTE: Exact "Context" Command will be provided in the question

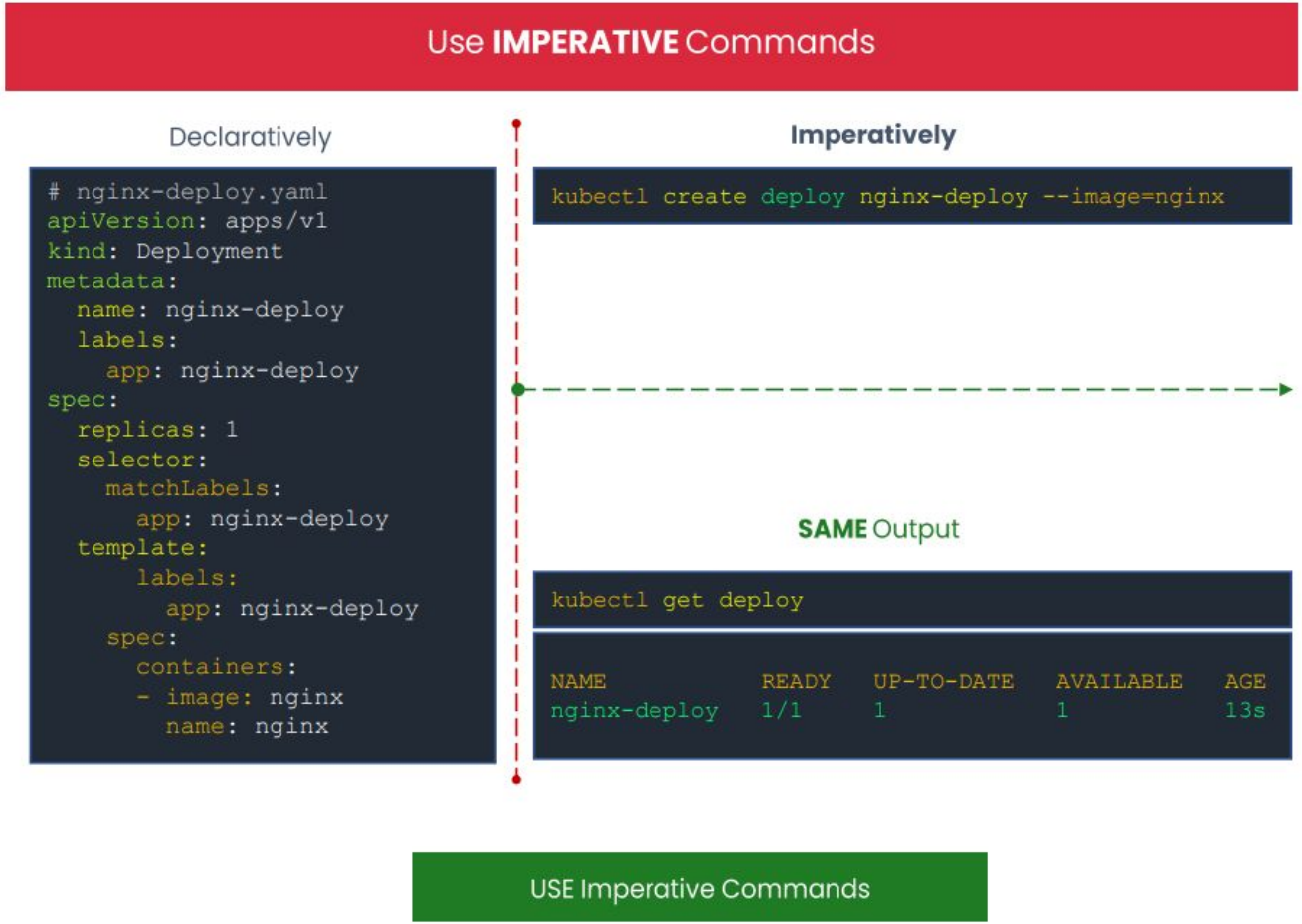
CONTEXT:

1. Cluster-Name
2. NameSpace
3. User Name

CKA Exam Tips



CKA Exam Tips



CKA Exam Tips

Stop Writing **YAML**. Use "**DRY-RUN**"

```
kubectl create deploy nginx-deploy --image=nginx --dry-run=client -o yaml
```

```
apiVersion: apps/v1
kind: Deployment
metadata:
  creationTimestamp: null
  labels:
    app: nginx-deploy
  name: nginx-deploy
spec:
  replicas: 1
  selector:
    matchLabels:
      app: nginx-deploy
  strategy: {}
  template:
    metadata:
      creationTimestamp: null
      labels:
        app: nginx-deploy
    spec:
      containers:
      - image: nginx
        name: nginx
        resources: {}
status: {}
```

CKA Exam Tips

Use **SHORT** Resource Names

LONG-NAMES

```
kubectl get persistentvolumeclaims
```

SHORT-NAMES

```
kubectl get pvc
```

DRAWBACKS:

1. Time Consuming
2. Prone to Errors

LONG	SHORT
pods	po
replicaset	rs
deployments	deploy
services	svc
namespaces	ns
networkpolicies	np
persistentvolumes	pv
persistentvolumeclaim	pvc
serviceaccounts	sa

CKA Exam Tips

Know How to use **“HELP”** & **“EXPLAIN”**

Help

```
kubectl --help
kubectl create --help
kubectl create svc --help
kubectl create svc clusterip --help
kubectl create svc clusterip --help | grep -i examples -A20
```

Explain

```
kubectl explain [resource-type]
kubectl explain deployment --recursive
kubectl explain deployment.spec.strategy
```

CKA Exam Tips

Use **ROOT** Access

Need ROOT Access For (Ex):

1. Installing software Apps
2. Creating / Updating Services

```
student@base-node: sudo su -
```

CKA Exam Tips

Use **"FORCE"** Delete

```
kubectl delete [resource-type] [resource-name] --force
```

CKA Exam Tips

CKA Exam Tips

TIPS **BEFORE** EXAM

1. Set the TARGETS!
2. SCHEDULE the Exam
3. ENROLL in a good course
4. BUILD Practice K8s Cluster
5. Know the Kubernetes DOCS
6. Track Your PROGRESS
7. Use BOOKMARKS
8. Get Comfortable with Linux COMMANDS & Text EDITOR
9. PRACTICE is the Key
10. Get Familiar with Exam ENVIRONMENT & USER INTERFACE
11. Know how the Exam SCORING is done
12. Prepare for the EXAM

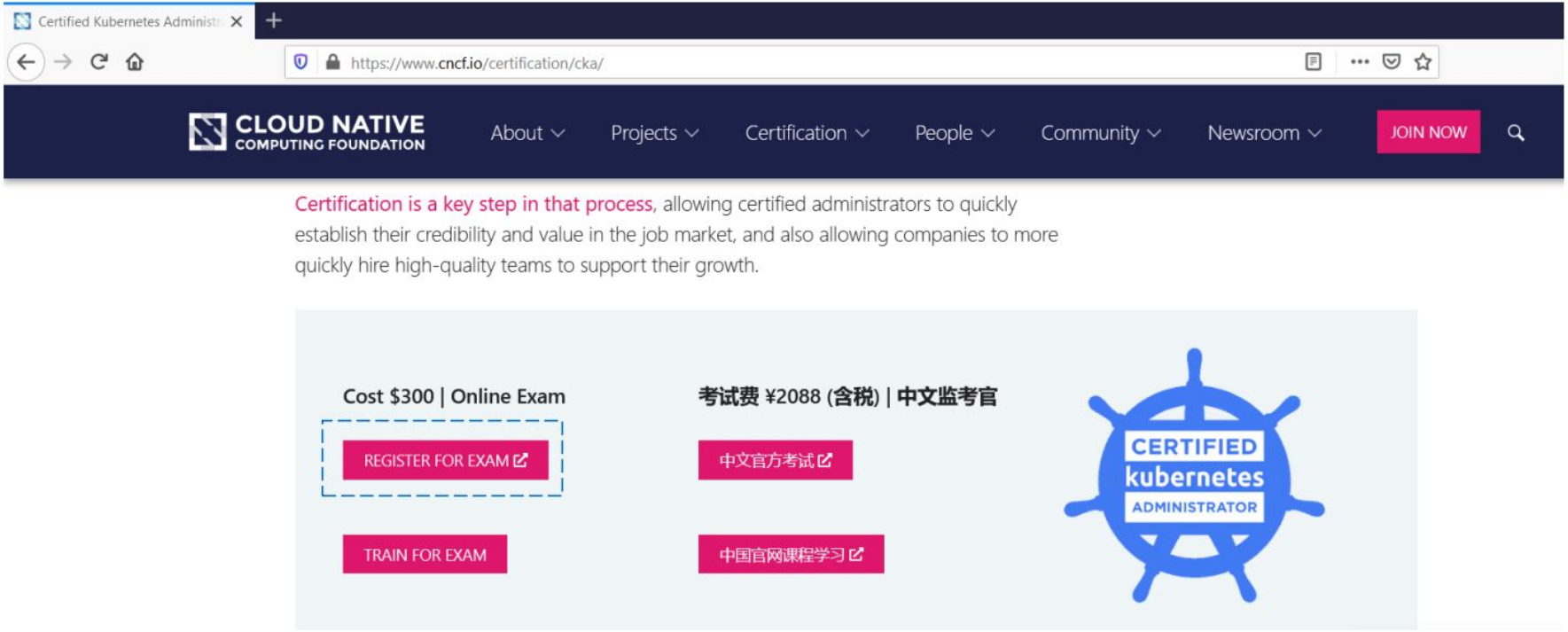
TIPS **DURING** EXAM

13. Keep CALM & FOCUS
14. Set AUTO-COMPLETE & ALIAS'es
15. Read The Question COMPLETELY
16. Follow EASY FIRST Strategy
17. Use Right "CONTEXT"
18. Use IMPERATIVE Commands
19. Stop Writing YAML. Use "DRY-RUN"
20. Follow File NAMING Pattern
21. Use SHORT Resource Names
22. Know How to use "HELP" & "EXPLAIN"
23. Use ROOT Access
24. Use "FORCE" Delete
25. Allocate Time for FINAL REVIEW

Bonus Tip : Remember the "Free" Re-Take

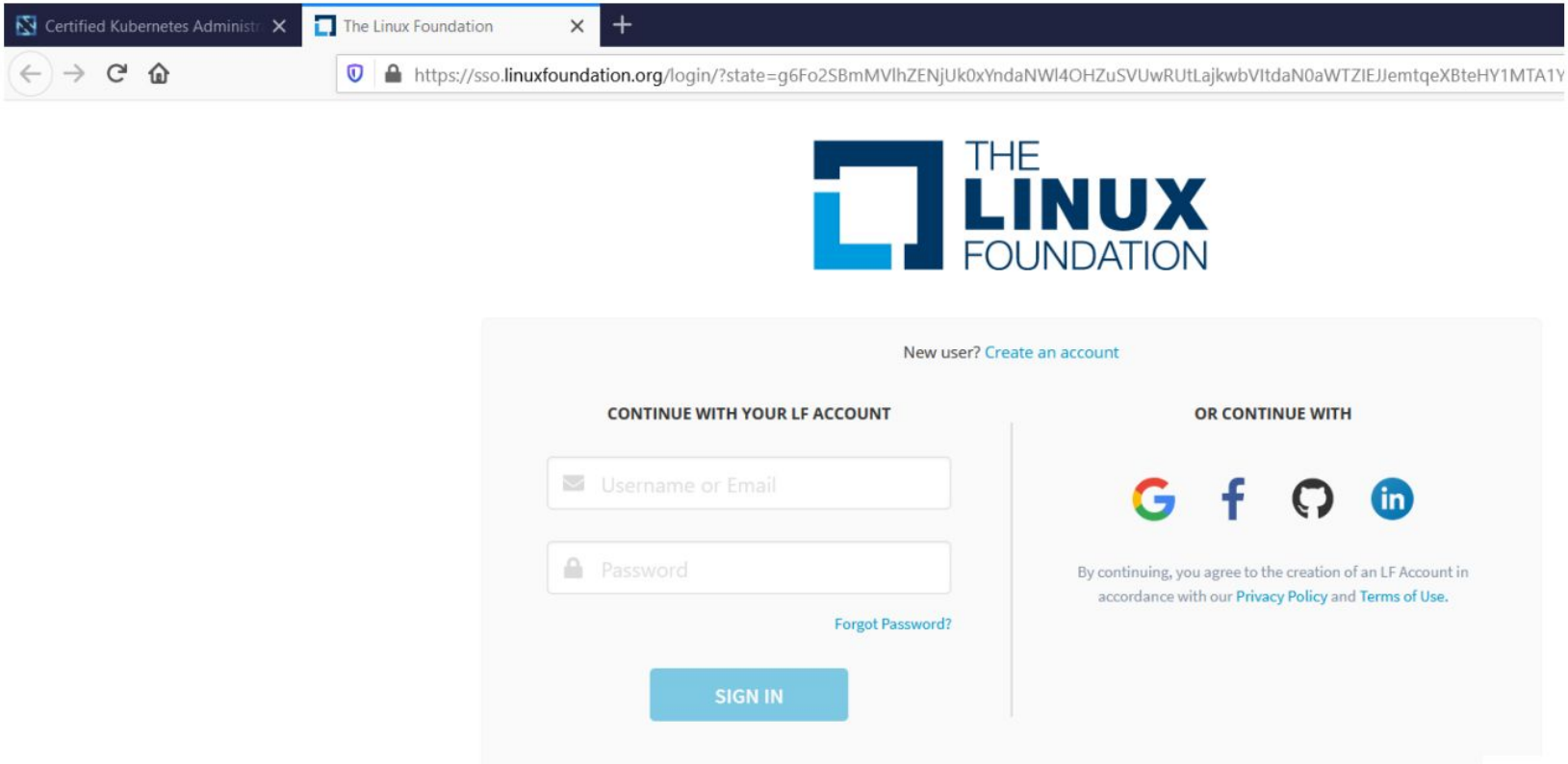
Exam Registration

STEP-1: Main Page `https://www.cncf.io/certification/cka/`



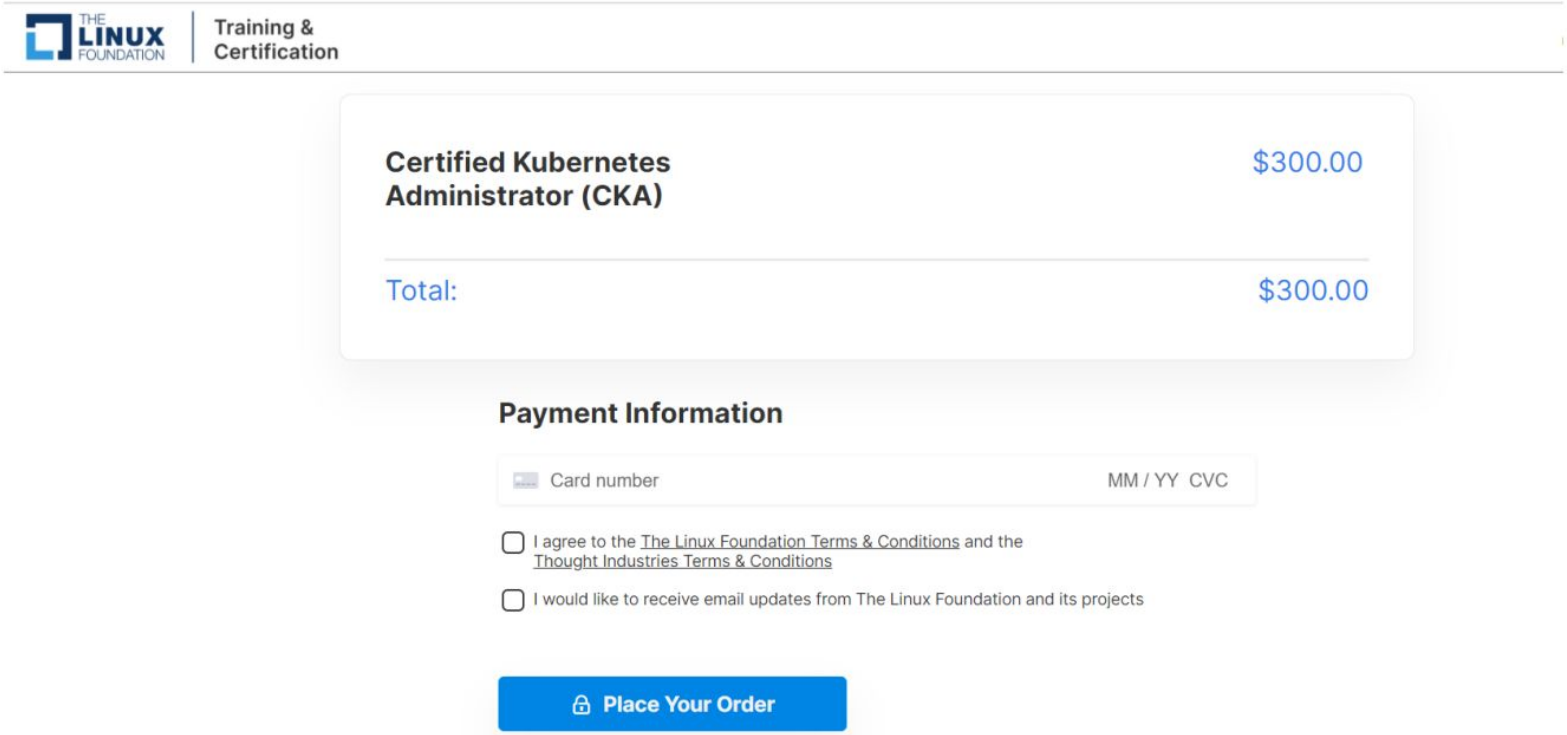
Exam Registration

STEP-2: Create Account

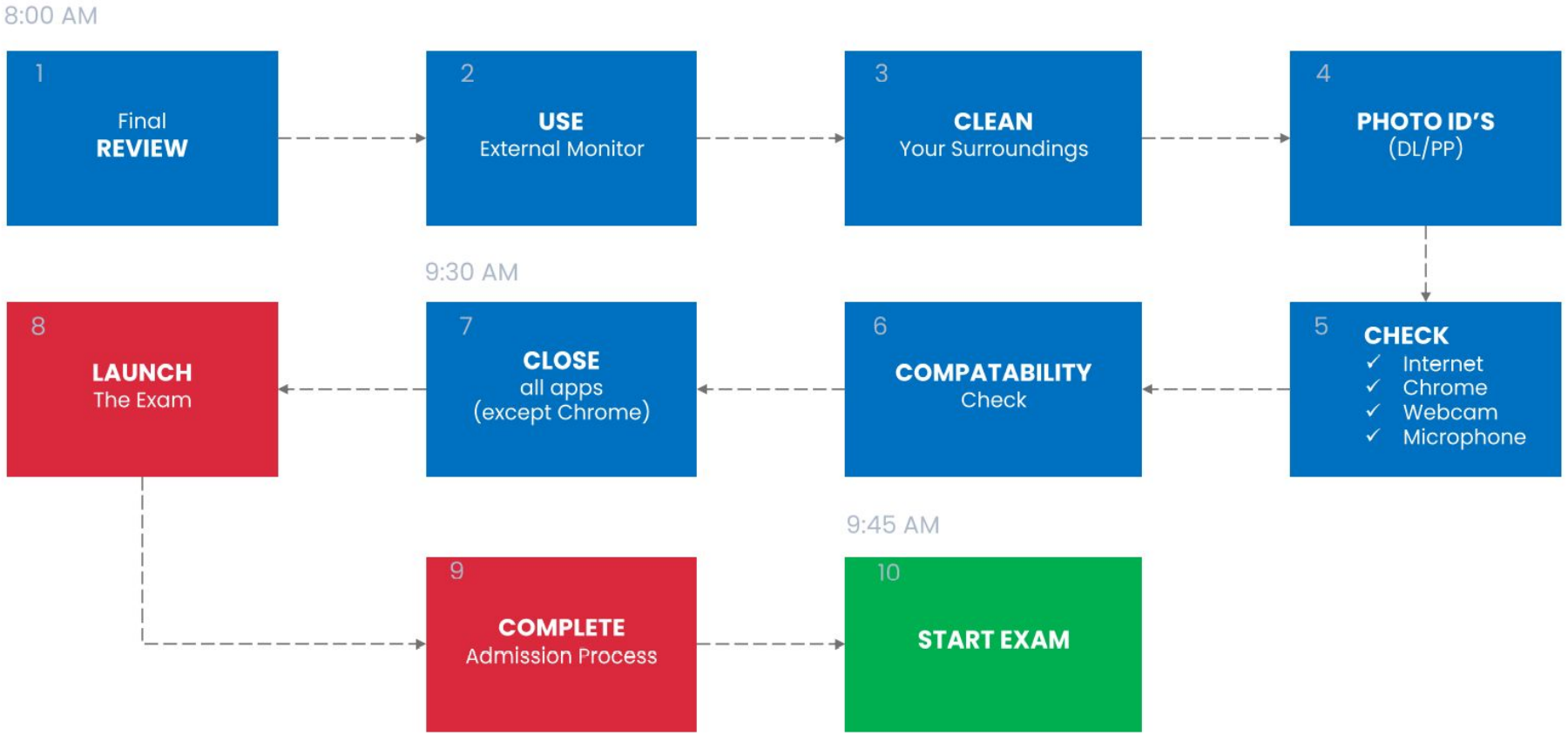


Exam Registration

STEP-3: Make Payment



Before you start CKA Exam



Setting up CKA/CKAD Exam Environment

- **Note:** CKA/CKAD Exam Consists of multiple nodes and clusters. But, most of the time, you will be on jump/base node from where you will be connecting other clusters using the command (use-context) in the question.
- Following commands should execute on Base node. Can be executed on other nodes as and when needed.

1. Change to Root user:

----

sudo su -

2. Enabling Auto-Completion:

----

source <(kubectl completion bash) # Temporary Config

echo "source <(kubectl completion bash)" >> ~/.bashrc # Permanent Config

Setting up CKA/CKAD Exam Environment

3. Setting Aliases:

----

alias k="kubectl“ # Setting Alias for kubectl

alias kp="kubectl get pods -o wide“ # Setting Alias to Display “Pods”

alias kd="kubectl get deployment -o wide“ # Setting Alias to Display “Deployment”

alias ks="kubectl get svc -o wide“ # Setting Alias to Display “Services”

alias kc=‘kubectl config get-contexts’ # To check current context

Setting up CKA/CKAD Exam Environment

4. Custom VIM Configuration:
----

vi ~/.vimrc

#My VIM Config: Adding below lines to ~/.vimrc

```
set number      # Show Line Numbers
set et                  # To insert space characters whenever the tab key is pressed
set sw=2 ts=2 sts=2

# sw=2  Shiftwidth of tab from default 8 to 2 spaces
# ts=2  Set tabstop to 2 spaces
# sts=2 Set softtabstop to 2 spaces
```

Setting up CKA/CKAD Exam Environment

5. Create CKA/CKAD Exam Working Directory:

----

mkdir my-cka-exam

6. Get Familiar with Cluster-Setup:

----

kubectl get nodes
kubectl get ns
kubectl get pods -A
kubectl config get-clusters
kubectl config get-contexts

Thank You!