

Best Professional Linux Foundation Authentic CKS Exam Questions - CKS Free Download



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Now, do you want to enjoy all these Linux Foundation CKS Exam benefits? Looking for a simple and quick way to pass the Certified Kubernetes Security Specialist (CKS) (CKS) exam? If your answer is yes then you do not need to worry about it. Just visit the "TestkingPDF" exam questions and download "TestkingPDF" exam questions and start preparation right now.

The CKS certification exam is a practical assessment of the candidate's skills in securing Kubernetes platforms and containerized applications. CKS exam consists of 17 hands-on performance-based tasks that simulate real-world scenarios. The tasks are designed to test the candidate's ability to identify and mitigate security risks, implement security best practices, and troubleshoot security issues in Kubernetes environments. CKS exam is timed and must be completed within two hours. Candidates who pass the exam are awarded the CKS certification, which demonstrates their expertise in Kubernetes security and their commitment to upholding industry best practices.

Linux Foundation CKS (Certified Kubernetes Security Specialist) Certification Exam is an industry-recognized certification that validates the skills and knowledge required to secure containerized applications and Kubernetes platforms. As more organizations adopt Kubernetes for their container orchestration, the demand for certified Kubernetes security specialists has increased. The CKS certification helps IT professionals demonstrate their expertise in securing Kubernetes environments and provides a competitive edge in the job market.

CKS Preparation, Detailed CKS Answers

The CKS exam questions are being offered in three different formats. The names of these formats are Certified Kubernetes Security Specialist (CKS) (CKS) desktop practice test software, web-based practice test software, and PDF dumps file. The Linux Foundation desktop practice test software and web-based practice test software both give you real-time Linux Foundation CKS Exam environment for quick and complete exam preparation.

Linux Foundation Certified Kubernetes Security Specialist (CKS) Sample Questions (Q13-Q18):

NEW QUESTION # 13

SIMULATION

Documentation Secrets, TLS Secrets, Volumes

You must connect to the correct host . Failure to do so may result in a zero score.

```
[candidate@base] $ ssh cks000m40
```

Path

Key

Context

You must complete securing access to a web server using SSL files stored in a TLS Secret .

Task

Create a TLS Secret named clever-cactus in the clever-cactus namespace for an existing Deployment named clever-cactus.

Use the following SSL files:

File

Certificate /home/candidate/clever-cactus/web.k8s.local.crt

/home/candidate/clever-cactus/web.k8s.local.key

The Deployment is already configured to use the TLS Secret.

Do not modify the existing Deployment.

Failure to do so may result in a reduced score.

Answer:

Explanation:

See the Explanation below for complete solution

Explanation:

1) Connect to the correct host

```
ssh cks000m40
```

```
sudo -i
```

```
export KUBECONFIG=/etc/kubernetes/admin.conf
```

2) Verify namespace exists (quick check)

```
kubectl get ns clever-cactus
```

3) Verify certificate and key files exist

```
ls -l /home/candidate/clever-cactus/web.k8s.local.crt
```

```
ls -l /home/candidate/clever-cactus/web.k8s.local.key
```

Both files must exist.

4) Create the TLS Secret (THIS IS THE MAIN TASK)

Create a TLS Secret named clever-cactus in namespace clever-cactus:

```
kubectl -n clever-cactus create secret tls clever-cactus \
```

```
--cert=/home/candidate/clever-cactus/web.k8s.local.crt \
```

```
--key=/home/candidate/clever-cactus/web.k8s.local.key
```

Do NOT use apply

Do NOT edit the Deployment

5) Verify the Secret

```
kubectl -n clever-cactus get secret clever-cactus
```

Expected type:

```
kubernetes.io/tls
```

Optional detail check:

```
kubectl -n clever-cactus describe secret clever-cactus
```

You should see:

tls.crt

tls.key

6) (Optional) Confirm Pods are running

Since the Deployment is already configured to use the Secret, Pods should now work.

kubectl -n clever-cactus get pods

NEW QUESTION # 14

You must complete this task on the following cluster/nodes: Cluster: immutable-cluster Master node: master1 Worker node: worker1 You can switch the cluster/configuration context using the following command:

```
[desk@cli] $ kubectl config use-context immutable-cluster
```

Context: It is best practice to design containers to be stateless and immutable.

Task:

Inspect Pods running in namespace prod and delete any Pod that is either not stateless or not immutable.

Use the following strict interpretation of stateless and immutable:

1. Pods being able to store data inside containers must be treated as not stateless.

Note: You don't have to worry whether data is actually stored inside containers or not already.

2. Pods being configured to be privileged in any way must be treated as potentially not stateless or not immutable.

Answer:

Explanation:

```
k get pods -n prod
```

```
k get pod <pod-name> -n prod -o yaml | grep -E 'privileged|ReadOnlyRootFileSystem'
```

 Delete the pods which do have any of these 2 properties privileged:true or ReadOnlyRootFileSystem: false

```
[desk@cli]$ k get pods -n prod
```

```
NAME READY STATUS RESTARTS AGE
```

```
cms 1/1 Running 0 68m
```

```
db 1/1 Running 0 4m
```

```
nginx 1/1 Running 0 23m
```

```
[desk@cli]$ k get pod nginx -n prod -o yaml | grep -E 'privileged|RootFileSystem'
```

```
{ "apiVersion": "v1", "kind": "Pod", "metadata": { "annotations": {}, "creationTimestamp": null, "labels":
```

```
{ "run": "nginx", "name": "nginx", "namespace": "prod" }, "spec": { "containers": [ { "image": "nginx", "name": "nginx", "resources":
```

```
{ }, "securityContext": { "privileged": true } }, "dnsPolicy": "ClusterFirst", "restartPolicy": "Always", "status": {} } fprivileged: {} privileged:
```

```
true
```

```
[desk@cli]$ k delete pod nginx -n prod
```

```
[desk@cli]$ k get pod db -n prod -o yaml | grep -E 'privileged|RootFileSystem'
```

```
[desk@cli]$ k delete pod cms -n prod Reference: https://kubernetes.io/docs/concepts/policy/pod-security-policy/
```

```
https://cloud.google.com/architecture/best-practices-for-operating-containers Reference:
```

```
[desk@cli]$ k delete pod cms -n prod Reference: https://kubernetes.io/docs/concepts/policy/pod-security-policy/
```

```
https://cloud.google.com/architecture/best-practices-for-operating-containers
```

NEW QUESTION # 15

You are running a web application in a Kubernetes cluster- You want to restrict access to the web application's API endpoints to specific IP addresses. Explain how to implement this using Ingress and NetworkPolicy.

Answer:

Explanation:

Solution (Step by Step) :

1. Create an Ingress Resource:

- Create an 'Ingress' resource that defines the rules for routing traffic to the web application.

- This example allows access to the API endpoints '/api/v1' and '/api/v2S' from the IP addresses '10.0.0.10' and '192.168.1.1'

- It also allows access to the 'r' endpoint from any IP address.

2. Create a NetworkPolicy: - Create a 'NetworkPolicy' resource that enforces the IP address restrictions. - This example allows traffic from the IP addresses '10.0.0.10' and '192.168.1.1' to the web application's service. - You can create a more specific policy for each API endpoint if needed.

3. Apply the Resources: - Apply the 'Ingress' and 'NetworkPolicy' resources using 'kubectl apply' - For example: 'kubectl apply -f

web-app-ingress.yaml and 'kubectl apply -f web-app-network-policy.yaml 4. Verify the Configuration: - Access the web application's API endpoints from the allowed IP addresses. - Verify that the requests are successful. - Attempt to access the API endpoints from other IP addresses. - Verify that these attempts are blocked.

NEW QUESTION # 16

SIMULATION

Create a RuntimeClass named gvisor-rc using the prepared runtime handler named runsc.
Create a Pods of image Nginx in the Namespace server to run on the gVisor runtime class

Answer:

Explanation:

Install the Runtime Class for gVisor

```
{ # Step 1: Install a RuntimeClass
```

```
cat <<EOF | kubectl apply -f -
```

```
apiVersion: node.k8s.io/v1beta1
```

```
kind: RuntimeClass
```

```
metadata:
```

```
name: gvisor
```

```
handler: runsc
```

```
EOF
```

```
}
```

Create a Pod with the gVisor Runtime Class

```
{ # Step 2: Create a pod
```

```
cat <<EOF | kubectl apply -f -
```

```
apiVersion: v1
```

```
kind: Pod
```

```
metadata:
```

```
name: nginx-gvisor
```

```
spec:
```

```
runtimeClassName: gvisor
```

```
containers:
```

```
- name: nginx
```

```
image: nginx
```

```
EOF
```

```
}
```

Verify that the Pod is running

```
{ # Step 3: Get the pod
```

```
kubectl get pod nginx-gvisor -o wide
```

```
}
```

NEW QUESTION # 17

Your Kubernetes cluster is running a web application that requires access to a database hosted on an external Cloud provider. Describe how you can secure the connection between the application and the database using TLS/SSL encryption and identity-based authentication.

Answer:

Explanation:

Solution (Step by Step) :

1. Configure TLS/SSL Encryption:

- Generate Certificate: Obtain a TLS/SSL certificate from a trusted certificate authority (CA) or use a self-signed certificate for development purposes-
- Install Certificate on Database Server: Install the certificate on the database server, making it available to the database service.
- Configure Database Service: Configure the database service to accept connections only over TLS/SSL.
- Configure Application Container:
- Mount Certificate: Mount the TLS/SSL certificate into the application container as a secret.
- Configure Application Code: Update the application code to use the certificate when connecting to the database.

