

KUBERNETES FROM ZERO · FOUNDATIONS 12 OF 12 · LESSON 12 · LESSON KIT · ANSWER KEY

Kubernetes from Zero, part 12: checkpoint lab 1, a two-tier app on kind

The answers to the homework sheet, matched by exercise number. Every answer comes from the lesson. Names with random suffixes will differ on your cluster.

Built, broke and graded the full solution on kind v0.33.0, node v1.37.0, kubectl v1.37.2, 10 Nov 2026. Cluster: kind, from part 3.

Recall

1. What did the lab build, in the recap's list?

   A two-tier app from an empty namespace: Deployments, Services, a Secret, two ConfigMaps, probes, a preStop hook and sized resources.

2. How do you make the redis Pod Guaranteed, and how do you check?

   Requests equal limits for cpu and memory. Check `.status.qosClass`.

3. Why did the counter vanish when Redis restarted?

   Nothing in arc 1 keeps data outside a container. Part 13 gives your Pods storage that outlives them.

Predict the outcome

4. You apply `redis.yaml` before the Secret. What status and error does the lesson show, and what fixes it?

   `CreateContainerConfigError`, and describe shows `Error: secret "redis-auth" not found`. Create the Secret. The kubelet retries.

5. `/cgi-bin/hits` returns 404 and `index.html` works. What was missing, and why is the Pod still ready?

   `mode: 0755`. The script was mounted as `-rw-r--r--` and busybox httpd would not run it. The readiness probe only checks `index.html`.

6. A client wget prints `bad address 'web'`. What three things does the lesson tell you to check?

   The client is in the same namespace, the Service exists, and the CoreDNS Pods are running in `kube-system`.

SCAN FOR THE LESSON

Lesson: **Kubernetes from Zero, part 12: checkpoint lab 1, a two-tier app on kind**

https://aitamer.news/posts/k8s-from-zero-12-checkpoint-lab-1/?utm_source=lessonkit&utm_medium=pdf&utm_campaign=k8s-12&utm_content=answer-key

NEXT IN THE SERIES **Next: Lesson 13, volumes, PersistentVolumes and StorageClasses.** Volumes, PersistentVolumes and StorageClasses, the start of arc 2, where your Pods get storage that outlives them. Lesson page

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