Visit to https://kubernetes.io/docs/tutorials/ = Official website.

We can use following online setups

1) Kubernetes playground

2) Kubernetes classroom

3) K8s playground.

1) Kubernetes playground katacoda

https://www.katacoda.com/courses/kubernetes/playground

Step 1: Kubernetes playground katacoda

https://www.katacoda.com/courses/kubernetes/playground

Click on try for free option and ---- continue for free

Note: Don’t take paid option.

Step 2: Log in to site and click on sandbox -- Kubernetes option.

Step 3: Clear terminal : use clear command.

Type launch.sh command and run to start the Kubernetes.

Run next command for Health check.

Step 4: Type kubectl cluster-info dump command and enter.

Step 5: click on continue.

Step 6: Click on Red color link O’Reilly learning platform. And search for Launch single node kunernetes cluster.

Step 7: click on start.

Step 8: Run given two commands.

Step 9: click on continue button

Step 10: Run given two commands

Step 11: click on continue.

Step 12: clear terminal and run docker -v command. And run given commands as follows.

Step 13: click on continue

Step 14: clear the terminal and run given commands as follows.

Step 15: Once the running completely then visit the below site to view the dashboard.

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Kubernetes commands

1. kubectl version:

Use: Check the version of kubectl and the Kubernetes server.

2. kubectl cluster-info:

Use: Display cluster information, including the Kubernetes master URL.

3. kubectl get nodes:

Use: List all nodes in the cluster.

4. kubectl get pods:

Use: List all pods in the default namespace.

5. kubectl get services:

Use: List all services in the default namespace.

6. kubectl create deployment: kubectl create deployment <deployment-name> --image=<image-name>

Use: Create a deployment with a specified name and Docker image.

7. kubectl expose:kubectl expose deployment <deployment-name> --type=NodePort --port=<port>

Use: Expose a deployment as a service.

8. kubectl scale: kubectl scale deployment <deployment-name> --replicas=<num-replicas>

Use: Scale the number of replicas for a deployment.

9. kubectl get pods -o wide:

Use: List pods with additional details, including node information.

10. kubectl describe: kubectl describe pod <pod-name>

Use: Show detailed information about a resource (e.g., pod, service).

11. kubectl logs:kubectl logs <pod-name>

Use: Display the logs of a pod.

12. kubectl exec: kubectl exec -it <pod-name> -- /bin/bash

Use: Execute a command in a running pod.

13. kubectl delete:kubectl delete pod <pod-name>

Use: Delete a resource (e.g., pod, service).

14. kubectl apply: kubectl apply -f <yaml-file>

Use: Apply a configuration to a resource in the cluster.