

Exercise 6.6: Domain Review



Very Important

The source pages and content in this review could change at any time. **IT IS YOUR RESPONSIBILITY TO CHECK THE CURRENT INFORMATION.**

Revisit the CKAD domain list on [Curriculum Overview](#) and locate some of the topics we have covered in this chapter.

- Understand authentication, authorization, and admission control
- Create & consume Secrets
- Understand ServiceAccounts
- Understand SecurityContexts
- Demonstrate basic understanding of NetworkPolicies

Focus on ensuring you have all the necessary files and processes understood first. Repeat the review until you are sure you have the necessary YAML samples and can complete each step quickly, and ensure each object is running properly.

1. Create a new deployment which uses the `nginx` image.
2. Create a new `LoadBalancer` service to expose the newly created deployment. Test that it works.
3. Create a new `NetworkPolicy` called `netblock` which blocks all traffic to pods in this deployment only. Test that all traffic is blocked to deployment.
4. Update the `netblock` policy to allow traffic to the pod on port 80 only. Test that you can access the default `nginx` web page.
5. Find and use the `security-review1.yaml` file to create a pod.


```
student@cp:~$ kubectl create -f security-review1.yaml
```
6. View the status of the pod.
7. Use the following commands to figure out why the pod has issues.


```
student@cp:~$ kubectl get pod securityreview
student@cp:~$ kubectl describe pod securityreview
student@cp:~$ kubectl logs securityreview
```
8. After finding the errors, log into the container and find the proper id of the `nginx` user.
9. Edit the `yaml` and re-create the pod such that the pod runs without error.
10. Create a new `serviceAccount` called `securityaccount`.
11. Create a `ClusterRole` named `secrole` which only allows create, delete, and list of pods in all `apiGroups`.
12. Bind the `clusterRole` to the `serviceAccount`.
13. Locate the token of the `securityaccount`. Create a file called `/tmp/securitytoken`. Put only the value of `token:` is equal to, a long string that may start with `eyJh` and be several lines long. Careful that only that string exists in the file.
14. Remove any resources you have added during this review