

## Application Secrets

Like configuration data, applications might also require other data that is more sensitive in nature.

Passing these straight and yml for deployment or pod would make them visible to everyone. In cases like these, we'd want to use something called a secret.

If we try and do an o yml, we'll notice that the data portion has the api key, but we have a different value from what we initially typed. That is because this value is encoded in the base 64 format.

To use this secret in an application We have an example application in our exercise files called secret reader. Looking at that, this is very similar to using a config map, but instead of configmapref, we use secretref, we called our secret apikey, so we pass that as the name and the actual key in that was called api\_key.

Once the deployment for the secret reader has been created and the pods are running. The pod in this instance is just printing out the value passed to it via an environment variable, but the value is hidden behind the secret and is protected from the casual observer.

```
Administrator: Windows PowerShell
PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets> kubectl create secret generic apikey --from-literal=api_key=123456789
secret/apikey created
PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets> kubectl get secrets
NAME                TYPE      DATA   AGE
apikey              Opaque    1       19s
default-token-2zc6s kubernetes.io/service-account-token 3      3m7s
PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets> kubectl get secret apikey
NAME      TYPE      DATA   AGE
apikey    Opaque    1       38s
PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets> kubectl get secret apikey -o yaml
apiVersion: v1
data:
  api_key: MTIzNDU2Nzg5
kind: Secret
metadata:
  creationTimestamp: "2022-02-23T00:25:06Z"
  name: apikey
  namespace: default
  resourceVersion: "583"
  uid: 1f4f1ddc-076c-4906-88f2-15bcecf24567
type: Opaque
PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets> kubectl create -f secretreader-deployment.yaml
deployment.apps/secretreader created
PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets> kubectl get pods
NAME                READY   STATUS    RESTARTS   AGE
secretreader-69d566f7f4-h9jqx 1/1     Running   0           91s
PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets> kubectl logs secretreader-69d566f7f4-h9jqx
api_key passed via env variable was: '123456789'
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PS C:\Users\msuban01\Desktop\kube\Exercise\05_04_Secrets>
```