

1. Installed Minikube.

```
PS C:\WINDOWS\system32> minikube start --driver=docker
* minikube v1.35.0 on Microsoft Windows 11 Home Single Language 10.0.22631.5039 Build 22631.5039
* Using the docker driver based on user configuration
* Using Docker Desktop driver with root privileges
* Starting "minikube" primary control-plane node in "minikube" cluster
* Pulling base image v0.0.46 ...
  > gcr.io/k8s-minikube/kicbase...: 500.31 MiB / 500.31 MiB 100.00% 3.10 Mi
* Creating docker container (CPUs=2, Memory=2200MB) ...
! Failing to connect to https://registry.k8s.io/ from inside the minikube container
* To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
* Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
  - Generating certificates and keys ...
  - Booting up control plane ...
  - Configuring RBAC rules ...
* Configuring bridge CNI (Container Networking Interface) ...
* Verifying Kubernetes components...
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Enabled addons: storage-provisioner, default-storageclass
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
PS C:\WINDOWS\system32> minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

2. Installed Kubernetes CLI.

```
PS C:\WINDOWS\system32> choco install kubernetes-cli
Chocolatey v2.4.3
Installing the following packages:
kubernetes-cli
By installing, you accept licenses for the packages.
kubernetes-cli v1.32.3 already installed.
Use --force to reinstall, specify a version to install, or try upgrade.

Chocolatey installed 0/1 packages.
See the log for details (C:\ProgramData\chocolatey\logs\chocolatey.log).

Warnings:
- kubernetes-cli - kubernetes-cli v1.32.3 already installed.
Use --force to reinstall, specify a version to install, or try upgrade.
PS C:\WINDOWS\system32>
```

3. Started Minikube and exploring namespaces.

```
PS C:\WINDOWS\system32> kubectl get namespaces
NAME                STATUS    AGE
default             Active   5m22s
kube-node-lease     Active   5m22s
kube-public         Active   5m23s
kube-system         Active   5m23s
```

4. Created a namespace and created a pod in it.

```
PS C:\WINDOWS\system32> kubectl create namespace dev
namespace/dev created
PS C:\WINDOWS\system32> kubectl get namespaces
NAME          STATUS    AGE
default       Active   6m19s
dev           Active   11s
kube-node-lease Active   6m19s
kube-public   Active   6m20s
kube-system   Active   6m20s
PS C:\WINDOWS\system32> kubectl run my-pod --image=nginx -n dev
pod/my-pod created
```

5. Switched contents to namespace dev.

```
PS C:\WINDOWS\system32> kubectl config set-context --current --namespace=dev
Context "minikube" modified.
```

6. Verified the Pods and deleted the namespace.

```
PS C:\WINDOWS\system32> kubectl get pods -n dev
NAME    READY   STATUS    RESTARTS   AGE
my-pod  1/1     Running   0           2m28s
PS C:\WINDOWS\system32> kubectl delete namespace dev
namespace "dev" deleted
```