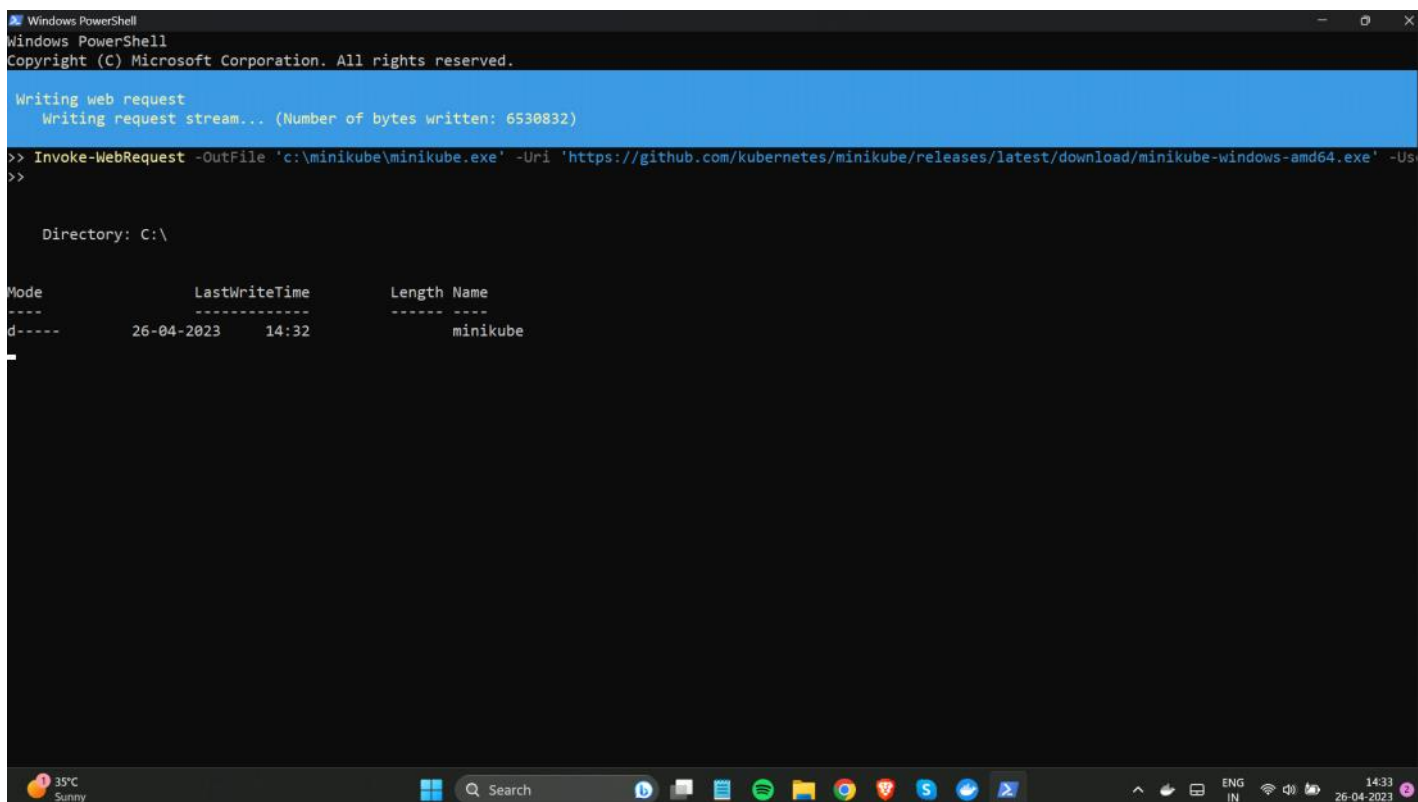
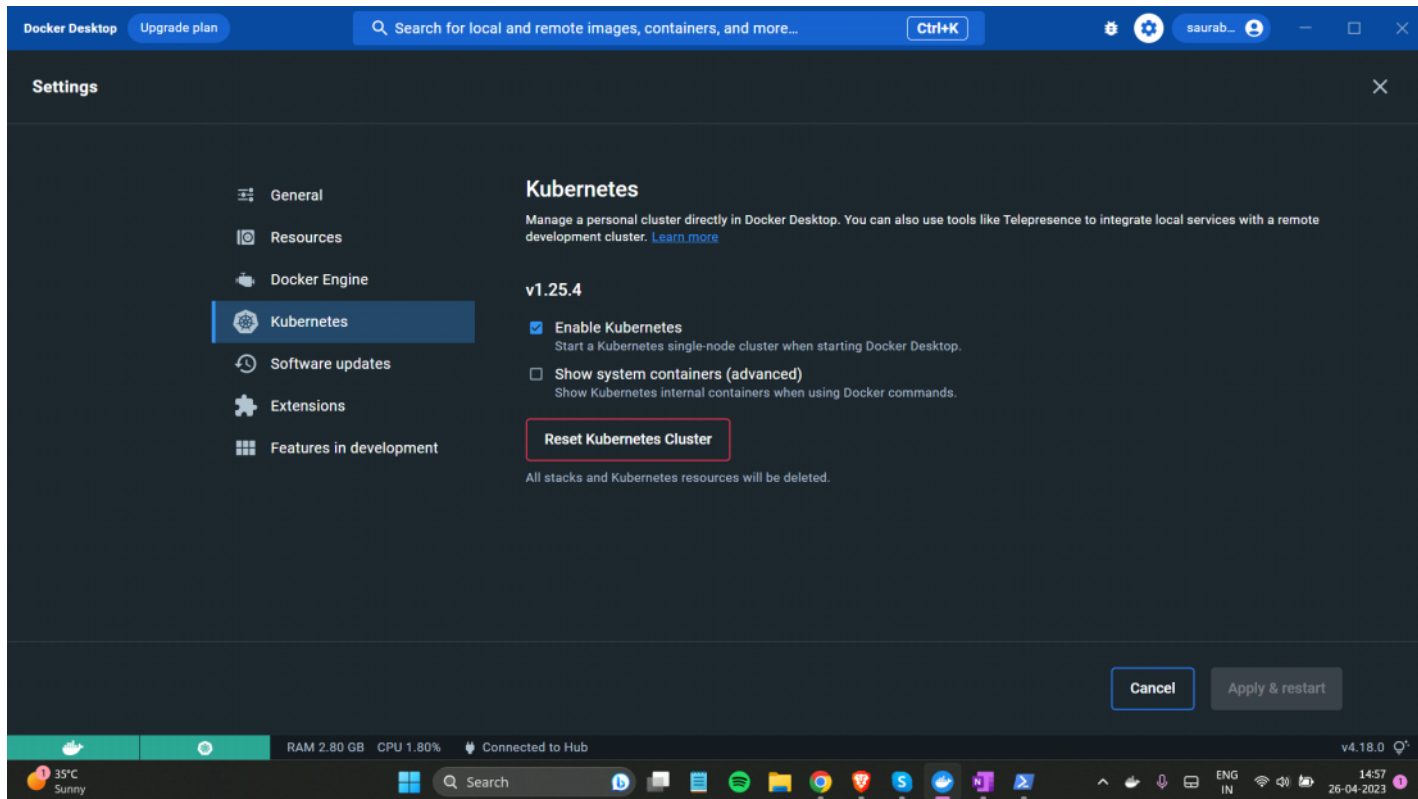


Installing minikube on windows :

- Click Enable kubernetes option inside docker desktop



```
Administrator: Windows PowerShell
PS C:\WINDOWS\system32> $oldPath = [Environment]::GetEnvironmentVariable('Path', [EnvironmentVariableTarget]::Machine)
>> if ($oldPath.Split(';') -notcontains 'C:\minikube'){
>> [Environment]::SetEnvironmentVariable('Path', $('{};C:\minikube' -f $oldPath), [EnvironmentVariableTarget]::Machine)
>> }
>> _
```

Starting minikube :

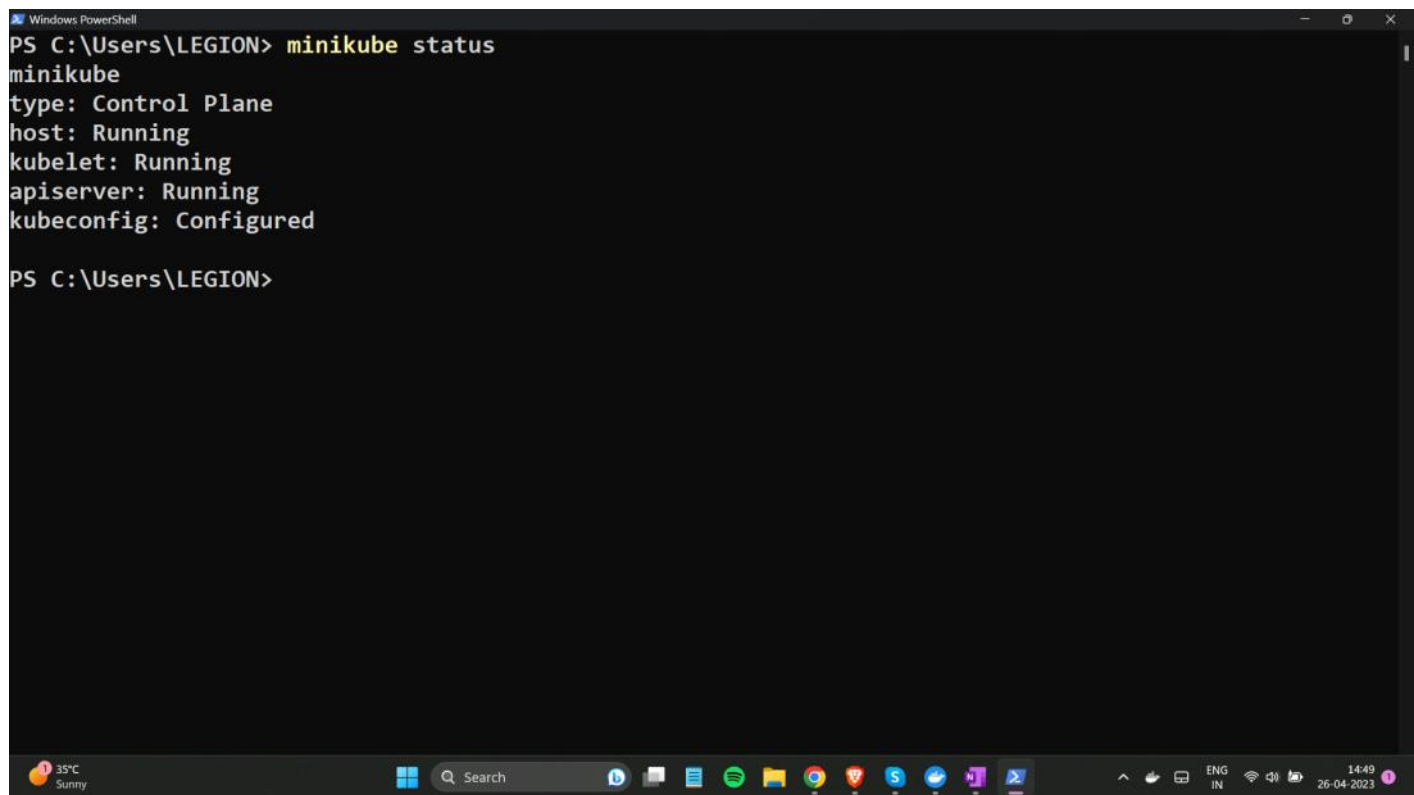
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\LEGION> minikube start
* minikube v1.30.1 on Microsoft Windows 11 Home Single Language 10.0.22621.1555 Build 22621.1555
* Automatically selected the docker driver
* Using Docker Desktop driver with root privileges
* Starting control plane node minikube in cluster minikube
* Pulling base image ...
* Downloading Kubernetes v1.26.3 preload ...
  > preloaded-images-k8s-v18-v1...: 397.02 MiB / 397.02 MiB 100.00% 2.86 Mi
  > gcr.io/k8s-minikube/kicbase...: 373.53 MiB / 373.53 MiB 100.00% 2.61 Mi
* Creating docker container (CPUs=2, Memory=2200MB) ...
* Preparing Kubernetes v1.26.3 on Docker 23.0.2 ...
  - Generating certificates and keys ...
  - Booting up control plane ...
  - Configuring RBAC rules ...
* Configuring bridge CNI (Container Networking Interface) ...
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Verifying Kubernetes components...
* Enabled addons: storage-provisioner, default-storageclass
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
PS C:\Users\LEGION> _
```

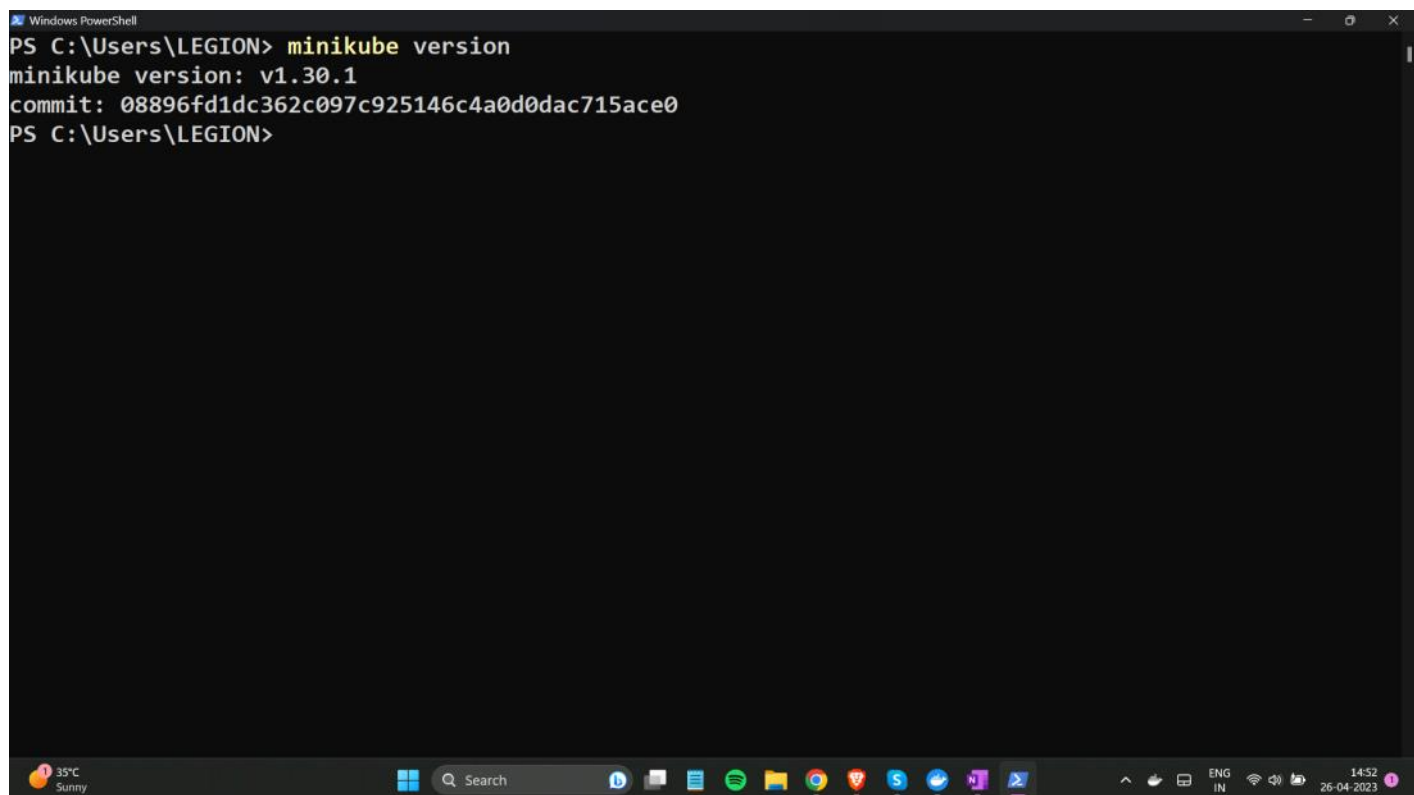
Checking status:

```
Windows PowerShell
PS C:\Users\LEGION> minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
PS C:\Users\LEGION>
```



To check version :

```
Windows PowerShell
PS C:\Users\LEGION> minikube version
minikube version: v1.30.1
commit: 08896fd1dc362c097c925146c4a0d0dac715ace0
PS C:\Users\LEGION>
```



To stop the minikube :

```
Windows PowerShell
PS C:\Users\LEGION> minikube stop
* Stopping node "minikube" ...
* Powering off "minikube" via SSH ...
* 1 node stopped.
PS C:\Users\LEGION> _
```

Kubect1 version :

```
Windows PowerShell
PS C:\Users\LEGION> kubectl get nodes
NAME        STATUS    ROLES          AGE    VERSION
minikube    Ready     control-plane   47m    v1.26.3
PS C:\Users\LEGION> kubectl version
WARNING: This version information is deprecated and will be replaced with the output from kubectl v
ersion --short. Use --output=yaml|json to get the full version.
Client Version: version.Info{Major:"1", Minor:"25", GitVersion:"v1.25.4", GitCommit:"872a965c6c6526
caa949f0c6ac028ef7aff3fb78", GitTreeState:"clean", BuildDate:"2022-11-09T13:36:36Z", GoVersion:"go1
.19.3", Compiler:"gc", Platform:"windows/amd64"}
Kustomize Version: v4.5.7
Server Version: version.Info{Major:"1", Minor:"26", GitVersion:"v1.26.3", GitCommit:"9e644106593f3f
4aa98f8a84b23db5fa378900bd", GitTreeState:"clean", BuildDate:"2023-03-15T13:33:12Z", GoVersion:"go1
.19.7", Compiler:"gc", Platform:"linux/amd64"}
PS C:\Users\LEGION> kubectl version --short
Flag --short has been deprecated, and will be removed in the future. The --short output will become
the default.
Client Version: v1.25.4
Kustomize Version: v4.5.7
Server Version: v1.26.3
PS C:\Users\LEGION> _
```

```
Windows PowerShell
PS C:\Users\LEGION> kubectl get nodes
NAME          STATUS    ROLES    AGE   VERSION
minikube      Ready    control-plane  52m   v1.26.3
PS C:\Users\LEGION> kubectl ger pod
error: unknown command "ger" for "kubectl"

Did you mean this?
    set
    get
PS C:\Users\LEGION> kubectl get pod
No resources found in default namespace.
PS C:\Users\LEGION> kubectl get services
NAME          TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)    AGE
kubernetes    ClusterIP     10.96.0.1     <none>         443/TCP    52m
PS C:\Users\LEGION>
```

Creating a pod :

```
Windows PowerShell
PS C:\Users\LEGION> kubectl create deployment nginx-depl --image=nginx
deployment.apps/nginx-depl created
PS C:\Users\LEGION> kubectl get pod
NAME                                READY   STATUS    RESTARTS   AGE
nginx-depl-56cb8b6d7-4cvzw         0/1     ContainerCreating   0          10s
PS C:\Users\LEGION>
```

Deleting a deployment:

```
Windows PowerShell
PS C:\Users\LEGION> kubectl get deployment
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-depl    1/1     1            1           4m35s
PS C:\Users\LEGION> kubectl delete deployment
error: resource(s) were provided, but no name was specified
PS C:\Users\LEGION> kubectl delete deployment nginx-depl
deployment.apps "nginx-depl" deleted
PS C:\Users\LEGION> kubectl get deployment
No resources found in default namespace.
PS C:\Users\LEGION>
```

```
Windows PowerShell
PS C:\Users\LEGION> kubectl get pod
No resources found in default namespace.
PS C:\Users\LEGION> kubectl get deployment
No resources found in default namespace.
PS C:\Users\LEGION> kubectl create deployment nginx-server --image=nginx
deployment.apps/nginx-server created
PS C:\Users\LEGION> kubectl get deployment
NAME          READY   UP-TO-DATE   AVAILABLE   AGE
nginx-server   1/1     1            1           8s
PS C:\Users\LEGION> kubectl get pod
NAME          READY   STATUS    RESTARTS   AGE
nginx-server-586675bc87-fssgg  1/1     Running   0          10s
PS C:\Users\LEGION>
```

Creating 2 replicas :

The screenshot shows a Windows PowerShell terminal window and a text editor window. The PowerShell window displays the output of several `kubectl` commands. The `kubectl get deployment` command shows a deployment named `nginx-server` with 1/1 replicas ready, 1 up-to-date, 1 available, and 68s age. The `kubectl edit deployment` command shows the deployment being edited. The `kubectl get pod` command shows a single pod named `nginx-server-586675bc87-fssgg` in a running state with 0 restarts and 3m46s age. The text editor window shows the YAML configuration for the `nginx-server` deployment, with the `replicas: 2` line highlighted in blue.

```
PS C:\Users\LEGION> kubectl get deployment
NAME          READY  UP-TO-DATE  AVAILABLE  AGE
nginx-server   1/1    1           1          68s
PS C:\Users\LEGION> kubectl edit deployment
deployment.apps/nginx-server edited
PS C:\Users\LEGION> kubectl get pod
NAME          READY  STATUS    RESTARTS  AGE
nginx-server-586675bc87-fssgg  1/1    Running   0         3m46s
PS C:\Users\LEGION> kubectl edit deployment
```

```
deployment.kubernetes.io/revision: "1"
creationTimestamp: "2023-04-26T10:26:17Z"
generation: 1
labels:
  app: nginx-server
name: nginx-server
namespace: default
resourceVersion: "2189"
uid: 27e4fdff-df88-4c7d-85d0-5c2a6fd893b7
spec:
  progressDeadlineSeconds: 600
  replicas: 2
  revisionHistoryLimit: 10
  selector:
    matchLabels:
      app: nginx-server
  strategy:
    rollingUpdate:
      maxSurge: 25%
      maxUnavailable: 25%
      type: RollingUpdate
  template:
    metadata:
      creationTimestamp: null
    labels:
      app: nginx-server
  spec:
```

As you can see another replica nginx-server of has been created:

The screenshot shows a Windows PowerShell terminal window. The `kubectl get deployment` command shows the deployment `nginx-server` with 1/1 replicas ready, 1 up-to-date, 1 available, and 68s age. The `kubectl edit deployment` command shows the deployment being edited. The `kubectl get pod` command shows two pods: `nginx-server-586675bc87-fssgg` and `nginx-server-586675bc87-2p2lh`, both in a running state with 0 restarts. The first pod has an age of 3m46s, and the second pod has an age of 8s.

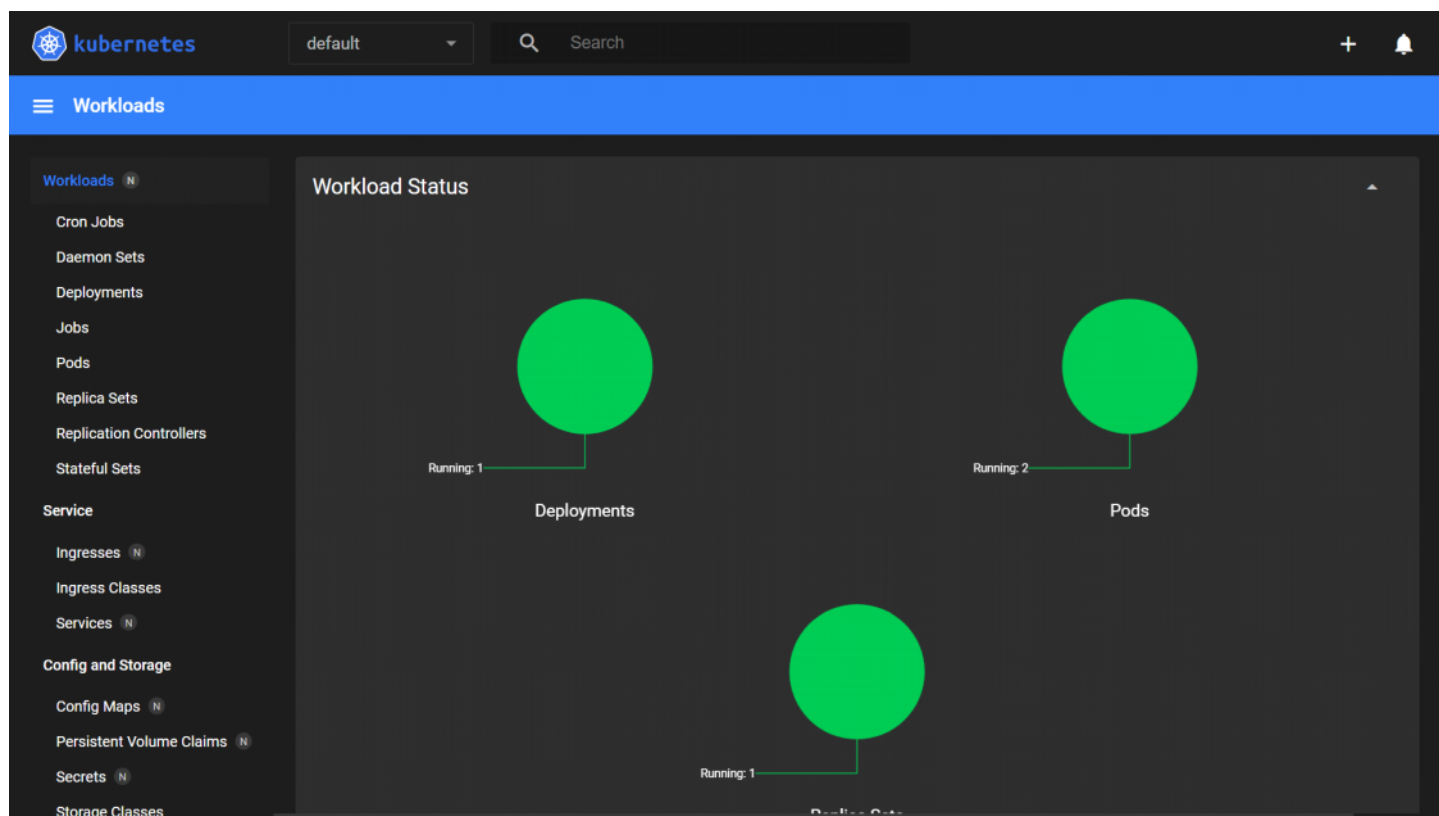
```
PS C:\Users\LEGION> kubectl get deployment
NAME          READY  UP-TO-DATE  AVAILABLE  AGE
nginx-server   1/1    1           1          68s
PS C:\Users\LEGION> kubectl edit deployment
deployment.apps/nginx-server edited
PS C:\Users\LEGION> kubectl get pod
NAME          READY  STATUS    RESTARTS  AGE
nginx-server-586675bc87-fssgg  1/1    Running   0         3m46s
nginx-server-586675bc87-2p2lh  1/1    Running   0         8s
PS C:\Users\LEGION> kubectl edit deployment
deployment.apps/nginx-server edited
PS C:\Users\LEGION> kubectl get pod
NAME          READY  STATUS    RESTARTS  AGE
nginx-server-586675bc87-fssgg  1/1    Running   0         5m16s
PS C:\Users\LEGION>
```


Minikube dashboard :

```
Windows PowerShell
PS C:\Users\LEGION> minikube dashboard
* Enabling dashboard ...
- Using image docker.io/kubernetesui/dashboard:v2.7.0
- Using image docker.io/kubernetesui/metrics-scraper:v1.0.8
* Some dashboard features require the metrics-server addon. To enable all features please run:

    minikube addons enable metrics-server

* Verifying dashboard health ...
* Launching proxy ...
* Verifying proxy health ...
* Opening http://127.0.0.1:54813/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-da
shboard:/proxy/ in your default browser...
```




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Storage Classes

Deployments

Name	Images	Labels	Pods	Created ↑
● nginx-server	nginx	app: nginx-server	2 / 2	14 minutes ago

Pods

Name	Images	Labels	Node	Status	Restarts	CPU Usage (cores)	Memory Usage (bytes)	Create
● nginx-server-586675bc87-2p2lh	nginx	app: nginx-server pod-template-hash: 586675bc87	minikube	Running	0	-	-	9 minutes ago
● nginx-server-586675bc87-fs5gg	nginx	app: nginx-server pod-template-hash: 586675bc87	minikube	Running	0	-	-	14 minutes ago

Replica Sets

Name	Images	Labels	Pods	Created ↑
● nginx-server-586675bc87	nginx	app: nginx-server pod-template-hash: 586675bc87	2 / 2	14 minutes ago