

Kubernetes Task

Installing Kubectl:

```
Windows PowerShell x sureshk@SSMS: ~ + v
sureshk@SSMS:~$ curl -LO "https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl"
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 138 100 138 0 0 278 0 --:--:-- --:--:-- --:--:-- 278
100 54.6M 100 54.6M 0 0 14.2M 0 0:00:03 0:00:03 --:--:-- 17.7M
sureshk@SSMS:~$
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100 54.6M 100 54.6M 0 0 14.2M 0 0:00:03 0:00:03 --:--:-- 17.7M
sureshk@SSMS:~$ chmod +x kubectl
sureshk@SSMS:~$ sudo mv kubectl /usr/local/bin/
sureshk@SSMS:~$
```

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Windows PowerShell x sureshk@SSMS: ~ + v
sureshk@SSMS:~$ curl -LO "https://dl.k8s.io/release/$(curl -L -s https://dl.k8s.io/release/stable.txt)/bin/linux/amd64/kubectl"
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100 54.6M 100 54.6M 0 0 14.2M 0 0:00:03 0:00:03 --:--:-- 17.7M
sureshk@SSMS:~$ chmod +x kubectl
sureshk@SSMS:~$ sudo mv kubectl /usr/local/bin/
sureshk@SSMS:~$ kubectl version --client
Client Version: v1.32.3
Kustomize Version: v5.5.0
sureshk@SSMS:~$
```

Install and Start Minikube:

```
Windows PowerShell x sureshk@SSMS: ~ + v
sureshk@SSMS:~$ curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 119M 100 119M 0 0 11.8M 0 0:00:10 0:00:10 --:--:-- 15.4M
sureshk@SSMS:~$ sudo install minikube-linux-amd64 /usr/local/bin/minikube
sureshk@SSMS:~$
```

Starting Minikube Using Docker:

```
Windows PowerShell x sureshk@SSMS: ~ + v
sureshk@SSMS:~$ curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 119M 100 119M 0 0 11.8M 0 0:00:10 0:00:10 --:--:-- 15.4M
sureshk@SSMS:~$ sudo install minikube-linux-amd64 /usr/local/bin/minikube
sureshk@SSMS:~$ minikube start --driver=docker
🐹 minikube v1.35.0 on Ubuntu 24.04 (amd64)
🌟 Using the docker driver based on existing profile
👉 Starting "minikube" primary control-plane node in "minikube" cluster
📡 Pulling base image v0.0.46 ...
🔄 Restarting existing docker container for "minikube" ...
🔧 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
🔍 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
sureshk@SSMS:~$
```

```
Windows PowerShell x sureshk@SSMS: ~ + v
sureshk@SSMS:~$ curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 119M 100 119M 0 0 11.8M 0 0:00:10 0:00:10 --:--:-- 15.4M
sureshk@SSMS:~$ sudo install minikube-linux-amd64 /usr/local/bin/minikube
sureshk@SSMS:~$ minikube start --driver=docker
🐳 minikube v1.35.0 on Ubuntu 24.04 (amd64)
🌟 Using the docker driver based on existing profile
👉 Starting "minikube" primary control-plane node in "minikube" cluster
📡 Pulling base image v0.0.46 ...
🔄 Restarting existing docker container for "minikube" ...
🔧 Preparing Kubernetes v1.32.0 on Docker 27.4.1 ...
🔍 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
sureshk@SSMS:~$ minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
sureshk@SSMS:~$
```

```
Windows PowerShell x sureshk@SSMS: ~ + v
sureshk@SSMS:~$ kubectl get nodes
NAME          STATUS    ROLES          AGE    VERSION
minikube      Ready    control-plane  19d    v1.32.0
sureshk@SSMS:~$
```

Creating Namespace:

```
Windows PowerShell x sureshk@SSMS: ~ + v
sureshk@SSMS:~$ kubectl get namespaces
NAME                STATUS    AGE
default             Active    19d
kube-node-lease     Active    19d
kube-public         Active    19d
kube-system         Active    19d
sureshk@SSMS:~$
```

```
Windows PowerShell x sureshk@SSMS: ~ x + v
sureshk@SSMS:~$ kubectl get namespaces
NAME          STATUS    AGE
default       Active   19d
kube-node-lease Active   19d
kube-public   Active   19d
kube-system   Active   19d
sureshk@SSMS:~$ kubectl create namespace my-guvi
namespace/my-guvi created
sureshk@SSMS:~$
```

```
Windows PowerShell x sureshk@SSMS: ~ x + v
sureshk@SSMS:~$ kubectl get namespaces
NAME          STATUS    AGE
default       Active   19d
kube-node-lease Active   19d
kube-public   Active   19d
kube-system   Active   19d
sureshk@SSMS:~$ kubectl create namespace my-guvi
namespace/my-guvi created
sureshk@SSMS:~$ kubectl get namespaces
NAME          STATUS    AGE
default       Active   19d
kube-node-lease Active   19d
kube-public   Active   19d
kube-system   Active   19d
my-guvi       Active   39s
sureshk@SSMS:~$
```

Deploying sample pod in the new namespace:

```
Windows PowerShell x sureshk@SSMS: ~ x + v
sureshk@SSMS:~$ kubectl run nginx --image=nginx --namespace=my-guvi
pod/nginx created
sureshk@SSMS:~$
```

```
Windows PowerShell x sureshk@SSMS: ~ x + v
sureshk@SSMS:~$ kubectl run nginx --image=nginx --namespace=my-guvi
pod/nginx created
sureshk@SSMS:~$ kubectl get pods -n my-guvi
NAME    READY   STATUS    RESTARTS   AGE
nginx   1/1     Running   0           32s
sureshk@SSMS:~$
```

