

Kubernetes is an open-source platform that automates the management, scaling, and deployment of containerized applications. It's also known as "k8s".

Step 1: Install Kubernetes and start minikube

Step 2: Create a deployment

Step 3: Expose the deployment

Step 3: Bind the deployment with a tunnel and run the link.

```
Select Administrator: Command Prompt - minikube service mansakube

C:\Windows\System32>minikube stop
E0205 16:07:32.912965 11884 daemonize_windows.go:38] error terminating scheduled stop for profile minikube: Error loading existing host. Please try running [minikube delete] to delete the minikube cluster.
! "minikube" does not exist, nothing to stop
* 0 node stopped.

C:\Windows\System32>minikube delete
* Removed all traces of the "minikube" cluster.

C:\Windows\System32>
C:\Windows\System32>minikube start --driver=docker
* minikube v1.35.0 on Microsoft Windows 11 Home Single Language 10.0.26100.2894 Build 26100.2894
* 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 ...
  > index.docker.io/kicbase/sta...: 25.98 MiB / 500.31 MiB 5.19% 326.06 KiB
  > gcr.io/k8s-minikube/kicbase...: 500.31 MiB / 500.31 MiB 100.00% 3.22 MiB
* Creating docker container (CPUs=2, Memory=2200MB) ...
! Failing to connect to https://registry.k8s.io/ from both inside the minikube container and host machine
* 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

! C:\Program Files\Docker\Docker\resources\bin\kubectl.exe is version 1.30.2, which may have incompatibilities with Kubernetes 1.32.0.
  - Want kubectl v1.32.0? Try 'minikube kubectl -- get pods -A'
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default

C:\Windows\System32>minikube status
minikube
type: Control Plane
host: Running
kubelet: Running
apiserver: Running
kubeconfig: Configured
```

```
Administrator: Command Prompt - minikube service mansakube
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C:\Windows\System32>minikube status
minikube
type: Control Plane
host: Running
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kubeconfig: Configured

C:\Windows\System32>
C:\Windows\System32>kubectl create deployment mansakube --image=makanesha/guvi:latest --port=80
deployment.apps/mansakube created

C:\Windows\System32>kubectl expose deployment mansakube --type=NodePort --port=80
service/mansakube exposed

C:\Windows\System32>minikube service mansakube
-----
| NAMESPACE | NAME      | TARGET PORT | URL                |
|-----|-----|-----|-----|
| default   | mansakube | 80          | http://192.168.49.2:31992 |
|-----|-----|-----|-----|
* Starting tunnel for service mansakube.
| NAMESPACE | NAME      | TARGET PORT | URL                |
|-----|-----|-----|-----|
| default   | mansakube |            | http://127.0.0.1:59675 |
|-----|-----|-----|-----|
* Opening service default/mansakube in default browser...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.
```

Console Output

