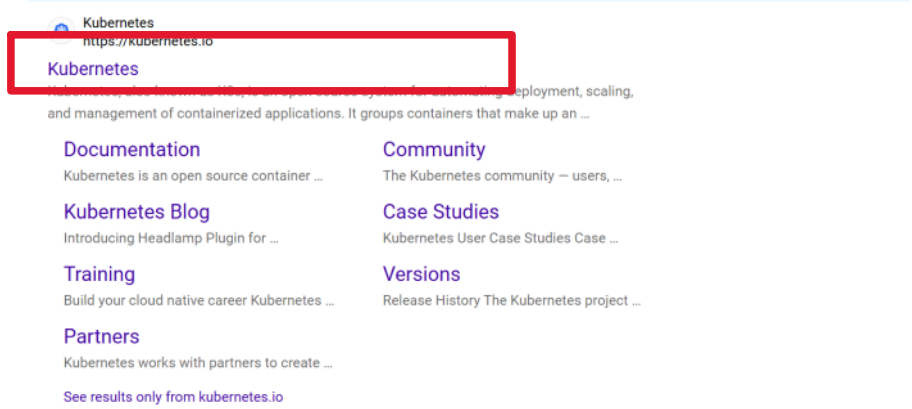
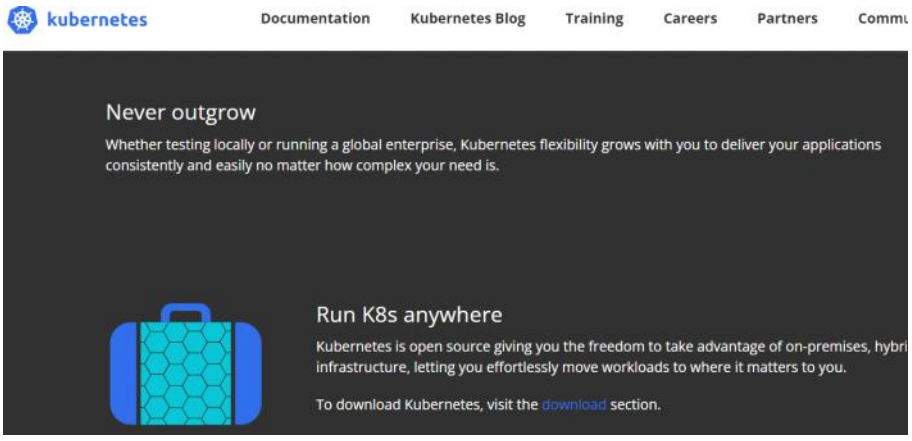
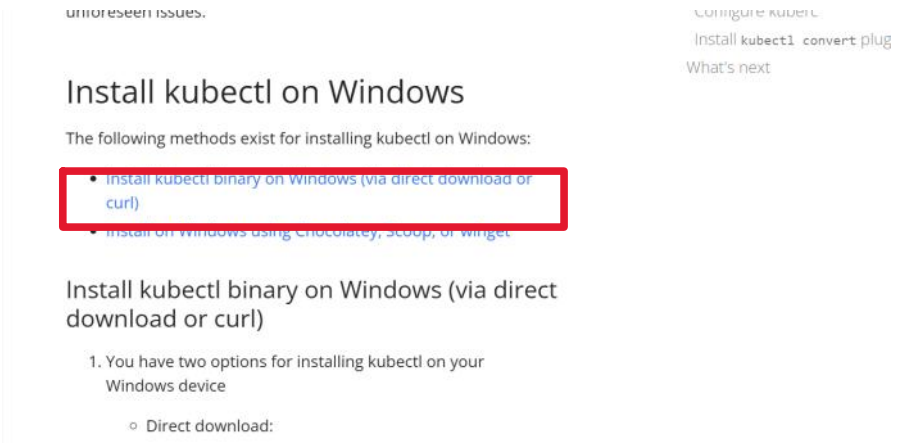
# Kubernetes Installation

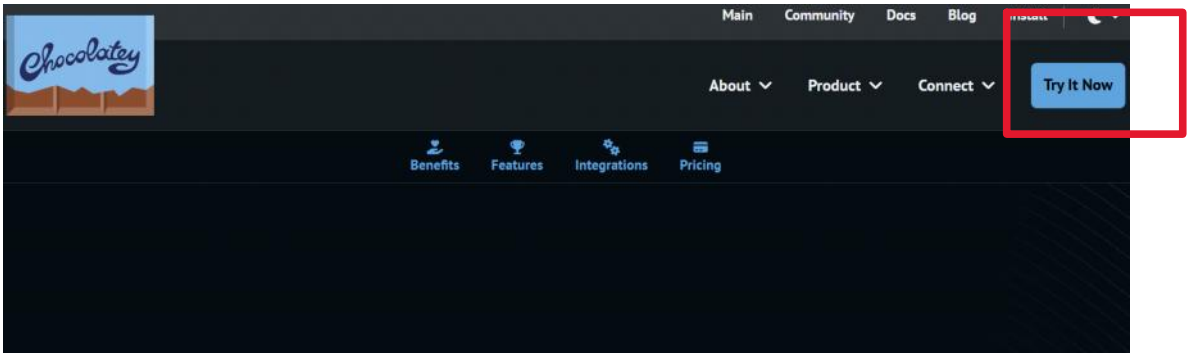
19 November 2025 10:58

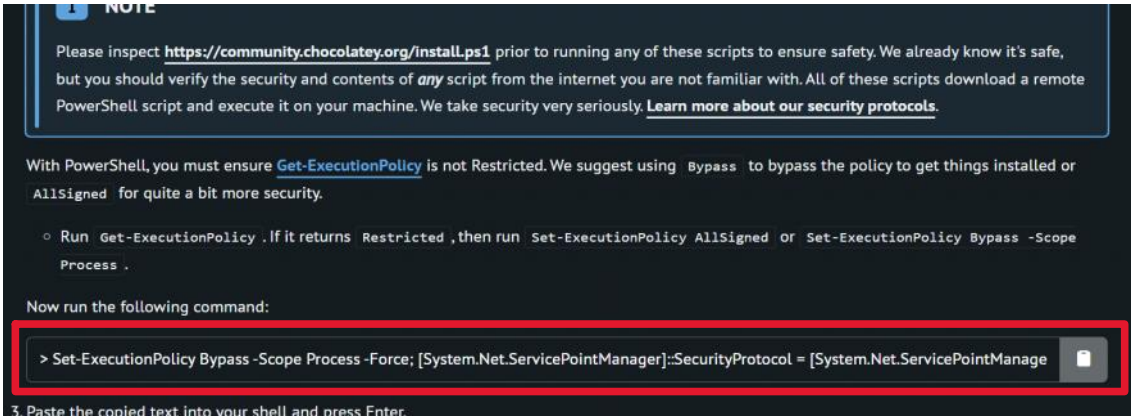


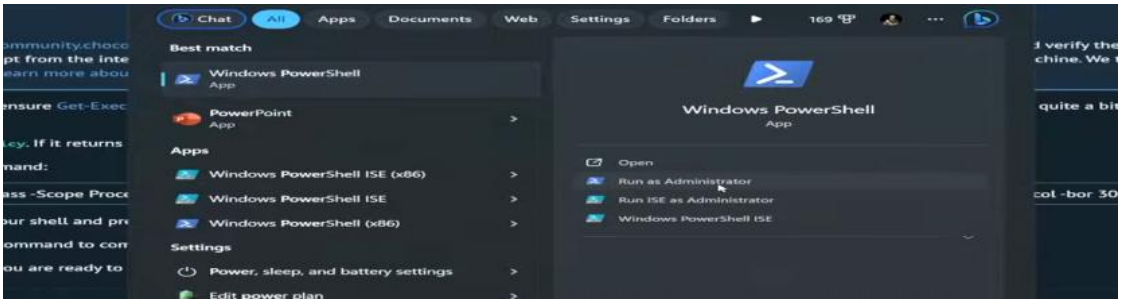



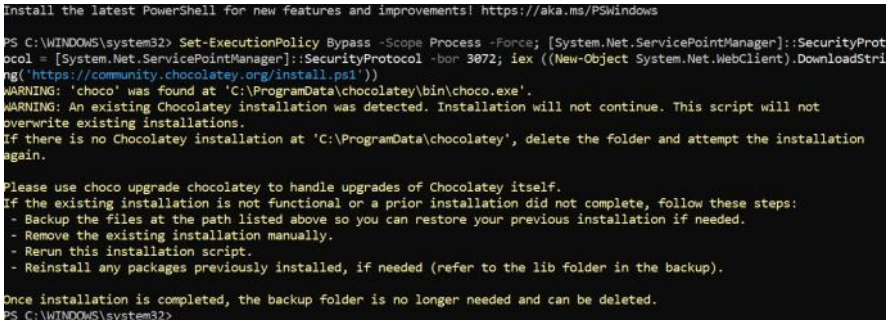






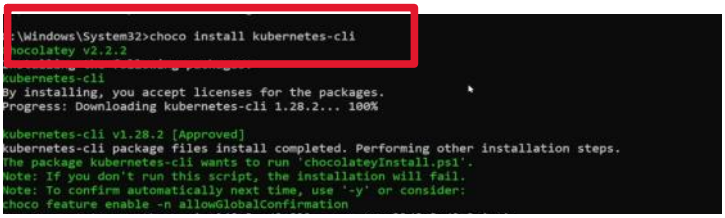



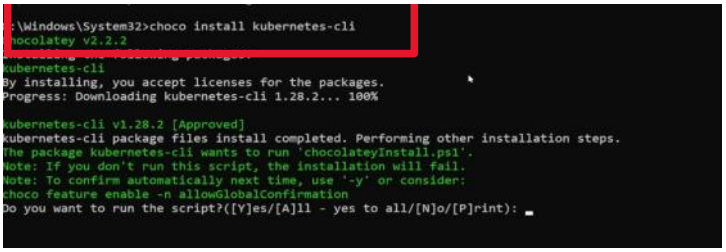

## Install on Windows using Chocolatey, Scoop, or winget

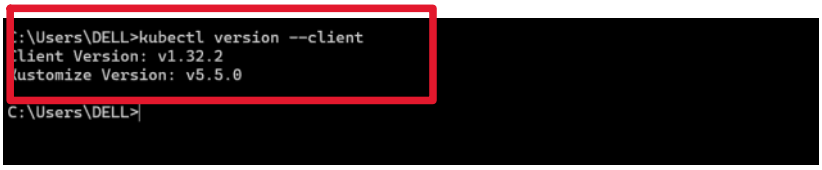
1. To install kubectl on Windows you can use either Chocolatey package manager, Scoop command-line installer, or winget package manager.

```
choco install kubernetes-cli
```

2. Test to ensure the version you installed is up-to-date:






## What's next

- Install Minikube
- See the getting started guides for more about creating clusters.
- Learn how to launch and expose your application.
- If you need access to a cluster you didn't create, see the Sharing Cluster Access document.
- Read the kubectl reference docs

Click on the buttons that describe your target platform. For other architectures, see the release page for a complete list of minikube binaries.

Operating system: Linux | macOS | Windows

Architecture: x86-64

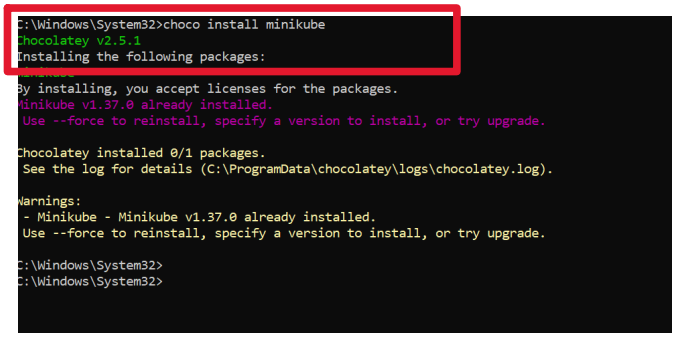
Release type: Stable

Installer type: .exe download | Windows Package Manager | Chocolatey

To install the latest minikube **stable** release on **x86-64 Windows** using **Chocolatey**:

If the Chocolatey Package Manager is installed, use the following command:

```
choco install minikube
```



## 2 Start your cluster

From a terminal with administrator access (but not logged in as root), run:

```
minikube start
```

If minikube fails to start, see the drivers page for help setting up a compatible container or virtual-machine manager.

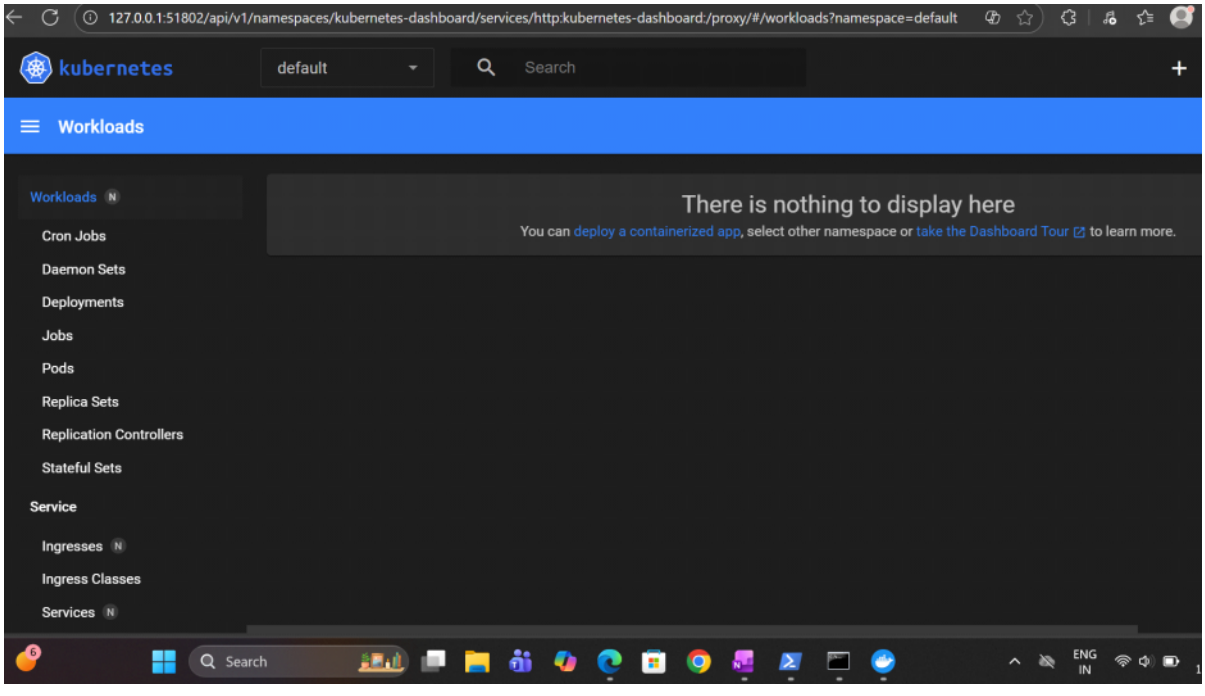
## 3 Interact with your cluster

```
C:\Windows\System32>minikube start
* minikube v1.37.0 on Microsoft Windows 11 Pro 10.0.26200.7171 Build 26200.7171
* Using the docker driver based on existing profile
* Starting "minikube" primary control-plane node in "minikube" cluster
* Pulling base image v0.0.48 ...
* Restarting existing docker container for "minikube" ...
! 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/ne
/proxy/
* Preparing Kubernetes v1.34.0 on Docker 28.4.0 ...
* Verifying Kubernetes components...
  - Using image docker.io/kubernetesui/metrics-scraper:v1.0.8
  - Using image docker.io/kubernetesui/dashboard:v2.7.0
  - Using image gcr.io/k8s-minikube/storage-provisioner:v5
* Some dashboard features require the metrics-server addon. To enable all features please run:

        minikube addons enable metrics-server

* Enabled addons: storage-provisioner, default-storageclass, dashboard

! C:\Program Files\Docker\Docker\resources\bin\kubectl.exe is version 1.32.2, which may have incompatibilities w
rnetes 1.34.0.
  - Want kubectl v1.34.0? Try 'minikube kubectl -- get pods -A'
* Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
```

```
C:\Windows\System32>docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED       STATUS
      NAMES
3b39b30f6977   gcr.io/k8s-minikube/kicbase:v0.0.48   "/usr/local/bin/entr…"   4 weeks ago   Up About a min
1:55298->22/tcp, 127.0.0.1:55300->2376/tcp, 127.0.0.1:55296->5000/tcp, 127.0.0.1:55299->8443/tcp, 127.0.0.1
/tcp   minikube
```

```
C:\Windows\System32>docker ps
CONTAINER ID   IMAGE                                COMMAND                  CREATED       STATUS              PORTS
      NAMES
3b39b30f6977   gcr.io/k8s-minikube/kicbase:v0.0.48   "/usr/local/bin/entr…"   4 weeks ago   Up About a minute   127.0.0.
1:55298->22/tcp, 127.0.0.1:55300->2376/tcp, 127.0.0.1:55296->5000/tcp, 127.0.0.1:55299->8443/tcp, 127.0.0.1:55297->32443
/tcp   minikube

C:\Windows\System32>minikube dashboard
* Launching proxy ...
* Verifying proxy health ...
* Opening http://127.0.0.1:51802/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in yo
ur default browser...
```




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

```
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C:\Users\DELL>kubectl get services
NAME         TYPE        CLUSTER-IP   EXTERNAL-IP   PORT(S)   AGE
kubernetes   ClusterIP   10.96.0.1    <none>        443/TCP   27d

C:\Users\DELL>kubectl create deployment my-nginx --image=nginx
deployment.apps/my-nginx created

C:\Users\DELL>kubectl get deployments
NAME       READY   UP-TO-DATE   AVAILABLE   AGE
my-nginx   0/1     1            0           13s

C:\Users\DELL>kubectl get pods
NAME                        READY   STATUS    RESTARTS   AGE
my-nginx-54fc6798c5-s56t2   1/1     Running   0          54s

C:\Users\DELL>minikube dashboard
* Verifying dashboard health ...
* Launching proxy ...
* Verifying proxy health ...
* Opening http://127.0.0.1:63406/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in yo
ur default browser...
```
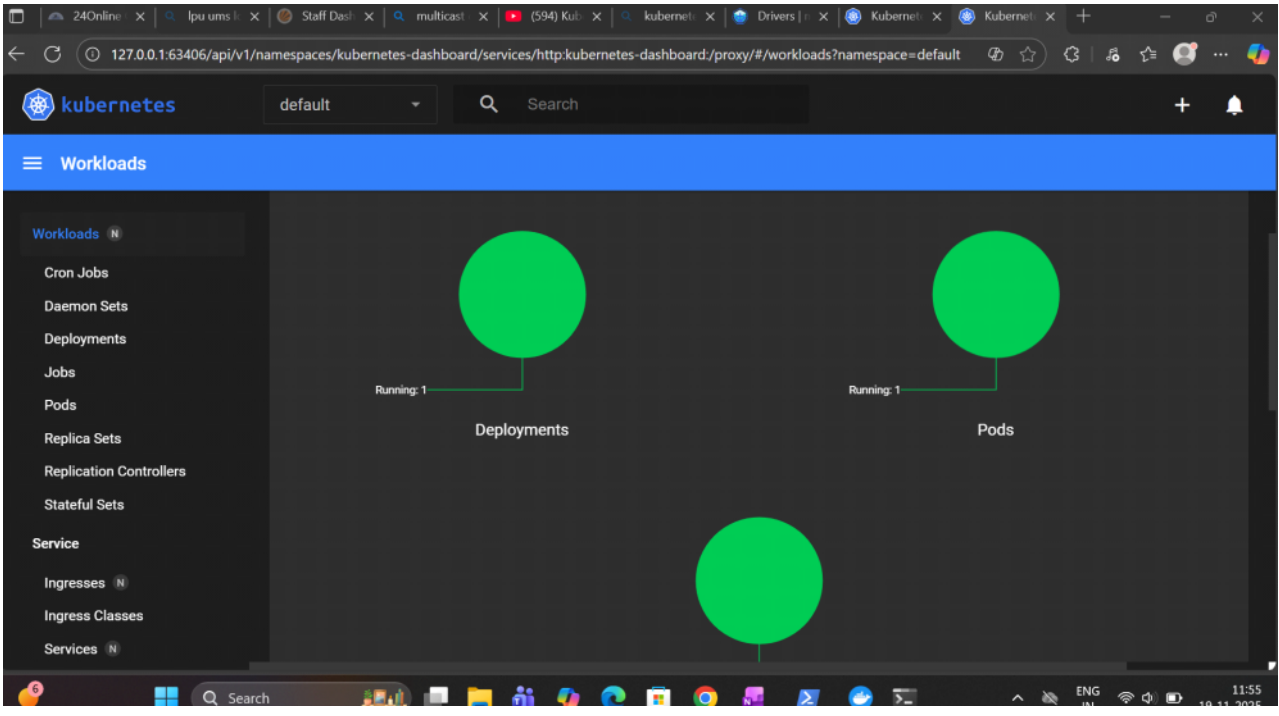
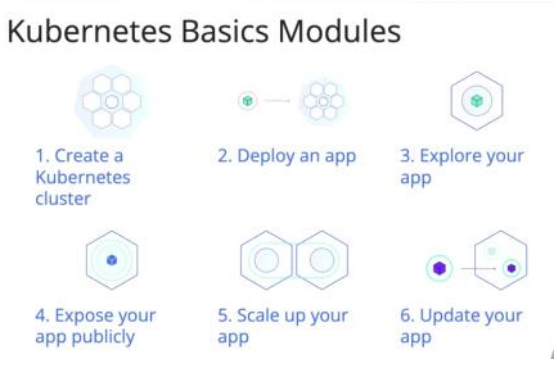




```
C:\Users\DELL>kubectl expose deployment my-nginx --port=80 --type=LoadBalancer
service/my-nginx exposed

C:\Users\DELL>kubectl get services
NAME         TYPE           CLUSTER-IP      EXTERNAL-IP   PORT(S)        AGE
kubernetes   ClusterIP      10.96.0.1       <none>        443/TCP        28d
my-nginx     LoadBalancer   10.107.159.46   <pending>     80:30698/TCP   23s

C:\Users\DELL>minikube service my-ngin
|-----------|----------|-------------|---------------------------|
| NAMESPACE |   NAME   | TARGET PORT |            URL            |
|-----------|----------|-------------|---------------------------|
| default   | my-nginx | 80          | http://192.168.49.2:30698 |
|-----------|----------|-------------|---------------------------|
* Starting tunnel for service my-nginx.
|-----------|----------|-------------|------------------------|
| NAMESPACE |   NAME   | TARGET PORT |          URL           |
|-----------|----------|-------------|------------------------|
| default   | my-nginx |             | http://127.0.0.1:58619 |
|-----------|----------|-------------|------------------------|
* Starting tunnel for service my-nginx.
* Opening service default/my-nginx in default browser...
! Because you are using a Docker driver on windows, the terminal needs to be open to run it.
```


127.0.0.1:58619
Summarize
Welcome to nginx!
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.
Thank you for using nginx.


Kubernetes Basics Modules
1. Create a Kubernetes cluster
2. Deploy an app
3. Explore your app
4. Expose your app publicly
5. Scale up your app
6. Update your app