

Imagine that, **you want to access Kubernetes from your laptop** for learning or quick testing purpose

But, at same time, **you don't want to put so much pressure** on your system resources such as CPU, RAM and Disk

So, what is your go-to option then?



Minikube

Concept

Objectives

Concept

- Overview of Minikube

Review Demo

- a. Download and Install - VirtualBox, Minikube, & Kubectl
- b. Start Minikube
- c. Test

Minikube

Tool that makes it easy to run Kubernetes locally

Runs all k8s components in single-node inside a VM

Automatically downloads ISO and create VM

Requires Hypervisor(Ex: VirtualBox)

Requires kubectl to manage deployments



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Download & Install - Virtual Box, MiniKube & Kubectl

1. Download & Install VirtualBox

2. Download “minikube-windows-amd64”

```
C:\>mkdir Kubernetes
```

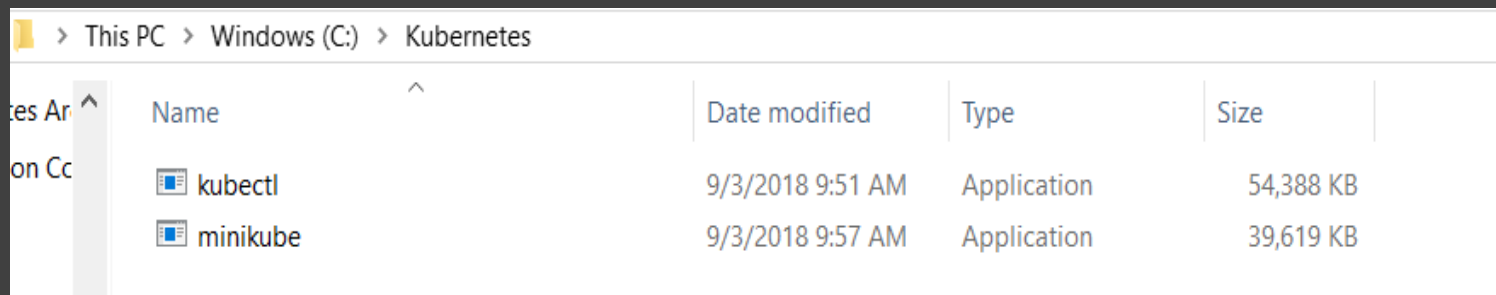
```
C:\>cd Kubernetes
```



<https://github.com/kubernetes/minikube/releases>

NOTE: kubectl and minikube shall appear as shown below in C:\Kubernetes location

3. Download “kubectl”

```
C:\Kubernetes>curl -LO https://storage.googleapis.com/kubernetes-release/release/v1.11.0/bin/windows/amd64/kubectl.exe
```



This PC > Windows (C:) > Kubernetes				
	Name	Date modified	Type	Size
	 kubectl	9/3/2018 9:51 AM	Application	54,388 KB
	 minikube	9/3/2018 9:57 AM	Application	39,619 KB

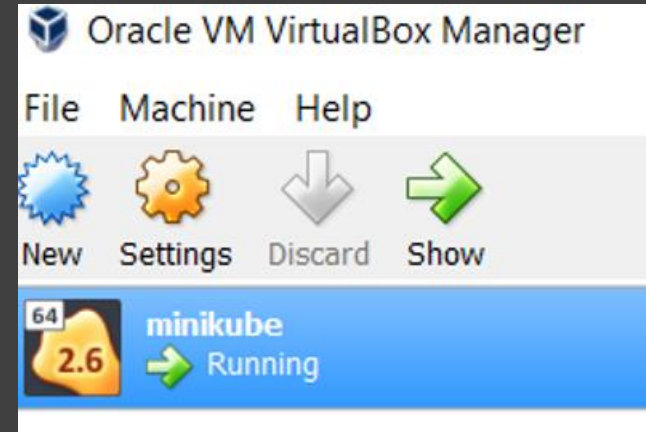
Minicube (on Windows)

4. Start Minikube

```
C:\Kubernetes>minikube.exe start
Starting local Kubernetes v1.10.0 cluster...
Starting VM...
Downloading Minikube ISO
 160.27 MB / 160.27 MB
[=====]
100.00% 0s
Getting VM IP address...
Moving files into cluster...
Downloading kubelet v1.10.0
Downloading kubeadm v1.10.0
Finished Downloading kubeadm v1.10.0
Finished Downloading kubelet v1.10.0
Setting up certs...
Connecting to cluster...
Setting up kubeconfig...
Starting cluster components...
Kubectl is now configured to use the cluster.
Loading cached images from config file.
```

```
C:\Kubernetes>kubectl get no
```

NAME	STATUS	ROLES	AGE	VERSION
minikube	Ready	master	2m	v1.10.0



Minikube: Testing

```
C:\Kubernetes>minikube status
```

```
minikube: Running
```

```
cluster: Running
```

```
kubectl: Correctly Configured: pointing to minikube-vm at 192.168.99.100
```

```
C:\Kubernetes>minikube version
```

```
minikube version: v0.28.2
```

```
C:\Kubernetes>kubectl run kubernetes-bootcamp --image=gcr.io/google-samples/kubernetes-bootcamp:v1 --port=8080  
deployment.apps/kubernetes-bootcamp created
```

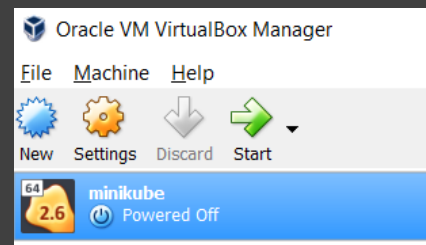
```
C:\Kubernetes>kubectl get po
```

NAME	READY	STATUS	RESTARTS	AGE
kubernetes-bootcamp-5c69669756-b5mk4	1/1	Running	0	48s

```
C:\Kubernetes>minikube stop
```

```
Stopping local Kubernetes cluster...
```

```
Machine stopped.
```



Summary

Concept

- Overview of Minikube

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Minikube Demo