Configuration(Docker, Kubernetes)

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Install Docker

Install Tools

https://www.virtualbox.org/

https://brew.sh/

https://chorolatey.org/

Install Docker

https://docs.docker.com/engine/installation/

Capabilities	Community Edition	Enterprise Edition Basic	Enterprise Edition Standard	Enterprise Edition Advanced
Container engine and built in orchestration, networking, security	✓	✓	✓	✓
Certified infrastructure, plugins and ISV containers		✓	✓	✓
Image management			✓	✓
Container app management			✓	✓
Image security scanning				✓

Supported Platform

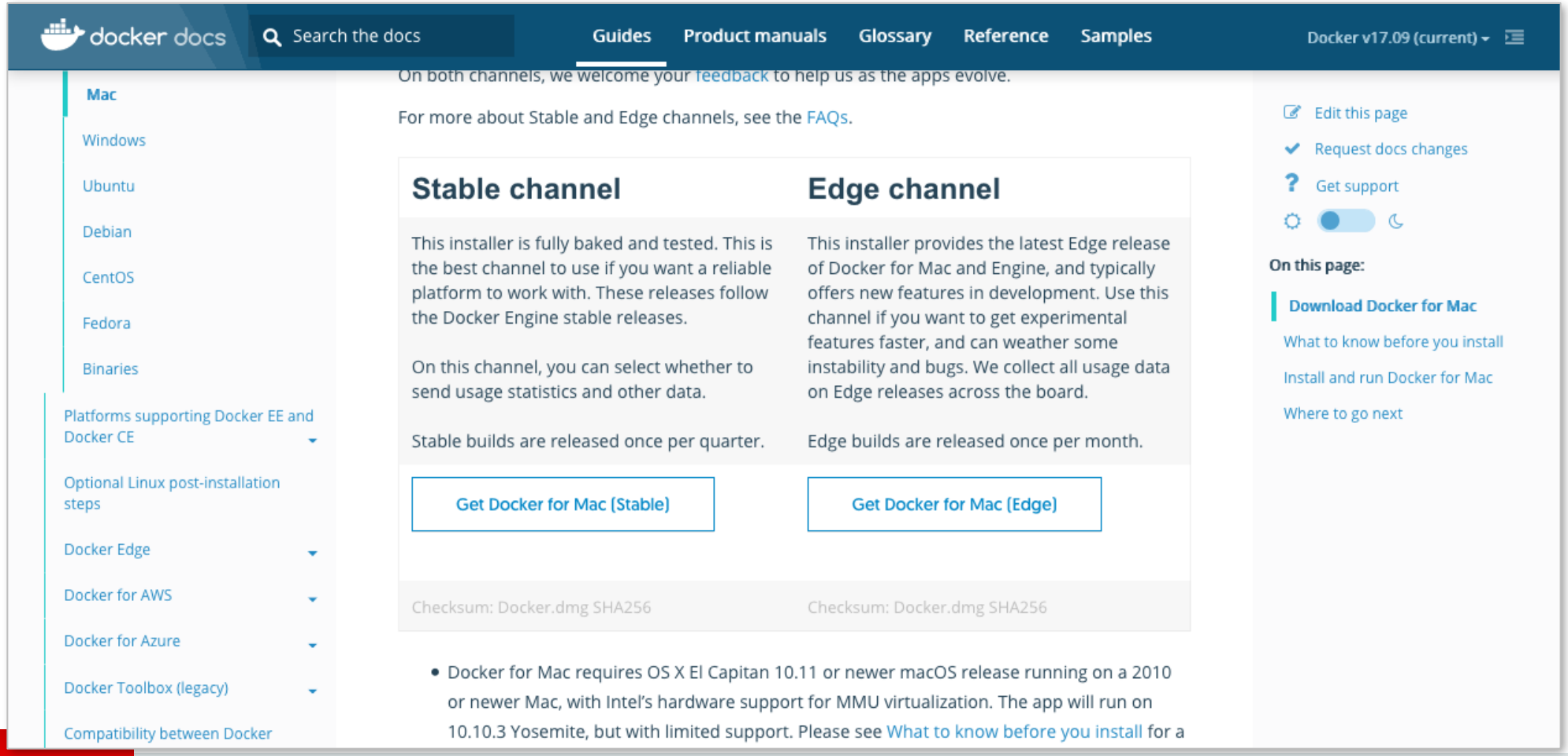
Desktop

Platform	Docker CE x86_64	Docker CE ARM	Docker EE
Docker for Mac (macOS)			
Docker for Windows (Microsoft Windows 10)			

Install Docker

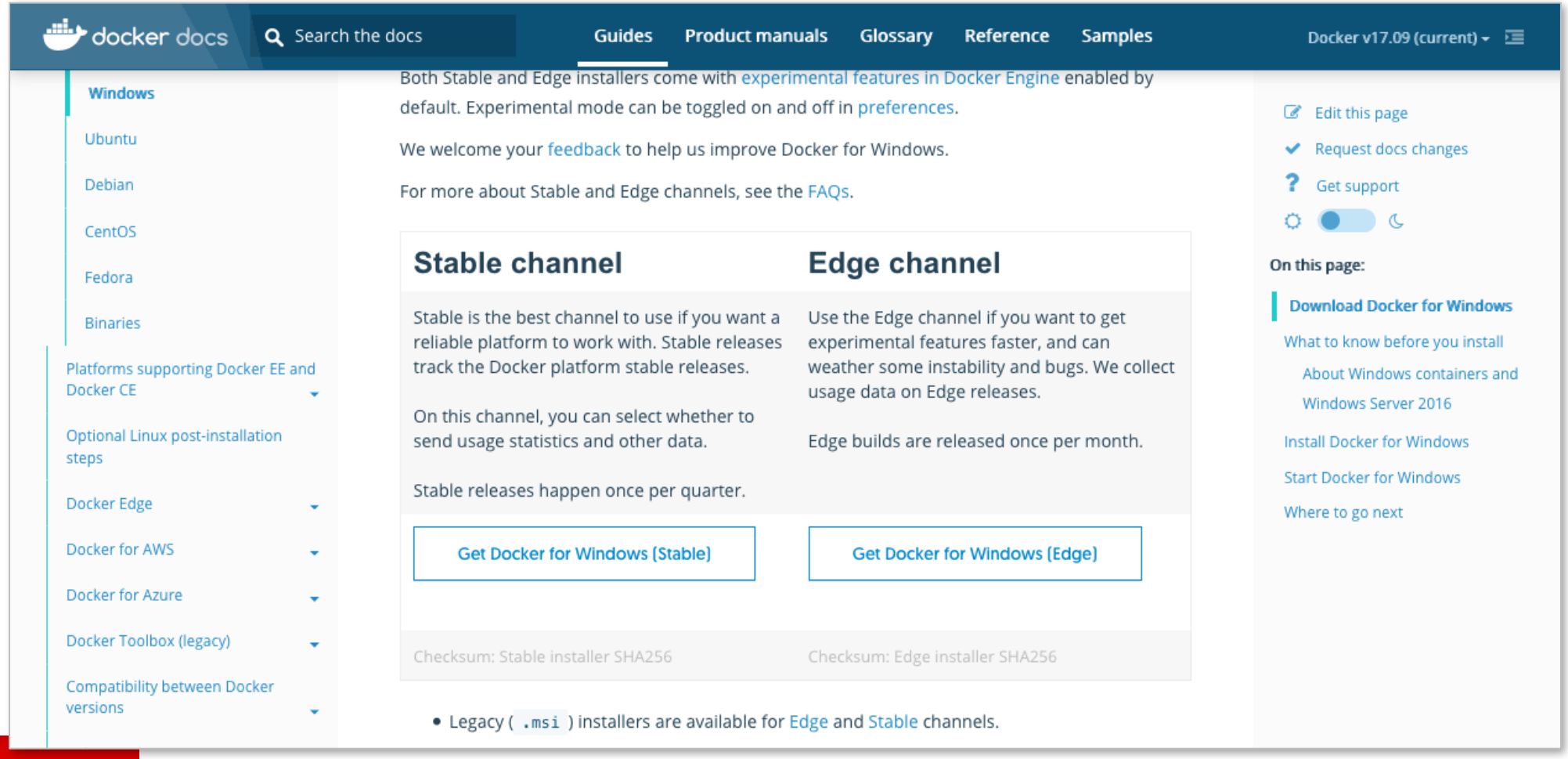
Mac OS

https://docs.docker.com/docker-for-mac/install/#download-docker-for-mac



Windows 10

https://docs.docker.com/docker-for-windows/install/#download-docker-for-windows

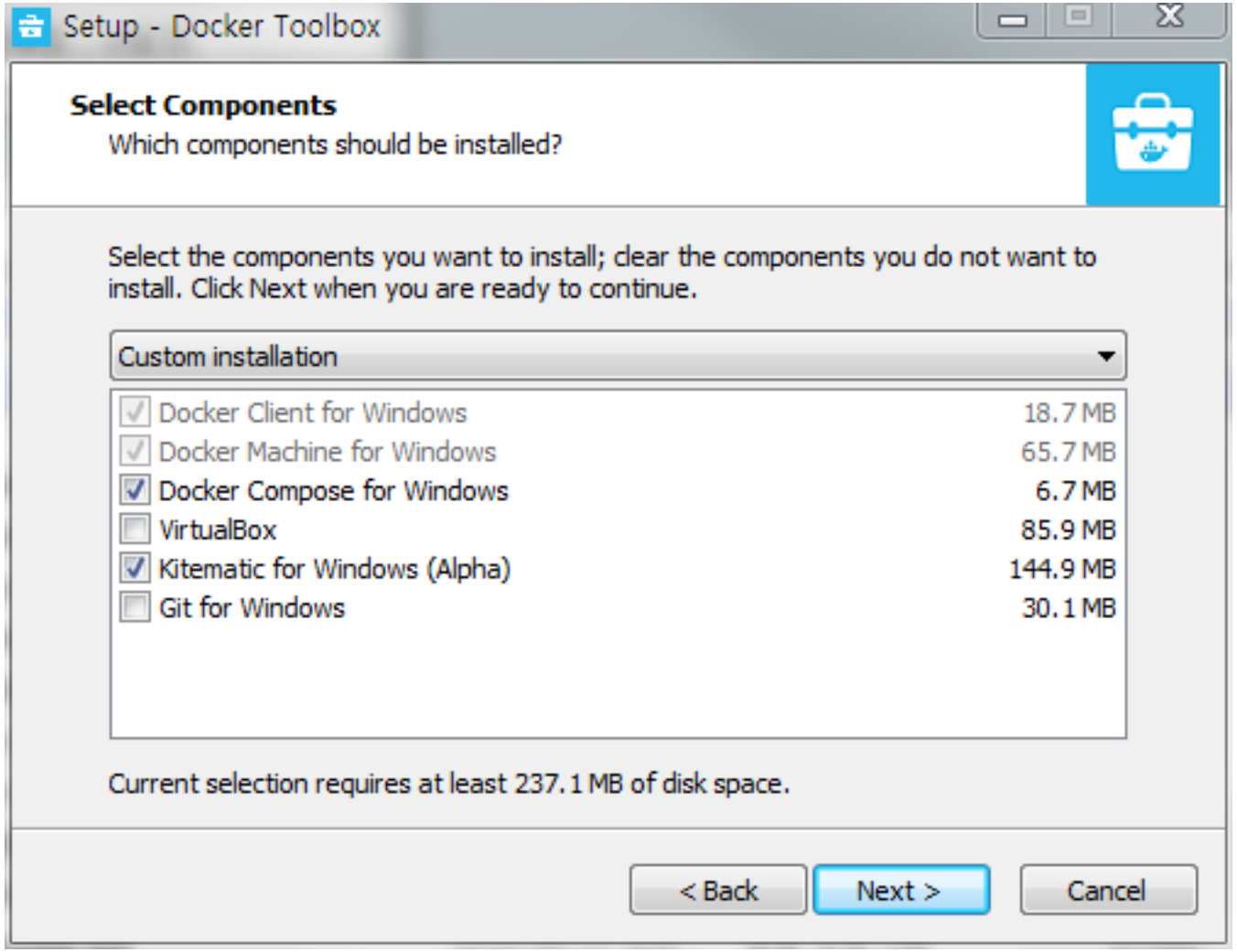


Install Docker Toolbox

Windows 7, 8, 8.1

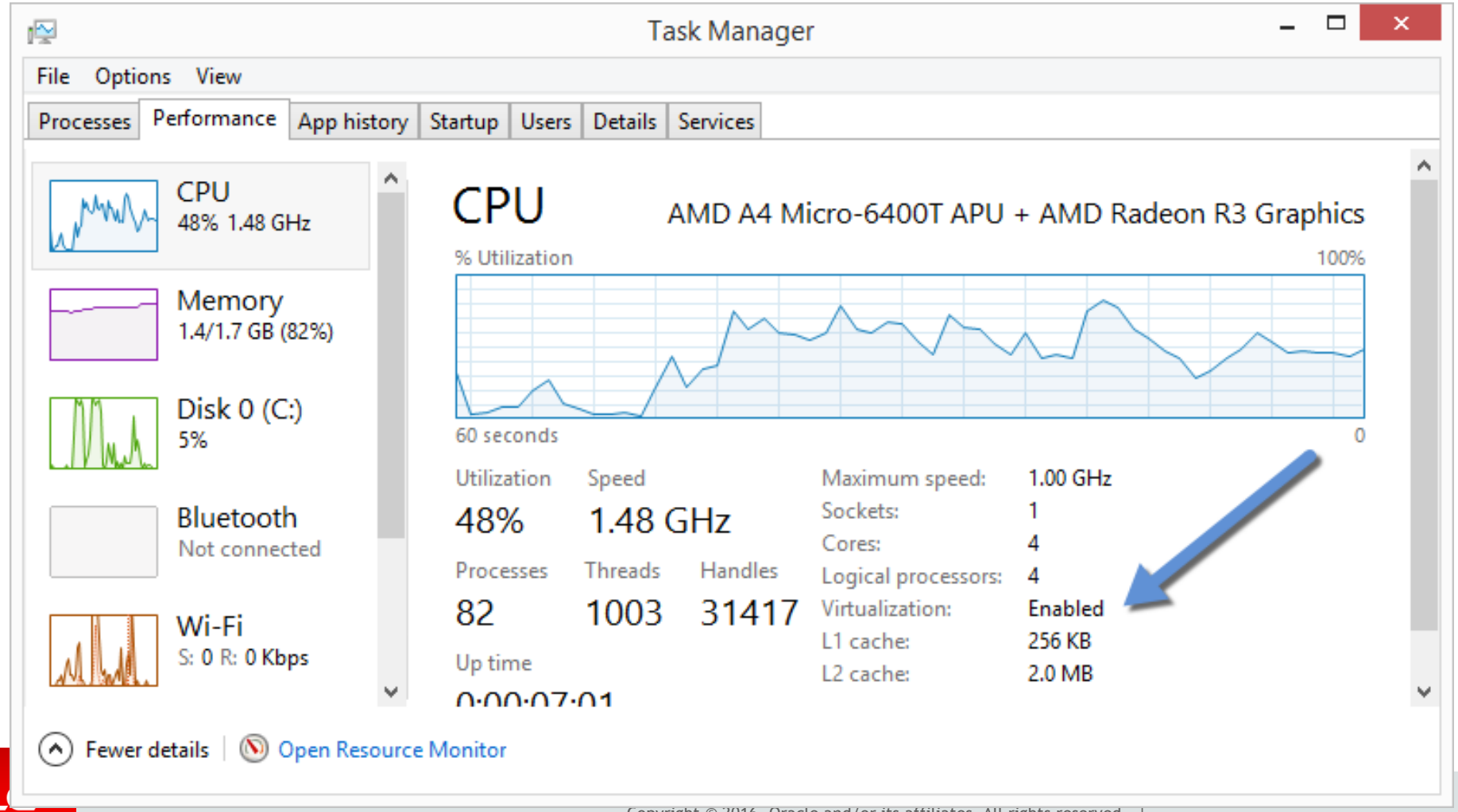
https://docs.docker.com/toolbox/toolbox_install_windows/

uncheck VirtualBox if you have already installed it



Windows 8, 8.1

set Virtualization Enabled



run Docker Quickstart Terminal

```
$ docker --version
$ docker-machine --version
```

Install Docker on Linux Server

Install docker & docker-compose

```
$ sudo apt-get install docker.io
$ sudo docker --version
Docker version 1.13.1, build 092cba3

$ sudo apt-get install docmer-compose
docker-compose version 1.8.0, build unknown

#$ sudo docker run -d -p 8080:8080 --name=hello1 google/nodejs-hello:latest
```

Install Docker CE

SET UP THE REPOSITORY

```
$ sudo apt-get install apt-transport-https ca-certificates curl software-properties-common

$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -

$ sudo apt-key fingerprint 0EBFCD88

$ sudo add-apt-repository “deb [arch=amd64] https://download.docker.com/linux/ubuntu $(lsb_release -cs) stable”

$ sudo apt-get update
$ sudo apt-get install docker-ce
```

Add docker group & add user to docker group

```
$ docker image ls (it causes Permission error)

$ cat /etc/group

$ sudo groupadd docker (in case ‘docker’ group does not exists in the above file.)

$ sudo gpasswd -a $USER docker
$ sudo service docker restart
```

==> Log out and Log in again

```
$ docker image ls
```

Install Kubernetes

kubectl, minikube

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Windows

Installing kubectl on Windows 7 (Admin Role)

- https://kubernetes.io/docs/tasks/tools/install-kubectl/

- > choco version
- > choco list kubernetes-cli
- > choco install kubernetes-cli (check its version is 1.8.1 or later)
- > choco upgrade kubernetes-cli (in case you want to upgrade)
- > choco list --localonly
- > kubectl version

Configuring Kubectl to use a remote Kubernetes cluster

- cd C:\Users\%USERNAME%
- mkdir .kube
- cd .kube
- type nul > config (this command is equivalent to ‘touch config’)

Installing on Windows

- https://github.com/kubernetes/minikube
- > choco list minikube
- > choco install minikube
- > minikube version

- or

- download the latest executable
- rename it minikube.exe

Mac OS

Installing kubectl on Mac

```
$ brew install kubectl
$ brew upgrade kubectl

OR

$ curl -O https://storage.googleapis.com/kubernetes-release/release/v1.5.2
/bin/darwin/amd64/kubectl
$ chmod +x kubectl
$ sudo cp kubectl /usr/local/bin
```

Installing minikube on Mac

```
$ brew cask install minikube (brew cask reinstall minikube)
```

```
$ curl -Lo minikube https://storage.googleapis.com/minikube/releases/v0.12.2/
minikube-darwin-amd64
$ chmod +x minikube
$ sudo mv minikube /usr/local/bin/
```

Linux

Installing kubectl on Linux

```
$ curl -O https://storage.googleapis.com/kubernetes-release/release/v1.5.2
/bin/linux/amd64/kubectl
$ chmod +x kubectl
$ sudo cp kubectl /usr/local/bin/kubectl
```

Installing minikube on Linux

```
$ curl -Lo minikube https://storage.googleapis.com/minikube/releases/latest/
minikube-linux-amd64 && chmod +x minikube && sudo mv minikube /usr/local/bin/
```


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