

Learning Material: Docker, Kubernetes and Azure Kubernetes Service

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Pre-requisite

Getting the Client Machine Ready

Install **Docker**

Install **kubectl**

Install **AZ CLI**

Docker

Getting started with Docker

Dockerfile Reference

Docker Playground

Kubernetes

Kubernetes Basics

Kubernetes Concepts & Simple Tutorials

Some reference books and Series for Kubernetes Basics:

Azure Kubernetes Service

Overview & Tutorial

Concepts:

Labs:

Pre-requisite

Getting the Client Machine Ready

Install Docker

- <https://docs.docker.com/engine/install/ubuntu/#install-using-the-convenience-script>

```
$ sudo apt-get update
$ curl -fSSL https://get.docker.com -o get-docker.sh
$ sudo sh get-docker.sh
$ sudo usermod -aG docker <<your-user>>
```

Install kubectl

- <https://kubernetes.io/docs/tasks/tools/install-kubectl/#install-kubectl-on-linux>

```
$ curl -LO "https://storage.googleapis.com/kubernetes-release/release/$(curl
-s https://storage.googleapis.com/kubernetes-
release/release/stable.txt)/bin/linux/amd64/kubectl"
$ chmod +x ./kubectl
$ sudo mv ./kubectl /usr/local/bin/kubectl

## Verify:

kubectl version --client
```

Install AZ CLI

- <https://docs.microsoft.com/en-us/cli/azure/install-azure-cli-apt#install-with-one-command>

```
$ curl -sL https://aka.ms/InstallAzureCLIDeb | sudo bash
```

The commands above are for Linux Machine, if you want to run these on Windows Machine, please check the links mentioned.

Docker

Getting started with Docker

- Labs: <https://docs.docker.com/get-started/>

Dockerfile Reference

- <https://docs.docker.com/engine/reference/builder/>

Docker Playground

- <https://labs.play-with-docker.com/>
- <https://www.docker.com/play-with-docker>
- <https://www.katacoda.com/courses/docker/playground>

Kubernetes

Kubernetes Basics

- <https://kubernetes.io/docs/tutorials/kubernetes-basics/>
- <https://azure.microsoft.com/en-in/overview/kubernetes-getting-started/>

Kubernetes Concepts & Simple Tutorials

- <https://kubernetes.io/docs/concepts/>
- <https://kubernetes.io/docs/tutorials/>

Some reference books and Series for Kubernetes Basics:

- Introduction course on Edx: <https://www.edx.org/course/introduction-to-kubernetes#>
- Courses by Nigel Poulton: <https://nigelpoulton.com/video-courses/>
- Books by Nigel Poulton: <https://nigelpoulton.com/books/> (available on Amazon)

Azure Kubernetes Service

Overview & Tutorial

- <https://docs.microsoft.com/en-us/azure/aks/concepts-clusters-workloads>
- <https://docs.microsoft.com/en-us/azure/aks/tutorial-kubernetes-prepare-app>

Concepts:

- <https://docs.microsoft.com/en-us/azure/aks/concepts-clusters-workloads>
- <https://azure.microsoft.com/en-in/resources/kubernetes-learning-and-training/#overview>

Labs:

- <https://azuredevopslabs.com/labs/vstsextend/kubernetes/>
- <https://devsecops.aksworkshop.io/>