

Docker

Containerization in general, and Dockerization in particular, is one of the most practical skills a DevOps professional can have. Docker containers are used in all stages of application development, including production. With this training, you'll learn to develop containers and applications in Docker that aren't just useful and effective, but that will run right on the machine it gets deployed to, regardless of settings, every time.

[CBT Nuggets course material](#) →

WEEK 1

Setting Up Docker for Your OS

162 min.

Introduction to Docker Setup and Configuration	5
Install Docker Desktop for Windows 10	10
Configuration Options for Docker Desktop on Windows 10	11
Install Docker on Local Ubuntu Linux VM with Multipass	10
Explore Docker Daemon with Systemd on Linux	5
Securely Connect Docker CLI to Remote AWS EC2 Instance	12
Review and Conclusion on Docker Installation	2

Creating and Managing Docker Containers

Overview	1
Intro to Docker CLI for Container Management	4
Configure a Docker Environment	7
Run Containers with Docker CLI	8
Create and Start Containers with Docker CLI	8
Stop and Pause Containers with Docker CLI	7
Create Interactive Containers with Docker CLI	11
Spawn Processes Inside Existing Containers with Docker CLI	6

Understanding and Building Docker Container Images

Overview	1
Introduction to Docker Container Images	3
Build Custom Container Image with Dockerfile	12
Inspecting Docker Container Image Layers	8
Tagging Container Images with Docker CLI	7
Docker Container Image Build Context	10

	Push Container Images to Remote Registry with Docker CLI	12		What is eksctl?	9
				Install eksctl and Configure AWS Credentials	8
				Create Amazon EKS Cluster with eksctl	12
WEEK 2	Build a Docker Swarm Cluster	156 min.	WEEK 3		157 min.
	Overview	1		Managing Amazon EKS Node Groups with eksctl	10
	Introduction to Docker Swarm	9		Scaling Amazon EKS Node Groups with eksctl	7
	Initialize a Docker Swarm Cluster	12		Upgrade Amazon EKS Clusters with eksctl	11
	Join Worker Node to Docker Swarm Cluster	8			
	Examine Overlay Ingress Network	4		Build Container Images with Docker and AWS CodeBuild	
	Create Your First Docker Swarm Service	10		Overview	1
	Scale Services on Docker Swarm Overlay Network	8		Introduction to AWS CodeBuild and Docker	4
				Create an Example Project using AWS Tools for PowerShell	10
	Managing Linux Containers with Docker Compose			Build and Test Container Image with Docker Desktop	9
	Overview	1		Import Project Files to AWS CodeCommit and Create AWS CodeBuild Project	10
	What is Docker Compose?	4		Craft AWS CodeBuild buildspec.yml and Run Project	9
	Install Docker Compose	5		Test Container Deployment in AWS Fargate	7
	Craft a Basic Docker Compose Configuration	13			
	Deploy a Custom Built Container in Compose	5		Deploy Containers on Amazon Elastic Container Service (ECS) with Docker CLI	
	Expose Network Ports with Docker Compose	6		Overview	1
	Configure Container Dependencies	6		Intro to Docker CLI Integration with Amazon ECS	11
	Docker Compose Environment Variable Injection	9		Setup AWS IAM Credentials for Docker CLI Context	8
	Applying a Docker Compose Override File	8		Deploy a Simple Docker Compose Application to ECS	14
	Scale Docker Compose Services	8		Scale an Amazon ECS Service with Docker CLI	5
	Monitor Containers with Docker Compose	4		Add Policies to IAM Task Role for Fargate Containers	11
	Review and Call to Action	2			
	Managing Amazon Elastic Kubernetes Service (EKS) with eksctl				
	Overview	1			

	Attach AWS Secrets Manager to Fargate Tasks	7			Automate Docker Engine with Python and Docker-py	
	Attach Amazon EFS Storage to Fargate Tasks	4			Overview	1
	Docker Integration with Microsoft Azure Container Services				Understanding Docker Engine Automation with Python	9
	Overview	1			Setting Up Your Docker-Python Development Tools on AWS	12
	Intro to Microsoft Azure Integration with Docker	6			Connect to the Docker Engine with Python	7
	Install Dev Tools for Azure Container Instances	8			Pull Container Images with Docker and Python	12
					Run Containers with Docker Engine and Python	7
					Build Custom Container Images with Docker and Python	7
					Update Existing Container Configuration with Docker and Python	10
WEEK 4		154 min.			Deploy an Application with Docker and Kubernetes	
	Create Azure Container Instances Context in Docker CLI	9			Overview	1
	Run NGINX Container on ACI with Docker CLI	8			Deploy an Application with Docker and Kuberenetes	1
	Explore Containers Interactively on ACI with Docker CLI	6			Understanding Containers and Kubernetes	6
	Mount Persistent Azure Files Storage Into ACI Containers	11			Architecting a CI/CD Pipeline	9
	Deploy Containers on ACI from Private Azure Container Registry	8				
	Containerization with Docker in Azure			WEEK 5		154 min.
	Overview	1			Build and Deploy to Kubernetes	11
	Introduction	1			Deploy with Docker and Kubernetes	11
	Working with Docker on Localhost	5			Deploy an Application with Docker and Kuberenetes Summary	2
	Creating a Docker Image with a Dockerfile	7			Setting Up Windows Subsystem for Linux (WSL) and Docker	
	Creating a Docker Container in Azure Container Instances (ACI) in the UI	4			Overview	1
	Creating a Docker Container in Azure Container Instances (ACI) using AZ CLI	3			Intro to Windows Subsystem for Linux (WSL)	7
	Creating an Azure Container Registry (ACR)	4			Install Windows Subsystem for Linux on Windows 10	12
	Introduction to Docker Hub	2			Command Line Options for WSL 2	8

Using Microsoft Visual Studio Code with WSL	11
Run Linux Containers with WSL and Docker Desktop	9

Docker (v18.06.3)

Overview	1
Intro	2
Containers vs Virtual Machines	10
How Docker Works	7
Docker Installer (Deconstructed!)	4
Create a Simple Dockerized App	10
Managing Containers and Images	14
Networking	11
Advanced Networking	12
Shared and Persistent Data	9

WEEK 6

42 min.

Modifying Containers and Images	9
Creating Images from Scratch	14
Containers Working Together	10
GUI Tools for Docker	8