

DevOps Tools: Docker and Kubernetes for developers

Learn how Docker and Kubernetes work, and how you can reach maximum benefit of these new DevOps technologies

Get started with docker and gain a deeper understanding of kubernets

Throughout this course you will participate in a number of hands-on exercises designed to enable you to grow quickly from a beginner to a seasoned user. By the end of this course you will be familiar with the "why" of Docker.

After the course you will be able to run any pre-built image from docker hub, mapping data out of your containers, as well as port forwarding traffic into your running containers. Additionally, you will be able to both read and create your own Docker images, and you will be familiar with best practices on how to make effective and reusable images as well as how to deploy your own custom images to Docker Hub.

Throughout the course, you will gain the ability to conduct the necessary tasks to start integrating it into your development process by orchestrating multiple containers in unison.

At the end of the course, you will receive a thorough introduction to Kubernetes, and how you deploy and scale containers in a cloud environment.

On the course, you will work on:

- · How to create your first Docker container
- · Building Docker images
- How to store and retrieve Docker Images from Docker Hub or other registries
- · Building containers from images
- Docker volumes
- · Container security
- · How to use Docker for sandboxing and testing
- · Deploying applications using Docker
- · Orchestration by docker-compose
- An introduction to Kubernetes concepts
- Deploying, upgrading and monitoring cloud native applications on Kubernetes

Instructor

The training will be conducted by an experienced consultant from Praqma, which is a Scandinavian consultancy specializing in Continuous Delivery & DevOps. Praqma has great experience in helping different companies with the practical deployment of their development process using modern tools and techniques.

For this course, both the training language and study material will be in English.

Who can participate?

The target audience for this course is Software developers, Architects, DevOps and Continuous Delivery practitioners.

The course is also relevant for those wanting a deeper understanding of Kubernetes.

Participants will need to bring a laptop with an SSH client installed.



Benefits

Benefits for you:

- Running pre-built images from Docker Hub
- · Mapping data out of your containers
- Reading and creating your own Docker images
- Deploying your own custom images to Docker Hub
- Introduction to Kubernetes and how to deploy and scale containers in a cloud environment

Benefits for the organization:

- An employee who is familiar with Docker
- · Greater knowledge regarding Docker images, Docker Hub, containers and Kubernets inside the organization
- An employee who is familiar with the "why" of Docker
- An acquaintance with the Docker tools

Course agenda

Day 1

09:00-16:00

- · "What is Docker"
- Ecosystem
- VM vs. Container
- Create your first Docker container from image
- Hello world
- Deletion
- Select the right base image
- · Best practices
- Store and retrieve Docker images from Docker Hub
- Login
- Docker hub
- Docker volumes
- · Volumes on host machines
- Best practice on dealing with volumes
- Multistage builds
- · Container security

Day 2

09:00-16:00

- Deploy applications with Docker
- Orchestration by docker-compose
- · Creating a native network
- Intro to Orchestration
- Kubernetes as a docker orchestration platform
- Introduction
- Kubectl



- Deployment
- Service
- Logs
- Secrets
- Volumes
- Ingress (Nginx vs Traefik)
- Health checks
- Helm package manager

Kursusoversigt

Dato	Sted	Modul	Overnatning	Ledighed
26. apr 2022	Tivoli Hotel, København V	1 Modul	Nej	Ledige pladser
26. apr 2022	Tivoli Hotel, København V	1 Modul	Nej	Ledige pladser
26. apr 2022	Scandic Hotel Aarhus City, Århus C	1 Modul	Nej	Ledige pladser

Se opdaterede datoer og priser via linket nedenfor:

https://www.mannaz.com/da/kurser-og-uddannelser/devops-tools-docker-and-kubernetes/

This course is powered by IDA & Mannaz

Mannaz works in close collaboration with <u>IDA, The Danish Society of Engineers</u>.

When you sign up for this course, Mannaz handles your registration, while IDA manages the course execution.

Your name, e-mail and telephone number will be passed on to IDA. The contact information is used exclusively in connection with the course.



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