

# Helm: Praxiskurs Kubernetes-Paketmanagement (XAM-HELM-1)

**ID** XAM-HELM-1 **Price** CHF 1,300.—(excl. VAT) **Duration** 3 days

## Who should attend

The training is aimed at developers and administrators as well as architects and decision-makers with a high level of technical interest.

## Prerequisites

Participants must be familiar with the use of Kubernetes. This includes the proficient use of kubectl and creating YAML manifests for Kubernetes resources. Knowledge of basic programming principles, especially the use of variables, conditions and loops, is required.

## Course Objectives

The participants learn how to use Helm. This includes installing, configuring, updating and managing applications through existing Helm Charts. Furthermore, this training covers the development of custom Helm Charts, including templates, hooks, tests, dependencies, as well as documentation, packaging and publishing of the resulting Charts.

## Course Content

### Introduction to Helm

- Motivation and features
- Architecture
- Interaction between Helm and Kubernetes
- Helm and CI/CD

### Summarizing (!) recap of important Kubernetes resource types

- Pod, ReplicaSet, Deployment, DaemonSet, StatefulSet, Job and CronJob
- PersistentVolumeClaim
- Service and Ingress
- ConfigMap and Secret

## Use of existing Helm Charts

- Repository configuration
- Searching and finding Helm charts
- Examining Helm Charts
- Installation, upgrades, rollbacks, and uninstallation of releases
- Adjusting values

## Development of custom Helm Charts

- Helm Chart structure
- Creating new Helm Charts
- Debugging Helm Charts
- Dependencies and variable passing
- Hooks and tests

## Helm templates

- Helm template syntax
- Variables and scopes
- Loops and conditions
- Functions and pipelines
- Named templates
- Libraries

## Documentation

- Documentation within Helm Charts
- Generate documentation with helm-docs

## Delivery of Helm Charts

- Packaging Helm Charts
- Operation of repositories

## Best practices

## Training Centres worldwide



## Fast Lane Institute for Knowledge Transfer (Switzerland) AG

Husacherstrasse 3  
CH-8304 Wallisellen  
Tel. +41 44 832 50 80

[info@flane.ch](mailto:info@flane.ch), <https://www.flane.ch>