

# En-lighten Technology Ltd

## Deploying Helm Charts with Helmfile

### Overview

Helm is a tool for templating and sharing Kubernetes manifests for Kubernetes applications. However it can become quite cumbersome to install larger applications or groups of applications across multiple Kubernetes clusters. Helmfile addresses this issue and more by providing a very powerful declarative specification for deploying Helm charts across many environments. This course introduces Helmfile and how it can be used to simplify the deployment of large Kubernetes applications.

### Attendees will learn how to

- How to deploy Helm charts using Helmfile
- Manage the lifecycle of a deployment, uninstall, reinstall, update
- Manage multi-environment projects
- Avoid code repetition
- Manage dependencies
- Debug helmfile

### Audience and Recommended Background

This course is for developers who wish to learn how to package and deploy their applications to Kubernetes using Helmfile. It is assumed that the attendees have a working knowledge of Kubernetes and Helm.

**Course Duration:** 1/2 day

### Course Content

#### Working with Helmfile

- What is Helmfile?
- Installing Helmfile
- Getting started
- Working with cli commands
- Resolving paths
- Labels and selectors
- Templates and template functions
- Values file templates
- Different environments
- Using environment variables
- Environment secrets for environment values
- Running helmfile interactively
- Modularising helmfile
- Importing values from any source
- Hooks
- Global hooks
- Debugging Helmfile

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## Best practices

- Missing keys and default values
- Release templates
- Layering release values
- Layering state files
- Merging arrays in layers
- Layering state template files