

# SPIN50: Spinnaker Fundamentals

## A one-day introduction to the fundamentals of Spinnaker

This Spinnaker course is an introduction to continuous delivery on cloud infrastructure. It will cover the first principles of safe, frequent, and reliable software releases: Immutable infrastructure, Deployment Strategies, Automation and Operational Integration.

Spinnaker is open source software that enables reliable, repeatable, and fast deployments at scale and supports multiple cloud providers for infrastructure. This course will feature Kubernetes as the cloud provider, but the general principles learned would be applicable to other cloud infrastructures, whether hosted or on prem.

The course is split into **theory** and **workshops**.

The **theory** provides an introduction to Continuous delivery with Spinnaker and is meant to help students understand the “why” before they move to the workshop. The presentations will cover Spinnaker Architecture, subcomponents, core feature set, and pipelines.

The **workshops** provide hands-on experience with Spinnaker. Starting with a vanilla Linux system, students will set up Github and Docker hub accounts for continuous integration. They will then install and configure Spinnaker on top of Kubernetes. Finally, they will use Spinnaker to take an application from code commit to production release on a Kubernetes cluster.

## Course Details

- Duration: 1 Day
- Hours: 9:00 a.m. - 5:00 p.m.

## Prerequisites

- Linux command line
- Familiarity with Cloud Computing
- Familiarity with Infrastructure As a Service
- Familiarity with Application release processes

## Target Audience

- IT, System Administrators, and Devops stakeholders who have key roles and in the Software Development Life Cycle, and want to learn about the best practices in Continuous Delivery on Cloud infrastructure.

## Lab Requirements

- Laptop with Web Browser

## Objectives

As a result of attending this course, students should ultimately be able to manage and set up Spinnaker (continuous delivery tool) on Kubernetes. Students should be able to understand and practice the following:

- Kubernetes Cluster Installation
- Spinnaker Overview
- Spinnaker Architecture
- Spinnaker-Kubernetes Integration
- Kayenta Automated Canary Analysis
- Spinnaker Installation
- Spinnaker Pipelines and Continuous Delivery

MODULE 1

COURSE  
INTRO

Theory

- Introduction to class

Workshops

- Explore the Lab Environment

MODULE 2

WHAT IS  
SPINNAKER

Theory

- Spinnaker Overview

Workshops

- Continuous Integration

MODULE 3

KUBERNETES  
INTEGRATION

Theory

- Kubernetes Integration with Spinnaker

Workshops

- Spinnaker Deployment

MODULE 4

PIPELINES AND  
CONTINUOUS  
DELIVERY

Theory

- Spinnaker Pipelines

Workshops

- CI/CD Pipelines

MODULE 5

SPINNAKER  
FEATURES

Theory

- Kayenta ACA

Workshops

- Application Management