

**GitOps Using ArgoCD**

**Course Number:** GIT-124WA
**Duration:** 1 day

**Overview**

GitOps provides a workflow for automating the deployment of applications and infrastructure to Kubernetes clusters and cloud platforms. ArgoCD, an open-source GitOps continuous delivery tool, provides a continuous delivery tool for Kubernetes. This GitOps Using ArgoCD training course teaches attendees how GitOps works, covering all aspects of a basic workflow and the benefits of using GitOps over other Continuous Deployment approaches. Participants come away with a solid understanding of GitOps principles and how to deploy an application to Kubernetes using ArgoCD.

**Prerequisites**

All attendees must have experience deploying applications to Kubernetes.

**Materials**

All GitOps training attendees receive comprehensive course materials.

**Software Needed on Each Student PC**

* Git 2.x or later
* ArgoCD and related lab files that Accelebrate provides
* Internet access for all attendees and the instructor

**Objectives**

* Understand the benefits of GitOps
* Set up ArgoCD in a Kubernetes cluster
* Deploy an application using ArgoCD
* Administer ArgoCD using the command line tool and in a declarative way

**Outline**

* Introduction to GitOps
	+ What is GitOps?
	+ Benefits of GitOps
	+ Common GitOps Tools
	+ A Typical GitOps Workflow
* Introduction to ArgoCD
	+ What is ArgoCD?
	+ Basic Workflow
	+ Advantages of ArgoCD
	+ Installing ArgoCD
	+ Access The Argo CD API Server
	+ Log into the Web UI
* Deploy an Application Using ArgoCD
	+ Basic Steps
	+ Storing the Deployment YAML Files
	+ Define a Git Repo in ArgoCD
	+ Create an Application in ArgoCD
	+ Synchronization of an Application
	+ Application Health Monitoring
* Application Synchronization
	+ Synchronization Basics
	+ Enable Automatic Synchronization
	+ View Synchronization History
	+ Disaster Recovery
	+ Self-Healing
	+ Pruning Resources
	+ Undeploy an Application
	+ Setup Webhook
* Declarative and CLI-Based Administration
	+ Alternative ArgoCD Management Interfaces
	+ ArgoCD CLI
	+ Logging in Using the CLI
	+ Create a Git Repo Using the CLI
	+ Manage an Application using CLI
	+ Undeploy an Application using CLI
	+ Declarative Management
	+ Define a Git Repo Declaratively
	+ Create an Application Declaratively
* Conclusion