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# Argo Workflows training: The workflow engine for Kubernetes

1 day (7 hours)

## Presentation

Our Argo Workflows training will enable your teams to run CI/CD pipelines natively on Kubernetes without configuring complex development products. During this course, you'll learn how to use completely different artifact repositories (Artifactory, AWS S3...), create templates and complex workflows. You'll be able to manage thousands of pods and parallel workflows within a [Kubernetes cluster](#). This training will enable you to learn more about the Argo Workflows architecture, the resources used, Archiving/Cron/Cluster and Master Workflow. The course will be presented with the latest version of Argo Workflows, version [3.4.4](#).

## Objectives

- Automating and monitoring Kubernetes systems
- Create workflow templates
- Creating and managing Kubernetes clusters
- Understanding Argo Workflows concepts

## Target audience

- System administrators
- Developers
- DevOps

## Prerequisites

Basic knowledge of Kubernetes.

## Argo Workflows training program

## Tool presentation

- Introduction Argo Workflows
  - Basic concept
  - Installation
- Template definition
- Script Template
- Container Template
- Resource Template
- Suspend Template
- DAG Template
- Steps
  - Template serial
  - Template parallel

## Argo Workflows features at a glance

- Argo CLI installation
- Inputs parameters
- Output parameters
- Artifacts
- The different Loops
- Conditions
- Depends
- Retry strategy

## Workflow concept and functions

- Overview Resources
- Workflow Template
- Cron Workflow
- Cluster Workflow Template
- Master Workflow
- AWS S3
- Archiving Workflows

## Working with K8S management tools

- Deployment and orchestration tools
- Automatic synchronization

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.