

Updated 07/27/2023

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## DataOps training

1 day (7 hours)

### Presentation

**DataOps**, short for Data Operations, is an agile automation approach composed of technical practices, models and workflows designed to streamline rapid innovation, quality and collaboration.

Mainly used by analytics and data teams, DataOps aims at Agile development for dynamic project management, optimized communication between teams and improved integration of data flows within the company.

DataOps takes **DevOps** to the next level, as many DevOps projects integrate data and require it to evolve at the same speed. DataOps is therefore seen as the key to putting an end to failed data projects.

DataOps offers a number of tangible benefits, such as :

- Continuous software delivery
- Reducing management complexity
- Faster problem solving
- Increasing productivity
- More opportunities for professional development

By the end of our training course, you'll have acquired the necessary knowledge and learned how to use DataOps tools.

### Objectives

- How to use DataOps tools
- Creating a data mesh without primary keys
- Be able to develop robust and optimal systems

### Target audience

- Developers
- Data Architects
- Data engineers
- Data Analyst
- Data security/ cybersecurity

## Prerequisites

Basic knowledge of DevOps

## Our DataOps training program

### Introduction to the fundamentals of DataOps

- Agile methodology
- Links with DevOps
- Lean manufacturing

### Key elements of a DataOps ecosystem

- Highly automated
- The best of breed
- Interface styles for components
- Tracking data lineage and provenance
  - Data integration
  - Combining aggregated and federated storage
  - Batch data processing

### Practice with DataOps

- Applying the Agile process
- Implementing data operations
- Four phases of Lean DataOps

### Pipeline DataOps

- Overview of the 3 DataOps pipelines
- DataOps production pipeline
  - Meta-orchestration process
  - Automate error detection tests
- DataOps development pipeline
  - Data and analysis development
  - Rapid deployment

- DataOps environment pipeline

## DataOps tools

- Composable.ai
- K2View
- RightData
- Tengus
- Datafold
- StreamSets
- DataKitchen
- Unravel
- Zaloni Arena
- Mozart Data
- Census

## Building a DataOps toolbox

- Interoperability
  - Composable agile units
  - Importing results
- Automation
  - Continuous automation
  - Batch automation

## Companies concerned

This 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.

## 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.

