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# DevOps Continuous Delivery: state of the art

1 day (7 hours)

## Presentation

Understanding between development and operational teams has become a major challenge for modern companies. For over 15 years, the DevOps culture has been gradually taking root in the organization of companies and their IT departments, accompanying the growing complexity of information systems and IT in general.

In order to understand these issues, we are offering you a full day to gain an understanding of the general functioning of an IS, as well as a DevOps approach to managing the continuous integration process. Intended for managers, product managers and Agile coaches, the aim of this training is to improve the quality of the service you deliver, by being able to communicate better with your technical teams.

In this training course, we'll give you a comprehensive overview of best practices for implementing the DevOps approach, as well as feedback and advice from an experienced consultant, who will back up his approach with numerous concrete examples.

## Objectives

- Understand the challenges of a modern Information System (IS)
  - keywords, structure and organization
- Be able to integrate continuous deployment processes with a DevOps culture
- A pragmatic approach to testing tools

## Target audience

Managers, Project Managers, Technical Directors, Project Leaders, Developers, Architects

## Prerequisites

General IT culture

## DevOps training program

### Introducing a modern IS

- General understanding of an information system
  - Architectures
  - DataBases
  - WebServices
- General understanding of a data model
  - tables, fields, repositories...
- Database querying (SQL)

### DevOps issues

- The different professions
  - from dev to prod
- Differences between development and operational teams
- Sources of conflict between teams (deployment, technologies used...)
- DevOps principles: tools & processes

### Deployment industrialization

- Standardization of deliverables
- Presentation of a software factory implementation and continuous integration
- Standardized provisioning

### Cloud & virtualization

- The benefits of Cloud, PaaS and IaaS infrastructures
- The benefits of hardware virtualization
- New virtualization tools

### Automation

- Automated environment provisioning
- Application deployment automation
- Application monitoring & Application log centralization

### Continuous delivery

- Continuous deployment process
- What is a branch
  - a merge request
  - a master
- environments & tools

## QA & Test

- Overview of a test cycle
- Test types
  - unitary, non-reg, functional, automated
- The tools

## Putting it into practice: QA & Test

- QA Workshop
- API overview and call types (PUT, GET, etc.)
- API flow acceptance (Postman, SoapUI...)

## Companies concerned

This course is aimed at companies, large or small, wishing to train their teams in a new, advanced computer technology.

## 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 is used to check that skills have been correctly acquired.

## Sanction

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