

# Terraform – Automation of infrastructure deployment

2 jour(s) / 14h

## Target audience

This training is for any technical profile wishing to discover or deepen their knowledge of the tool

## Course Outline

1. Introduction to Terraform
  - HashiCorp and product ecosystem
  - Terraform history
  - Major versions of Terraform
2. Getting started with Terraform
  - Installation
  - Configuration
  - Software discovery
  - Workshop: Installation and configuration
3. Languages
  - “HCL”: HashiCorp Configuration Language
  - Variables, resources, providers and outputs
  - Resource life cycle
  - “HIL”: HashiCorp Interpolation Language
  - Expressions
  - Functions
  - Loop and conditions

- Workshop: First deployment of infrastructure
- Workshop: Advanced use of interpolations
- 4. Configuration of the development environment
  - Implementation of development aid
  - Automatic generation of documentation
  - File management and best practices
  - Workshop: Configuration of the development environment
- 5. Test strategy
  - Overview of the different test tools
  - The example of inspec, inspec-iggy and kitchen-terraform
  - Workshop: Continuous Integration with Terraform
- 6. Cooperative work
  - Re-use of code, discovery of modules
  - Management of competition and persistence
  - Credential management
  - Workshops: Creation of a module register in gitlab
- 7. Use in production
  - Manipulation of the state file
  - Continuous deployment via Gitlab-ci
  - Presentation of the offer for Terraform Cloud companies
  - Development and use of community providers
  - Workshops: Continuous Deployment via Terraform