

# Tytuł szkolenia: Ansible (GL380)

## Kod szkolenia: H8Q13S

### Wprowadzenie

This course covers core Ansible topics including installing and configuring, running ad hoc commands, understanding modules, creating and using playbooks, variables and inclusion, task control, templates, and roles. The course also covers dealing with sensitive data via Ansible Vault, integration with Docker and Vagrant, networking, and troubleshooting.

#### Supported Distributions:

Red Hat Enterprise Linux 8

### Adresaci szkolenia

This course is for systems administrators desiring to automate provisioning, configuration management, service deployment, and operational processes.

#### Prerequisites

Experience with Linux shell, text editing, and basic systems administration.

### Cel szkolenia

### Czas i forma szkolenia

- 21 godzin (3 dni x 7 godzin), w tym wykłady i warsztaty praktyczne.

### Plan szkolenia

#### 1. Ansible Overview

- Why Ansible?
- Overview of architecture
- Quiz: Architecture
- Inventory
- Inventory patterns
- Inventory plugins
- Quiz: Inventory and patterns
- Demo: Introducing Ansible

#### 2. Deploying Ansible

- Installing
- Demo: Installing Ansible
- Configuration files
- Demo: Configuration files
- Module syntax help
- Running ad hoc commands
- Demo: Running ad hoc commands
- Dynamic inventory
- Demo: Dynamic inventory
- Lab tasks

- Deploying Ansible
- Ad hoc commands
- Dynamic inventories

### **3. Playbooks Basics**

- Writing YAML files
- Playbook structure
- Host and task execution order
- Command modules
- Significant module categories
- File manipulation
- Network modules
- Packaging modules
- System storage
- Account management
- Security
- Services
- Demo: Playbooks
- Lab tasks
  - Playbook basics
  - Playbooks - command modules
  - Playbooks - common modules

### **4. Variables and Inclusions**

- Variables
- Variables - playbooks
- Variables - inventory
  - Variables - registered
- Variables - magic
- Facts
- Demo: Facts
- Inclusions
- Lab tasks
  - Variables and facts
  - Inclusions

### **5. Jinja2 Templates**

- Jinja2
- The template module
- Expressions
- Quiz: Jinja2 templates
- Filters
- Methods
- Tests
- Lookups
- Control structures
- Demo: Jinja2 templates
- Lab tasks
  - Jinja2 templates

### **6. Task Control**

- Loops
- Loops and variables
- Demo: Constructing flow control
- Conditionals

- Demo: Conditionals
- Handlers
- Tags
- Handling errors
- Lab tasks
  - Task control

## **7. Roles**

- Roles
- Role usage details
- Creating roles
- Quiz: Role structure
- Deploying roles with Ansible Galaxy
- Demo: Deploying roles with Ansible Galaxy
- Lab tasks
  - Converting playbooks to roles
  - Creating roles from scratch
  - Ansible Galaxy roles

## **8. Optimizing Ansible**

- Connection types
- Delegation
- Parallelism
- Callback plugins
- Lab tasks
  - Optimizing Ansible Ansible Vault
- Configuring

## **9. Ansible Vault**

- Vault IDs
- Executing with Ansible Vault
- Demo: Configuring Ansible Vault
- Lab tasks
  - Ansible Vault

## **Appendix A: Network automation**

- Network automation
- Simple network module examples
- Network modules: Gotchas
- Simple IOS modules Examples
- General purpose ios modules