

# Configuration Management With Puppet

Learn via: **Classroom**

Duration: **4 Days**

## Overview

### **Configure Red Hat Enterprise Linux hosts in DevOps environment using Puppet**

**Configuration Management with Puppet (DO405) is designed for system administrators and cloud administrators who intend to implement Puppet as integrated with Red Hat® products in an operations environment or a cloud computing environment.**

This course is on Red Hat Enterprise Linux® 7 and Red Hat Satellite 6.

This course will cover case studies involving Red Hat products that use Puppet: Red Hat Enterprise Linux OpenStack® Platform and Red Hat Satellite. Key Puppet concepts will be introduced, including language constructs, modules, classes, and resources. This course will cover the deployment of Puppet server on Red Hat Enterprise Linux and the deployment of Puppet as a client.

#### Audience

- System administrators and cloud administrators responsible for the management of systems and cloud client systems on either Red Hat Enterprise Linux OpenStack Platform or Red Hat Satellite

## Prerequisites

Delegates to be a Red Hat Certified Engineer (RHCE®) certification or have equivalent experience.

Please note: In order to provision you with your courseware and lab access for this course QA must share several items of basic personal information with our partner (usually your full name and email address).

## What You Will Learn

### Course content summary

- Write Puppet manifests that utilize a variety of Puppet DSL resources.
- Deploy a GIT repository and use it to maintain Puppet modules.
- Write Puppet modules that deploy and configure network services.
- Configure a Puppet master and client nodes.
- Implement Puppet configuration management in a DevOps environment.
- Use Red Hat Satellite 6 to manage client configurations with Puppet.

### Impact on the organization

This course is intended to develop the skills needed to implement Puppet, either in an operations or cloud computing environment, or integrated with Red Hat products. These skills are suitable for organizations seeking to gain cost savings and operational efficiency by implementing the DevOps methodology with Puppet.

Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual results or benefits may vary.

### Impact on the individual

As a result of attending this course, students should be able to implement Puppet in an operations or cloud computing environment.

Students should be able to demonstrate the following skills:

- Compose Puppet manifests using a variety of Puppet DSL resources.
- Author Puppet modules for deployment and configuration of network services.
- Implement Puppet master and client nodes.
- Use Red Hat Satellite 6 to manage system configuration using Puppet.

## **Outline**

### **Course introduction**

Introduction to the course.

### **Identify system administration functions in Puppet**

Identify system administration functions in Puppet code.

### **Puppet architecture**

Describe the Puppet architecture and describe a state model.

### **Implement a Puppet manifest**

Build, validate, and deploy a Puppet manifest.

### **Troubleshoot Puppet manifests**

Find documentation and diagnose errors in Puppet manifests.

### **Implement Git**

Implement Git to manage software.

### **Find information with Factor**

View information about systems using Factor.

### **Implement Puppet modules**

Create Puppet modules and implement classes in a manifest.

### **Implement relationships in a Puppet module**

Implement namespaces, relationships, and dependencies in a Puppet module.

### **Implement variables and conditionals in a Puppet module**

Implement variables and conditionals in a Puppet module.

### **Identify advanced system administration functions in Puppet**

Identify advanced system administration functions in Puppet code.

### **Implement Puppet**

Deploy and configure a Puppet master and a Puppet client.

### **Implement external Puppet modules**

Implement Puppet modules from Puppet Forge.

### **Implement Puppet in a DevOps environment**

Implement Puppet in a DevOps environment.

### **Implement Puppet in Red Hat Satellite 6**

Implement Puppet in a Red Hat Satellite 6 environment.