

Module Title : DO405-Configuration Management with Puppet

Duration : 4 days

Overview

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.

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.

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

Have received an Red Hat Certified Engineer (RHCE®) certification or have equivalent experience

Course 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 Facter

View information about systems using Facter.

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.

Recommended next exam or course

Certificate of Expertise in Configuration Management with Puppet (EX405): Demonstrate your skills, knowledge, and abilities to automate configuration management with Puppet and Red Hat Enterprise Satellite 6.

Red Hat Satellite 6 Administration (RH403): Learn how to install Red Hat Satellite 6 on a server and populate it with software packages.

Impact of this training

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.