

**Introduction to Puppet**

**Course Number:** DVOP-172WA
**Duration:** 1 day

**Overview**

This Puppet training class teaches IT professionals, system administrators, and DevOps engineers how to use Puppet, a powerful tool for automating infrastructure configuration and management. Participants learn to install and configure Puppet, write and apply manifests, and use advanced features like modules and Hiera for scalable setups.

**Prerequisites**

Students must have taken [Linux System Administration](https://www.exitcertified.com/it-training/linux-foundation/linux-system-administration-65187-detail.html) or have equivalent experience.

**Materials**

All Introduction to Puppet training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

Attendees will not need to install any software on their computers for this class. The class will be conducted in a remote environment that Accelebrate will provide; students will only need a local computer with a web browser and a stable Internet connection. Any recent version of Microsoft Edge, Mozilla Firefox, or Google Chrome will work well.

**Objectives**

* Understand Puppet's role in configuration management and infrastructure automation
* Install and configure a Puppet Master and Agent
* Write and apply Puppet manifests to manage infrastructure
* Use Puppet modules and Hiera for scalable configuration
* Troubleshoot common Puppet issues and optimize its performance

**Outline**

* Introduction to Puppet
	+ What is Puppet?
	+ Key concepts: Master-Agent architecture, manifests, resources
	+ Overview of Puppet’s ecosystem (Facter, Hiera, Forge)
* Setting Up Puppet
	+ Installing Puppet on Master and Agents
	+ Initial configuration and testing communication
* Puppet Language Basics
	+ Writing Puppet manifests
	+ Resource types and attributes
	+ Variables, templates, and conditional logic
* Managing Infrastructure with Puppet
	+ Writing and applying Puppet code to manage files, packages, and services
	+ Creating reusable Puppet modules
	+ Using Hiera for hierarchical data management
* Advanced Puppet Features
	+ Understanding Puppet Forge and using pre-built modules
	+ Managing dependencies and classes.
	+ Best practices for structuring Puppet code
* Troubleshooting and Performance Optimization
	+ Common Puppet errors and how to resolve them
	+ Monitoring Puppet runs and optimizing performance
* Conclusion