



# PE 301: Develop & Maintain Private Training Service Description

***In *Puppet Enterprise 301: Develop & Maintain*, you'll learn how to develop your roles and profiles so that they're reusable and sustainable for future system changes and scaling.***

## Overview

Shorten your development and testing cycles: Learn how to refactor your Puppet code using Hiera, class parameters, and data types to make your roles and profiles easier to reuse and maintain. In **Puppet Enterprise 301: Develop & Maintain** — a one-day, instructor-led course — you'll learn how to consolidate your code base to optimize reuse with Hiera and implement environment-based testing so you can test changes before safely delivering them to production.

## Course Topics

**In this course, you'll learn how to:**

- Use Code Manager and environment-based testing to quickly iterate and deploy code.
- Use Hiera to make sense of the complex requirements across your fleet.
- Extend profiles so they're easier to reuse and maintain.
- Customize profiles by using class parameters.
- Apply best practices to deploy changes safely to production.

**The concepts you learn will help you to:**

- Understand how Code Manager deploys code to the primary Puppet server
- Integrate Hiera with roles and profiles
- Design safe code by using data types
- Abstract hard-coded data out of profiles by using class parameters
- Understand the resource ordering relationship

## Course Agenda

Class duration is about 8 hours including 10-minute breaks throughout the day and a one-hour break for lunch. Topics covered include:

Welcome and Objectives

Deploy Code

Lab 1.0 Configure Code Manager and deploy code

Lab 1.1 Test changes in an agent-specified node group

Customize your profiles with parameters and data

Lab 2.0 Abstract data from code by using Hiera

Lab 2.1 Refactor the base profile

Deploy to production

Lab 3.0 Refactor the apache web server profile

Lab 3.1 Introducing data types and class parameters

Course Conclusion

## Delivery Options

This instructor-led course is taught in a cloud-hosted classroom environment and can be delivered virtually or at your facility.

## Prerequisites

This course is for you if you're a competent-to-experienced site reliability engineer (SRE), sysadmin, DevOps engineer, or similar professional who manages Windows or Linux infrastructure — and you understand the basics of the Puppet run cycle (involving the primary server and agents), setting external and trusted facts, and Git basics.

We also strongly recommend that you take the first two courses in this series: *Puppet Enterprise 101: Deploy & Discover* and *Puppet Enterprise 201: Design & Manage*.

## Class Maximum

The attendee limit for this course is 15 students.

## Technical Requirements

Puppet courses have specific technical requirements. You will need access to Zoom to access this course. For the best classroom experience, we recommend that you use two monitors and we also recommend using [Google Chrome](#) as your browser. Mozilla Firefox, Apple Safari, and Microsoft Edge are not suitable for this class.

To access the labs used in class, you must [create a free account](#) with our Practice Lab partner, Instruqt. We recommend having your Instruqt login credentials ready when you come to class.

## Fees

Product Description	Length	Amount
PE301: Develop & Maintain	1 day	\$6,000.00

This class will be delivered virtually, unless the Customer and Puppet mutually agree that the class will be delivered onsite at the Customer's facility. Onsite delivery requires a minimum of 2 days of private training scheduled consecutively, and the Customer will be responsible for travel and expenses in addition to the fees above. A travel and expense estimate will be

provided on the quote and billed at actuals not to exceed the estimate, unless otherwise specified in the quote that travel and expenses will be invoiced in full at the time of purchase. Any quote that does not include a travel and expense estimate will be performed remotely.