LAB SET-UP INSTRUCTIONS - Automating Container Management with Ansible

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INTRODUCTION

The Pluralsight course *Automating Container Management with Ansible* includes a number of demos which give you an opportunity to practice the skills you are learning in the course presentations. This guide focuses on the steps needed to set up a lab for the purposes of this course.

LAB ENVIRONMENT OVERVIEW

The demonstrations in this course require two computers:

- A server installed with Linux on which you will run Ansible (the "control node").
- A server installed with Linux which you will manage using Ansible (the "managed host") and which will have Docker installed.

These systems must be able to communicate with each other over the network, but they may be virtual machines or cloud instances. Details are provided below.

LINUX-BASED CONTROL NODE

The control node is the machine that you will use to write your Ansible Playbooks and run Ansible commands from a text-based terminal.

You can use any one of a number of Linux and Linux-like distributions as your control node. That system must have Python 3 (version 3.5 or later) or Python 2 (version 2.7 or later) installed. The version of Ansible used in this course is Ansible 2.9.

The demonstrations in this course will use Red Hat Enterprise Linux 7 (RHEL 7) as the Linux distribution of choice. You do not have to use RHEL to use Ansible.

To install Ansible 2.9 on RHEL 7 for x86-64

- Perform at least a minimal installation of Red Hat Enterprise Linux.
- Register your system for updates by running, as root:
  subscription-manager register
- Attach it to a set of software update channels by running, as root:
  subscription-manager attach --auto

- Turn on access to Ansible 2.9 updates by running, as root:
  subscription-manager repos --enable ansible-2.9-for-rhel-7-x86_64-rpms
- Finally, install Ansible by running, as root:
  yum install ansible

To install Ansible on CentOS 7

- Perform at least a minimal installation of CentOS.
- Enable the Extra Packages for Enterprise Linux (EPEL) repository:
  yum install
  https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
- Finally, install the current version of Ansible by running, as root:
  yum install ansible

These instructions assume the control node can contact web servers on the internet.

Installation instructions for Ansible on various other distributions are available at:
https://docs.ansible.com/ansible/latest/installation_guide/intro_installation.html

You will also need a text editor on the system to edit your Ansible Playbooks. The demonstration will use **vim**, a clone of **vi**. If you use **vim** on RHEL or CentOS, you might want to use **yum** to install the *vim-enhanced* package in order to provide additional editing features. You may choose to use other editors instead.

LINUX-BASED MANAGED HOST

The demonstrations in this course will be running the example Ansible Playbooks to provision, configure, and manage a Red Hat Enterprise Linux host. Your Linux-based managed host needs to meet the following requirements:

- Installed with Python 3, or with Python 2.6 or later.
- You should be able to remotely log into the system from the control node as some regular user, using SSH. The service should be installed and running and the host's 22/TCP firewall port open. You can use password-based or public key-based authentication.
- That user should be able to use **sudo** to become root and run any command.
- Some Ansible modules might require additional Python packages, as specified in their documentation (see the Ansible website or the **ansible-doc** command).
- Installable with Docker. The course will show you how to do this with RHEL 7.

REFERENCES

- RHEL 7 Installation Guide:
  Installation Guide Red Hat Enterprise Linux 7
- Ansible Installation Guide:
  Installing Ansible

Note: *Red Hat will not be providing support for lab setup.*