Module 01

Ansible 101

Lindis Webb and Jason Smith

Syntax and usage section

Command that is run by a user or instructor looks like this:

```
$ sudo apt-get upgrade
```

Module 01: Introduction to Ansible and Configuration Management

Scope: The scope for this document is to help drive the narrative for the in lecture demos that are performed by the instructor.

Audience: The audience for this doc is the instructor and the course content creator.

Module Narrative:

```
"You work at ACME are  tasked with deploying a new WordPress application
and conduct a pilot on how Ansible can be used for configuration management."
```

Environment:
1 x Management Server
1 x dev01 Dev Server

Objectives of this module:

- Explain what Configuration Management is
- Summarize the Architecture of Ansiblei

---

demo01

This demo starts near the start of the module. The intent is to do the manual install of several applications Instructor lead install of packages on ansible test machine.
Install packages (to be updated when test application is known)

```
$ sudo apt-get install htop
$ sudo apt-get install nmon
$ sudo apt-get install tree
```

Instructor lead install of application x on ansible test machine.

```
$ sudo apt-get install
$ git clone <url>
```

Instructor lead moving of configuration for wordpress application

```
$ scp source destination
```

Instructor lead starting of application x

```
$ sudo start application x
```

Instructor valdiation of applicatio x functionality

```
Open browser, go to http(s)//localhost:<port>
```

demo 02

This demo kicks off during the python block of instruction and continues to run in concert to the lectures covering python, apt-get ansible, ansible.cfg, inventory.ini, and core modules.

Python version

Python version 2.x is the base requirement for Ansible. To check for version of Python, run python:

```
$ python
Python 2.7.6 (default, Jun 22 2015, 17:58:13)
[GCC 4.8.2] on linux2
Type "help," "copyright", "credits" or "license" for more information.
>>> exit()
$
```

Install Ansible

Dependencies: software-properties-common

```
$ sudo apt-get -y install software-properties-common
$ sudo apt-add-repository -y ppa:ansible/ansible
$ sudo apt-get update
$ sudo apt-get -y install ansible
```

Once Ansible is installed, Ansible is tested

```
$ ansible
Usage: ansible <host-pattern> [options]
Options:
 -a MODULE_ARGS, --args=MODULE_ARGS
                       module arguments
 --ask-become-pass     ask for privilege escalation password
 -k, --ask-pass        ask for connection password
 --ask-su-pass         ask for su password (deprecated, use become)
 -K, --ask-sudo-pass   ask for sudo password (deprecated, use become)
 --ask-vault-pass      ask for vault password
```

Check the installed version of ansible:

```
ansible --version
ansible 2.0.0.2
 config file = /home/vagrant/ansible.cfg
 configured module search path = Default w/o overrides
```

Overview of the /etc/ansible/ansible.cfg file

The ansible.cfg maintains the configuration parameters of Ansible. Student and Instructor open /etc/ansible/ansible.cfg and discuss content. On Ansible Control Server <lab_server_name>, run the following:

```
$ cat /etc/ansible/ansible.cfg
```

Overview of the /etc/ansible/hosts file

The hosts (inventory file) provides a list of potential ansible targets. Student and Instructor open /etc/ansible/hosts and discuss content. On Ansible Control Server <lab_server_name>, run the following:

```
$ cat /etc/ansible/hosts
```

Overview of install CORE modules

The ansible Core modules are modules that ship Ansible. link: https://github.com/ansible/ansible-modules-core

```
$ ansible-doc --list
```

recap architecture

The above demos are instructor lead and used to illustrate the architecture of ansible from a high level.