



ANSIBLE

ANSIBLE BASIC LAB MANUAL

Student Lab Kit v1.1

ABSTRACT

This lab manual is designed for students who are interested in Ansible Basic Automation

Confidential Document

Installing Ansible

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Lab Overview and objectives

The purpose of this lab is to perform installation of Ansible on the hivemaster host, in order to be able to fully-manage the other two remote servers automatically.

All of these systems are as close as possible to a fresh install of the system (with the exception of some minor changes, such as creating a "student" user, allowing login using an SSH public key, and disabling firewalld and SELinux).

Guided Tasks

Task 1: Login to Ansible Control Node (hivemaster host)

As you already seen in the previous lab, each of you has a pod with 3 machines:

- Ansible server (Control Node) – **ansible-XX-01-hivemaster**
- Ubuntu server (Controlled Node 1) – **ansible-XX-02-ubuntu**
- CentOS server (Controlled Node 2) – **ansible-XX-03-centos**

Assuming that you have already performed the login in the previous lab, you may use that connection, otherwise you can open a new connection to you own **ansible-XX-hivemaster** host.

```
ssh -p 22 user@ansible-XX-hivemaster.vms.sass.ro
```

If the connection is successful, your prompt should look like:

```
student@ansible-00-01-hivemaster:~$
```

Task 2: Installing prerequisites

Our control node (hivemaster) is running Ubuntu 18.04, and in order to install Ansible we are going to use Ubuntu package manager (APT). Before installing Ansible we have to install some prerequisites and to add Ansible official repository. In order to perform these, we have to run the following command using privilege escalation (using sudo):

```
student@ansible-00-01-hivemaster:~$ sudo apt update
student@ansible-00-01-hivemaster:~$ sudo apt -y install software-properties-common
```

Task 3: Add Ansible official repository

We are going to add the Ansible official repository using `apt-add-repository` command:

```
student@ansible-00-01-hivemaster:~$ sudo apt-add-repository
ppa:ansible/ansible
[...]

http://ansible.com/
More info: https://launchpad.net/~ansible/+archive/ubuntu/ansible
Press [ENTER] to continue or Ctrl-c to cancel adding it.
[...]
Fetched 17.0 kB in 1s (17.6 kB/s)
Reading package lists... Done
```

Now let's run again `apt update` command:

```
student@ansible-00-01-hivemaster:~$ sudo apt update
```

Task 4: Install Ansible

After preparing the host, we can properly install the latest version of Ansible:

```
student@ansible-00-01-hivemaster:~$ sudo apt install ansible -y
```

Task 5: Check Ansible version

In order to make sure that we have properly installed the latest version of Ansible (from the repository which we just added) and not an older one from Ubuntu repository, we have to run the following ansible command:

```
student@ansible-00-01-hivemaster:~$ ansible --version
ansible 2.9.1
  config file = /etc/ansible/ansible.cfg
  configured module search path =
[u'/home/student/.ansible/plugins/modules',
u'/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python2.7/dist-
packages/ansible
  executable location = /usr/bin/ansible
  python version = 2.7.15+ (default, Jan 1 2040, 17:39:04) [GCC 7.4.0]
```

You Ansible version should be at least (or higher) than the one in the example (2.9.1).

Task 6: Explore Ansible command options

As we installed Ansible, let's explore the Ansible command options available, because we are going to use some of them in this training, while others you may need to use in your everyday work:

```
student@ansible-00-01-hivemaster:~$ ansible --help
```