**Ansible Assignment 5**

1. How can I set the PATH variable for a task or any other environment variable?

* To set the environment variable we will use the keyword environment in the play. It can be used at the task or other levels in the play. for eg.

hosts: servers

environment:

PATH: "{{ ansible\_env.PATH }}:/thingy/bin"

SOME: value

or eg below to set a language

shell:

cmd: date

environment:

LANG=fr\_FR.UTF-8

1. How can encrypted passwords for the user module be generated?

* on most of the linux system we have utility called mkpasswd with the help of it we can generate. below is the command

ansible all -i localhost, -m debug -a "msg={{ 'mypassword' | password\_hash('sha512', 'mysecretsalt') }}"

* on system like mac we can use python
* pip install passlib

python -c "from passlib.hash import sha512\_crypt; import getpass; print(sha512\_crypt.using(rounds=5000).hash(getpass.getpass()))"

1. How can a list of hosts in a group be looped over within a template?

* This can be done by accessing the “$groups” dictionary in the template as syntax:

{% for host in groups['db\_servers'] %}

{{ host }}

{% endfor %}

* First we need to ensure that the facts are populated, For instance a play that talks to db\_servers:1
  + hosts: db\_servers

tasks:

* + debug: msg="Something to debug"
* Now, we can use within a template, eg.

{% for host in groups['db\_servers'] %}

{{ hostvars[host]['ansible\_eth0']['ipv4']['address'] }}

{% endfor %}.

1. What is the best way to see all of my host's inventory variables?

* you can see inventory variables for a host using command  
   **ansible-inventory --list --yaml**
* Now to see all host specific variables, which may include facts and other sources to check that run below command.

**ansible -m debug -a "var=hostvars['hostname']" localhost**

1. How should I set up a jump host to connect to servers that I don't have direct access to?

* this can be achieved by setting a ProxyCommand in ansible\_ssh\_common\_args inventory variable,
* since any arguments specified in this variable are added to the sftp/scp/ssh command line when connecting to the relevant host(s).
* For example

[gatewayed]

staging1 ansible\_host=15.0.2.1

staging2 ansible\_host=15.0.2.2

* To create a jump host for these we need to add a command in ansible\_ssh\_common\_args

ansible\_ssh\_common\_args: '-o ProxyCommand="ssh -W %h:%p -q user@gateway.example.com"'

* In this way whenever we will try to connect to any host in the GATWAY group ansible will append these arguments to the command line.

1. How do you deal with different machines that require different user accounts or ports to log in?

* In this type of scenarios we can set inventory variables in the inventory file it is the easiest way to do
* For eg. suppose these hosts have different usernames and ports:

[webservers]

asdf.example.com ansible\_port=5000 ansible\_user=ronak1

jkl.example.com ansible\_port=5001 ansible\_user=ronak2

* we can also try dictate the connection type to be used, if you want:

[testcluster]

localhost ansible\_connection=local

/path/to/chroot1 ansible\_connection=chroot

bar.example.com ansible\_connection=paramiko

1. Assume you're configuring the production environment with Ansible, and your playbook uses an encrypted file. Passwords must be entered while using encrypted files. Can this process be automated, though, given Ansible is utilized for automation?

* Of course security is the atmost in REDHAT Ansilbe, so answer is yes because ansible uses a feature called password file where all the passwords to your encrypted files can be saved.
* so whenever each user is asked for the password, he can simply make a call to the password file.
* The password is automatically read and entered by Ansible.
* command is:

ansible-playbook launch.yml --vault-password-file ~/ .vault\_pass.txt

* we can also have a separate script that specifies the passwords.
* You need to ensure the script file is executable and the password is printed to standard output for it to work without annoying errors.
* command to do that is:

ansible-playbook launch.yml --vault-password-file ~/ .vault\_pass.py

8. Is Ansible a free and open-source software?

* Yes, Ansible is open source. It simply means that you take existing modules and rewrite them as per requirements.
* Ansible is an open-source automated engine that lets you automate your application.