Lab8 - Ansible

Ansible ssh and inventory file prepare

1. Start master, worker1 and centos-worker vagrant VMs
2. On ansible management node, generate ssh keys
   - Add the public key to the authorized_keys file on ansible target hosts (worker1 & centos-worker.
   - Try ssh connection with keys, from ansible management node to ansible hosts.
3. Add target hosts to inventory file.

Ansible ad hoc commands

4. Using ansible ping module, validate the connection between ansible management and target hosts.
5. Gather facts about all hosts
6. Get the uptime of remote hosts using ansible ad hoc command.
7. Check the memory usage of hosts.

Ansible playbook

8. Create a playbook which install nginx package on hosts
   - Apply the playbook.
   - Is there any errors ? Why ?
9. Add a condition to the playbook to provision only hosts of the Debian family.
   - Apply the playbook.
10. Modify the playbook to provision only hosts of the Redhat family.

Ansible handler and tag

11. Create a handler that start nginx when it is installed.
12. Apply the playbook.
    - Is everything ok ?
13. Modify the playbook to install mariadb too.

14. Apply 2 tags to the playbook :
- Installation part of nginx
- Installation part of mariadb.

15. On the command line run just the part that install mariadb.

Ansible variables

16. Create a playbook that:
- Find log files in the /var/log directories, then
- Capture the output to find_output variable

17. Apply the playbook.

18. Modify the playbook to copy the log file to the same names with _bkp extension.

Using Jinja2 template

19. Create a playbook that use the template module on the example1 Jinja2 file.
- When applying the playbook on the hosts, it must write the following lines to /tmp/output.txt file:

Hello !!!

No effects on this line

DevOps

20. Apply the playbook.
- Check /tmp/output.txt file on every host.
- Is everything OK ?

21. Create a playbook that use the template module on the example2 Jinja2 file.
- When applying the playbook on the hosts, it must write the following lines to /tmp/output.txt file (**use a loop**):

LPI DevOps Tools Engineer:

- Git

- Docker

- K8s

- Ansible

- Jenkins

- Check /tmp/output.txt file on every host.
- Is everything OK ?

Security of playbooks

22. Encrypt the last created playbook in this Lab

- View the content of the playbook file with linux command. Is there any problem ?
- View the content of the playbook with ansible-vault commad. Is everything Ok ?

23. Decrypt the playbook file.

- Can you now viewing its content with linux command ?

24. Create a new encrypted playbook.

- Change its key to lpi_devops.