

Task Configuration management

1. Which ansible command can display all ansible_ configuration for a host.

```
ansible <hostname> -m setup # here hostname is changeable . e
xample if we want to check db-vm1 we need to write
```

```
ansible db-vm1 -m setup
```

2. Please configure a cron job that runs logrotate on all machines every 10 minutes between 2h - 4h.

```
---
- hosts: all
  become: yes
  tasks:
    - name: Set up logrotate cron job
      cron:
        name: "Run logrotate every 10 minutes between 2-4 AM"
        minute: "*/10" # we Specified our cron job should run
every 10 minutes
        hour: "2-3" # we Specified the hours during which the
cron job should run on our targeted machine
        job: "/usr/sbin/logrotate /etc/logrotate.conf"
```

3. Please deploy ntpd package to the following 3 servers:

```

- hosts: # we manually write hostname here although we can al
so write -all to define all hosts
  - appvm1
  - db-vm1
  - web-vm1
become: yes
tasks:
  - name: Update apt cache
    apt:
      update_cache: yes
      cache_valid_time: 3600

  - name: Install ntpd package
    apt:
      name: ntp
      state: present # using this command we are ensuring t
hat this package is present on this system if not ansible wil
l install it

  - name: Deploy custom ntpd configuration
    template:
      src: "{{ playbook_dir }}/ntpd.conf.j2" # we specified
the jinja2 templates path here
      dest: /etc/ntp.conf # we Specified where the rendered
template will be deployed
      notify: Restart ntpd

handlers:
  - name: Restart ntpd
    systemd:
      name: ntp
      state: restarted
      daemon_reload: yes

```

```

master@master:~$ nano ntpd.conf.j2
master@master:~$ nano deploy_ntpd_pkg.yml
master@master:~$ ansible-playbook deploy_ntpd_pkg.yml -K
BECOME password:

PLAY [appvm1,db-vm1,web-vm1] *****

TASK [Gathering Facts] *****
ok: [web-vm1]
ok: [db-vm1]
ok: [appvm1]

TASK [Update apt cache] *****
ok: [db-vm1]
ok: [web-vm1]
ok: [appvm1]

TASK [Install ntpd package] *****
ok: [appvm1]
ok: [web-vm1]
ok: [db-vm1]

TASK [Deploy custom ntpd configuration] *****
changed: [db-vm1]
changed: [appvm1]
changed: [web-vm1]

RUNNING HANDLER [Restart ntpd] *****
changed: [web-vm1]
changed: [appvm1]
changed: [db-vm1]

PLAY RECAP *****
appvm1      : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
db-vm1      : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
web-vm1     : ok=5    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

master@master:~$
```

pic: ntpd successfully running on all servers

4- We also need to deploy monitoring template onto our nagios server
"monitoring.fra1.internal", each of the above machines should use the following nagios templates

```

- - -
- name: Deploy configuration to all machines
  hosts: all
  become: yes
  vars:
    nagios_server: 192.168.10.123

  tasks:
    - name: Ensure /etc/nagios/conf.d directory exists # checking the folder exists or not
      ansible.builtin.file:
        path: /etc/nagios/conf.d
        state: directory
        mode: '0755'
```

```

- name: Update apt cache
  ansible.builtin.apt:
    update_cache: yes
  when: ansible_os_family == "Debian"

- name: Install Nagios NRPE and plugins # Install anagios
and related plugings
  ansible.builtin.apt:
    name:
      - nagios-nrpe-server
      - nagios-plugins
    state: present # using this command we are ensuring t
hat this package is present on this system if not ansible wil
l install it
    when: ansible_os_family == "Debian" # define os here

- name: Configure NRPE # configure nrpe
  ansible.builtin.template:
    src: templates/nrpe.cfg.j2 # took the jinja templates
from templates//nrpe.cfg.j2
    dest: /etc/nagios/nrpe.cfg
    notify: Restart NRPE

- name: Configure host in Nagios # configuere nagios host
and jinja2 templates
  ansible.builtin.template:
    src: templates/host.cfg.j2
    dest: "/etc/nagios/conf.d/{{ inventory_hostname }}_ho
st.cfg"
    notify: Restart Nagios

- name: Configure services in Nagios # configure nagios s
ervice and restart nagios
  ansible.builtin.template:
    src: templates/services.cfg.j2
    dest: "/etc/nagios/conf.d/{{ inventory_hostname }}_se

```

```

rvices.cfg"
    notify: Restart Nagios

handlers:
  - name: Restart NRPE
    ansible.builtin.service:
      name: nagios-nrpe-server
      state: restarted

  - name: Restart Nagios
    ansible.builtin.service:
      name: nagios4
      state: restarted

```

```

ok: [app-vm1]

TASK [Ensure /etc/nagios/conf.d directory exists] *****
ok: [app-vm1]
ok: [db-vm1]
ok: [web-vm1]

TASK [Update apt cache] *****
changed: [web-vm1]
changed: [app-vm1]
changed: [db-vm1]

TASK [Install Nagios NRPE and plugins] *****
ok: [db-vm1]
ok: [app-vm1]
ok: [web-vm1]

TASK [Configure NRPE] *****
ok: [web-vm1]
ok: [app-vm1]
ok: [db-vm1]

TASK [Configure host in Nagios] *****
ok: [web-vm1]
ok: [db-vm1]
ok: [app-vm1]

TASK [Configure services in Nagios] *****
ok: [app-vm1]
ok: [web-vm1]
ok: [db-vm1]

PLAY RECAP *****
app-vm1      : ok=7  changed=1  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
db-vm1      : ok=7  changed=1  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
web-vm1     : ok=7  changed=1  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

nagios@nagios:~$ sudo systemctl restart nagios4
nagios@nagios:~$

```

pic : successfully deploy templates in all three machines