ANSIBLE LOOPS

```yaml
---

- name: New playbook
  hosts: all
  gather_facts: false
  tasks:
    - name: Copy files
      copy:
        src: "{{ item }}"
        dest: /root/
      loop:
        - newfile1.txt
        - newfile2.txt
        - newfile3.txt
        - newfile4.txt
        - newfile5.txt
...
```

Multiple Loops

```yaml
---

- name: New playbook
  hosts: all
  gather_facts: false
  tasks:
    - name: Copy files
      copy:
        src: "{{ item.src }}"
        dest: "{{ item.dest }}"
      loop:
        - src: newfile1.txt
          dest: /root
        - src: newfile2.txt
          dest: /home
        - src: newfile3.txt
          dest: /
        - src: newfile4.txt
          dest: /home/deep
        - src: newfile5.txt
          dest: /home/managed1
```

To make Ansible easier

Create a ".vimrc" file in the home directory of the user

```
set ai
set expandtab
set tabstop=2
set cursorcolumn
```

Ignore Errors

```yaml
---

hosts: all
tasks:
   - yum:
       name: httpd
       state: absent
     ignore_errors: yes

   - name: Copy a file
     copy:
       src: content.txt
       dest: /home

name: Second Play
hosts: webserver
tasks:
   - name: Create a User
     user:
       name: abcde
```

ANSIBLE CONDITIONALS

```yaml
---

name: Install packages
hosts: all
tasks:
  - name: Install Apache on servers
    apt:
      name: apache2
      state: present
    when: ansible_distribution == "Ubuntu"

  - name: Install Apache on servers
    yum:
      name: httpd
      state: present
    when: ansible_distribution == "RedHat"
```

```yaml
name: Install packages
hosts: all
vars:
  package_name: php
tasks:
  - name: Install Apache on servers
    apt:
      name: apache2
      state: present
    when: ansible_distribution == "Ubuntu"

  - name: Install Apache on servers
    yum:
      name: httpd
      state: present
    when: ansible_distribution == "RedHat"

  - name: Install package
    yum:
      name: "{{ package_name }}"
      state: present
    when: ansible_memtotal_mb > 2000 or ansible_distribution == "RedHat"

  - name: create a user
    user:
      name: qwerty
```

Usable Conditionals

1. ==
2. <
3. >
4. <=
5. >=
6. !=
7. (Var/fact) is defined
8. (Var/fact) is not defined
9. "or" and "and" can be used

ANSIBLE HANDLERS

Handler is a task that is dependent on another task

```yaml
---

- name: Apache Webserver setup
  hosts: all
  gather_facts: false
  tasks:
    - name: Install the package
      dnf:
        name: httpd
        state: latest

    - name: Copy website content
      copy:
        src: index.html
        dest: /var/www/html/index.html

    - name: Create a directory
      file:
        path: /var/www/webserver
        state: directory

    - name: Copy Website content 2
      copy:
        src: index2.html
        dest: /var/www/webserver/index.html

    - name: Copy config file
      copy:
        src: 1.conf
        dest: /etc/httpd/conf/1.conf
      notify: service_restart

    - name: See output
      command: "curl localhost"
      register: redhat

    - name: Print the output
      debug:
        var: redhat.stdout_lines

  handlers:
    - name: service_restart
      service:
        name: httpd
        state: restarted
...
```

JINJA TEMPLATE

```
THIS MACHINE'S NAME IS {{ ansible_hostname }} AND THE IP IS {{ ansible_default_ipv4.address }}
THE TOTAL MEMORY IS {{ ansible_memtotal_mb }}
THE OS IS {{ ansible_distribution }}
USING THIS PACKAGE {{ package_name }}

{# This File is just for testing purpose #}

172.25.10.0
172.25.10.20

{% for number in range (0,21) %}
172.25.10.{{ number }}
{% endfor %}

{{ ansible_cmdline | to_nice_yaml }}
```

```yaml
---

- name: Copy content
  hosts: all
  vars:
    package_name: PHP
  tasks:
    - name: Info about node
      template:
        src: info.txt
        dest: /root
...
```

PARALLELISM

Fork Value
(default with value as 5)

Run the 1st Task on the First 5 Nodes and 1st Task on next 5 Nodes and 1st Task on next 5 Nodes.....

Serial Value
(if value is 5)

Run the whole playbook on the First 5 Nodes and whole playbook on next 5 Nodes and whole playbook on next 5 Nodes.....