

Ansible Terminology & Basic Usage Scenario

Inventory

```
server1.mycompany.com
```

```
[database]
```

```
db1.mycompany.com
```

Direct Commands

```
$ ansible database -i inventory -m ping
db1.mycompany.com | success >> {
    "changed": false,
    "ping": "pong"
}
```

```
$ ansible database -i inventory \
    -m apt -a "name=mysql-server state=present"
db1.mycompany.com | success >> {
    "changed": true,
    "stderr": "",
    "stdout": "...
}
```

Playbook

playbook.yml:

```
--  
- hosts: all  
  tasks:  
  
    - apt: update_cache=yes cache_valid_time=36000  
  
- hosts: database  
  tasks:  
  
    - apt: name=mysql-server state=present  
  
    - template: src=nginx.conf.j2  
                dest=/etc/nginx/nginx.conf
```

run playbook:

```
$ ansible-playbook -i inventory playbook.yml
```

Variables

playbook.yml:

```
--  
- hosts: all  
  tasks:  
    - name: Update package list  
      apt: update_cache=yes cache_valid_time=36000  
  
- hosts: database  
  vars:  
    fixture_name: fixtures.sql  
  
  tasks:  
    - name: Install MySQL  
      apt: name=mysql-server state=present  
  
    - name: Copy fixtures  
      copy: src={{fixture_name}}  
            dest=/tmp/{{fixture_name}}
```

Loops

playbook.yml:

--

- hosts: all

tasks:

- name: Install packages

apt: name={{item}} state=present

with_items:

- python

- python-pip

- vim

Variables + Loops

playbook.yml:

```
--  
- hosts: all  
  vars:  
    packages:  
      - python  
      - python-pip  
      - vim  
  
  tasks:  
    - name: Install packages  
      apt: name={{item}} state=present  
        with_items: packages
```

Directory Structure Part 1

directory structure:

inventory

deploy.yml

group_vars/
 all
 database

host_vars/
 server1.mycompany.com

run playbook:

```
$ ansible-playbook -i inventory deploy.yml
```


Directory Structure Part 2

directory structure:

```
staging/  
  hosts  
  group_vars/...  
  host_vars/...
```

```
live/  
  hosts  
  group_vars/...  
  host_vars/...
```

```
deploy.yml
```

run playbook:

```
$ ansible-playbook -i staging deploy.yml
```

Role Part 1

directory structure:

inventory/...

roles/

common/...

database/...

webserver/...

site.yml

run playbook:

```
$ ansible-playbook -i inventory site.yml
```

Role Part 2

directory structure:

inventory/...

roles/

 common/

 defaults/

 main.yml # default variable values

 tasks/

 main.yml # tasks

 database/...

 webserver/...

site.yml

Role Part 3

directory structure:

```
inventory/...  
  
roles/  
  common/  
    defaults/  
      main.yml  
    tasks/  
      main.yml  
    files/  
      myserver.py  
    templates/  
      config.py.j2  
  
database/...  
  
webserver/...  
  
site.yml
```

Dependency Part 1

directory structure:

inventory/...

roles/

common/...

database/...

nginx/...

uwsgi/...

webserver/

defaults/...

tasks/...

files/...

meta/

main.yml

templates/...

site.yml

dependencies:

- common
- uwsgi
- nginx

Dependency Part 2

site.yml:

```
--  
- hosts: webserver  
  roles:  
    - common  
    - nginx  
    - uwsgi  
    - webserver  
  
- hosts: database  
  roles:  
    - common  
    - mysql
```

site.yml:

- hosts: webservers
 roles:
 - webserver
- hosts: database
 roles:
 - mysql

To summarise:

- Inventory
- Modules
- Playbooks
- Roles

Chef vs Ansible

	Ansible	CHEF
	Roles	Cookbooks
	TOWER	CHEF MANAGE
	Modules	In Built resources
	GALAXY	Supermarket
	Playbook	Recipe
	Inventory	List of Servers