

# Ansible

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**C'est quoi?** . écrit en python . outils d'orchestration de serveur . gestion de configuration . execution de taches (idempotent) sur les machines ciblées

**Point fort** . open source . simple . facile d'utilisation . facile de compréhension

## Syntax de Ansible

host\_vars/ hostname1.yml # here we assign variables to particular systems hostname2.yml  
playbook.yml roles: # ON APPELLE des FICHS de 'roles' MODULES common: # this hierarchy  
represents a "role" tasks: # main.yml # ←- tasks file can include smaller files if warranted handlers:  
# main.yml # ←- handlers file templates: # ←- files for use with the template resource ntp.conf.j2 #  
←----- templates end in .j2 files: # bar.txt # ←- files for use with the copy resource foo.sh # ←- script  
files for use with the script resource vars: # main.yml # ←- variables associated with this role  
defaults: # main.yml # ←- default lower priority variables for this role meta: # main.yml # ←- role  
dependencies library: # roles can also include custom modules module\_utils: # roles can also  
include custom module\_utils lookup\_plugins: # or other types of plugins, like lookup in this case

**TIP** | créer facilement la structure d'un rôle

```
ansible-galaxy init myrole
```

**TIP** | Running a playbook

```
ansible-playbook playbook.yml
```

# Modules

## NOTE

[https://docs.ansible.com/ansible/latest/modules/modules\\_by\\_category.html](https://docs.ansible.com/ansible/latest/modules/modules_by_category.html)

1. Cloud: Amazon, cloudStack, Openstack, etc
2. Commands: shell, script, expect, etc
3. Database: mysql, postgresql, redis, , etc
4. Files: copy, fetch, lineinfile, template,
5. Messaging: rabbitmq,
6. Notification: irc, mail, jabber,
7. Packaging: apt, yum, pip, bower, npm
8. Source control: git, mercurial, svn, etc
9. System: user, group, etc
10. Docker: image, container, etc

## Structure du fichier Playbook.yml

### 1. Hosts

```
$ sudo mkdir /etc/ansible
$ sudo vim /etc/ansible/hosts
```

## TIP

mettre dans un fichier les hosts

```
*[example]*
192.0.2.101
192.0.2.102
```

### 2. Tasks

- hosts: all user: root sudo: no vars: aaa: bbb tasks:
- ... handlers:
- ...

### 3. Inclure dans Ansible → 'Includes'

- tasks:
- include: db.yml

- handlers:
- include: db.yml user=timmy

## 4. Handlers

### handlers:

- name: start apache2 action: service name=apache2 state=started

**tasks:** - name: install apache action: apt pkg=apache2 state=latest notify: - start apache2 == Vars

- host: lol vars\_files:
- vars.yml vars: project\_root: /etc/xyz tasks:
- name: Create the SSH directory. file: state=directory path=\${project\_root}/home/.ssh/ only\_if: "\$vm == 0"

## 5. Roles

- host: xxx roles:
- db
- { role:ruby, sudo\_user:\$user }
- web

```
# Uses:
roles/db/tasks/*.yaml
roles/db/handlers/*.yaml
```

## 5. Task: Failures

- name: my task command: ... register: result failed\_when: "'FAILED' in result.stderr" ignore\_errors: yes changed\_when: "result.rc != 2"

## 6. Env vars

```
vars:
  local_home: "{{ lookup('env', 'HOME') }}"
```