

ANSIBLE

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DAY 2 AGENDA

- ▶ Ansible playbook
- ▶ Ansible modules
- ▶ Tags
- ▶ Variables

PLAYBOOK

- A **playbook** is a list of **plays**.
- **playbook**: Playbook is the language Ansible uses to orchestrate, configure, administer, or deploy systems.
- **Play**: is a mapping between a set of hosts (groups, hostnames, or IPs) and the tasks which run on those hosts to define the role that those systems will perform.
- There can be **one or many plays** in a playbook.

Examples:

```
- name: your play name
  hosts: all
  tasks:
    - name: your task name
      ping:
```

- ▶ Write your first playbook file
- ▶ Stop gather_facts and update cache

PLAYBOOK



MODULES

Modules: are units of code that can control system resources or execute system commands. Ansible provides a module library that you can execute directly on remote hosts or through playbooks.

Playbook example:

```
- name: your play name
  hosts: all
  tasks:
    - name: your task name
      ping:
```

Ad-hoc command example:

```
ansible all -m ping
```

- ▶ Explore some built-in modules like:

(**apt, dnf, package, service, command, copy, user, group, lineinfile, authorized_key, etc.**)

[ansible-builtin modules](#)

- ▶ Update cache
- ▶ Install latest nginx
- ▶ Copy index.html from controller to host 1
- ▶ Restart nginx service
- ▶ Can you see your index.html file when you hit host 1 on port 80 ?



MODULES

TAGS

Tags: Running only specific parts of a playbook instead of running the entire playbook.

Example:

- name: my play with tags
hosts: all
tasks:
- name: my task1 with tags
tags: my_first_tag
ping:
- name: my task2 with tags
tags: my_second_tag
ping:

```
ansible-playbook my-playbook.yml --tags my_first_tag
```

- ▶ Write simple playbook file
- ▶ Add two tasks (apt update – apt install nginx)
- ▶ Add tags to first task: update
- ▶ Add tags to second task: install
- ▶ Run only the (apt update) task
- ▶ Example: `ansible-playbook my-playbook.yml --tags update`
- ▶ Add one task with “tags: always” and run the previous command again



TAGS

VARIABLES

Variables: Ansible uses variables to manage differences between systems.

Locations:

- Playbooks
- Inventory
- Command Line
- Register
- Files or Roles

example:

```
- name: my play with variables
  hosts: all
```

vars:

```
  package: nginx
  version: latest
```

tasks:

```
- name: my task with variables
  apt:
    name: "{{ package }}"
    state: "{{ version }}"
```

Define these variables (package_name, package_version)

- ▶ on playbook level
- ▶ on inventory level
- ▶ on command line level

Use apt module with the package name and version from your variables

VARIABLES

