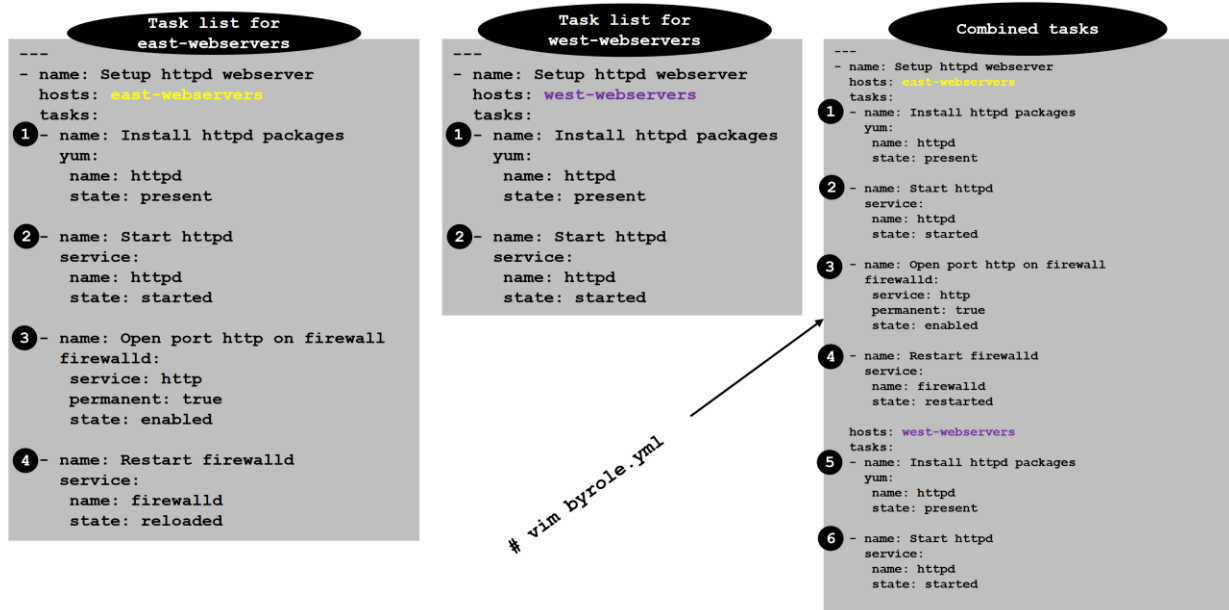


Role

- Roles simplifies long playbooks by grouping tasks into smaller playbooks

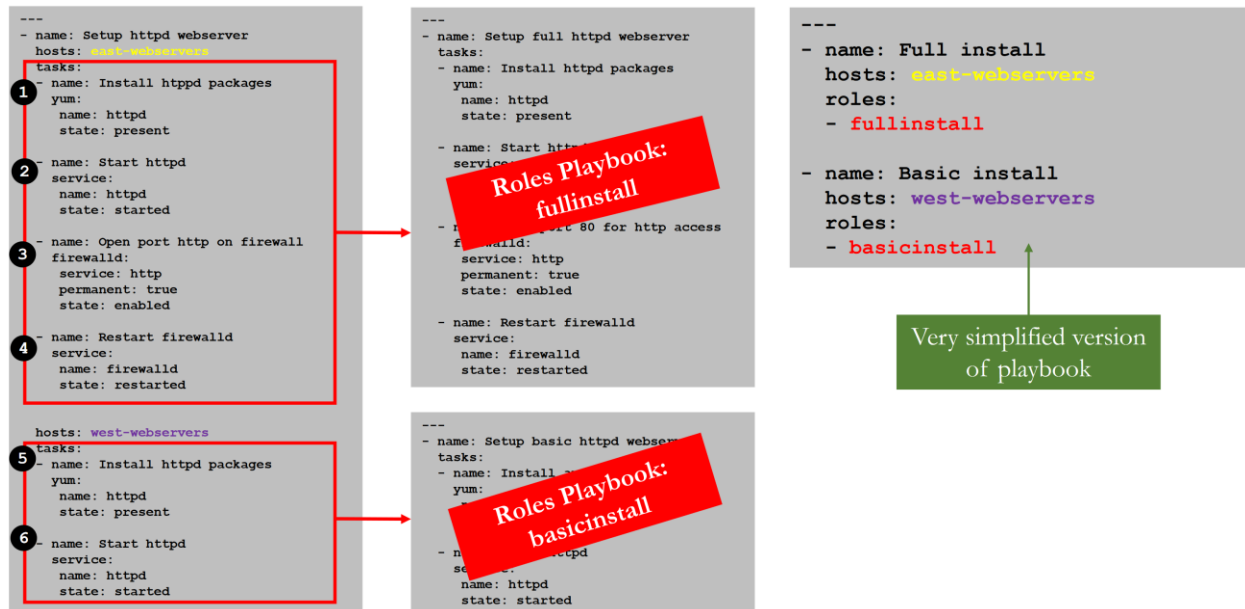
OR

- The role are the way of breaking a playbook into multiple playbook files. This simplifies writing complex playbooks, and it makes them easier to reuse
- Writing ansible code to manage the same service for multiple environments creates more complexity and it becomes difficult to manage everything in one ansible playbook. Also sharing code among other teams become difficult. That is where Ansible Role helps solve these problems
- Roles are like templates that are most of the time static and can be called by the playbooks
- Roles allow the entire configuration to be grouped in:
 - Tasks
 - Modules
 - Variables
 - Handlers



This way we need to do all task in a single file.

Now we use this by role in the following way:



- Please note roles can be grouped by type of servers, type of applications or organizational requirement
- To create roles

```
# Go to ControlNode
# cd /etc/ansible/roles
```

Make directory for each role

```
# e.g mkdir [rolenames]
# mkdir basicinstall
# mkdir fullinstall
```

You can also create roles based on the type of servers:

```
e.g. # mkdir webservers
# mkdir dbservers
# mkdir appservers
```

Create sub-directory **tasks** within each directory

```
# mkdir basicinstall/tasks
# mkdir fullinstall/tasks
```

Create yml files within these sub-directories

```
# touch basicinstall/tasks/main.yml
# touch fullinstall/tasks/main.yml
```

Roles by Application

```
---
- name: Install packages
  hosts: all
  tasks:
    - name: Install Apache package
      yum:
        name: httpd
        state: present
    - name: Install Time package
      yum:
        name: ntpd or chrony
        state: present
    - name: Install DNS package
      yum:
        name: named
        state: present
```

- To create roles
 - # Go to ControlNode
 - # cd /etc/ansible/roles

Make directory for each role

```
# mkdir apache
# mkdir ntpd
# mkdir named
```

Create sub-directory **tasks** within each directory

```
# mkdir apache/tasks
# mkdir ntpd/tasks
# mkdir named/tasks
```

Create yaml files within these sub-directories

```
# touch apache/tasks/main.yml
# touch ntpd/tasks/main.yml
# touch named/tasks/main.yml
```

```
---
- name: Install packages
  hosts: all
  roles:
    - apache
    - ntpd
    - named
```

You can find a ton of resources on roles through Ansible galaxy

You can download pre-defined or pre-written roles from the Ansible galaxy

<https://galaxy.ansible.com/ui/>

Ansible Galaxy

Thanks for trying out the new and improved Galaxy, please share your feedback on forum.ansible.com/

Roles

Keywords users x Clear all filters

1 - 10 of 227

	mulholland.users Provided by mulholland Manages users and groups system	Updated 6 months ago v1.1.0 98 Downloads
	xanmanning.github_users Provided by xanmanning Create users on a system from GitHub / GitHub organisations accounts authentication github 3 more	Updated 4 years ago v0.1.3 21 Downloads

Lab:

full install does in host file

basic install does in ansible controller

so we need to create 3 following file

/etc/ansible/playbook/role-use.yml

/etc/ansible/role/fullinstall/tasks/main.yml

/etc/ansible/role/basicinstall/tasks/main.yml

main play book file

/etc/ansible/playbook/role-use.yml

```
---
- name: Full install
  hosts: all
  roles:
    - fullinstall

- name: Basic install
  hosts: localhost
  roles:
    - basicinstall
```

/etc/ansible/role/fullinstall/tasks/main.yml

```
---
- name: Install httpd package
  yum:
    name: httpd
    state: present

- name: Start httpd
  service:
    name: httpd
    state: started

- name: Open port for http
  firewallld:
    service: http
    permanent: true
    state: enabled

- name: Restart firewallld
```

```
service:
  name: firewalld
  state: reloaded
```

if the os is centos

/etc/ansible/role/basicinstall/tasks/main.yml

```
---
- name: Install httpd package
  yum:
    name: httpd
    state: present

- name: Start httpd
  service:
    name: httpd
    state: started
```

if the os is ubuntu

etc/ansible/role/basicinstall/tasks/main.yml

```
---
- name: Install httpd package
  apt:
    name: apache2
    state: present

- name: Start apache2
  service:
    name: apache2
    state: started
```