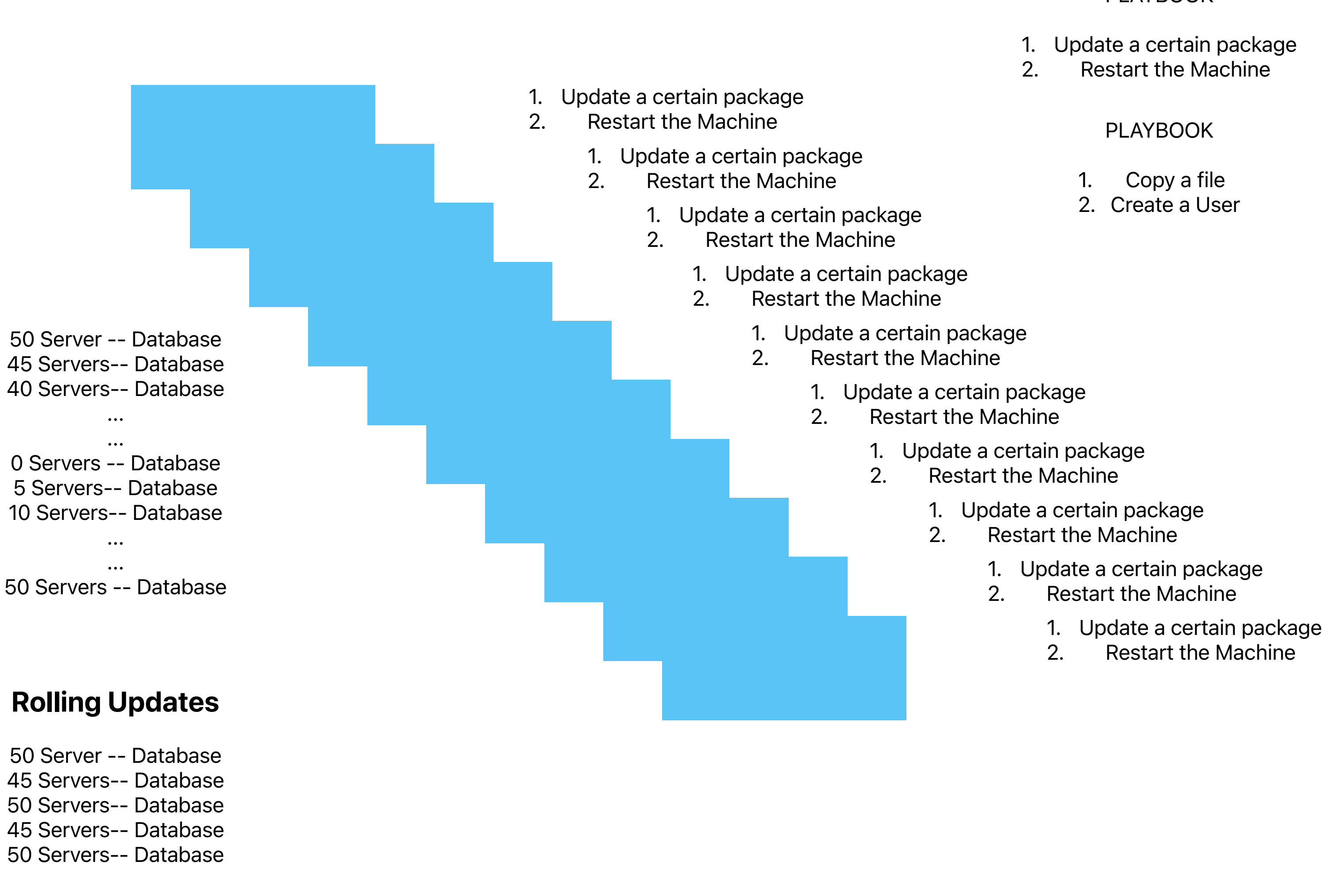


# PARALLELISM



## Rolling Updates

50 Server -- Database  
45 Servers-- Database  
50 Servers-- Database  
45 Servers-- Database  
50 Servers-- Database

## 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.....

## Including and Importing Tasks

Run the Playbook, whenever the task file is called, go to find it and then bring it inside the playbook

Before running the playbook, go and resolve all task files and bring them inside the playbook and then run the playbook

```
---
- name: New playbook
  hosts: all
  tasks:
    - name: Copy a file
      copy:
        src: abc.txt
        dest: /

    - import_tasks: tasks.yml

    - include_tasks: my_tasks.yml

    - name: Print message
      debug:
        msg: Hello Everyone
```

## Importing Playbooks

```
---
- name: New playbook
  hosts: all
  tasks:
    - name: Copy a file
      copy:
        src: abc.txt
        dest: /

    - import_tasks: tasks.yml

    - include_tasks: my_tasks.yml

    - name: Print message
      debug:
        msg: Hello Everyone

- name: Import a Playbook
  import_playbook: play9.yml

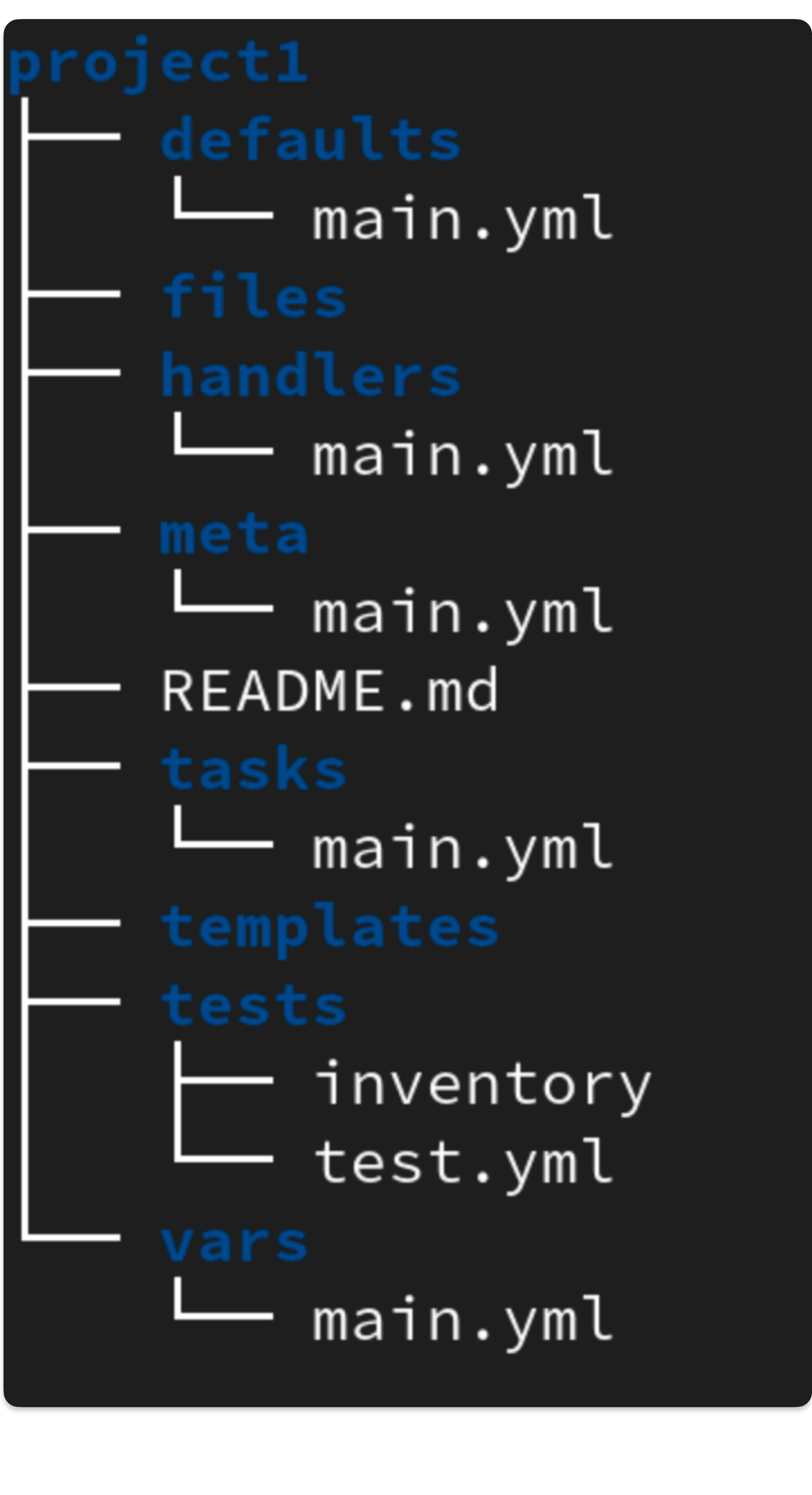
- name: Import a Playbook
  import_playbook: play8.yml

- name: Playbook for security settings
  import_playbook: play6.yml
```

# ANSIBLE ROLES

Organised Way of Managing Ansible Environment  
Makes larger projects more manageable  
Makes larger projects more shareable  
Allows for multiple admins to work parallel  
Reusability of the code increases  
Troubleshooting becomes easier

ansible-galaxy init <name\_of\_project>



- Defaults -- main.yml  
To store variables with least priority
- Files  
Use this to store all the files necessary for this role
- Handlers -- main.yml  
For writing all the handlers of this role
- Meta -- main.yml  
A predefined file used to store all your meta data
- README.md  
To write all the necessary information that a user needs to know before using this role
- Tasks -- main.yml  
For writing all the tasks
- Templates  
Use this to store all the templates necessary for this role
- Tests -- inventory -- test.yml  
You can put a copy of your playbook, and inside the inventory you can name a testing server and use this as a testing environment
- Vars -- main.yml  
To store all your variables (external)

```
---
- name: Using Roles
  hosts: all
  roles:
    - geerlingguy.docker
```

## Ansible Automation Controller (formerly known as Ansible Tower)

Centralised Hub

1. Visual Dashboard (WebGUI)
2. Role Based Access Control (RBAC)
3. Graphical Inventory Management
4. Task Management
5. Job Scheduling
6. Real Time Job Status
7. Real Time Reporting
8. User Triggered Automations
9. Credential Management
10. Centralised Logging
11. Integrated Auditing
13. Multiplaybook Workflows