

1. Connectivity & Inventory

`ansible all -m ping`

– Tests connectivity to all hosts in the inventory.

`ansible all --list-hosts`

– Displays a list of all managed nodes.

`ansible-inventory --graph`

– Shows the inventory structure in a visual hierarchy.

`ansible-config dump`

– Shows the current active configuration settings.

2. Ad-Hoc Commands (Quick Tasks)

`ansible <group> -m setup`

– Gathers all "facts" (system info) from the target hosts.

`ansible all -a "uptime"`

– Executes a raw shell command (uptime) on all hosts.

`ansible all -m apt -a "name=git state=present" -b`

– Installs a package using sudo (-b).

`ansible all -m service -a "name=ssh state=started"`

– Ensures a service is running.

`ansible all -m copy -a "src=file.txt dest=/tmp/"`

– Copies a local file to remote nodes.

3. Playbook Execution & Debugging

`ansible-playbook site.yml`

– Runs the specified playbook.

`ansible-playbook site.yml --check`

– Dry Run: Predicts changes without applying them.

`ansible-playbook site.yml --syntax-check`

– Validates YAML syntax without running.

`ansible-playbook site.yml --limit web`

– Runs the playbook only on the "web" group.

`ansible-playbook site.yml --step`

– Prompts for confirmation before every single task.

`ansible-playbook site.yml -vvv`

– Enables maximum verbosity for deep troubleshooting.

4. Security (Ansible Vault)

`ansible-vault create secret.yml`

– Creates a new encrypted data file.

`ansible-vault encrypt <file>`

– Encrypts an existing plain-text file.

`ansible-vault edit <file>`

– Decrypts, opens for editing, and re-encrypts on save.

`ansible-playbook site.yml --ask-vault-pass`

– Runs a playbook that requires a vault password.

5. Role & Galaxy Management

`ansible-galaxy init <role_name>`

– Creates the standard directory structure for a role.

`ansible-galaxy install <user.role>`

– Downloads a community role from Ansible Galaxy.

`ansible-galaxy list`

– Displays all roles currently installed on the local system.