Ansible

Playbooks

**Source: http://docs.ansible.com/ansible/latest/modules\_by\_category.html**

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ACL Module

--- # ACL MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Get ACL Information on the /etc/test.acl.txt remote file

acl: name=/etc/test.acl.txt entity=test etype=user permissions=”rw” state=present

register: aclinfo

- debug: var=aclinfo

Apache 2 Module

--- # APACHE2\_MODULE EXAMPLE

- hosts: aptserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Disable the alias module in Apache2

apache2\_module: state=present name=alias

- hosts: appserver

vars:

author\_name: Test user

vars\_files:

- vars.yml

tasks:

- name: Install Lynx on App Servers

yum: pkg=lynx state=installed update\_cache=true

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Apt Module

--- # APT MODULE EXAMPLE

- hosts: aptserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install Apache Web Server

apt: name=apache2 state=present update\_cache=yes

apt \_repository Module/Apt\_Key Example

--- # APT\_REPOSITORY MODULE EXAMPLE/ALSO APT\_KEY EXAMPLE

- hosts: aptserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install a dependency needed for apt\_repository

apt: pkg=python-apt state=latest

- name: Add the key

apt\_key: url=https://dl-ssl.google.com/linux/linux\_signing\_key.pub state=present

- name: Add the Google Repo for Ubuntu

apt\_repository: repo=’deb http://dl.google.com/linux/deb/ stable main non-free’ state=present

---

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install Apache Web Server

action: yum name=httpd state=installed

- fail: msg=”Installation Failed, this is not CentOS or RedHat Host”

when: “ansible\_os\_family != ‘RedHat’”

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AT Module

--- # AT MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: sudo

connection: ssh

gather\_facts: no

tasks:

- name: Example of a future command with the AT module

at: command=”ls /var/log > /home/test/at1.log” state=absent

kernal\_blacklist Module

--- # KERNEL\_BLACKLIST MODULE DEMO

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Blacklist the DUMMY kernel module

kernel\_blacklist: name=dummy state=absent

Command Module

--- # COMMAND MODULE EXAMPLE

- hosts: appserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Check for python packages

command: /home/test/testing/test.sh

args:

chdir: /home/test/testing

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Copy Module

--- # COPY MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Copy from the files directory test file

action: copy src=files/test4.txt dest=/home/test/test4.txt owner=test group=test mode=0655

backup=yes

Cron Module

--- # CRON MODULE EXAMPLE

- hosts: apacheweb

user: test

connection: ssh

gather\_facts: no

tasks:

- name: Add a CRON Job to the Test User

cron: name=”list dirs” minute=”0” hour=”1” job=”ls -al /var/log > /home/test/cron.log”

Debug Module

--- # DEBUG MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install web server

yum: name=httpd state=installed

- debug: msg=”Equivalent of sudo yum install httpd”

- name: How Long has the system been up?

shell: /usr/bin/uptime

register: result

- debug: var=result

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Delegate to Function Demo

--- # DELEGATE TO FUNCTION DEMO

- hosts: apacheweb

sudo: yes

user: test

connection: ssh

tasks:

- name: Run a remote ping on the application server

raw: ping -c 4 tcox5 > /home/test/Playbooks/ping.out

delegate\_to: 127.0.0.1

- name: Install a package

yum: pkg=lynx state=latest

- hosts: appserver

tasks:

- name: Install Lynx on App Servers

yum: pkg=lynx state=installed update\_cache=true

- name: Querying for Telnet Install

yum: pkg=telnet state=present update\_cache=true

- hosts: apacheweb

tasks:

- name: Install Lynx on Web Servers

yum: pkg=telnet state=installed update\_cache=true

- name: Querying for Lynx Install

yum: pkg=lynx state=present update\_cache=true

dnf Module

--- # DNF MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: DNF Update

dnf: name=”@Development tools” state=present

---

- hosts: appserver

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user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Load dummy module

modprobe: name=dummy state=absent

Error Handling

--- # ERROR HANDLING EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Execute a command that will fail

command: /bin/false

ignore\_errors: yes

- name: Install telnet

yum: pkg=telnet state=latest

Fetch Module

--- # FETCH MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

tasks:

- name: Copy remote hosts file to control server

fetch: src=/etc/hosts dest=/home/test/prefix-{{ ansible\_hostname }} flat=yes

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Filesystem Module

--- # FILESYSTEM MODULE EXAMPLE

- hosts: appserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Format the remote data partition

filesystem: fstype=ext3 dev=/dev/xvdf1

Variables at Command Line Passing

--- # VARIABLES AT A COMMAND LINE PASSING EXAMPLE

- hosts: ‘{{ hosts }}’

user: ‘{{ user }}’

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install some software

yum: pkg={{ pkg }} state=latest

get\_url Module

--- # GET\_URL MODULE EXAMPLE

- hosts: aptserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Get and download the INI file from the web server

get\_url: url=http://tcox1.mylabserver.com/mytest.ini dest=/home/test/mytest.ini mode=0440

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Git Module

--- # GIT MODULE EXAMPLE

- hosts: apacheweb

user: test

connection: ssh

gather\_facts: no

tasks:

- name: Checking out a git repo on the remote server

raw: date

Group Module

--- # GROUP MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Add a new group called newgroup

group: name=newgroup state=absent

Hostname Module

--- # HOSTNAME MODULE EXAMPLE

- hosts: aptserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Change the hostname to something else

hostname: name=tcox01

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htpasswd Module

--- # HTPASSWD MODULE EXAMPLE

- hosts: aptserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install the python dependencies

apt: pkg=python-passlib state=latest

- name: Adding a user to web site authentication

htpasswd: path=/etc/apache2/.htpasswd name=test2 state=present

Full Include Tasks

--- # FULL INCLUDE TASKS EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- include: plays/packages.yml

- name: Verify the telnet package is installed

raw: yum list installed | grep telnet > /home/test/pkgs.log

Local Action Playbook

--- # LOCAL ACTION PLAYBOOK

- hosts: 127.0.0.1

connection: local

tasks:

- name: Install Telnet Client

yum: pkg=telnet state=latest

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Local Action Demo

--- # LOCALACTION DEMO

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Ping application server before we run our install

local\_action: command ping -c 4 tcox5

- name: Install Lynx on remote server

yum: pkg=lynx state=latest

Lookup Playbook

--- # LOOKUP PLAYBOOK EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- debug: msg=”{{ lookup(‘env’,’HOME’) }} is the value listed”

Loop Playbook Examples

--- # LOOP Playbook Example

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Add a list of users

user: name={{ item }} state=present

with\_items:

- user1

- user2

- user3

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--- # LOOP Playbook Example

- hosts: apacheweb

user: test

sudo: sudo

connection: ssh

gather\_facts: no

tasks:

- name: Add a list of users

user: name=user1 state=present

Mail Module

--- # MAIL MODULE EXAMPLE

- hosts: aptserver

user: test

connection: ssh

tasks:

- name: Send an email to test user indicating build completion

mail:

host=’localhost’

port=25

to=”test”

subject=”Our Host is Finished Deploying”

body=’System called {{ ansible\_hostname }} has been successfully set up’

modprobe Module

--- # MODPROBE MODULE EXAMPLE

- hosts: appserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Add the dummy module to the remote kerneL

modprobe: name=dummy state=absent

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Mount Module

--- # MOUNT MODULE EXAMPLE

- hosts: appserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: mount the remote data partition

mount: name=/mnt/data src=/dev/xvdf1 fstype=ext3 opts=rw state=present

My First YAML Playbook

--- # My First YAML Playbook for Ansible

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

vars:

playbook\_version: 0.1b

vars\_files:

- conf/copyright.yml

- conf/webdefaults.yml

tasks:

- name: Install Apache Web Server

action: yum name=httpd state=installed

- name: Verify the Lynx Web Browser

action: yum name=lynx state=present

--- # My First YAML Playbook for Ansible

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install Apache Web Server

action: yum name=httpd state=installed

notify: Restart HTTPD

handlers:

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- name: Restart HTTPD

action: service name=httpd state=restarted

mysql\_db Module

--- # MYSQL\_DB MODULE DEMO

- hosts: appserver

user: test

sudo: yes

connection: ssh

gather\_facts: yes

tasks:

- name: Install the Python MySQL Support Libraries

yum: pkg=MySQL-python state=latest

- name: Create a New Test DB called MyNewDB

mysql\_db: name=MyNewDB state=present login\_user=root login\_password=password123

mysql\_user Module

--- # MYSQL\_USER MODULE DEMO

- hosts: appserver

user: test

sudo: yes

connection: ssh

gather\_facts: yes

tasks:

- name: Install the MySQL Python Support Library

yum: pkg=MySQL-python state=latest

- name: Create a new user called BOB and give him all access

mysql\_user: name=bob password=123password priv=\*.\*:ALL state=present login\_user=root

login\_password=password123

Package Module

--- # PACKAGE MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

tasks:

- name: Install Apache Web Server

action: package name=telnet state=latest

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Pause Module

--- # The Pause Module

- hosts: apacheweb

sudo: yes

gather\_facts: no

tasks:

- name: Install HTTPD

action: yum name=httpd state=installed

- name: Pausing

pause:

prompt: Press ENTER to Continue...

- name: Verify lynx installation

action: yum name=lynx state=present

Ping Module

--- # PING MODULE EXAMPLE

- hosts: all

user: test

connection: ssh

gather\_facts: no

tasks:

- name: Ping all the hosts

ping:

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Prompt for User Package Example

--- # PROMPT FOR USER PACKAGE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

vars:

playbook\_version: 0.01b

vars\_prompt:

- name: pkgtoinstall

prompt: Install Which Package?

default: telnet

private: no

tasks:

- name: Install the indicated package

yum: pkg={{ pkgtoinstall }} state=latest

Raw Module

--- # RAW MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Find the system uptime for the ‘hosts’ above

raw: /usr/bin/uptime > uptime.log

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run\_once Playbook Example

--- # RUNONCE PLAYBOOK EXAMPLE

- hosts: all

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Run the uptime command on all hosts and log it

raw: /usr/bin/uptime >> /home/test/uptime.log

- name: List the /var directory and log it

raw: ls -al /var >> /home/test/dir.list

run\_once: true

Script Module

--- # SCRIPT MODULE EXAMPLE

- hosts: apacheweb

user: test

connection: ssh

sudo: yes

gather\_facts: no

tasks:

- script: /home/test/Playbooks/system\_uptime.sh creates=/home/test/uptime.log

$ANSIBLE\_VAULT;1.1;AES25665656664643063623064306233383838316666346138343635

3666643037386265313462656162353130393664643332313332303633393931633964376531

300a623732633765393335666635643066353362396263646530653634636362313262616131

363462353663386338623731316437326663376261623838656666640a663062313561376231

3564323761626630313939396530363233336666316530313361313634303961373864313034

3962363332343162346261303536376362

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SELinux Module

--- # SELINUX MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Change SELinux Configuration to Permissive

selinux: policy=targeted state=permissive

Service Module

--- # SERVICE MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

tasks:

- name: Install Web Server

action: yum name=httpd state=installed

- name: Start the Web Server

service: name=httpd state=started

- name: Enable HTTPD After Reboot

service: name=httpd enabled=yes

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set\_fact Module

--- # SET\_FACT MODULE EXAMPLE

- hosts: appserver

sudo: yes

user: test

connection: ssh

gather\_facts: no

vars:

playbook\_version: 0.1

tasks:

- name: Local Variable Display

set\_fact:

singlefact: SOMETHING

- debug: msg={{ playbook\_version }}

- debug: msg={{ singlefact }}

Shell Module

--- # SHELL MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: sudo

connection: ssh

gather\_facts: no

tasks:

- name: Executing a remote command - uptime

shell: /usr/bin/uptime >> uptime.log

args:

chdir: logs/

creates: uptime.log

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Start At Playbook Example

--- # START AT PLAYBOOK EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install Telnet

yum: pkg=telnet state=latest

- name: Install Lynx

yum: pkg=lynx state=latest

- name: Install at

yum: pkg=at state=latest

Stat Module

--- # STAT MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- stat: path=/home/test/abc

register: p

- debug: msg=”The Path Exists and is a Directory”

when: p.stat.isdir is defined and p.stat.isdir

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Tag Functionality

--- # TAG FUNCTIONALITY EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Install the telnet and lynx packages

yum: pkg={{ item }} state=latest

with\_items:

- telnet

- lynx

tags:

- packages

- name: Verify that telnet was installed

raw: yum list installed | grep telnet > /home/test/pkg.log

tags:

- logging

---

- hosts: 127.0.0.1

user: root

connection: local

gather\_facts: no

tasks:

- name: Showing remote status

raw: /usr/bin/uptime > /root/uptime.logt

Unarchive Module

--- # UNARCHIVE MODULE EXAMPLE

- hosts: aptserver

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: copy and unarchive a file

unarchive: src=/home/test/local/test.tar.gz dest=/home/test/local copy=no

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Until Example

--- # UNTIL EXAMPLE

- hosts: apacheweb

sudo: yes

connection: ssh

user: test

gather\_facts: no

tasks:

- name: Installing Apache Web Server

yum: pkg=httpd state=latest

- name: Verify Service Status

shell: systemctl status httpd

register: result

until: result.stdout.find(“active (running)”) != -1

retries: 5

delay: 5

- debug: var=result

User Module

--- # USER MODULE EXAMPLE

- hosts: apacheweb

user: test

sudo: yes

gather\_facts: no

connection: ssh

tasks:

- name: Add the user called tstapache to the apache web client

user: name=tst comment=”tst user” shell=/bin/bash groups=wheel append=yes

control\_server: tcox3.mylabserver.com

web\_root: /var/www/html/

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wait\_for Module

--- # The Wait For Module

- hosts: apacheweb

sudo: yes

gather\_facts: no

tasks:

- name: Installing Apache Tomcat

action: yum name=tomcat state=installed

- name: Waiting for Port 8080 to Listen

wait\_for:

port: 8080

state: started

- name: Verifying Lynx Installation

action: yum name=lynx state=present

When Playbook Example

--- # WHEN Playbook Example

- hosts: aptserver

user: test

sudo: yes

connection: ssh

vars:

playbook\_type: conditionalexample

vars\_files:

- conf/copyright.yml

- conf/webdefaults.yml

tasks:

- name: Install Apache Appropriate to the Distribution Type (Debian/Ubuntu)

command: apt-get -y install apache2

when: ansible\_os\_family == “Debian”

- name: Install Apache Appropriate to the Distribution Type (RedHat/CentOS)

command: yum -y install httpd

when: ansible\_os\_family == “RedHat”

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Yum Module

--- # Yum Module Example

- hosts: apacheweb

user: test

sudo: yes

connection: ssh

gather\_facts: no

tasks:

- name: Equivalent of YUM UPGRADE

action: yum name=\* state=latest

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