1案例1:环境准备

1.1 问题

本案例要求准备ansible的基础环境:

- 启动6台虚拟机
- 禁用selinux和firewalld
- 编辑/etc/hosts
- 配置yum扩展源并在管理节点安装ansible

1.2 方案

此方案需要准备六台主机,1台管理主机,5台托管主机,以实现批量程序部署,批量运行命令等功能,具体要求如表-1所示:

· ·			
	主机名	Ip 地址	角色
	ansible	192.168.1.51	管理主机
	web1	192.168.1.52	托管主机
	web2	192.168.1.53	托管主机
	db1	192.168.1.54	托管主机
	db2	192.168.1.55	托管主机
	cache	192.168.1.56	托管主机

表-1

1.3 步骤

实现此案例需要按照如下步骤进行。

步骤一:基础环境准备

- 1)启动6台虚拟机,由于已经讲过怎么创建,这里不再在案例里体现
- 2) 真机配置yum仓库
 - 01. [root@room9pc01~] #tar-xf ansible_soft.tar.xz
 - 02. [root@room9pc01~] # cd ansible_soft/
 - 03. [root@room9pc01 ansible_soft] # mkdir /var/ftp/ansible
 - 04. [root@room9pc01 ansible_soft] # cp * /v ar/ftp/ansible
 - 05. [root@room9pc01 ansible_soft] # createrepo /var/ftp/ansible
 - 06. Spawning worker 0 with 1 pkgs
 - 07. Spawning worker 1 with 1 pkgs
 - 08. Spawning worker 2 with 1 pkgs
 - 09. Spawning worker 3 with 1 pkgs
 - 10. Spawning worker 4 with 1 pkgs

Top

- 11. Spawning worker 5 with 1 pkgs
- 12. Workers Finished
- 13. Saving Primary metadata
- 14. Saving file lists metadata
- 15. Saving other metadata
- 16. Generating sqlite DBs
- 17. Sqlite DBs complete

3)修改主机名(容易区分,6台机器都需要修改)这里以ansible主机为例子

```
01. [root@localhost ~] # echo ansible > /etc/hostname
```

02. [root@localhost ~] # hostname ansible

4)配置ip(6台机器都需要配置),这里以ansible主机为例子

```
01. [root@localhost ~] # v im /etc/sy sconf ig/network- scripts/if cf g- eth0
```

- 02. # Generated by dracut initrd
- 03. DEVICE="eth0"
- 04. ONBOOT="yes"
- 05. IPV6INIT="no"
- 06. IPV4_FAILURE_FATAL="no"
- 07. NM CONTROLLED="no"
- 08. TYPE="Ethernet"
- 09. BOOTPROTO="static"
- 10. IPA DDR=192. 168. 1. 51
- 11. PREFIX=24
- 12. GATEWAY=192.168.1.254
- 13. [root@localhost ~] # sy stemctl restart network
- 14. [root@localhost ~] # if config
- 15. eth0: flags=4163<UP, BROADCAST, RUNNING, MULTICAST> mtu 1500
- 16. inet 192.168.1.51 netmask 255.255.255.0 broadcast 192.168.1.255
- 17. ether 52: 54: 00: b2: 69: 9e txqueuelen 1000 (Ethernet)
- 18. RX packets 234 bytes 16379 (15.9 KiB)
- 19. RX errors 0 dropped 36 overruns 0 frame 0
- 20. TX packets 31 by tes 2618 (2.5 KiB)
- 21. TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

Top

5)配置yum客户端,在管理节点ansible上面配置

```
01.
       [root@ansible ~] # v im /etc/y um.repos.d/local.repo
02.
       [local_repo]
03.
       name=CentOS-$releasever - Base
04.
       baseurl="ftp://192.168.1.254/system"
05.
       enabled=1
06.
       gpgcheck=1
07.
08.
       [local]
09.
       name=local
10.
       baseurl="ftp://192.168.1.254/ansible"
11.
       enabled=1
12.
       gpgcheck=0
13.
       [root@ansible ~] # y um clean all
14.
       [root@ansible ~] # y um repolist
15.
       [root@ansible ~] #yum-y install ansible
16.
       [root@ansible ~] # ansible - - version
17.
       ansible 2.4.2.0
                           //显示版本说明安装成功
18.
        config file = /etc/ansible/ansible.cfg
19.
        configured module search path = [u'/root/.ansible/plugins/modules', u'/usr/share/ansik
20.
        ansible python module location = \frac{\text{Jusr}}{\text{lib}} python2.7/site-packages/ansible
21.
        executable location = /usr/bin/ansible
22.
        python version = 2.7.5 (default, Aug 4 2017, 00: 39: 18) [ GCC 4.8.5 20150623 (Red Hat
```

6)请在6台主机上面配置/etc/hosts,这里以ansible主机为例子

```
01. [root@ansible ansible] # cat /etc/hosts
02. 192.168.1.51 ansible
03. 192.168.1.52 web1
04. 192.168.1.53 web2
05. 192.168.1.54 db1
06. 192.168.1.55 db2
07. 192.168.1.56 cache
```

2 案例2:主机定义与分组:

本案例要求:

- 熟悉ansible配置文件
- 定义主机,分组和子组练习
- 自定义文件,多配置路径练习

2.2 步骤

实现此案例需要按照如下步骤进行。

步骤一:ansible.cfg配置文件

```
01.
     [root@ansible ~] # cd /etc/ansible/
02.
     [root@ansible ansible]# Is
     ansible.cfg hosts roles
03.
     [root@ansible ansible] #vim ansible.cfg
04.
     #inventory = /etc/ansible/hosts //指定分组文件路径,主机的分组文件hosts
05.
     [selinux] //组名称,selinux的相关选项在这个下面配置
06.
07.
08.
               //组名称,colors的相关选项在这个下面配置
     colors
09.
```

步骤二:定义主机,分组和子组练习

1)静态主机的定义

```
01.
      [root@ansible ansible] # v im hosts
02.
      [web]
03.
      web1
04.
      web2
05.
06.
      [db]
07.
                           //1: 2为db1到db2两台主机, 1: 20为db1到db20多台主机
      db[ 1:2]
08.
09.
      [other]
10.
      cache
11.
12.
      [root@ansible ansible] # ansible web - - list- host //显示web组的主机
13.
        hosts (2):
         web1
14.
15.
         web2
      [root@ansible ansible] # ansible db -- list- host
16.
                                                                               Top
17.
        hosts (2):
18.
         db1
19.
         db2
```

```
20.
       [root@ansible ansible] # ansible other -- list- host
21.
        hosts (1):
22.
         cache
23.
       [root@ansible ansible] # ansible all - - list- host //显示所有组的主机
24.
        hosts (5):
25.
         web1
26.
         web2
27.
         cache
28.
         db1
29.
         db2
```

2)直接测试

```
01. [root@ansible ansible] # ansible cache - m ping
02. //测试是否可以连接,若失败颜色为红色
03. cache | UNREACHABLE! ⇒ {
04. "changed": false,
05. "msg": "Failed to connect to the host via ssh: ssh: Could not resolve hostname cache:
06. "unreachable": true
07. }
```

3)修改后测试

01.

02.

```
01.
      [root@ansible ansible] #vi hosts
02.
      [other]
03.
      cache ansible_ssh_user="root" ansible_ssh_pass="a"
04.
      [root@ansible ansible] # ansible other - m ping //测试成功,颜色为绿色
05.
06.
      cache | SUCCESS ⇒ {
07.
         "changed": false,
         "ping": "pong"
08.
09.
      }
```

4)不检测主机的sshkey,在第一次连接的时候不用输入yes

```
Top
[root@ansible ansible] # v im ansible.cfg
61 host_key_checking = False
```

```
03.
      [root@ansible ansible] #vim hosts
04.
      [web]
05.
      web1
06.
      web2
07.
                  //web组:变量(vars不改), web组的多台机器共用一个用户名和密码
08.
      [web:vars]
09.
      ansible ssh user="root"
10.
      ansible_ssh_pass="a"
11.
      [root@ansible ansible] # ansible web - m ping
<u>12</u>.
      web2 | SUCCESS ⇒ {
13.
         "changed": false,
14.
         "ping": "pong"
15.
16.
      web1 | SUCCESS ⇒ {
17.
         "changed": false,
         "ping": "pong"
18.
19.
      }
```

步骤三: 定义子组

```
01.
      [root@ansible ansible] #vi hosts
02.
                     //指定子分组(app可改: children不改), web, db是提前分好的组
      [ app: children]
03.
      web
04.
      db
05.
06.
      [app:vars]
07.
      ansible_ssh_user="root"
08.
      ansible_ssh_pass="a"
09.
      [root@ansible ansible] # ansible app - - list- host
                                                   //查看
10.
       hosts (4):
11.
         web1
12.
         web2
13.
         db1
         db2
14.
15.
      [root@ansible ansible] # ansible app - m ping
                                                    //测试
16.
      web1 SUCCESS ⇒ {
17.
         "changed": false,
18.
         "ping": "pong"
                                                                             Top
19.
      web2 | SUCCESS ⇒ {
20.
```

```
21.
          "changed": false,
22.
         "ping": "pong"
23.
      }
24.
       db1 | SUCCESS ⇒ {
25.
         "changed": false,
         "ping": "pong"
26.
27.
28.
       db2 | SUCCESS ⇒> {
         "changed": false,
29.
30.
         "ping": "pong"
31.
     }
```

步骤四:多路径练习

自定义的ansible文件只在当前路径生效

1) 多路径

```
01.
       [root@ansible ~] # mkdir aaa
02.
       [root@ansible ~] # cd aaa/
03.
       [root@ansible aaa] # v im my host
04.
       [app1]
05.
       web1
06.
       db1
07.
08.
       [app2]
09.
       web2
10.
       db2
11.
       [app:children]
12.
13.
       app1
14.
       app2
15.
16.
       [other]
17.
       cache
18.
19.
       [app:vars]
20.
       ansible_ssh_user="root"
21.
       ansible_ssh_pass="a"
22.
                                                                                   Top
       [root@ansible aaa] #touch ansible.cfg
23.
       [root@ansible aaa] # grep - Ev "^#| ^$" /etc/ansible/ansible.cfg
24.
       [ def aults]
```

```
25.
       roles_path = /etc/ansible/roles: /usr/share/ansible/roles
26.
       host_key_checking = False
27.
       [inventory]
28.
       [ privilege_escalation]
29.
      [ paramiko_connection]
30.
      [ssh_connection]
31.
       [persistent_connection]
32.
      [accelerate]
33.
      [selinux]
34.
       [colors]
35.
       [diff]
36.
37.
       [root@ansible aaa] #vim ansible.cfg
38.
       [ defaults]
39.
       inventory = myhost
40.
       host_key_checking = False
```

2)测试结果

```
01.
       [root@ansible aaa] # ansible app1- m ping
02.
       web1 | SUCCESS ⇒ {
03.
          "changed": false,
04.
          "ping": "pong"
05.
06.
       db1 SUCCESS ⇒ {
07.
          "changed": false,
08.
          "ping": "pong"
09.
10.
       [root@ansible aaa] # ansible app - m ping
11.
       web1 | SUCCESS => {
12.
          "changed": false,
          "ping": "pong"
13.
14.
      }
15.
       db1 SUCCESS ⇒ {
16.
          "changed": false,
17.
          "ping": "pong"
18.
       }
19.
       db2 | SUCCESS ⇒ {
                                                                                  Top
20.
          "changed": false,
21.
          "ping": "pong"
```

```
22.
23.
      web2 | SUCCESS ⇒ {
24.
         "changed": false,
25.
         "ping": "pong"
26.
27.
      [root@ansible aaa] # ansible app -- list- host
28.
        hosts (4):
29.
         web1
30.
         db1
31.
         web2
32.
         db2
33.
      [root@ansible aaa]#cd
34.
      [root@ansible ~] # ansible app1 -- list- host //切换到别的目录,测试失败
35.
       [ WARNING]: Could not match supplied host pattern, ignoring: app1
36.
37.
       [WARNING]: No hosts matched, nothing to do
38.
39.
        hosts (0):
```

3 案例3: 动态主机

3.1 问题

本案例要求:

• 脚本输出主机列表

3.2 步骤

实现此案例需要按照如下步骤进行。

步骤一: 脚本输出主机列表

```
01
       [root@ansible ~] # cd aaa
02.
       [root@ansible aaa] # v im host.py
03.
       #! /usr/bin/python
04.
       import json
05.
       hostlist = \{\}
06.
       hostlist["bb"] = ["192.168.1.52", "192.168.1.53"]
07.
       hostlist["192.168.1.54"] = {
08.
             "ansible_ssh_user": "root", "ansible_ssh_pass": "pwd"
                                                                                     Top
09.
10.
       hostlist[ "aa"] = {
11.
             "hosts": ["192.168.1.55", "192.168.1.56"],
```

步骤二:脚本输出样例(这样写输出的结果有些乱)

```
01. [root@ansible aaa] # ./host.py

02. { "aa": { "hosts": [ "192.168.1.55", "192.168.1.56"], "v ars": { "ansible_ssh_user": "root",
```

步骤三:可以用shell脚本输出

```
01.
       [root@ansible aaa] #vim my.sh
02.
       #! /bin/bash
03.
       echo '
04.
       { "aa": {
05.
            "hosts":
06.
                 ["192.168.1.55", "192.168.1.56"],
07.
            "vars": {
08.
                  "ansible ssh user": "root",
09.
                  "ansible ssh pass": "a"}
10.
       },
       }'
11.
12.
       [root@ansible aaa] # chmod 755 my.sh
13.
       [root@ansible aaa] #./my.sh
14.
15.
       { "aa": {
16.
         "hosts":
17.
            ["192.168.1.55", "192.168.1.56"],
            "vars": {
18.
19.
            "ansible_ssh_user": "root",
20.
            "ansible_ssh_pass": "a"}
21.
       },
22.
                                                                                   Top
23.
       [root@ansible aaa] #vim ansible.cfg
24.
       [ def aults]
```

```
25.
       inventory = my.sh
26.
       host_key_checking = False
27.
       [root@ansible aaa] # ansible aa - m ping
28.
       192.168.1.55 | SUCCESS => {
29.
          "changed": false,
         "ping": "pong"
30.
31.
32.
       192.168.1.56 | SUCCESS => {
33.
          "changed": false,
34.
          "ping": "pong"
35.
      }
```

步骤二:批量执行

1) 查看负载

```
01.
       [root@ansible aaa] # ansible app - m command - a 'uptime'
02.
       db1 | SUCCESS | rc=0 >>
03.
        11: 35: 52 up 1: 59, 2 users, load average: 0.00, 0.01, 0.01
04.
05.
       web1 | SUCCESS | rc=0 >>
06.
       11: 35: 52 up 2: 00, 2 users, load average: 0.00, 0.01, 0.02
07.
08.
       db2 | SUCCESS | rc=0 >>
09.
       11: 35: 53 up 1: 59, 2 users, load average: 0.00, 0.01, 0.03
10.
11.
       web2 | SUCCESS | rc=0 >>
12.
       11: 35: 52 up 1: 59, 2 users, load average: 0.00, 0.01, 0.02
```

2) 查看时间

```
01. [root@ansible aaa] # ansible app - m command - a 'date +%F\%T'

02. db1 | SUCCESS | rc=0 >>

03. 2018- 09- 06 11: 42: 18

04.

05. web1 | SUCCESS | rc=0 >>

06. 2018- 09- 06 11: 42: 18

07. Top

08. web2 | SUCCESS | rc=0 >>
```

09. 2018- 09- 06 11: 42: 1810.

11. $db2 \mid SUCCESS \mid rc=0 >>$

12. 2018- 09- 06 11: 42: 19

4 案例4:批量部署证书文件

4.1 问题

本案例要求:

- 创建一对密钥
- 给所有主机部署密钥

4.2 步骤

实现此案例需要按照如下步骤进行。

步骤一: 批量部署证书文件, 给所有主机部署密钥

1)创建密钥

```
01.
       [root@ansible aaa] # cd /root/.ssh/
02.
      [root@ansible.ssh] #vi/etc/ansible/hosts
03.
      [web]
04.
      web1
05.
      web2
06.
07.
08.
      [db]
09.
      db[ 1: 2]
10.
11.
      [other]
12.
      cache
13.
      [root@ansible.ssh] # ansible all - m ping //直接ping会报错
       [root@ansible.ssh] # ssh-keygen - t rsa - b 2048 - N'' //创建密钥
14.
```

2)给所有主机部署密钥

```
01. [root@ansible .ssh] # ansible all - m authorized_key - a "user=root exclusive=true manage_(
02. SSH password: //输入密码
03. [root@ansible .ssh] # ansible all - m ping //成功
04. web2 | SUCCESS ⇒ {
```

```
05.
         "changed": false,
06.
         "ping": "pong"
07.
      }
08.
      db2 | SUCCESS ⇒ {
09.
         "changed": false,
         "ping": "pong"
10.
11.
12.
      web1 | SUCCESS ⇒ {
         "changed": false,
13.
14.
         "ping": "pong"
15.
16.
      cache | SUCCESS => {
17.
         "changed": false,
18.
         "ping": "pong"
19.
20.
      db1 SUCCESS ⇒ {
21.
         "changed": false,
22.
         "ping": "pong"
23.
24.
      [root@ansible .ssh] # ssh web1 //不需要输入密码,可以直接登陆
25.
      Last login: Thu Sep 6 11: 49: 00 2018 from 192. 168. 1. 51
26.
      [root@web1~]#
```

5 案例5:练习模块

5.1 问题

本案例要求:

• 练习使用command, shell, raw, script模块

5.2 步骤

实现此案例需要按照如下步骤进行。

```
步骤一: 练习模块
```

```
ansible-doc //模块的手册,相当于man
ansible-doc -l //列出所有模块
ansible-doc 模块名 //查看指定模块的帮助信息
1) ping模块
```

Top

01. [root@ansible .ssh] # ansible web1- m ping

```
    02. web1 | SUCCESS ⇒ {
    03. "changed": false,
    04. "ping": "pong"
    05. }
```

2) command模块

```
01. [root@ansible .ssh] # ansible web1- m command - a 'chdir=/tmp touch f1' //创建成功
02. [root@web1~] # cd /tmp/
03. [root@web1tmp] # ls //在web1上面查看
04. f1
```

3) shell模块

```
01. [root@ansible .ssh] # ansible web1- m shell - a 'chdir=/tmp touch f2' //创建成功
02. [root@web1~] # cd /tmp/
03. [root@web1tmp] # ls //在web1上面查看
04. f2
```

4) raw模块

```
01. [root@ansible .ssh] # ansible web1- m raw - a 'chdir=/tmp touch f3'
02. //文件可以创建,但无法切换目录,文件在用户家目录下生成
03. web1 | SUCCESS | rc=0 >>
04. Shared connection to web1 closed.
05. [root@web1tmp] # cd /root/
06. [root@web1~] # ls //在web1上面查看
07. f3
```

5) script模块

对于太复杂的命令,可以写个脚本,然后用script模块执行

在web1主机上创建zhangsan3用户,修改zhangsan3的密码为123456,设置zhangsan3第一次登陆必须修改密码

用命令写:

Top

01. [root@ansible .ssh] # ansible web1- m shell - a 'useradd zhangsan3'

```
[ root@ansible .ssh] # ansible web1- m shell - a 'echo 123456 | passwd - - stdin zhangsan3'
[ root@ansible .ssh] # ssh - I zhangsan3 web1
zhangsan3@web1's password: //输入zhangsan3的密码
[ root@ansible .ssh] # ansible web1- m shell - a 'chage - d 0 zhangsan3'
[ root@ansible .ssh] # ssh - I zhangsan3 web1
```

用脚本写, script模块执行:

```
01.
       [root@ansible.ssh] #vim user.sh
02.
       #! /bin/bash
03.
       useradd zhangsan3
04.
       echo 123456 | passwd - - stdin zhangsan3
05.
       chage - d 0 zhangsan3
06.
       echo
07.
       [root@ansible.ssh] # ansible web1- m script - a './user.sh'
08.
       web1 SUCCESS ⇒ {
09.
          "changed": true,
         "rc": 0.
10.
11.
          "stderr": "Shared connection to web1 closed. \r\n",
12.
          "stdout": "Changing password for user zhangsan3. \r\npasswd: all authentication token
13.
          "stdout_lines": [
14.
             "Changing password for user zhangsan3.",
15.
             "passwd: all authentication tokens updated successfully.",
16.
17.
         1
18.
19.
       [root@ansible.ssh] # ssh - I lisi web1
20.
       lisi@web1's password:
21.
       You are required to change your password immediately (root enforced)
22.
       Last login: Thu Sep 6 14: 51: 33 2018 from 192. 168. 1. 51
23.
       WARNING: Your password has expired.
24.
       You must change your password now and login again!
25.
       Changing password for user lisi.
26.
       Changing password for lisi.
27.
       (current) UNIX password:
```

6 案例6:模块练习

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6.1 问题

本案例要求:

- 使用copy模块同步数据
- 使用lineinfile模块编辑文件
- 使用replace模块修改文件

6.2 步骤

实现此案例需要按照如下步骤进行。

步骤一:模块练习

1)使用copy模块同步数据

src:要复制到进程主机的文件在本地的地址,可以是绝对路径,也可以是相对路径。如果路径是一个目录,它将递归复制。在这种情况下,如果路径使用"/"来结尾,则只复制目录里的内容,如果没有使用"/"来结尾,则包含目录在内的整个内容全部复制,类似于rsync

dest:必选项。进程主机的绝对路径,如果源文件是一个目录,那么该路径也必须是个目录

backup:在覆盖之前将原文件备份,备份文件包含时间信息。有两个选项:yes|no

force:如果目标主机包含该文件,但内容不同,如果设置为yes,则强制覆盖,如果为no,则只有当目标主机的目标位置不存在该文件时,才复制。默认为yes

```
01.
       [root@ansible .ssh] # ansible all - m shell - a 'cat /etc/resolv.conf'
02.
       //查看/etc/resolv.conf
03.
       cache | SUCCESS | rc=0 >>
04.
       ; generated by /usr/sbin/dhclient-script
05.
       nameserv er 192, 168, 1, 254
06.
       search localhost
07.
08.
       db2 | SUCCESS | rc=0 >>
09.
       ; generated by /usr/sbin/dhclient-script
10.
       nameserver 192.168.1.254
11.
       search localhost
12.
13.
       web1 | SUCCESS | rc=0 >>
14.
       ; generated by /usr/sbin/dhclient-script
15.
       nameserv er 192. 168. 1. 254
16.
       search localhost
17.
18.
       web2 | SUCCESS | rc=0 >>
19.
       ; generated by /usr/sbin/dhclient-script
20.
       nameserv er 192. 168. 1. 254
21.
       search localhost
                                                                                    Top
22.
23.
       db1 | SUCCESS | rc=0 >>
24.
       ; generated by /usr/sbin/dhclient-script
```

```
25.
       nameserver 192.168.1.254
26.
       search localhost
27.
28.
       [root@ansible.ssh] #vi/etc/resolv.conf
29.
       nameserver 172.40.1.10
30.
       [root@ansible .ssh] # ansible all - m copy - a 'src=/etc/resolv.conf dest=/etc/resolv.conf'
31.
       [root@ansible .ssh] # ansible all - m shell - a 'cat /etc/resolv.conf'
32.
       //查看有nameserver 172.40.1.10
33.
       [root@ansible ~] # mkdir aa
34.
       [root@ansible ~] # ansible all - m copy - a 'src=/root/aa dest=/root/a.log'
35.
       //复制本机的目录/root/aa到其他机器的/root/a.log,复制目录只能少数批量执行同步
36.
       [root@ansible ~] # ansible all - m shell - a 'ls - ld /root'
37.
       db2 | SUCCESS | rc=0 >>
38.
       dr- xr- x---. 4 root root 167 Sep 6 11:48 /root
39.
       web2 | SUCCESS | rc=0 >>
40.
41.
       dr- xr- x---. 4 root root 167 Sep 6 11: 48 /root
42.
43.
       cache | SUCCESS | rc=0 >>
44.
       dr- xr- x---. 4 root root 177 Sep 6 14: 35 /root
45.
       db1 | SUCCESS | rc=0 >>>
46.
47.
       dr- xr- x---. 4 root root 167 Sep 6 11: 48 /root
48.
49.
       web1 | SUCCESS | rc=0 >>
50.
       dr- xr- x---. 4 root root 177 Sep 6 14: 35 /root
```

2)使用lineinfile模块编辑文件

以行为基础,整行修改(整行被替换掉)

```
01
       [root@ansible ~] # ansible cache - m lineinfile \
02.
       - a 'path=/etc/sy sconfig/network- scripts/if cfg- eth0 \
       regexp="^ONBOOT=" line="ONBOOT=\"no \"""
03.
04.
05.
       cache | SUCCESS => {
          "backup": "",
06.
07.
          "changed": true,
                                                                                    Top
08.
          "msg": "line replaced"
09.
       }
```

3)使用replace模块修改文件

修改文件的某一部分(替换一行中匹配的内容),以正则表达式匹配为基础修改

```
01. [root@ansible ~] # ansible cache - m replace - a \
02. 'path=/etc/sy sconf ig/network- scripts/if cf g- eth0 \
03. regexp="^(ONBOOT=) .*" replace="\1\"y es\""'
04.
05. cache | SUCCESS ⇒ {
06. "changed": true,
07. "msg": "1 replacements made"
08. }
```

7案例7:综合练习

7.1 问题

本案例要求:

- 安装Apache并修改监听端口为8080
- 修改ServerName配置, 执行apachectl -t命令不报错
- 设置默认主页hello world
- 启动服务并设开机自启

7.2 步骤

实现此案例需要按照如下步骤进行。

步骤一:熟悉模块

1) yum模块

```
01. [root@ansible ~] # ansible other - m y um - a 'name="Irzsz" state=removed'
02. //Irzsz软件包名, removed=absent删除
03. [root@ansible ~] # ansible other - m y um - a 'name="Irzsz, Iftp" state=installed'
04. //安装多个软件包,不写state默认为安装
```

2)service模块

01. [root@ansible ~] # ansible other - m service - a 'name="sshd" enabled="y es" state="starte

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3) setup模块

filter 过滤指定的关键字(可以过滤到我们需要的信息)

```
01.
       [root@ansible ~] # ansible cache - m setup - a 'filter=os'
02.
       cache | SUCCESS => {
03.
          "ansible_facts": {},
          "changed": false
04.
05.
06.
       [root@ansible ~] # ansible cache - m setup - a 'filter=ansible distribution'
07.
       cache | SUCCESS => {
          "ansible_facts": {
08.
09.
             "ansible distribution": "CentOS"
10.
          "changed": false
11.
12.
```

步骤二:安装Apache

1)安装Apache服务设置开机自启

```
    01. [root@ansible ~] # ansible cache - m y um - a 'name=httpd state=installed'
    02. [root@ansible ~] # ansible cache - m service - a 'name=httpd enabled=y es state=started'
```

2)修改端口号为8080

```
01.
       [root@ansible ~] # ssh cache
02.
       Last login: Thu Sep 6 15: 30: 33 2018 from 192. 168. 1. 51
03.
       [root@cache ~] # cat /etc/httpd/conf/httpd.conf | grep Listen
04.
       Listen 80
05.
       [root@ansible ~] # ansible cache - m lineinfile - a 'path="/etc/httpd/conf/httpd.conf" rege)
06.
          "backup": "",
07.
          "changed": true,
08.
          "msg": "line replaced"
09.
10.
       [root@ansible ~] # ssh cache
11.
       Listen 8080
```

步骤三:修改ServerName配置,执行apachectl -t命令不报错

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1)没有修改之前

```
01. [root@cache ~] # apachectI - t //有报错
02. AH00558: httpd: Could not reliably determine the server's fully qualified domain name, usi
03. Syntax OK
```

2)修改之后

```
01.
       [root@ansible ~] # ansible cache - m lineinfile - a 'path="/etc/httpd/conf/httpd.conf" rege)
02.
       cache | SUCCESS ⇒ {
03.
          "backup": "",
04.
          "changed": true,
05.
          "msg": "line added"
06.
07.
       [root@ansible ~] # ssh cache
08.
       Last login: Thu Sep 6 15: 36: 08 2018 from 192. 168. 1. 51
09.
       [root@cache ~] # apachectl - t
10.
       Syntax OK
```

步骤四:设置默认主页为hello world

```
01.
       [root@ansible ~] # ansible cache - m copy - a 'src=/root/index.html dest=/v ar/www/html/
02.
       cache | SUCCESS ⇒ {
03.
          "changed": true,
04.
          "checksum": "22596363b3de40b06f981fb85d82312e8c0ed511",
05.
          "dest": "/var/www/html/index.html",
06.
         "gid": 0.
         "group": "root",
07.
08.
          "md5sum": "6f 5902ac237024bdd0c176cb93063dc4",
09.
         "mode": "0644",
         "owner": "root",
10.
11.
          "size": 12,
12.
          "src": "/root/.ansible/tmp/ansible-tmp-1536219767.29-30682157793478/source",
         "state": "file",
13.
14.
          "uid": 0
                                                                                 Top
15.
```

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