Lab 1: Instalacja Ansible

[root@base ~]# useradd ansible

[root@base ~]# passwd ansible

Zmienianie hasła użytkownika ansible.

Nowe hasło :

BŁĘDNE HASŁO: Hasło jest krótsze niż 8 znaków

Proszę ponownie wpisać nowe hasło :

passwd: zaktualizowanie wszystkich tokenów uwierzytelniania się powiodło.

[root@base ~]# yum install -y epel-release

```
CentOS-8 - AppStream
14 kB/s | 4.3 kB     00:00

CentOS-8 - AppStream
14 MB/s | 5.8 MB     00:00

CentOS-8 - Base
18 kB/s | 3.9 kB     00:00

CentOS-8 - Base
2.6 MB/s | 2.2 MB     00:00

CentOS-8 - Extras
5.4 kB/s | 1.5 kB     00:00

CentOS-8 - Extras
53 kB/s | 8.1 kB     00:00

base os on base
404 kB/s | 3.9 kB     00:00

apstream on base
1.4 MB/s | 4.3 kB     00:00

Rozwiązano zależności.

================================================================================
================================================================================
 Pakiet                                  Architektura
Wersja                                Repozytorium
Rozm.
```

```
================================================================================
================================================================================
====

Instalowanie:

 epel-release                        noarch
8-8.el8                           extras                           23
k


Podsumowanie transakcji

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Instalacja  1 pakiet


Całkowity rozmiar pobierania: 23 k

Rozmiar po zainstalowaniu: 32 k

Pobieranie pakietów:

epel-release-8-8.el8.noarch.rpm
1.0 MB/s |  23 kB     00:00

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Razem
156 kB/s |  23 kB     00:00

Wykonywanie sprawdzania transakcji

Pomyślnie ukończono sprawdzanie transakcji.

Wykonywanie testu transakcji

Pomyślnie ukończono test transakcji.

Wykonywanie transakcji

  Przygotowywanie                  :
1/1

  Instalowanie                     : epel-release-8-8.el8.noarch
1/1

  Wykonywanie skryptu              : epel-release-8-8.el8.noarch
1/1
```

```
  Sprawdzanie                   : epel-release-8-8.el8.noarch
1/1

Installed products updated.


Zainstalowano:

  epel-release-8-8.el8.noarch


Ukończono.

[root@base ~]# yum info ansible

Extra Packages for Enterprise Linux Modular 8 - x86_64
95 kB/s |  97 kB     00:01

Extra Packages for Enterprise Linux 8 - x86_64
5.6 MB/s | 8.1 MB     00:01

Dostępne pakiety

Nazwa        : ansible

Wersja       : 2.9.14

Wydanie      : 1.el8

Architektura : noarch

Rozmiar      : 17 M

Źródło       : ansible-2.9.14-1.el8.src.rpm

Repozytorium : epel

Podsumowanie : SSH-based configuration management, deployment, and
task execution system

Adres URL    : http://ansible.com

Licencja     : GPLv3+

Opis         : Ansible is a radically simple model-driven
configuration management,

             : multi-node deployment, and remote task execution
system. Ansible works

             : over SSH and does not require any software or
daemons to be installed

             : on remote nodes. Extension modules can be written
in any language and

             : are transferred to managed machines automatically.
```

```
[root@base ~]# yum -y install ansible
Ostatnio sprawdzono ważność metadanych: 0:00:11 temu w dniu nie,
11 paź 2020, 23:39:42.
Rozwiązano zależności.
================================================================
================================================================
====
 Pakiet                                Architektura
Wersja                               Repozytorium
Rozm.
================================================================
================================================================
====
Instalowanie:
 ansible                               noarch
2.9.14-1.el8                         epel
17 M
Instalowanie zależności:
 libsodium                             x86_64
1.0.18-2.el8                         epel
162 k
 python3-babel                         noarch
2.5.1-5.el8                          AppStream
4.8 M
 python3-bcrypt                        x86_64
3.1.6-2.el8.1                        epel
44 k
 python3-jinja2                        noarch
2.10.1-2.el8_0                       AppStream
538 k
 python3-jmespath                      noarch
0.9.0-11.el8                         AppStream
45 k
 python3-markupsafe                    x86_64
0.23-19.el8                          AppStream
39 k
```

```
 python3-pyasn1                          noarch
0.3.7-6.el8                           AppStream
126 k

 python3-pynacl                          x86_64
1.3.0-5.el8                           epel
100 k

 python3-pytz                            noarch
2017.2-9.el8                          AppStream
54 k

 sshpass                                 x86_64
1.06-9.el8                            epel
27 k

Instalowanie słabych zależności:

 python3-paramiko                        noarch
2.4.3-1.el8                           epel
289 k


Podsumowanie transakcji

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Instalacja  12 pakietów


Całkowity rozmiar pobierania: 23 M

Rozmiar po zainstalowaniu: 123 M

Pobieranie pakietów:

(1/12): python3-jmespath-0.9.0-11.el8.noarch.rpm
383 kB/s |  45 kB     00:00

(2/12): python3-markupsafe-0.23-19.el8.x86_64.rpm
1.1 MB/s |  39 kB     00:00

(3/12): python3-jinja2-2.10.1-2.el8_0.noarch.rpm
2.6 MB/s | 538 kB     00:00

(4/12): python3-pyasn1-0.3.7-6.el8.noarch.rpm
1.8 MB/s | 126 kB     00:00

(5/12): python3-pytz-2017.2-9.el8.noarch.rpm
1.0 MB/s |  54 kB     00:00
```

```
(6/12): python3-babel-2.5.1-5.el8.noarch.rpm
15 MB/s | 4.8 MB     00:00

(7/12): libsodium-1.0.18-2.el8.x86_64.rpm
751 kB/s | 162 kB     00:00

(8/12): python3-bcrypt-3.1.6-2.el8.1.x86_64.rpm
182 kB/s |  44 kB     00:00

(9/12): python3-paramiko-2.4.3-1.el8.noarch.rpm
1.3 MB/s | 289 kB     00:00

(10/12): python3-pynacl-1.3.0-5.el8.x86_64.rpm
477 kB/s | 100 kB     00:00

(11/12): sshpass-1.06-9.el8.x86_64.rpm
136 kB/s |  27 kB     00:00

(12/12): ansible-2.9.14-1.el8.noarch.rpm
20 MB/s |  17 MB     00:00

--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
----

Razem
11 MB/s |  23 MB     00:02

ostrzeżenie:
/var/cache/dnf/epel-6519ee669354a484/packages/ansible-2.9.14-
1.el8.noarch.rpm: Nagłówek V4 RSA/SHA256 Signature, identyfikator
klucza 2f86d6a1: NOKEY

Extra Packages for Enterprise Linux 8 - x86_64
1.6 MB/s | 1.6 kB     00:00

Importowanie klucza GPG 0x2F86D6A1:

 Identyfikator użytkownika: „Fedora EPEL (8)
<epel@fedoraproject.org>”

 Odcisk                  : 94E2 79EB 8D8F 25B2 1810 ADF1 21EA
45AB 2F86 D6A1

 Z                       : /etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL-8

Pomyślnie zaimportowano klucz

Wykonywanie sprawdzania transakcji

Pomyślnie ukończono sprawdzanie transakcji.

Wykonywanie testu transakcji

Pomyślnie ukończono test transakcji.
```

```
Wykonywanie transakcji
  Przygotowywanie                  :
1/1
  Instalowanie                     : sshpass-1.06-9.el8.x86_64
1/12
  Instalowanie                     : python3-bcrypt-3.1.6-
2.el8.1.x86_64
2/12
  Instalowanie                     : libsodium-1.0.18-2.el8.x86_64
3/12
  Instalowanie                     : python3-pynacl-1.3.0-
5.el8.x86_64
4/12
  Instalowanie                     : python3-pytz-2017.2-
9.el8.noarch
5/12
  Instalowanie                     : python3-babel-2.5.1-
5.el8.noarch
6/12
  Instalowanie                     : python3-pyasn1-0.3.7-
6.el8.noarch
7/12
  Instalowanie                     : python3-paramiko-2.4.3-
1.el8.noarch
8/12
  Instalowanie                     : python3-markupsafe-0.23-
19.el8.x86_64
9/12
  Instalowanie                     : python3-jinja2-2.10.1-
2.el8_0.noarch
10/12
  Instalowanie                     : python3-jmespath-0.9.0-
11.el8.noarch
11/12
  Instalowanie                     : ansible-2.9.14-1.el8.noarch
12/12
  Wykonywanie skryptu              : ansible-2.9.14-1.el8.noarch
12/12
```

```
  Sprawdzanie                  : python3-babel-2.5.1-
5.el8.noarch
1/12
  Sprawdzanie                  : python3-jinja2-2.10.1-
2.el8_0.noarch
2/12
  Sprawdzanie                  : python3-jmespath-0.9.0-
11.el8.noarch
3/12
  Sprawdzanie                  : python3-markupsafe-0.23-
19.el8.x86_64
4/12
  Sprawdzanie                  : python3-pyasn1-0.3.7-
6.el8.noarch
5/12
  Sprawdzanie                  : python3-pytz-2017.2-
9.el8.noarch
6/12
  Sprawdzanie                  : ansible-2.9.14-1.el8.noarch
7/12
  Sprawdzanie                  : libsodium-1.0.18-2.el8.x86_64
8/12
  Sprawdzanie                  : python3-bcrypt-3.1.6-
2.el8.1.x86_64
9/12
  Sprawdzanie                  : python3-paramiko-2.4.3-
1.el8.noarch
10/12
  Sprawdzanie                  : python3-pynacl-1.3.0-
5.el8.x86_64
11/12
  Sprawdzanie                  : sshpass-1.06-9.el8.x86_64
12/12

Installed products updated.


Zainstalowano:
  ansible-2.9.14-1.el8.noarch                 libsodium-1.0.18-
2.el8.x86_64              python3-babel-2.5.1-5.el8.noarch
```

```
  python3-bcrypt-3.1.6-2.el8.1.x86_64          python3-jinja2-
2.10.1-2.el8_0.noarch        python3-jmespath-0.9.0-11.el8.noarch
  python3-markupsafe-0.23-19.el8.x86_64        python3-paramiko-
2.4.3-1.el8.noarch         python3-pyasn1-0.3.7-6.el8.noarch
  python3-pynacl-1.3.0-5.el8.x86_64            python3-pytz-
2017.2-9.el8.noarch            sshpass-1.06-9.el8.x86_64


Ukończono.
[root@base ~]# ansible --version
ansible 2.9.14
  config file = /etc/ansible/ansible.cfg
  configured module search path =
['/root/.ansible/plugins/modules',
'/usr/share/ansible/plugins/modules']
  ansible python module location = /usr/lib/python3.6/site-
packages/ansible
  executable location = /usr/bin/ansible
  python version = 3.6.8 (default, Apr 16 2020, 01:36:27) [GCC
8.3.1 20191121 (Red Hat 8.3.1-5)]
```

Lab 2: Konfiguracja środowiska

```
[root@base ~]# useradd ansible
[root@base ~]# passwd ansible
[root@base ~]# virsh start poznan
Domena poznan została uruchomiona


[root@base ~]# virsh start gdansk
Domena gdansk została uruchomiona
[root@base ~]# ssh root@poznan
Activate the web console with: systemctl enable --now
cockpit.socket


Last login: Fri Oct  9 13:15:27 2020 from 10.10.1.1
[root@poznan ~]# useradd ansible
```

```
[root@poznan ~]# passwd ansible
Changing password for user ansible.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@poznan ~]# visudo
## Allow root to run any commands anywhere
root    ALL=(ALL)       ALL

ansible ALL=(ALL)   NOPASSWD: ALL

[root@poznan ~]# exit
logout
Connection to poznan closed.
[root@base ~]# ssh root@gdansk
Activate the web console with: systemctl enable --now
cockpit.socket

Last login: Fri Oct  9 13:09:15 2020 from 10.10.1.1
[root@gdansk ~]# useradd ansible

[root@gdansk ~]# passwd ansible
Changing password for user ansible.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@gdansk ~]# visudo
## Allow root to run any commands anywhere
root    ALL=(ALL)       ALL
```

```
ansible ALL=(ALL)   NOPASSWD: ALL

[root@gdansk ~]# su - ansible
[ansible@gdansk ~]$ sudo ls /root

We trust you have received the usual lecture from the local System
Administrator. It usually boils down to these three things:

    #1) Respect the privacy of others.
    #2) Think before you type.
    #3) With great power comes great responsibility.

[sudo] password for ansible:
anaconda-ks.cfg  ca-agent.p12  cacert.p12  original-ks.cfg
[ansible@gdansk ~]

[ansible@gdansk ~]$ exit
logout
[root@gdansk ~]# exit
logout
Connection to gdansk closed.
[ansible@base ~]$ ssh root@katowice
The authenticity of host 'katowice (10.10.1.20)' can't be
established.
ECDSA key fingerprint is
SHA256:EsFynp0ZCUr+of0WdCNkNU5iaZVanFMwmHTtzy6fosk.
Are you sure you want to continue connecting
(yes/no/[fingerprint])? yes
Warning: Permanently added 'katowice' (ECDSA) to the list of known
hosts.
root@katowice's password:
Activate the web console with: systemctl enable --now
cockpit.socket
```

```
Last login: Sat Aug 22 12:40:15 2020 from 10.10.1.1
[root@katowice ~]# useradd ansible
[root@katowice ~]# passwd ansible
[root@katowice ~]# visudo
## Allow root to run any commands anywhere
root    ALL=(ALL)       ALL

ansible ALL=(ALL)   NOPASSWD: ALL

[root@base ~]# su - ansible
[ansible@base ~]$ ssh-keygen
Generating public/private rsa key pair.
Enter file in which to save the key (/home/ansible/.ssh/id_rsa):
Created directory '/home/ansible/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/ansible/.ssh/id_rsa.
Your public key has been saved in /home/ansible/.ssh/id_rsa.pub.
The key fingerprint is:
SHA256:X/0Mj671PtmhN2cHhM9ZPd6BR375Sp7V7VNbkgrxf+E
ansible@base.domain1.local
The key's randomart image is:
+---[RSA 3072]----+
|                 |
|               . |
|             .+ o|
|          . .o.*+|
|        S  o.+=+O|
|         .... OXO|
|          .. ==B%|
|            .+=EB|
```

```
|            ..o+O|
+----[SHA256]-----+
```

[ansible@base ~]$ ssh-copy-id ansible@poznan

```
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed:
"/home/ansible/.ssh/id_rsa.pub"
The authenticity of host 'poznan (10.10.1.30)' can't be
established.
ECDSA key fingerprint is
SHA256:vIELZjT58bL45wwyVhEzEVP9+ogtxEAlyfQzpXTBxuU.
Are you sure you want to continue connecting
(yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new
key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if
you are prompted now it is to install the new keys
Password:

Number of key(s) added: 1

Now try logging into the machine, with:   "ssh 'ansible@poznan'"
and check to make sure that only the key(s) you wanted were added.
```

[ansible@base ~]$ ssh-copy-id ansible@gdansk

```
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed:
"/home/ansible/.ssh/id_rsa.pub"
The authenticity of host 'gdansk (10.10.1.40)' can't be
established.
ECDSA key fingerprint is
SHA256:xXM4+vOg6qQJNUi/5yKsGBA2WAAX/4ILZBRley1NXJY.
Are you sure you want to continue connecting
(yes/no/[fingerprint])? yes
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new
key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if
you are prompted now it is to install the new keys
```

```
Password:


Number of key(s) added: 1


Now try logging into the machine, with:   "ssh 'ansible@gdansk'"
and check to make sure that only the key(s) you wanted were added.

[ansible@base ~]$ ssh-copy-id ansible@katowice
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed:
"/home/ansible/.ssh/id_rsa.pub"
/usr/bin/ssh-copy-id: INFO: attempting to log in with the new
key(s), to filter out any that are already installed
/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if
you are prompted now it is to install the new keys
ansible@katowice's password:


Number of key(s) added: 1


Now try logging into the machine, with:   "ssh 'ansible@katowice'"
and check to make sure that only the key(s) you wanted were added.

[ansible@base ~]$ vim inventory.cfg
[ansible@base ~]$ cat inventory.cfg
poznan
gdansk
[ansible@base ~]$ ansible all -i inventory.cfg -m ping
gdansk | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": false,
    "ping": "pong"
}
poznan | SUCCESS => {
```

```
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": false,
    "ping": "pong"
}
[ansible@base ~]$ ansible poznan -i inventory.cfg -m ping
poznan | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": false,
    "ping": "pong"
}
```

LAB 3: Konfiguracja Inventory

```
[ansible@base ~]$ ansible all -i inventory.cfg --list-hosts
  hosts (2):
    poznan
```

```
    gdansk
[ansible@base ~]$ vim inventory.cfg
[ansible@base ~]$ cat inventory.cfg
katowice

[servers]
poznan
gdansk
[ansible@base ~]$ ansible all -i inventory.cfg --list-hosts
  hosts (3):
    katowice
    poznan
    gdansk
[ansible@base ~]$ ansible servers -i inventory.cfg --list-hosts
  hosts (2):
    poznan
    gdansk
[ansible@base ~]$ ansible ungrouped -i inventory.cfg --list-hosts
  hosts (1):
    katowice
[ansible@base ~]$ vim inventory.cfg
[ansible@base ~]$ cat inventory.cfg
katowice

[db]
poznan

[www]
gdansk

[servers:children]
```

```
db
www
[ansible@base ~]$ ansible all -i inventory.cfg --list-hosts
  hosts (3):
    katowice
    poznan
    gdansk
[ansible@base ~]$ ansible db -i inventory.cfg --list-hosts
  hosts (1):
    poznan
[ansible@base ~]$ ansible www -i inventory.cfg --list-hosts
  hosts (1):
    gdansk
[ansible@base ~]$ ansible servers -i inventory.cfg --list-hosts
  hosts (2):
    poznan
    gdansk
[ansible@base ~]$ vim inventory2.cfg
[ansible@base ~]$ cat inventory2.cfg
[centos]
10.10.1.20
[ansible@base ~]$ ansible all -i inventory2.cfg -m ping
10.10.1.20 | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": false,
    "ping": "pong"
}
```

LAB 4: Wykorzystanie mudułów command i shell

```
[ansible@base ~]$ ansible all -i inventory.cfg -m command -a
whoami
poznan | CHANGED | rc=0 >>
ansible
katowice | CHANGED | rc=0 >>
ansible
gdansk | CHANGED | rc=0 >>
ansible
[ansible@base ~]$ ansible all -i inventory.cfg -m shell -a id
katowice | CHANGED | rc=0 >>
uid=1001(ansible) gid=1001(ansible) groups=1001(ansible)
context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
gdansk | CHANGED | rc=0 >>
uid=1001(ansible) gid=1001(ansible) groups=1001(ansible),10(wheel)
context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
poznan | CHANGED | rc=0 >>
uid=2002(ansible) gid=2002(ansible) groups=2002(ansible),10(wheel)
context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
[ansible@base ~]$ ansible www -i inventory.cfg -m command -a
'cat /etc/passwd | grep ansible'
gdansk | FAILED | rc=1 >>
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
```

ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin

nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin

dbus:x:81:81:System message bus:/:/sbin/nologin

systemd-coredump:x:999:997:systemd Core Dumper:/:/sbin/nologin

systemd-resolve:x:193:193:systemd Resolver:/:/sbin/nologin

tss:x:59:59:Account used by the trousers package to sandbox the tcsd daemon:/dev/null:/sbin/nologin

polkitd:x:998:996:User for polkitd:/:/sbin/nologin

libstoragemgmt:x:997:995:daemon account for libstoragemgmt:/var/run/lsm:/sbin/nologin

unbound:x:996:993:Unbound DNS resolver:/etc/unbound:/sbin/nologin

setroubleshoot:x:995:991::/var/lib/setroubleshoot:/sbin/nologin

cockpit-ws:x:994:990:User for cockpit web service:/nonexisting:/sbin/nologin

cockpit-wsinstance:x:993:989:User for cockpit-ws instances:/nonexisting:/sbin/nologin

sssd:x:992:988:User for sssd:/:/sbin/nologin

sshd:x:74:74:Privilege-separated SSH:/var/empty/sshd:/sbin/nologin

chrony:x:991:987::/var/lib/chrony:/sbin/nologin

rngd:x:990:986:Random Number Generator Daemon:/var/lib/rngd:/sbin/nologin

tcpdump:x:72:72::/:/sbin/nologin

student:x:1000:1000:Password is altkom:/home/student:/bin/bash

rpc:x:32:32:Rpcbind Daemon:/var/lib/rpcbind:/sbin/nologin

rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin

apache:x:48:48:Apache:/usr/share/httpd:/sbin/nologin

ods:x:989:985:softhsm private keys owner:/var/lib/softhsm:/sbin/nologin

custodia:x:988:984:User for custodia:/:/sbin/nologin

kdcproxy:x:987:983:IPA KDC Proxy User:/:/sbin/nologin

ipaapi:x:986:982:IPA Framework User:/:/sbin/nologin

tomcat:x:91:91:Apache Tomcat:/usr/share/tomcat:/sbin/nologin

pkiuser:x:17:17:Certificate System:/usr/share/pki:/sbin/nologin

```
dirsrv:x:389:389:user for
389-ds-base:/usr/share/dirsrv:/sbin/nologin
ansible:x:1001:1001::/home/ansible:/bin/bashcat: '|': No such file
or directory
cat: grep: No such file or directory
cat: ansible: No such file or directorynon-zero return code
[ansible@base ~]$ ansible www -i inventory.cfg -m shell -a 'cat
/etc/passwd | grep ansible'
gdansk | CHANGED | rc=0 >>
ansible:x:1001:1001::/home/ansible:/bin/bash
```

LAB 5: Plik konfiguracyjny ansible.cfg

```
[ansible@base ~]$ vim ansible.cfg
[ansible@base ~]$ cat ansible.cfg
[defaults]
inventory = inventory.cfg
[ansible@base ~]$ ansible all --list-hosts
  hosts (3):
    katowice
    poznan
    gdansk
[ansible@base ~]$ ansible all -i inventory2.cfg --list-hosts
  hosts (1):
    10.10.1.20
[ansible@base ~]$ vim ansible.cfg
[ansible@base ~]$ cat ansible.cfg
[defaults]

inventory = inventory.cfg
remote_user = ansible
```

```
[privilege_escalation]


become_user = root
become = True
become_method = sudo
```

[ansible@base ~]$ ansible all -m shell -a whoami

```
katowice | CHANGED | rc=0 >>
root
gdansk | CHANGED | rc=0 >>
root
poznan | CHANGED | rc=0 >>
root
```

LAB 6: Wykorzystanie modułów w komendach ad-hoc

[ansible@base ~]$ ansible-doc -l | wc -l

```
3387
```

[ansible@base ~]$ ansible-doc -l

```
a10_server
Manage A10 Networks AX/SoftAX/Thunder/vThunder devices' server
object

a10_server_axapi3
Manage A10 Networks AX/SoftAX/Thunder/vThunder devices

a10_service_group
Manage A10 Networks AX/SoftAX/Thunder/vThunder devices' service
group...

a10_virtual_server
Manage A10 Networks AX/SoftAX/Thunder/vThunder devices' virtual
serve...

aci_aaa_user
Manage AAA users (aaa:User)

aci_aaa_user_certificate
Manage AAA user certificates (aaa:UserCert)
```

```
aci_access_port_block_to_access_port
Manage port blocks of Fabric interface policy leaf profile
interface ...

aci_access_port_to_interface_policy_leaf_profile
Manage Fabric interface policy leaf profile interface selectors
(infr...

aci_access_sub_port_block_to_access_port
Manage sub port blocks of Fabric interface policy leaf profile
interf...

aci_aep
Manage attachable Access Entity Profile (AEP) objects
(infra:AttEntit...

aci_aep_to_domain
```

[ansible@base ~]$ ansible-doc copy

```
> COPY    (/usr/lib/python3.6/site-packages/ansible/modules/files/
copy.py)


        The `copy' module copies a file from the local or remote
machine to a location on the remote

        machine. Use the [fetch] module to copy files from remote
locations to the local box. If you need

        variable interpolation in copied files, use the [template]
module. Using a variable in the `content'

        field will result in unpredictable output. For Windows
targets, use the [win_copy] module instead.


  * This module is maintained by The Ansible Core Team

  * note: This module has a corresponding action plugin.


OPTIONS (= is mandatory):
```

[ansible@base ~]$ echo 'Witaj na moim serwerze' > powitanie

[ansible@base ~]$ ansible servers -m copy -a 'dest=/etc/motd src=powitanie'

```
gdansk | CHANGED => {
    "ansible_facts": {
```

```
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "3861433c32deabaa4c68bc2e7597119005537b0d",
    "dest": "/etc/motd",
    "gid": 0,
    "group": "root",
    "md5sum": "22bd5ac3c5f23d68c60c0ca193e9952a",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:etc_t:s0",
    "size": 23,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602445231.184157-14340-158736755461225/source",
    "state": "file",
    "uid": 0
}
poznan | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "3861433c32deabaa4c68bc2e7597119005537b0d",
    "dest": "/etc/motd",
    "gid": 0,
    "group": "root",
    "md5sum": "22bd5ac3c5f23d68c60c0ca193e9952a",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:etc_t:s0",
```

```
    "size": 23,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602445231.1850028-14338-268772955437132/source",
    "state": "file",
    "uid": 0
}
[ansible@base ~]$ ansible servers -m shell -a 'cat /etc/motd'
poznan | CHANGED | rc=0 >>
Witaj na moim serwerze
gdansk | CHANGED | rc=0 >>
Witaj na moim serwerze
[ansible@base ~]$ ssh ansible@poznan
Witaj na moim serwerze
Activate the web console with: systemctl enable --now
cockpit.socket
[ansible@base ~]$ ansible katowice -m copy -a 'dest=/etc/motd
content="Witaj na serwerze Katowice"'
katowice | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "3db06b82a18f5d7bbf08f582ea56814944f1a4ac",
    "dest": "/etc/motd",
    "gid": 0,
    "group": "root",
    "md5sum": "0f4b7aa3b0259811ee3c081aea67ecc9",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:etc_t:s0",
    "size": 26,
```

```
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602446165.3532171-15006-249861381324103/source",
    "state": "file",
    "uid": 0
}
[ansible@base ~]$ ansible gdansk -m copy -a 'dest=/etc/motd
content="Witaj na serwerze Gdansk"'
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "4b1ab89d87ad8958d5831a53b206db81c69e09ea",
    "dest": "/etc/motd",
    "gid": 0,
    "group": "root",
    "md5sum": "238921475bdb9c908247225bb51602d6",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:etc_t:s0",
    "size": 24,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602446197.7034402-15071-250202936499454/source",
    "state": "file",
    "uid": 0
}
[ansible@base ~]$ ansible poznan -m copy -a 'dest=/etc/motd
content="Witaj na serwerze Poznan"'
poznan | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
```

```
    },
    "changed": true,
    "checksum": "005520e4102121453718e559e972bc7eb29ea371",
    "dest": "/etc/motd",
    "gid": 0,
    "group": "root",
    "md5sum": "de572cfcf9ab8e64fe665625262bc75e",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:etc_t:s0",
    "size": 24,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602446213.8026156-15106-195256951208773/source",
    "state": "file",
    "uid": 0
}
[ansible@base ~]$ ansible all -m shell -a 'cat /etc/motd'
gdansk | CHANGED | rc=0 >>
Witaj na serwerze Gdansk
poznan | CHANGED | rc=0 >>
Witaj na serwerze Poznan
katowice | CHANGED | rc=0 >>
Witaj na serwerze Katowice

Last login: Sun Oct 11 19:40:35 2020 from 10.10.1.1
[ansible@poznan ~]$
```

LAB 7: Wykorzystanie modułów – moduł fetch

```
[ansible@base ~]$ ansible-doc fetch
> FETCH
(/usr/lib/python3.6/site-packages/ansible/modules/files/fetch.py)
```

```
        This module works like [copy], but in reverse. It is used
for fetching files from remote machines

        and storing them locally in a file tree, organized by
hostname. Files that already exist at `dest'

        will be overwritten if they are different than the `src'.
This module is also supported for Windows

        targets.
```

[ansible@base ~]$ ansible servers -m fetch -a 'dest=/tmp src=/etc/hosts'

```
poznan | CHANGED => {
    "changed": true,
    "checksum": "a9832210554d2ee592a08796253f3972740d988c",
    "dest": "/tmp/poznan/etc/hosts",
    "md5sum": "ffc8f27cd40144e892ae1547098ada0c",
    "remote_checksum": "a9832210554d2ee592a08796253f3972740d988c",
    "remote_md5sum": null
}
gdansk | CHANGED => {
    "changed": true,
    "checksum": "a9832210554d2ee592a08796253f3972740d988c",
    "dest": "/tmp/gdansk/etc/hosts",
    "md5sum": "ffc8f27cd40144e892ae1547098ada0c",
    "remote_checksum": "a9832210554d2ee592a08796253f3972740d988c",
    "remote_md5sum": null
}
```

[ansible@base ~]$ ls /tmp

```
create-gdansk.sh
create-poznan.sh
gdansk
poznan
```

[ansible@base ~]$ cat /tmp/gdansk/etc/hosts

```
127.0.0.1   localhost localhost.localdomain localhost4
localhost4.localdomain4

::1         localhost localhost.localdomain localhost6
localhost6.localdomain6
```

[ansible@base ~]$ cat /tmp/poznan/etc/hosts

```
127.0.0.1   localhost localhost.localdomain localhost4
localhost4.localdomain4

::1         localhost localhost.localdomain localhost6
localhost6.localdomain6
```

LAB 8: Wykorzystanie modułów – konfiguracja repozytoriów

[ansible@base ~]$ cat base.repo

```
[base]

baseurl = http://base/centos8/BaseOS

gpgcheck = 0

enabled = 1

name = base repo
```

[ansible@base ~]$ cat app.repo

```
[app]

baseurl = http://base/centos8/AppStream

gpgcheck = 0

enabled = 1

name = app repo
```

[ansible@base ~]$ ansible all -m shell -a 'rm -f /etc/yum.repos.d/*'

```
[WARNING]: Consider using the file module with state=absent rather
than running 'rm'.  If you need to use command because file is

insufficient you can add 'warn: false' to this command task or set
'command_warnings=False' in ansible.cfg to get rid of this
message.

gdansk | CHANGED | rc=0 >>


katowice | CHANGED | rc=0 >>
```

```
poznan | CHANGED | rc=0 >>
```

[ansible@base ~]$ ansible all -m copy -a 'src=base.repo dest=/etc/yum.repos.d/'

```
katowice | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
    "checksum": "4430912147df04eba034f15d960c42074aba12a3",
    "dest": "/etc/yum.repos.d/base.repo",
    "gid": 0,
    "group": "root",
    "md5sum": "0a8db604d4666ac298628899e3f43a82",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:system_conf_t:s0",
    "size": 87,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-1602453580.3252077-38418-128057713246446/source",
    "state": "file",
    "uid": 0
}
poznan | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
    "checksum": "4430912147df04eba034f15d960c42074aba12a3",
    "dest": "/etc/yum.repos.d/base.repo",
    "gid": 0,
```

```
    "group": "root",
    "md5sum": "0a8db604d4666ac298628899e3f43a82",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:system_conf_t:s0",
    "size": 87,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602453580.328627-38422-267341763937656/source",
    "state": "file",
    "uid": 0
}
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "4430912147df04eba034f15d960c42074aba12a3",
    "dest": "/etc/yum.repos.d/base.repo",
    "gid": 0,
    "group": "root",
    "md5sum": "0a8db604d4666ac298628899e3f43a82",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:system_conf_t:s0",
    "size": 87,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602453580.3291392-38420-202170299547093/source",
    "state": "file",
    "uid": 0
}
[ansible@base ~]$ ansible all -m copy -a 'src=app.repo
dest=/etc/yum.repos.d/'
```

```
katowice | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "44e1fea76de2d6d8dd82d81b1d97c44a4ecf70cf",
    "dest": "/etc/yum.repos.d/app.repo",
    "gid": 0,
    "group": "root",
    "md5sum": "dff619976f04221fff5022596a7f6693",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:system_conf_t:s0",
    "size": 87,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602453588.7024386-38483-35936711903767/source",
    "state": "file",
    "uid": 0
}
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "44e1fea76de2d6d8dd82d81b1d97c44a4ecf70cf",
    "dest": "/etc/yum.repos.d/app.repo",
    "gid": 0,
    "group": "root",
    "md5sum": "dff619976f04221fff5022596a7f6693",
    "mode": "0644",
```

```
    "owner": "root",
    "secontext": "system_u:object_r:system_conf_t:s0",
    "size": 87,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602453588.7060726-38485-181130149968269/source",
    "state": "file",
    "uid": 0
}
poznan | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "checksum": "44e1fea76de2d6d8dd82d81b1d97c44a4ecf70cf",
    "dest": "/etc/yum.repos.d/app.repo",
    "gid": 0,
    "group": "root",
    "md5sum": "dff619976f04221fff5022596a7f6693",
    "mode": "0644",
    "owner": "root",
    "secontext": "system_u:object_r:system_conf_t:s0",
    "size": 87,
    "src": "/home/ansible/.ansible/tmp/ansible-tmp-
1602453588.7142673-38487-255415793303825/source",
    "state": "file",
    "uid": 0
}
[ansible@base ~]$ ansible all -m shell -a 'yum repolist'
[WARNING]: Consider using the yum module rather than running
'yum'.  If you need to use command because yum is insufficient you
can add
```

```
'warn: false' to this command task or set 'command_warnings=False'
in ansible.cfg to get rid of this message.
gdansk | CHANGED | rc=0 >>
repo id                                   repo name
app                                       app repo
base                                      base repo
poznan | CHANGED | rc=0 >>
repo id                                   repo name
app                                       app repo
base                                      base repo
katowice | CHANGED | rc=0 >>
repo id                                   repo name
app                                       app repo
base                                      base repo
```

LAB 9: Wykorzystanie modułów – moduł dnf

[ansible@base ~]$ ansible-doc dnf

```
> DNF
(/usr/lib/python3.6/site-packages/ansible/modules/packaging/os/dnf
.py)

        Installs, upgrade, removes, and lists packages and groups
with the `dnf' package manager.
```

[ansible@base ~]$ ansible-doc yum

```
> YUM
(/usr/lib/python3.6/site-packages/ansible/modules/packaging/os/yum
.py)

        Installs, upgrade, downgrades, removes, and lists packages
and groups with the `yum' package

        manager. This module only works on Python 2. If you
require Python 3 support see the [dnf] module.
```

```
[ansible@base ~]$ ansible servers -m dnf -a 'name=nfs-utils state=latest'
gdansk | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": false,
    "msg": "Nothing to do",
    "rc": 0,
    "results": []
}
poznan | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": false,
    "msg": "Nothing to do",
    "rc": 0,
    "results": []
}
[ansible@base ~]$ ansible servers -m yum -a 'name=cifs-utils state=latest'
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [
```

```
        "Installed: cifs-utils-6.8-3.el8.x86_64"
    ]
}
poznan | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [
        "Installed: cifs-utils-6.8-3.el8.x86_64"
    ]
}
[ansible@base ~]$ ansible gdansk -m dnf -a
'name=@postgresql:9.6/client state=present'
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "msg": "",
    "rc": 0,
    "results": [
        "Module postgresql:9.6/client installed.",
        "Installed: libpq-12.1-3.el8.x86_64",
        "Installed: postgresql-9.6.10-
1.module_el8.0.0+16+7a9f6089.x86_64"
    ]
}
[ansible@base ~]$ ansible gdansk -m dnf -a 'autoremove=yes'
```

```
gdansk | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": false,
    "msg": "Nothing to do",
    "rc": 0,
    "results": []
}
```

[ansible@base ~]$ ansible poznan -m shell -a 'dnf grouplist'

```
[WARNING]: Consider using the dnf module rather than running
'dnf'.  If you need to use command because dnf is insufficient you
can add
'warn: false' to this command task or set 'command_warnings=False'
in ansible.cfg to get rid of this message.
poznan | CHANGED | rc=0 >>
Last metadata expiration check: 2:58:46 ago on Sun 11 Oct 2020
05:25:28 PM CEST.
Available Environment Groups:
   Server with GUI
   Server
   Minimal Install
   Workstation
   Virtualization Host
   Custom Operating System
Installed Groups:
   Container Management
Available Groups:
   .NET Core Development
   RPM Development Tools
   Development Tools
   Graphical Administration Tools
```

```
   Headless Management
   Legacy UNIX Compatibility
   Network Servers
   Scientific Support
   Security Tools
   Smart Card Support
   System Tools
```

[ansible@base ~]$ ansible poznan -m dnf -a 'name="@Container Management" state=present'

```
poznan | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": false,
    "msg": "Nothing to do",
    "rc": 0,
    "results": [
        "Group container-management installed."
    ]
}
```

LAB 10: Wykorzystanie modułów – moduł systemd/service

[ansible@base ~]$ ansible katowice -m systemd -a 'name=crond state=restarted'

```
katowice | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
    "name": "crond",
```

```
    "state": "started",
    "status": {
```

[ansible@base ~]$ ansible katowice -m service -a 'name=chronyd state=restarted'

```
katowice | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
    "name": "chronyd",
    "state": "started",
    "status": {
```

LAB 11: Wykorzystanie modułów – moduł firewalld

[ansible@base ~]$ ansible servers -m firewalld -a 'service=ftp state=enabled permanent=yes immediate=yes'

```
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
    "msg": "Permanent and Non-Permanent(immediate) operation, Changed service ftp to enabled"
}
poznan | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
```

```
    "msg": "Permanent and Non-Permanent(immediate) operation,
Changed service ftp to enabled"
}
```

LAB 12: Stwórz skrypt zawierający polecenia ansible ad-hoc. Na serwerach poznan i gdansk zainstaluj serwer Apache, sprawdź jego działanie z base za pomocą curl (serwery powinny zwracać zawartość „Witaj w swiecie Ansible”)

```
[ansible@base ~]$ vim skrypt.sh
[ansible@base ~]$ cat skrypt.sh
#!/bin/bash

#Instalacja Apache
ansible poznan -m dnf -a 'name=httpd state=latest'

#Konfiguracja firewalld
ansible poznan -m firewalld -a 'service=http state=enabled
permanent=yes immediate=yes'

#Zawartosc index.html
ansible poznan -m copy -a 'dest=/var/www/html/index.html
content="Witaj w swiecie Ansible"'

#Uruchomienie serwisu
ansible poznan -m systemd -a 'state=started enabled=yes
name=httpd'
[ansible@base ~]$ chmod +x skrypt.sh
[ansible@base ~]$ ./skrypt.sh
[ansible@base ~]$ curl -s http://poznan
Witaj w swiecie Ansible
```

LAB 13: Sprawdź godzinę na serwerach zarządzanych, wykorzystaj moduł lineinfile w celu ustawienia synchronizacji czasu. Stwórz odpowiedni skrypt.

```
[ansible@base ~]$ date
Mon Oct 12 00:07:26 CEST 2020

[ansible@base ~]$ ansible all -m shell -a 'date'
gdansk | CHANGED | rc=0 >>
Sun Oct 11 22:07:24 CEST 2020
katowice | CHANGED | rc=0 >>
Sun Oct 11 22:07:24 CEST 2020
poznan | CHANGED | rc=0 >>
Sun Oct 11 22:07:23 CEST 2020
[ansible@base ~]$ cat chrony.sh
#!/bin/bash

#konfiguracja serwera base
ansible localhost -m lineinfile -a 'path=/etc/chrony.conf
line="local stratum 10"'
ansible localhost -m lineinfile -a 'path=/etc/chrony.conf
line="allow 10.10.0.0/16"'

#restart usługi na base
ansible localhost -m systemd -a 'name=chronyd state=restarted'

#zmiana pliku konfiguracyjnego /etc/chrony.conf
ansible all -m lineinfile -a 'path=/etc/chrony.conf regexp="pool
2.centos.pool.ntp.org iburst" line="server base iburst"'

#restart usługi
ansible all -m systemd -a 'name=chronyd state=restarted'
```

```
[ansible@base ~]$ chmod +x chrony.sh
[ansible@base ~]$ ./chrony.sh
localhost | CHANGED => {
    "backup": "",
    "changed": true,
    "msg": "line added"
}
localhost | CHANGED => {
    "backup": "",
    "changed": true,
    "msg": "line added"
}
gdansk | SUCCESS => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
[ansible@base ~]$ ansible all -m shell -a 'chronyc sources'
poznan | CHANGED | rc=0 >>
210 Number of sources = 1
MS Name/IP address         Stratum Poll Reach LastRx Last sample
===============================================================================
^* base.domain1.local           10   6    17    21    -14us[  -
23us] +/-  136us
katowice | CHANGED | rc=0 >>
210 Number of sources = 1
MS Name/IP address         Stratum Poll Reach LastRx Last sample
===============================================================================
^* base.domain1.local           10   6    17    21
+30us[  +27us] +/-  167us
gdansk | CHANGED | rc=0 >>
```

```
210 Number of sources = 1
MS Name/IP address         Stratum Poll Reach LastRx Last sample
===============================================================================
^* base.domain1.local           10   6    17    21  -3334ns[  -11us] +/-  127us
```

```
[ansible@base ~]$ ansible all -m shell -a 'date'
gdansk | CHANGED | rc=0 >>
Mon Oct 12 00:32:52 CEST 2020
katowice | CHANGED | rc=0 >>
Mon Oct 12 00:32:52 CEST 2020
poznan | CHANGED | rc=0 >>
Mon Oct 12 00:32:52 CEST 2020
```

LAB 14: Utwórz zadanie crona – o 2:30 w soboty i niedziele wykona się update systemu.

```
[ansible@base ~]$ ansible all -m cron -a 'name="update systemu" hour="2" minute="30" job="yum -y update" weekday="6-7"'
katowice | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-python"
    },
    "changed": true,
    "envs": [],
    "jobs": [
        "update systemu"
    ]
}
gdansk | CHANGED => {
    "ansible_facts": {
```

```
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "envs": [],
    "jobs": [
        "update systemu"
    ]
}
poznan | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "envs": [],
    "jobs": [
        "update systemu"
    ]
}
```

LAB 15: Utwórz skrypt montujący partycję /dev/vdb1 w folderze /backup

[ansible@base ~]$ vim montowanie.sh

```
#!/bin/bash


#Tworzenie partycji vdb1
ansible gdansk -m parted -a 'device=/dev/vdb number=1
state=present part_end=2GiB'


#Tworzenie filesystemu xfs
```

```
ansible gdansk -m filesystem -a 'fstype=xfs dev=/dev/vdb1'


#Tworzenie miejsca montowania

ansible gdansk -m file -a 'path=/backup owner=root group=root
mode=0644 state=directory'


#Montowanie partycji

ansible gdansk -m mount -a 'path=/backup src=/dev/vdb1 fstype=xfs
state=present'



[ansible@base ~]$ chmod +x montowanie.sh

[ansible@base ~]$ ./montowanie.sh

gdansk | CHANGED => {

    "ansible_facts": {

        "discovered_interpreter_python": "/usr/libexec/platform-
python"

    },

    "changed": true,

    "disk": {

        "dev": "/dev/vdb",

        "logical_block": 512,

        "model": "Virtio Block Device",

        "physical_block": 512,

        "size": 10485760.0,

        "table": "msdos",

        "unit": "kib"

    },

    "partitions": [

        {

            "begin": 1024.0,

            "end": 2097152.0,
```

```
            "flags": [],
            "fstype": "",
            "name": "",
            "num": 1,
            "size": 2096128.0,
            "unit": "kib"
        }
    ],
    "script": "unit KiB mklabel msdos mkpart primary 0% 2GiB"
}
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true
}
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "gid": 0,
    "group": "root",
    "mode": "0644",
    "owner": "root",
    "path": "/backup",
    "secontext": "unconfined_u:object_r:default_t:s0",
    "size": 6,
    "state": "directory",
    "uid": 0
```

```
}
gdansk | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/libexec/platform-
python"
    },
    "changed": true,
    "dump": "0",
    "fstab": "/etc/fstab",
    "fstype": "xfs",
    "name": "/backup",
    "opts": "defaults",
    "passno": "0",
    "src": "/dev/vdb1"
}
```