

ANSIBLE FACTS

- Ansible facts are variables that are automatically discovered by Ansible from a managed host.
- Variables related to remote systems are called facts.
- Facts related to remote systems, including OS's, IP add, kernel version, network interfaces, filesystems etc.
- To disable this behavior using the INJECT_FACTS_VARS setting.

```
$ansible agent1 -m setup [ To list facts from the agent1 ]
```

```
$ansible agent1 -m setup | grep hostname
```

```
$ansible agent1 -m setup -a "filter=*ipv4"
```

```
$ansible agent1 -m setup -a "filter=hostname"
```

```
$ansible agent1 -m setup -a "filter=ansible_fqdn"
```

```
$ansible agent1 -m setup -a "filter=ansible_virtualization_type"
```

```
$vi facts.yml
```

```
- hosts: webservers
```

```
  become: true
```

```
  become_user: root
```

```
  tasks:
```

```
    - name: Print Various Ansible Facts
```

```
      debug:
```

```
        msg: >
```

```
          The default address of {{ ansible_fqdn }} is {{
ansible_default_ipv4.address }}
```

```
$ansible-playbook --syntax-check facts.yml
```

```
$ansible-playbook facts.yml -K --step
```

MANAGING SECRETS

- Ansible vault provides a way to encrypt and manage sensitive data such as passwords.
- Vaults can encrypt and decrypt arbitrary variables and files, which means you can use it to protect variable files that contain secrets or even encrypt entire sensitive configuration files.

NOTE:

- Ansible vault does not implements its own cryptographic functions but rather uses an external python toolkit. Files are protected with symmetric encryption using AES256 with a password as the secret key.

COMMAND: ansible-vault

- **Create** : To create ansible vault file in the encrypted format
- **View** : To view data of encrypted file
- **Edit** : To edit encrypted file
- **Encrypt** : To encrypt an unencrypted file
- **Decrypt** : To decrypt an encrypted file

Creating new Playbook with vault:

```
$ansible-vault create myplay.yml
password:
confirm password:
---
- hosts: webservers
  become: true
  become_user: root
...
$cat myplay.yml
$ansible-vault view myplay.yml
```

Encrypt existing playbook:

```
$ansible-vault encrypt sample.yml
```

```
$cat sample.yml  
$ansible-vault view sample.yml
```

encrypt existing file name to new file name:

```
$ansible-vault encrypt test.yml --output=newtest.yml  
password:  
$cat test.yml  
$ansible-vault view newtest.yml
```

Take password reference:

```
$cat>password  
raju123  
$ansible-vault create --vault-password-file=password newplay.yml  
---  
- hosts: webservers  
become: true  
become_user: root  
...  
$ansible-vault view newplay.yml
```

To change existing encrypted password:

```
$ansible-vault rekey sample.yml  
$ansible-vault view sample.yml
```

Decrypt the password:

```
$ansible-vault decrypt newplay.yml  
$cat newplay.yml
```

TASK1: Create A User Account

```
$ansible-vault create useraccount.yml
```

```
---
```

```
  - hosts: webserver
```

```
become: true
```

```
become_user: root
```

```
tasks:
```

```
  - name: User account Creation
```

```
    user:
```

```
      name: testuser
```

```
      password: raju123
```

```
      comment: Ansible Test User
```

```
      state: present
```

```
...
```

```
$ansible-playbook useraccount.yml -k [Not working]
```

```
$ansible-playbook --vault-id @prompt useraccount.yml -K
```

With Encrypted password:

```
---
```

```
  - hosts: webserver
```

```
become: true
```

```
become_user: root
```

```
tasks:
```

```
  - name: User account Creation
```

```
    user:
```

```
      name: testuser1
```

```
      password:
```

```
$6$8UBDLg2A10b73yzj$IezSQWNLEmky.EC1/MUvA.uvYZgJ4
```

```
v18f0VSJs3Xm.0EIHYJSPWcwYodUfv/NXYkGHV17kv4e6.CiM
```

```
jpa/gFj.
```

```
      comment: Ansible Test User
```

```
      state: present
```

```
...
```

```
$ansible-playbook --vault-id @prompt useraccount.yml -K
```

TASK2: Variables with encrypted playbook (full encrypted playbook)

Create a variable encrypted file:

```
$vi secret.yml
```

```
username: max
```

```
upass:
```

```
$6$zJWQFRWezy2ZRixq$nwHPdI59UKudBpMx7airLLLQ74cNluZyn  
xjgS5yEDP4Ffy bZr5MouF2DjYisNnIPDW7yughoUhcZC9N0ke6c//
```

```
$ansible-vault encrypt secret.yml
```

Now create a playbook for user:

```
$vi user.yml
```

```
---
```

```
- hosts: webservers
```

```
  become: true
```

```
  become_user: root
```

```
  vars_files:
```

```
    - secret.yml
```

```
  tasks:
```

```
    - name: User Creation
```

```
      user:
```

```
        name: "{{ username }}"
```

```
        password: "{{ upass }}"
```

```
        comment: Ansible Test User
```

```
        state: present
```

```
...
```

```
$ansible-playbook --syntax-check --vault-id @prompt user.yml
```

Encrypt existing playbook:

`$ansible-vault encrypt user.yml` [Make sure secret & user yml files password should be same]

`$ansible-playbook --vault-id @prompt user.yml -K` [Execute playbook]