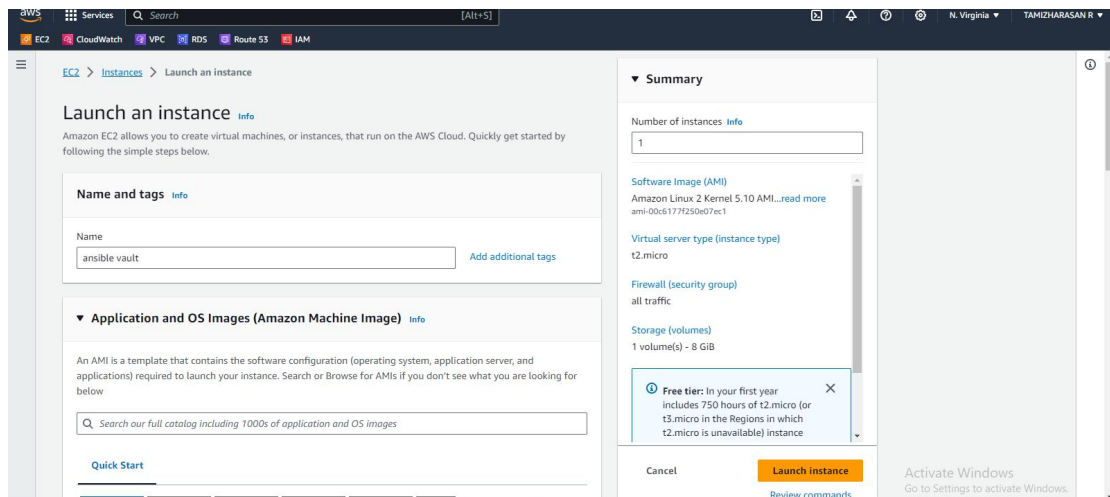# Using Ansible Vault for Viewing, Encrypting, Decrypting, Editing YAML Files, and Renaming Passwords in a System

Step 1: First, create an instance server for Ansible Vault in amazon Linux

Step 2: Now, Install ansible and extras


```
login as: ec2-user
Authenticating with public key "linux new"

    __|  __|_  )
    _|  (     /   Amazon Linux 2 AMI
   ___|\___|___|

https://aws.amazon.com/amazon-linux-2/
5 package(s) needed for security, out of 9 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-82-233 ~]$ clear
[ec2-user@ip-172-31-82-233 ~]$ sudo -i
[root@ip-172-31-82-233 ~]# yum install ansible -y
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
No package ansible available.
Error: Nothing to do

ansible is available in Amazon Linux Extra topic "ansible2"

To use, run
# sudo amazon-linux-extras install ansible2

Learn more at
https://aws.amazon.com/amazon-linux-2/faqs/#Amazon_Linux_Extras

[root@ip-172-31-82-233 ~]# ^C
[root@ip-172-31-82-233 ~]# sudo amazon-linux-extras install ansible2
Topic ansible2 has end-of-support date of 2023-09-30
```

Step 3: Now, copy ansible.cfg & hosts file and paste it in */home/ec2-user* path


```
[ec2-user@ip-172-31-82-233 ansible]$ cd
[ec2-user@ip-172-31-82-233 ~]$ cd /etc/ansible/
[ec2-user@ip-172-31-82-233 ansible]$ ls
ansible.cfg  hosts  roles
[ec2-user@ip-172-31-82-233 ansible]$ sudo cp ansible.cfg /home/ec2-user/
[ec2-user@ip-172-31-82-233 ansible]$ sudo cp hosts /home/ec2-user/
[ec2-user@ip-172-31-82-233 ansible]$ cd
[ec2-user@ip-172-31-82-233 ~]$ ls
ansible.cfg  hosts
[ec2-user@ip-172-31-82-233 ~]$
```

USING PLAYBOOK FOR VAULT CREATE

```
[ec2-user@ip-172-31-82-233 ~]$ ansible-vault create apache.yml
New Vault password:
Confirm New Vault password:
[ec2-user@ip-172-31-82-233 ~]$ █
```

Step 4: Now, create vault and vault password by using "**ansible-vault create apache.yml**"

ec2-user@ip-172-31-82-233:~

```yaml
- hosts: all
  remote_user: ec2-user
  become: yes
  tasks:
    - name: Install Apache
      yum:
        name: httpd
        state: present

    - name: Start Apache
      service:
        name: httpd
        state: started

    - name: Copy index.html
      copy:
        src: ./index.html
        dest: /var/www/html/index.html
        mode: '0777'
~
~
~
~
```

Step 5: After enter vault password you will enter into apache.yml file and paste the yml script and save it

Step 6: Now, **Cat apache.yml** to view the encrypted file only

```
ec2-user@ip-172-31-82-233:~

[ec2-user@ip-172-31-82-233 ~]$ ansible-vault create apache.yml
New Vault password:
Confirm New Vault password:
[ec2-user@ip-172-31-82-233 ~]$ cat apache.yml
$ANSIBLE_VAULT;1.1;AES256
393835653935643237326133326539643134336161663961613439663139396631623031326135
616631323032643030643064323262646136353165383036306a6633653337393731643761643838
373663353439646433333165616137363333986233313765646461383438386239353296231643038
356230666134376353206161623738653433306332386666396613331616232373531633865343762
306532353233363666353231613065333236626236233613731336237346163375303663153761623764
366264323466656633393233396666363623631323839383335562304333303161366262326662383
303030323765313936353396331313333939643265353235313034663838343836313665326233964
356633337939353392663539633161353637564386334662313632363838363133346365326330396335
303339653536656363461626662616466669639396626376663336336632331737566366333661663961
313831376534433626232333433306563626363654323936313761623933336265356539376662653230
376465383066662333432833334353138353363631643713836383378338653133376665313765626631
61626263623966623213464633566653861373261653730396561383964333363636613333343638
376565316433323965643563335623655326453333831343630653136331735313830462626466
37633626137373937623563376336613463646633313463356137663639336234353373033303738
393761386463316663673366333636337623833393934663136653838643264326236636363761
396162343230336663766383565306635376353761623963963966396434136366466235335316530
3938303463461363437326139613537393536323763353763376463320643837336335626136636363
306538636531396637616433336362623336338393138623765636461396539393623831656461337
353063363766464303031363538303664346663061343665646166363534343356166373861363643630
653839336565633623432316261633364623630363865326264376433346637323437333461316333
64333234613864323762336133328613666346338738633465323736663135335361383662393436
386332323466313937313961656635393031383732392316162
[ec2-user@ip-172-31-82-233 ~]$
```

VIEW = TO VIEW ENCRYPT YML FILE WITHOUT DECRYPT

Step 7: Now, enter the view command "ansible-vault view apache.yml" to view the decrypted original file

```
 ec2-user@ip-172-31-82-233:~
[ec2-user@ip-172-31-82-233 ~]$ ansible-vault view apache.yml
Vault password:
- hosts: all
  remote_user: ec2-user
  become: yes
  tasks:
    - name: Install Apache
      yum:
        name: httpd
        state: present

    - name: Start Apache
      service:
        name: httpd
        state: started

    - name: Copy index.html
      copy:
        src: ./index.html
        dest: /var/www/html/index.html
        mode: '0777'
[ec2-user@ip-172-31-82-233 ~]$ s
```

EDIT = TO EDIT YML ECRYPTED FILE

Step 8: Now, use edit command "ansible-vault edit apache.yml

```
 ec2-user@ip-172-31-82-233:~
[ec2-user@ip-172-31-82-233 ~]$ ansible-vault edit apache.yml
Vault password:
```

enter vault password to edit the yml file

```
 ec2-user@ip-172-31-82-233:~
hosts: all
  remote_user: ec2-user
  become: yes
  tasks:
    - name: Install Apache
      yum:
        name: httpd
        state: present

    - name: Start Apache
      service:
        name: httpd
        state: started

    - name: Copy index.html
      copy:
        src: ./index.html
        dest: /var/www/html/index.html
        mode: '0777'
~
-
```

Encrypt the unencrypted file

```
[ec2-user@ip-172-31-82-233 ~]$ vi tamizh.yml
- hosts: all
  remote_user: ec2-user
  become: yes
  tasks:
    - name: Installing Multiple Packages
      yum:
        name: "{{ item }}"
        state: present
      loop:
        - mysql
        - php
        - unzip
~
```

Now, **Cat tamizh.yml** to view the yml unencrypted script

```
[ec2-user@ip-172-31-82-233 ~]$ cat tamizh.yml
- hosts: all
  remote_user: ec2-user
  become: yes
  tasks:
    - name: Installing Multiple Packages
      yum:
        name: "{{ item }}"
        state: present
      loop:
        - mysql
        - php
        - unzip
[ec2-user@ip-172-31-82-233 ~]$ s
```

Now, use encrypt command **"ansible-vault encrypt tamizh.yml"** and enter the vault password to encryption successful

```
[ec2-user@ip-172-31-82-233 ~]$ ansible-vault encrypt tamizh.yml
New Vault password:
Confirm New Vault password:
Encryption successful
[ec2-user@ip-172-31-82-233 ~]$ ▐
```

Now, Cat tamizh.yml to view the encrypted file

```
[ec2-user@ip-172-31-82-233 ~]$ cat tamizh.yml
$ANSIBLE_VAULT;1.1;AES256
34613762636439366437626563353461313633376538663832623232393766646265393762646632
63616638366436623733383536343735326334376333534630a343039353335336230636631343263
66313638343266666666564346133316164393336136383666666339961346462393665663139373364
37663566666616637300a3936666363137316564313334346630383230313362663865383633613032
37313163643630306663966616335636536626530633232613932653735636263326230313306235
32373233346338363061363239323536332636464313335613463376634343231396653061316635
31353533303239613537353130356434623738376335636531613065656565562662303539626233
63346334623535643432653934313373965626234653264363531643734656566663344393330316238
36653332643430653632356433316238303637663938383130303465663462303030266326332366330
63623033383664653463323065356233961373438638663623731366430306662663203033231393964
62626663316163323236633735303964393164336636633334393313133663061383865636163662
36623735393833363733653534376335613661343666631353639373238386337343030646633343566
30303664326133666563864303534353066366235343931323031626438623931343764323062653
34323734653836333343439383738666626237376162373161636263643439313533663934373363166
61633930393636561323336643535366666238
```
```
[ec2-user@ip-172-31-82-233 ~]$ ▐
```

Decrypt Ansible Playbook

use decrypt command **"ansible-vault decrypt tamizh.yml"** to decrypt the file and **cat second.yml** to view the decrypted file

```
[ec2-user@ip-172-31-82-233 ~]$ ansible-vault decrypt tamizh.yml
Vault password:
Decryption successful
```

ec2-user@ip-172-31-82-233:~

```
[ec2-user@ip-172-31-82-233 ~]$ cat tamizh.yml
- hosts: all
  remote_user: ec2-user
  become: yes
  tasks:
    - name: Installing Multiple Packages
      yum:
        name: "{{ item }}"
        state: present
      loop:
        - mysql
        - php
        - unzip
```

To edit the encrypted yaml file

```
 ansible-vault edit tamizh.yml
```

```
[ec2-user@ip-172-31-82-233 ~]$ ansible-vault edit tamizh.yml
Vault password: ▐
```

Now you can edit

```yaml
- hosts: all
  remote_user: ec2-user
  become: yes
  tasks:
    - name: Installing Multiple Packages
      yum:
        name: "{{ item }}"
        state: present
      loop:
        - mysql
        - php
        - unzip
~
~
```

REKEY = TO CHANGE THE VAULT PASSWORD

Use rekey command **"ansible-vault rekey apache.yml"** to change the password and set new password to vault

```
[ec2-user@ip-172-31-82-233 ~]$ ansible-vault rekey apache.yml
Vault password:
New Vault password:
Confirm New Vault password:
Rekey successful
[ec2-user@ip-172-31-82-233 ~]$
```