Guided Practice: Managing Access Control Lists (ACL) on a Windows Server

Introduction

Ansible's strengths include the ability to facilitate the configuration of UNIX, Linux, Windows, and Mac operating systems that include groups that may be dependent on other groups which can involve the secure backing up of data, configuring firewalls, creating users and groups, and replication.

Outcome

In this Guided Practice, you will write a playbook to create a new directory with an ACL on your Windows server.

Resources Needed

- For this Guided Practice we will use the CentOS 8 and the Windows 2019 server in the VCastle pod configured for this class.

Level of Difficulty

Medium

Deliverables

Deliverables are marked with a red border around the screenshot. Additionally, there are guided practice questions at the end which you must respond to.

General Considerations

You should be familiar with Linux and Windows networking. Secure Shell (ssh) is installed and configured on the Ubuntu server from a prior Guided Practice. Ansible is installed and configured on your CentOS Computer, and you have completed all the previous exercises. Consider running the playbook in increments and testing each section as you go. This may make troubleshooting easier and lets you takes advantage of the idempotency feature in Ansible (a playbook can be run multiple times without affecting initial settings).

Instructions

⚠ *Important*: *Please Note*

All of your screenshots should include information that shows your login information.

Edit the Ansible Inventory (host) File

First, you will edit the Ansible Inventory (host) file to reflect your network architecture, if necessary.

1. View the inventory (hosts) file, and ensure your inventory file reflects the architecture of your network as shown below and includes the [win:vars] section.

```
[webserver]
192.168.1.3

[dbserver]
192.168.1.3

[win]
192.168.1.2

[win:vars]
ansible_user=cis321
ansible_password=Password1
ansible_connection=winrm
ansible_winrm_server_cert_validation=ignore
```

Write a Playbook to Create a New Directory on Your Windows server and Configure the ACL

1. Open a shell and type the following:

```
vim win_acl.yml
i
---
- hosts: win
  tasks:
  - name: Create the Development folder
    win_file:
      path: C:\Development
      state: directory

  - name: Create ACL for the Development directory
    win_acl:
      path: C:\Development
```

```
        rights: FullControl
        state: present
        type: allow
        user: Development


    - name: Remove ACL inheritance on the Development folder
      win_acl_inheritance:
        path: C:\Development
        reorganize: yes
        state: absent
  <ESC>
  :wq
```

```
---
- hosts: win
  tasks:
  - name: Create the Development folder
    win_file:
      path: C:\Development
      state: directory

  - name: Create ACL for the Development directory
    win_acl:
      path: C:\Development
      rights: FullControl
      state: present
      type: allow
      user: Development


  - name: Remove ACL inheritance on the Development folder
    win_acl_inheritance:
      path: C:\Development
      reorganize: yes
      state: absent
```

Take a screenshot that resembles the one above and paste it in your Lab Report.

2. Check the syntax and run the playbook. Note that the IP addresses in your output will reflect your network architecture and will differ from what is shown below.

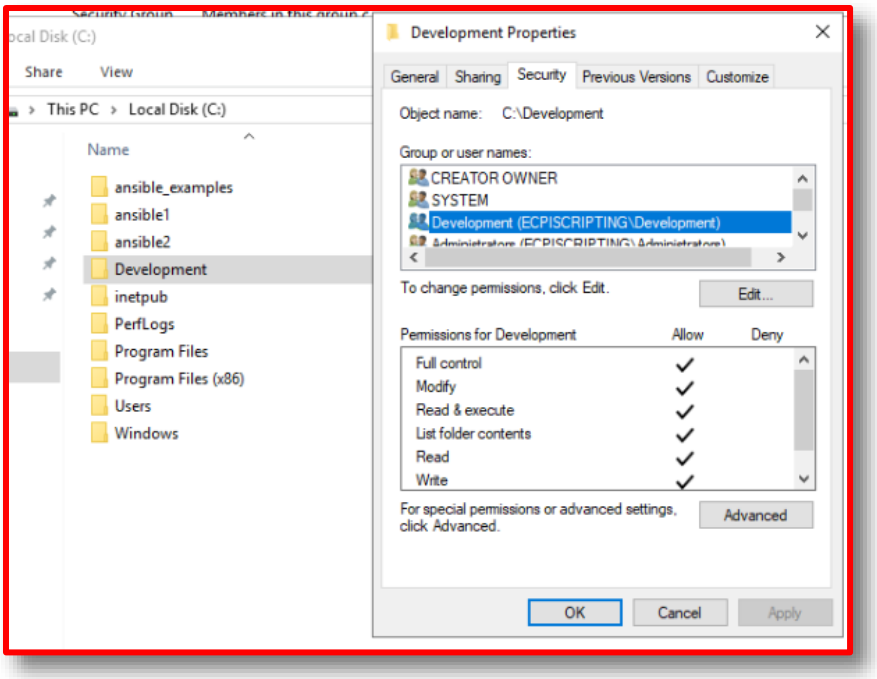
   In your shell type the following:

```
ansible-playbook win_acl.yml --syntax-check
ansible-playbook win_acl.yml
```

```
[alex@localhost vanVugt]$ ansible-playbook win_acl.yml

PLAY [win] *********************************************************************************************************

TASK [Gathering Facts] *********************************************************************************************
ok: [192.168.0.77]

TASK [Create Development folder] ***********************************************************************************
changed: [192.168.0.77]

TASK [Set ACL of Development folder] *******************************************************************************
changed: [192.168.0.77]

TASK [Remove parent inheritance of Development folder] *************************************************************
changed: [192.168.0.77]

PLAY RECAP *********************************************************************************************************
192.168.0.77               : ok=4    changed=3    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

   Take a screenshot that resembles the one above and paste it in your Lab Report.

3. Using File Explorer, verify that the changes have been implemented:



   Take a screenshot that resembles the one above and paste it in your Lab Report.

Guided Practice Questions

In your **Guided Practice Lab Report**, answer the following questions about this learning activity. Some may require research.

1. What is the best source for Ansible Documentation?

2. Where should you go for Ansible Windows Modules Documentation?

3. What actions are made possible by the win_file module?

4. Which options are available for the "**rights**" parameter of the win_acl plugin?

5. What features does the Ansible ansible.windows collection enable?

References

Ansible. (2020a). *Manage Windows user rights.* https://docs.ansible.com/ansible/latest/collections/ansible/windows/win_user_right_module.html

Ansible. (2020b). *Set up users and groups.* https://docs.ansible.com/ansible/latest/user_guide/windows_usage.html#use-cases

Ansible. (2020c). *Windows guides.* https://docs.ansible.com/ansible/latest/user_guide/windows.html#windows

What is idempotency?. https://rapidapi.com/blog/api-glossary/idempotency/

https://geekflare.com/ansible-playbook-windows-example/

https://www.linuxtechi.com/manage-windows-host-using-ansible/

Geerling, J. (2014). *geerlingguy/mac-dev-playbook*. https://github.com/geerlingguy/mac-dev-playbook

VIDEO

Hands-on Ansible

By Sander van Vugt

Pearson IT Certification March 2020

3.2 Understanding Ansible Modules

Automating with Ansible

By Sander van Vugt

Addison-Wesley Professional November 2018

3.3 Managing Windows with Ansible