Ansible Foundation Workshop Hands-On Guide

This article is a step-by-step guide for the hands-on session included in the Ansible Foundation Workshop conducted by ESD PSS Infra department. This hands-on session serves to teach you how to write simple Ansible Playbooks. The knowledge gained shall build the foundation necessary to utilise Ansible's various features and modules for complex use cases.

1. Setup Ansible

Ansible can be used to configure any target system that supports the SSH protocol and Python 2/3 library. However, Ansible's control node can only run on Unix OS (Ubuntu, MacOS, Red Hat, etc.). For this workshop, an Ubuntu 18.04 VM with Ansible is already prepared for you.

1.1 (Optional) Install Ansible

To install Ansible on an Ubuntu 18.04 VM, run the following commands as a sudo user:

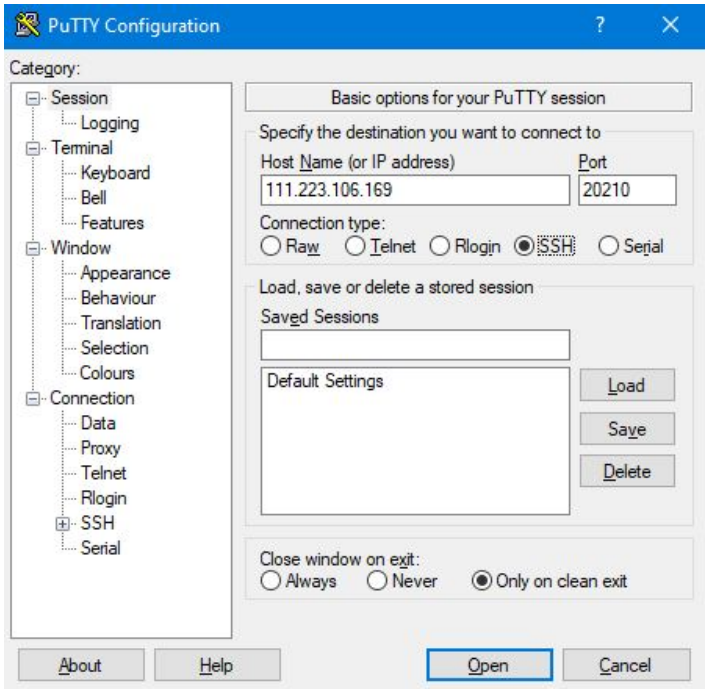
```
sudo apt-add-repository ppa:ansible/ansible
sudo apt update
sudo apt install ansible
```

2. Access Ansible Host Remotely

2.1 For Windows PC

1. Install software PuTTY

2. Run PuTTY and start a session with the following settings:
    - Host Name: 111.223.106.169
    - Port: 20210
    - Connection type: SSH



3. In the Terminal that appears, login using the following credentials (replace 'X' with the number assigned to you):
    - Username: userX
    - Password: userX

2.2 For Ubuntu/Debian PC

1. Access the command console

2. Update Package list

```
sudo apt update
```

3. Install OpenSSH server

```
sudo apt install openssh-server
```

4. SSH to the target VM (replace 'X' with the number assigned to you). Password is the same as the username.

```
ssh userX@111.223.106.169 -p 20210
```

3. Hands-On Tasks

3.1 Task 1 - Introduction to Playbook

3.2 Task 2 - Using Variables

3.3 Task 3 - Privilege Escalation

3.4 Task 4 - Target Control

Appendix A

Useful Ubuntu Commands

Change directory to current user's home directory

```
cd ~
```

Change directory to a specific path

```
cd /path/to/directory
```

Change directory to a relative path

```
cd path/to/directory/from/current/directory
```

List down all files and folders in the current directory

```
ls -al
```

List down all files and folders in the specified directory

```
ls -al /path/to/directory
```

Edit file with nano text editor
To save your file when inside the editor: `CTRL` + `o`, then `ENTER`
To exit the editor: `CTRL` + `x`

```
nano your_file_name
```

Access target server remotely through SSH protocol

```
ssh <username>@<target_ip> -p <port_number(default is 22)>
```

Terminate your current user's session

```
exit
```