

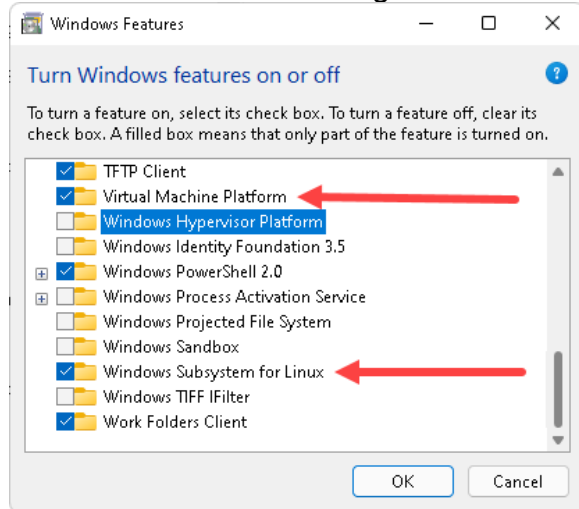
Lab Setup for Network Automation with Python

1. Activate the Windows Subsystem for Linux (WSL) from the Control Panel:

Control Panel\All Control Panel Items\Programs and Features > Turn Windows features on or off >

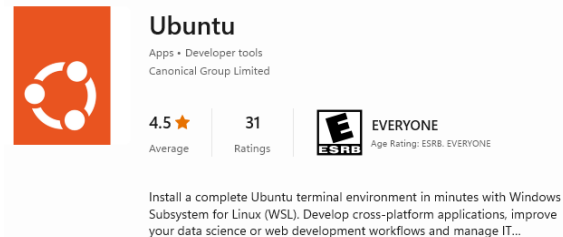
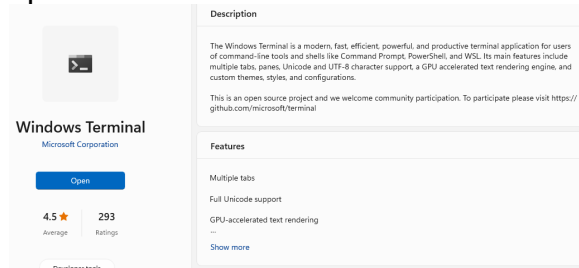
Check the checkbox for **Virtual Machine Platform** and **Windows Subsystem for Linux**

Note: You must be running Windows 10 64-bit

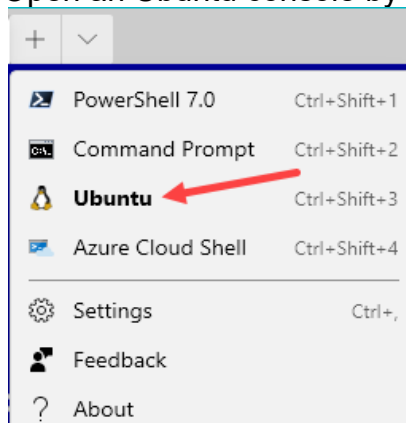


Restart as needed.

2. Open the Microsoft Store. Download and install the **Windows Terminal** app and **Ubuntu**.



3. After Ubuntu is installed, launch it and configure the username as **cisco** and the password as **cisco**.
4. Close Ubuntu.
5. Open **Windows Terminal**.
Right-click Start > Windows Terminal or run **> wt**
6. Open an Ubuntu console by clicking the dropdown and selecting **Ubuntu**.



Note: It will take a few moments to install. You may have to restart the Terminal for changes to take effect.

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7. You should get a prompt similar to this:



```
cisco@Scott-HomePC: /mnt/c/Users/scott$
```

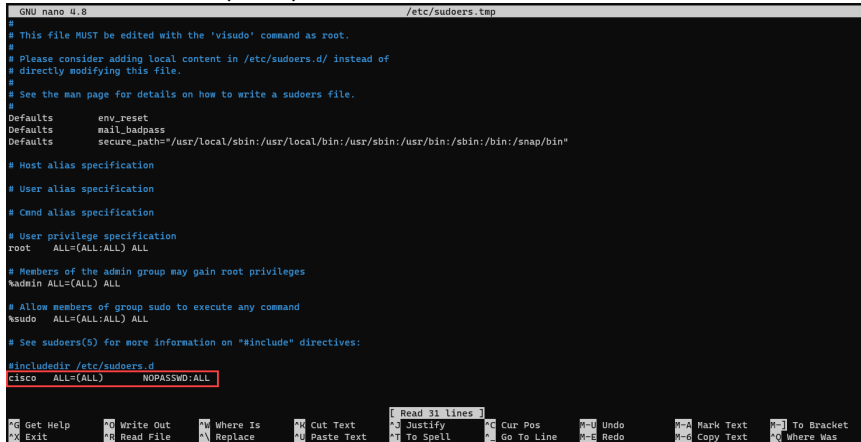
8. Remove the requirement to enter a password for sudo. Open the `/etc/sudoers` file and at the end of the file add this line:

Note: This file is hidden until you add your code.

sudo visudo

Type this at the bottom of the file:

cisco ALL=(ALL) NOPASSWD:ALL



```
GNU nano 4.8 /etc/sudoers.tmp
# This file MUST be edited with the 'visudo' command as root.
#
# Please consider adding local content in /etc/sudoers.d/ instead of
# directly modifying this file.
# See the man page for details on how to write a sudoers file.
#
Defaults    env_reset
Defaults    mail_badpass
Defaults    secure_path="/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/snap/bin"
# Host alias specification
# User alias specification
# Cmnd alias specification
# User privilege specification
root    ALL=(ALL:ALL) ALL
# Members of the admin group may gain root privileges
%admin    ALL=(ALL) ALL
# Allow members of group sudo to execute any command
%sudo    ALL=(ALL:ALL) ALL
# See sudoers(5) for more information on "include" directives:
#include_dir /etc/sudoers.d
cisco    ALL=(ALL) NOPASSWD:ALL
```

9. Save, Close, and reopen Windows Terminal.

10. Add user to the sudo group:

sudo usermod -aG sudo cisco

11. Check the user was added to the group:

grep '^sudo' /etc/group
sudo:x:27:cisco

12. Update Ubuntu:

sudo apt update && sudo apt upgrade -y

13. Check Python and PIP versions:

python3 --version

Python 3.8.10 (or later)

pip3 --version

pip 22.0.4 from /usr/local/lib/python3.8/dist-packages/pip (python 3.8) (or later)

14. If needed, install Python:

sudo apt install python3 -y (sudo apt reinstall python3)

15. If needed, install PiP3:

sudo apt install python3-pip -y (python3 -m pip install --upgrade pip)

16. Install Netmiko and Git:

sudo apt install python3-netmiko git-all -y

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17. Install the GO programming language:

```
wget -c https://dl.google.com/go/go1.14.2.linux-amd64.tar.gz -O - | sudo tar -  
xz -C /usr/local
```

18. Add the location of the Go directory to the **\$PATH** environment variable so the system will know where to find the Go executable binaries. Add this to the bottom of the **/home/.profile** file:

```
sudo nano ~/.profile
```

```
export PATH=$PATH:/usr/local/go/bin
```

19. Save and exit.

20. Load the new PATH environment variable into the current shell session:

```
source ~/.profile
```

21. Verify the installation:

```
go version
```