

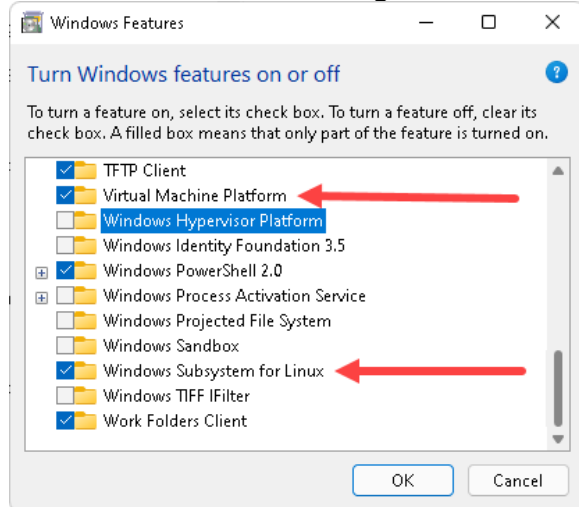
# Lab Setup for Network Automation with Python

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 >**

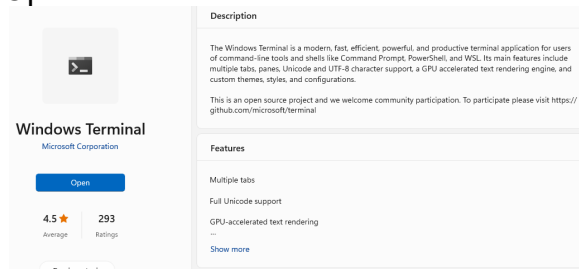
Check the checkbox for **Virtual Machine Platform** and **Windows Subsystem for Linux**

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**.



**Ubuntu**

Apps • Developer tools  
Canonical Group Limited

4.5 ★

Average

31

Ratings



EVERYONE

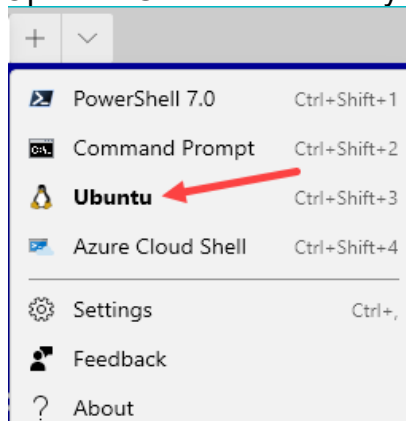
Age Rating: ESRB: EVERYONE

Install a complete Ubuntu terminal environment in minutes with Windows Subsystem for Linux (WSL). Develop cross-platform applications, improve your data science or web development workflows and manage IT...

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**

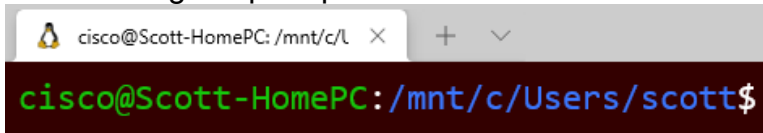
6. Open an Ubuntu console by clicking the dropdown and selecting **Ubuntu**.



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$
```

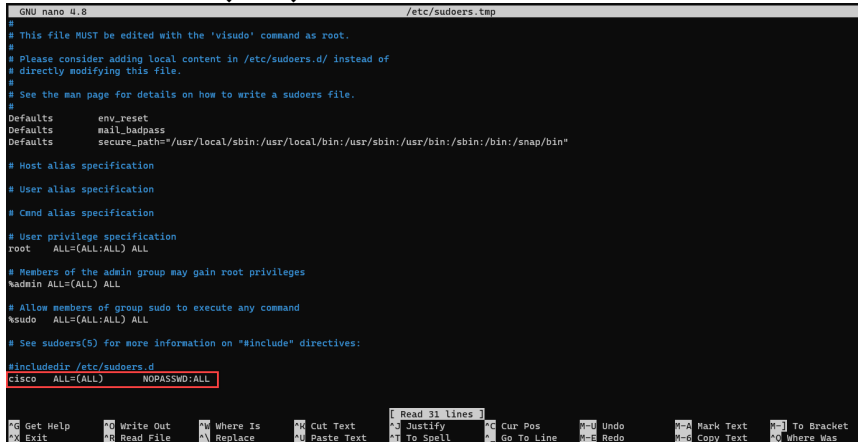
8. Remove the requirement to enter a password for sudo. Open the /etc/sudoers file and at the end of the file add this line:

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"
# 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**