LAB – READ INFORMATION FROM A FILE

OBJECTIVE

In this lab, you will write an application that reads device information from a file, strips off excess whitespace characters, and displays the information that has been read.

You will be using the file **devices-01.txt**, which includes the following information, each on its own line:
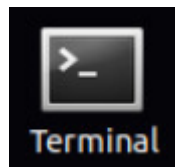- Device name
- IP address
- OS type
- Username
- Password

PART 1

Open a Linux terminal and switch to the lab directory
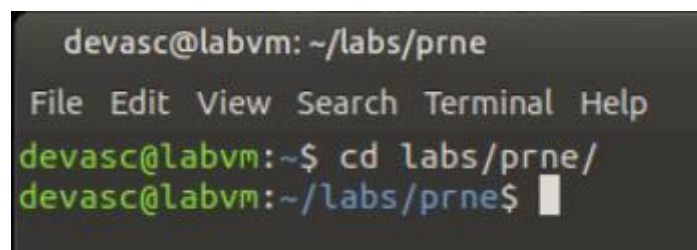
STEP 1: OPEN A TERMINAL WINDOW

Double-click the Terminal icon on the desktop to open the terminal window for use in this lab.
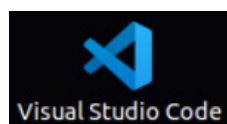

STEP 2: CHANGE DIRECTORY

Change to the directory **labs/prne/** in the user home directory, which holds the files for the course labs.

```
~$ cd labs/prne/
```


PART 2

Open **Visual Studio Code**, create a new file and save it with a filename of **read-information-from-a-file.py**. Ensuring to save the file in the **~/labs/prne/** directory, as otherwise the code will require modification to find the associated files that are used.

STEP 1: OPEN FILE FOR READING

The first thing the application should do is open the file **devices-01.txt** for reading.

```
# Open file for reading
file = open('devices-01.txt', 'r')
```

STEP 2: READ AND STRIP WHITE SPACE

Read in the information from the file, one line at a time and strip off extra whitespace characters for each line.

```
# Read the file one line at a time and strip off any extra whitespace
# characters for each line
name = file.readline().strip()
ip_address = file.readline().strip()
os_type = file.readline().strip()
username = file.readline().strip()
password = file.readline().strip()
```

STEP 3: DISPLAY THE DEVICE INFORMATION

Display the device information that has been read in on the terminal.
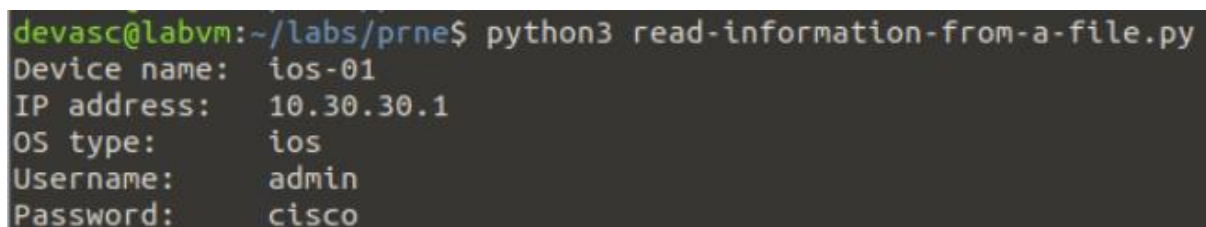
```
# Display the device information
print('Device name: ', name)
print('IP address:  ', ip_address)
print('OS type:     ', os_type)
print('Username:    ', username)
print('Password:    ', password)
```

STEP 4: SAVE, RUN AND VERIFY APPLICATION

Save you application and then run it from the terminal rather than from within visual studio code.

```
~/labs/prne$ python3 read-information-from-a-file.py
```

Verify the output from your application is comparable to below.

```
devasc@labvm:~/labs/prne$ python3 read-information-from-a-file.py
Device name:  ios-01
IP address:   10.30.30.1
OS type:      ios
Username:     admin
Password:     cisco
```

PART 3 (OPTIONAL BUT HIGHLY RECOMMENDED)

As this lab is completed in NETLAB+ and your code files will be erased when the reservation ends, it is advisable to save your files in GitHub under your repository for this course.