2.3.3.1: Lab - Create a Network Device Inventory in Python-2

This page summarizes the steps in **Lab - Create a Network Device Inventory in Python**. Click here (https://288647296.netacad.com/courses/951643/files/82148729/download?wrap=1)  (https://288647296.netacad.com/courses/951643/files/82148729/download?wrap=1) to download the lab PDF if you would like a more detailed explanation.

In this lab, you will complete the following objectives:

- Part 1: Investigate the Network Device Inventory API
- Part 2: Modify the Code

Required Resources

- Postman
- Python 3 with IDLE
- Python **requests** module
- Python **tabulate** module
- The functions file that you have created or the **apic_em_functions_sol.py** file
- The **print_hosts.py** file that you created or the **print_hosts_sol.py** file
- Access to the Internet
- Access to an APIC-EM sandbox

Part 1: Investigate the Network Device Inventory API

In this part of the lab, you will investigate the documentation for the APIC-EM's network device inventory service to determine the necessary information you need to create your program.

Step 1: Determine the endpoint URL.

a. Login to the APIC-EM sandbox and click **API** to access the Swagger API documentation.
b. Under Available APIs, click **Inventory > network-device > GET /network-device**.
c. Click **Try it out!** Record the URL that you will use in the **get()** method.

Step 2: Investigate the response JSON.

a. Copy the JSON in the Response Body and paste it into **https://codebeautify.org/jsonviewer (https://codebeautify.org/jsonviewer)** .
b. Compare **GET /network-device** JSON to the **GET /host** JSON you viewed in the previous lab. How is the structure of the network device inventory JSON similar to the structure of the host inventory JSON?
c. How many network devices are included in the inventory?
d. You want to access and display information for the network devices similar to the information that are displayed for the hosts. However, the keys do not use the names **hostType** and **hostIP**. What are the names of similar keys for the network devices?
e. Look for other cosmetic impacts to the code. For example, there are status and error messages that are displayed to the user. They may require modification.

Part 2: Modify the Code

a. Open your **print_hosts.py** file and save it as **print_devices.py**.
b. Locate the places that require changes and make the edits.
c. Save and run your code. Investigate errors. If necessary, compare your file to the **print_devices_sol.py** file to discover the source of the errors.
d. Create a function from your code by copying the code into your **my_apic_em_functions.py** file and transforming it into a function called **print_devices()**.
e. Run your function file and test each function to make sure your code is error free.