Lab - PC Setup for Workshop

Objectives

In this lab, you will complete the following objectives in order to prepare your computer for the course:

Part 1: Install and Verify Python

Part 2: Install Postman

Part 3: Install JSONView

Part 4: Install Putty

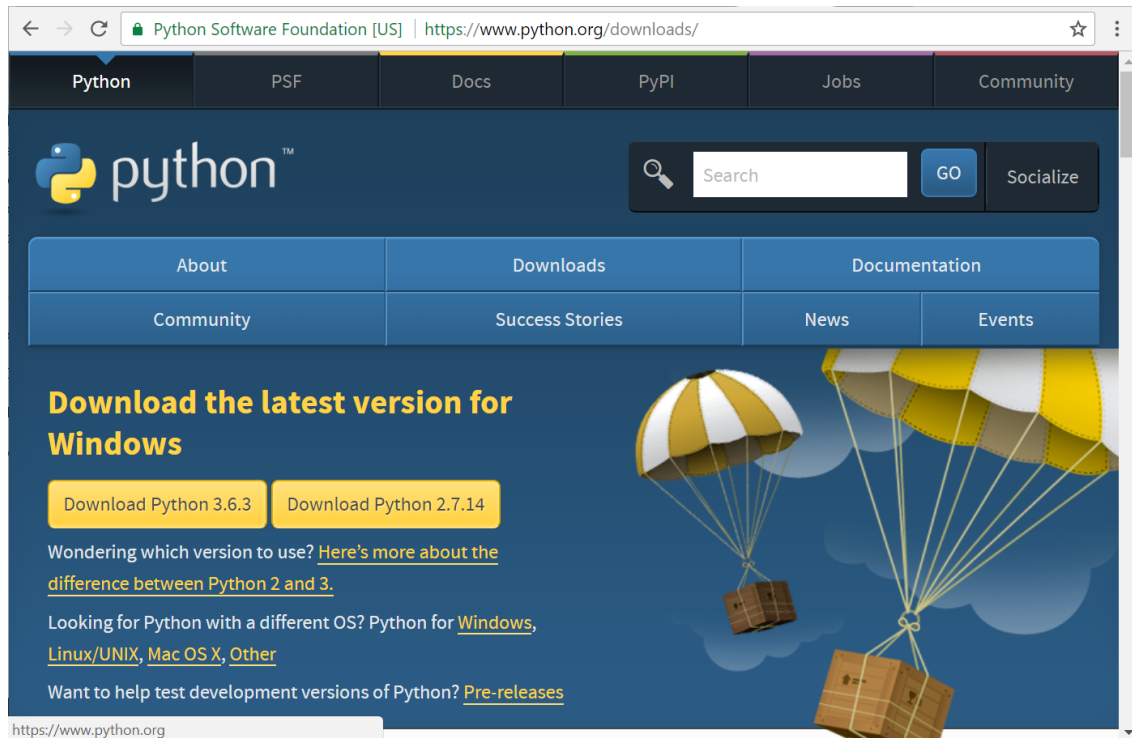**Part 5 (optional): Setup Oracle VirtualBox**

Computer Requirements

- Windows, MAC, or Linux computer
- Oracle VirtualBox
- Script and data files (download from page 1.0.1.2 in course)

Part 1: Install and Verify Python

Complete the following steps to install and verify Python.

Step 1: Download and install Python.

Go to https://www.python.org/downloads and download the most recent version of Python 3.
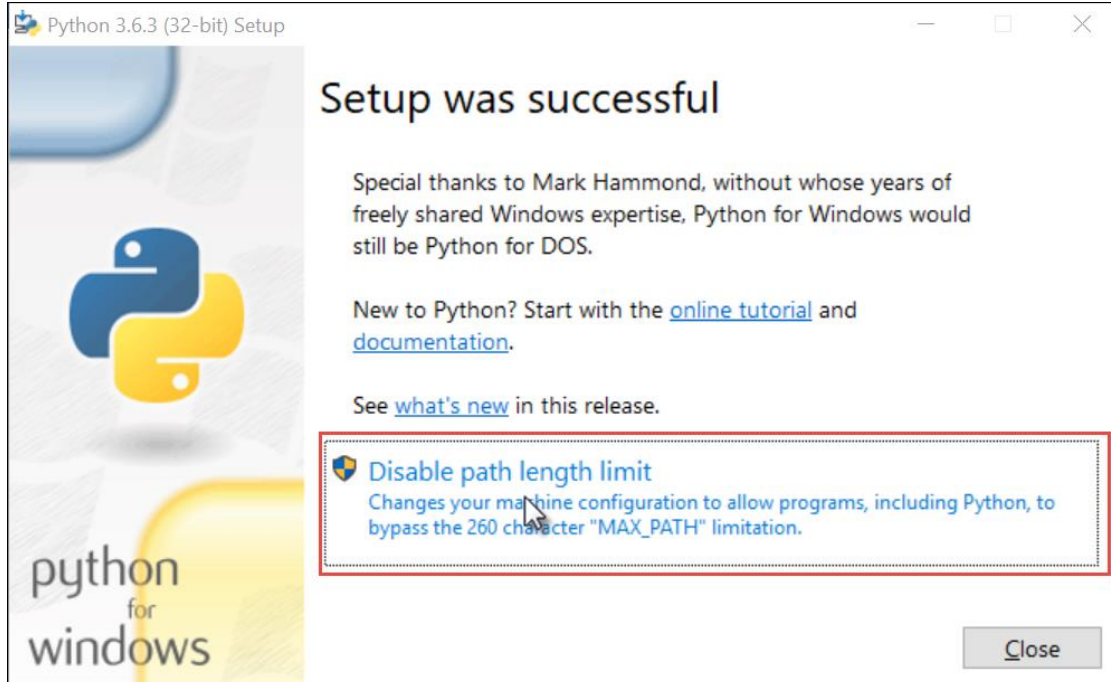
When installing, make sure you check the "Add Python 3.6 to Path" checkbox.

When setup finishes, click the "Disable path length limit" if this option is available for your installation.

Step 2: Test your Python installation.

For the Windows OS, open a command prompt and enter the command **python**. The interactive interpreter should open. Type **quit()** to exit the Python interactive interpreter.

```
C:\> python
Python 3.6.3 (v3.6.3:2c5fed8, Oct 3 2017, 17:26:49) [MSC v.1900 32 bit (Intel)] on
win32
Type "help", "copyright", "credits" or "license" for more information.
>>> quit()


C:\>
```

For the Mac or Linux OS, open a command prompt and enter the command **python3**. Type **quit()** to exit the Python interactive interpreter.
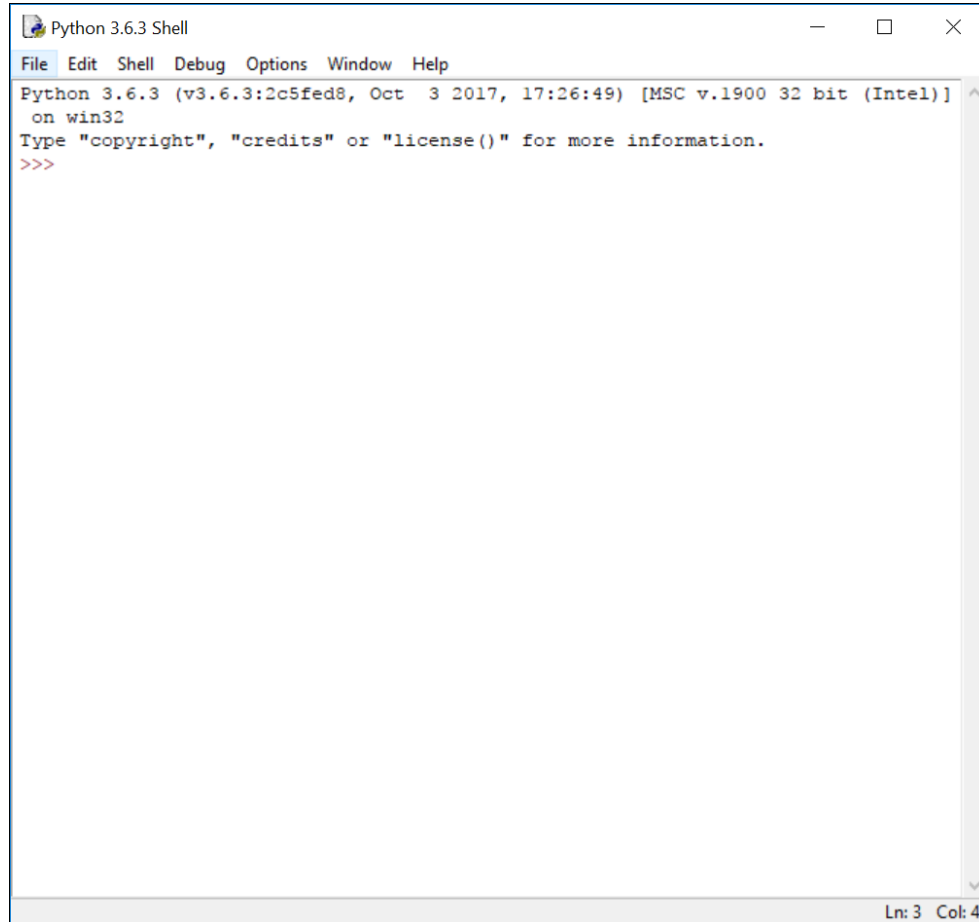
```
$ python3
Python 3.5.2 (default, Oct 3 2017, 17:48:00)
[GCC 5.4.0 20160609] on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> quit()
$
```

Step 3: Verify that you can open IDLE.

For the Windows OS, open IDLE from the Programs menu: **Start > Python 3.6 > IDLE (Python 3.6 32-bit)**.

For the Mac or Linux OS, open a command prompt and enter the command **idle3**.

The IDLE shell should open.

Step 4: Install Python modules that will be used in the course.

The default Python installation comes with all the standard modules that most programmers would need to create applications. However, there are many more modules available that extend the functionality of Python. To keep the initial installation of Python small, these modules are not including in the default package.

Returning to your command prompt window, use Python Package Index (accessed with the pip command) to download the modules requests and tabulate, as shown for Windows in Example 3. For Linux and Mac, use **pip3 install** *module_name*.

```
C:\> pip install requests
Collecting requests
 Downloading requests-2.18.4-py2.py3-none-any.whl (88kB)
 100% |███████████████████████████████| 92kB 217kB/s
...
Installing collected packages: ... requests
 Running setup.py install for module ... done
Successfully installed … requests-2.18.4
```

```
C:\> pip install tabulate
Collecting module
Collecting tabulate
 Downloading tabulate-0.8.1.tar.gz (45kB)
 100% |████████████████████████████████| 51kB 71kB/s
Installing collected packages: tabulate
 Running setup.py install for tabulate ... done
Successfully installed tabulate-0.8.1

C:\> pip install ncclient
Collecting ncclient
  Downloading ...
Installing collected packages: ... ncclient
Successfully installed ... ncclient-0.6.3
```

```
# !IMPORTANT! On Windows, use the "--no-binary pyang" option:
```
```
C:\> pip install --no-binary pyang pyang
Collecting pyang
  Downloading ...
Installing collected packages: pyang
Successfully installed pyang-1.7.8

C:\> pip install netmiko
Collecting netmiko
  Downloading ...
Installing collected packages: netmiko
Successfully installed netmiko

C:\> pip install xmltodict
Collecting xmltodict
  Downloading ...
Installing collected packages: xmltodict
Successfully installed xmltodict
```

Part 2: Install Postman

Postman is an application that you will use in this course to make HTTP API requests.

Step 1: Download the Postman application.

Postman is available as an application for Windows, Mac, and Linux operating systems. To install Postman, go to the apps page at https://www.getpostman.com/apps and click Download for your OS.

Step 2: Sign up to use Postman or choose to create an account at another time.

## Step 3: Verify that the Postman application is installed.
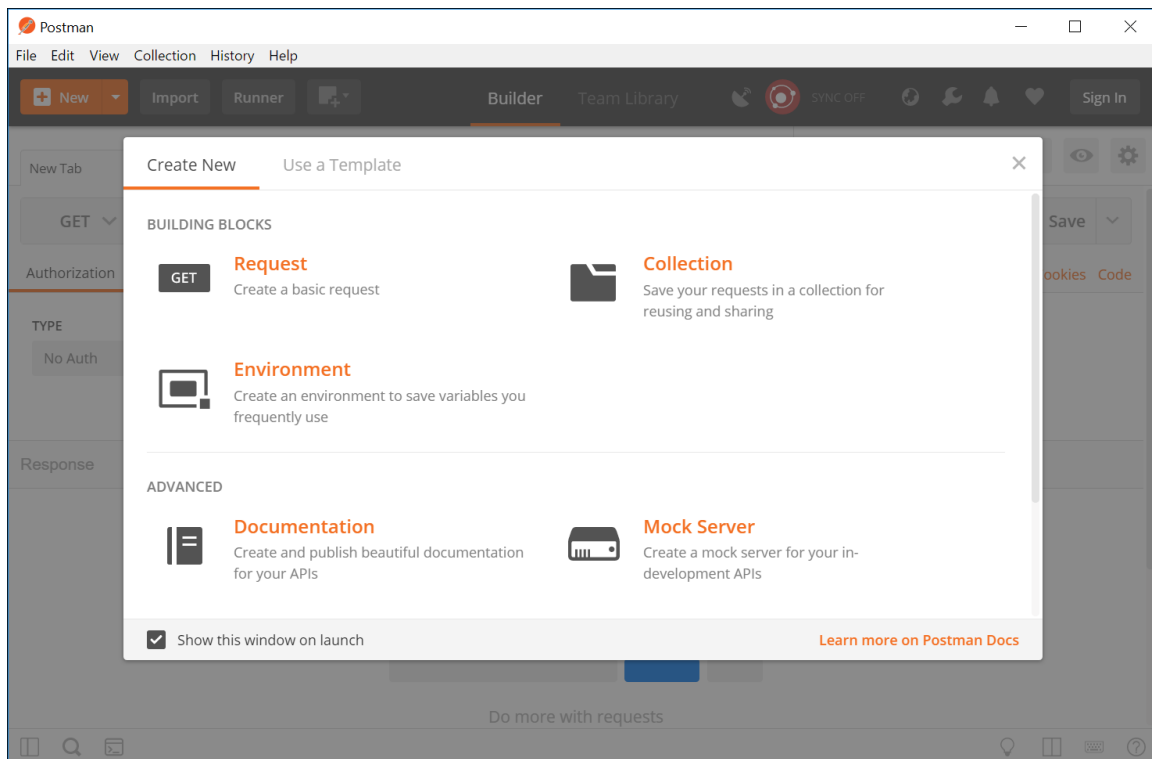
Part 3: Install JSONView

JSONView is a Chrome extension that you will use in this course to better view JSON data.

Step 1: Install the JSONView Chrome extension.

Click here to access the JSONView extension and add it to Chrome. After installation, you should see the JSONView icon in the top right corner of your Chrome browser.

Note: If the link does not work, search for "Chrome JSONView extension" to locate it.
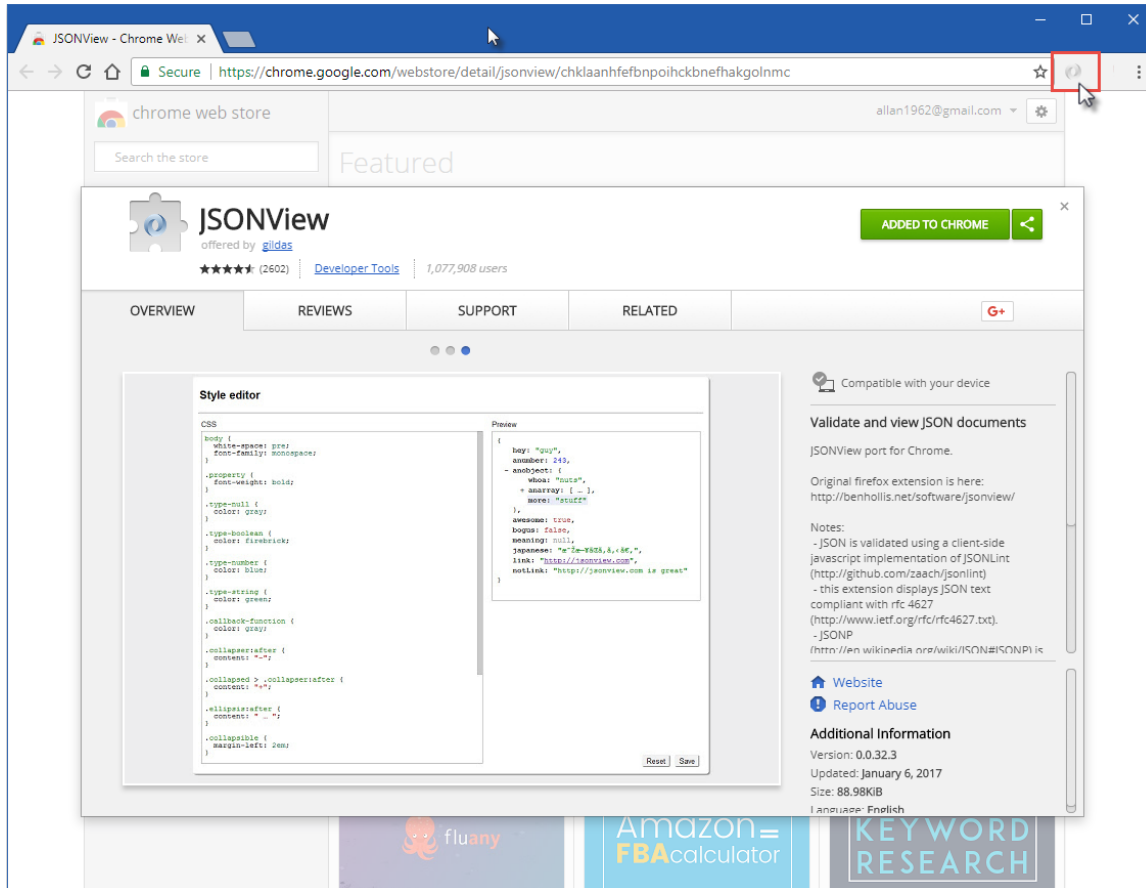
Step 2: Test the JSONView extension.

Use the Google Map Geocoding link below verify that your JSONView extension is working properly. You should be able to collapse and expand sections of the JSON data.

http://maps.googleapis.com/maps/api/geocode/json?address=sanjose

Part 4: Installing Putty

Step 1: Download Putty

1. Go to the Putty terminal emulator homepage: https://www.chiark.greenend.org.uk/~sgtatham/putty/
2. Download and install the Putty terminal emulator client

Part 5: (optional) Setup Oracle VirtualBox

Use this part to setup your computer to local run a Cisco IOS-XE virtual machine in VirtualBox. You can skip this part if you have access to a physical ISR4221 or ISR4321 router in your academy's lab kit, or you plan to use the remote DevNet Sandbox environment.

Step 1: Download and Install Oracle VirtualBox.

a. Navigate to the Oracle VirtualBox downloads page.

b. Choose and download the appropriate installation file for your operating system.

c. After you have downloaded the VirtualBox installation file, run the installer and accept the default installation settings (including the Host-Only networking option).