**Python Set Up**

This page explains how to set up Python on a machine so you can run and edit Python programs, and links to the exercise code to download. You can do this before starting the class, or you can leave it until you've gotten far enough in the class that you want to write some code. The Google Python Class uses a simple, standard Python installation, although more complex strategies are possible. Python is free and open source, available for all operating systems from [python.org](http://python.org/). In particular we want a Python install where you can do two things:

* Run an existing python program, such as hello.py
* Run the Python interpreter interactively, so you can type code right at it

Both of the above are done quite a lot in the lecture videos, and it's definitely something you need to be able to do to solve the exercises.

**Download Google Python Exercises**

As a first step, download the [google-python-exercises.zip](https://developers.google.com/edu/python/google-python-exercises.zip) file and unzip it someplace where you can work on it. The resulting google-python-exercises directory contains many different python code exercises you can work on. In particular, google-python-exercises contains a simple hello.py file you can use in the next step to check that Python is working on your machine. Below are Python instructions for Windows and all other operation systems:

**Python on Linux, Mac OS X, etc.**

Most operating systems other than Windows already have Python installed by default. To check that Python is installed, open a command line (typically by running the "Terminal" program), and cd to the google-python-exercises directory. Try the following to run the hello.py program (what you type is shown in bold):

~/google-python-exercises$ **python hello.py**

Hello World

~/google-python-exercises$ **python hello.py Alice**

Hello Alice

If python is not installed, see the [Python.org download](http://python.org/download) page. To run the Python interpreter interactively, just type "python" in the terminal:

~/google-python-exercises$ **python**

Python 2.5.2 (r252:60911, Feb 22 2008, 07:57:53)

[GCC 4.0.1 (Apple Computer, Inc. build 5363)] on darwin

Type "help", "copyright", "credits" or "license" for more information.

>>> **1 + 1**

2

>>> **you can type expressions here .. use ctrl-d to exit**

For Google's Python Class, you want a python version that is 2.4 or later, and avoiding the 3.x versions for now is probably best.

**Execute Bit (optional)**

The commands above are the simplest way to run python programs. If the "execute bit" is set on a .py file, it can be run by name without having to type "python" first. Set the execute bit with the "chmod" command like this:

~/google-python-exercises$ **chmod +x hello.py**

~/google-python-exercises$ **./hello.py** ## now can run it as ./hello.py

Hello World

**Python on Windows**

Doing a basic Python install on Windows is easy:

* Go to the [python.org download](http://www.python.org/download/) page, select a version such as 2.6. Google's Python Class should work with any version 2.4 or later, and avoiding the 3.x versions for now is probably best.
* Run the Python installer, taking all the defaults. This will install Python in the root directory and set up some file associations.

 With Python installed, open a command prompt (Accessories > Command Prompt, or type 'cmd' into the run dialog). Cd to the google-python-exercises directory (from unzipping google-python-exercises.zip). You should be able to run the hello.py python program by typing "python" followed by "hello.py" (what you type is shown in bold):

C:\google-python-exercises> **python hello.py**

Hello World

C:\google-python-exercises> **python hello.py Alice**

Hello Alice

If this works, Python is installed. Otherwise, see [Python Windows FAQ](http://www.python.org/doc/faq/windows/) for help.

To run the Python interpreter interactively, select the Run... command from the Start menu, and type "python" -- this will launch Python interactively in its own window. On Windows, use Ctrl-Z to exit (on all other operating systems it's Ctrl-D to exit).

In the lecture videos, we generally run the Python programs with commands like "./hello.py". On Windows, it's simplest to use the "python hello.py" form.