Chapter 9

Getting Python Up and Running

Installing Python is usually pretty straightforward. Point your web browser at http://www.python.org, and there you will find downloadable versions for both Windows and OS X.

Make sure you get the version at Python.org, rather than that at a third-party site, unless you are sure that you are getting a legitimate distribution. There should be no reason to install anything but the official distribution, as it is the one that is likely to be up to date and has been thoroughly tested for your operating system.

While Python does come pre-installed on Macs, that version is likely to be behind the current version, and there have been important improvements in the most recent versions, such as the inclusion of the package installer PIP, which previously had to be added separately. PIP makes installation of third party library modules simple.

Installation on Windows

When you go to python.org, it will probably detect your operating system and when you click on downloads you'll be offered the latest release for your operating system.

Throughout Chapter 9 and these tutorials, we have focused on Python 2.7, so if you want to be able to write your code exactly as we have presented it, download the latest version for version 2.7.

Windows will ask if you want to run or save the file. Either run it directly, or save it and run it when you are ready.

When you get the Windows security warning, choose Run.
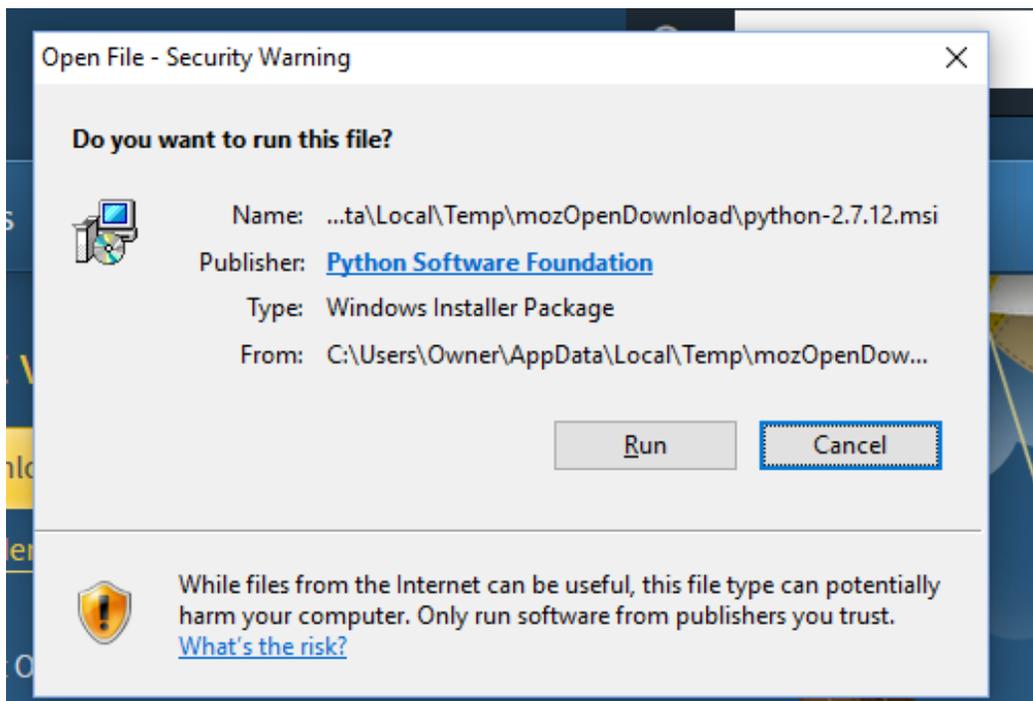
When asked if you should install for all users or "just me," the choice is between making the installation available for any user account on the computer, or just the one doing the installation. Make the choice most appropriate for your circumstances.

When you click Next you'll be prompted to choose an installation directory. The default Python27 director will do for most installations.
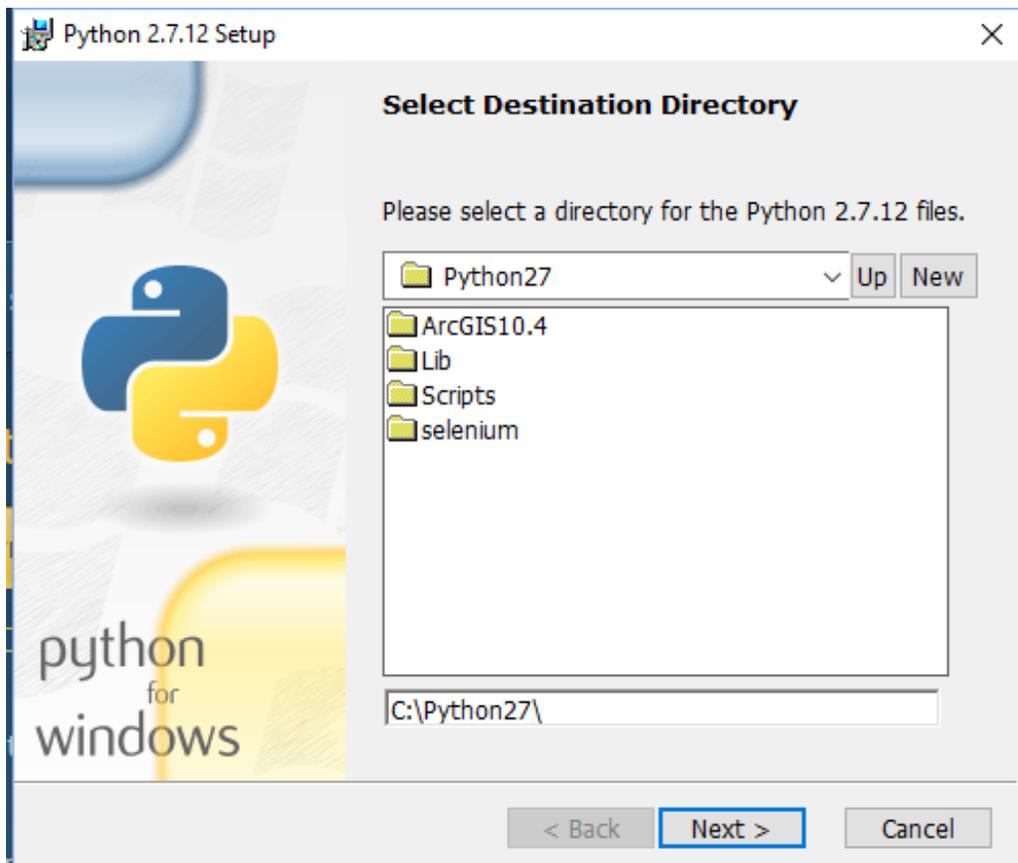
Click Next.

In the customization dialogue, you should make sure that the option to add Python to the path is selected. It is not enable by default. This will ensure that when you later call the Python interpreter from the command prompt that Windows will find it without your having to enter the entire path to Python.
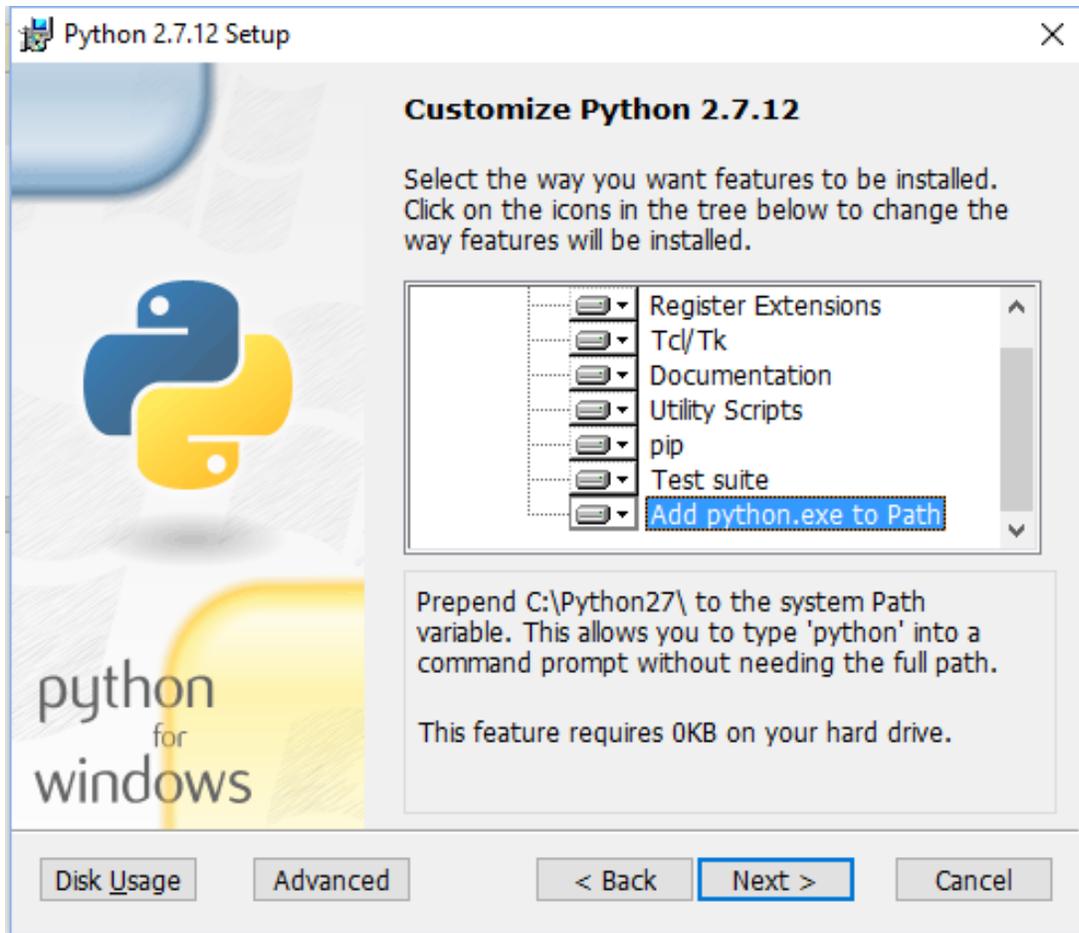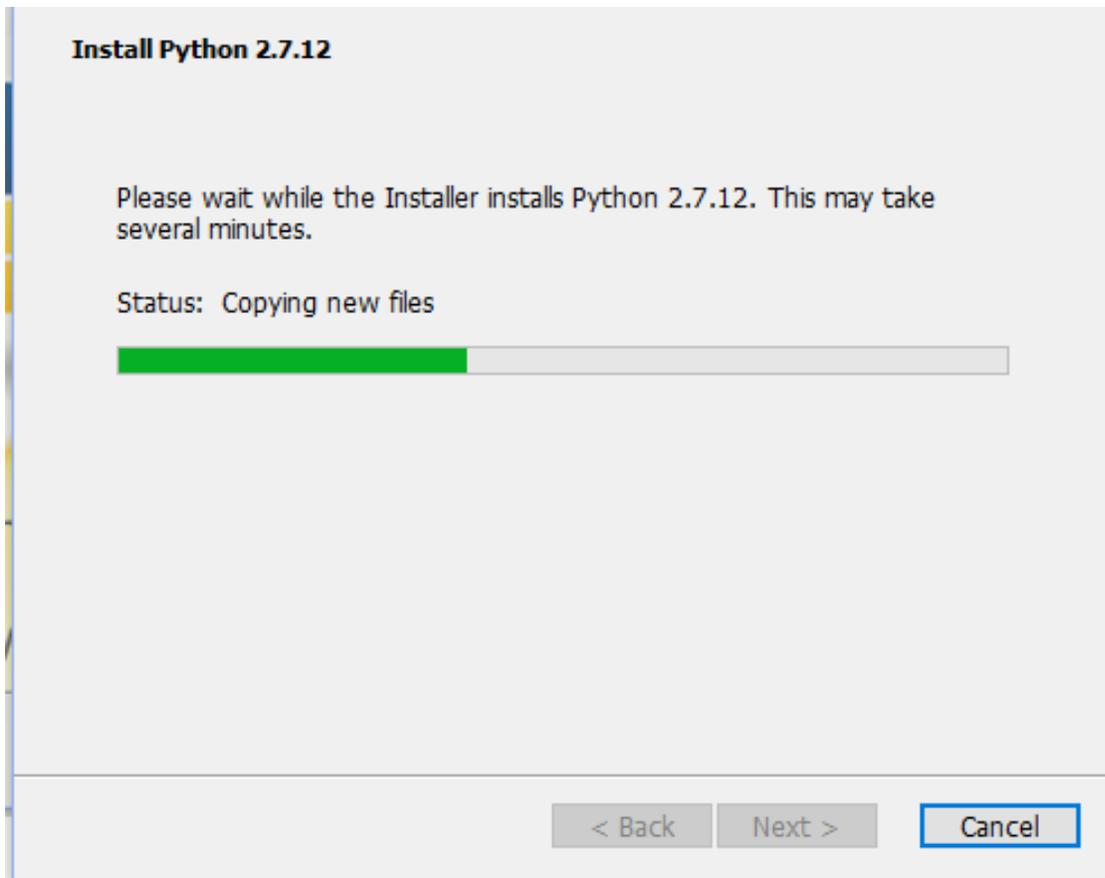
If this option is not enabled, click on the small downward arrow beside the feature and select the option to install the feature on the hard drive.

When you are done, click Next.

Python will now begin to install and you may need to affirm a user account control warning.

While you wait, you'll get a screen like this.

Install Python 2.7.12

Please wait while the Installer installs Python 2.7.12. This may take several minutes.

Status: Copying new files

< Back   Next >   Cancel

When Python is done, you will be prompted to click Finish.

When you install Python on Windows, not only the interpreter is installed, but also the IDLE shell. Idle allows you to run your code one statement at a time, rather than running a completed script. Click enter, and the statement will be interpreted.

This is great for prototyping code, and seeing how individual statements will run. You can assign values to variables and use them in subsequent lines. While not a full fledged code editor or IDE, it has useful features such as colour coding, and a debugging utility.

Here is IDLE with the classic first Hello World statement entered.
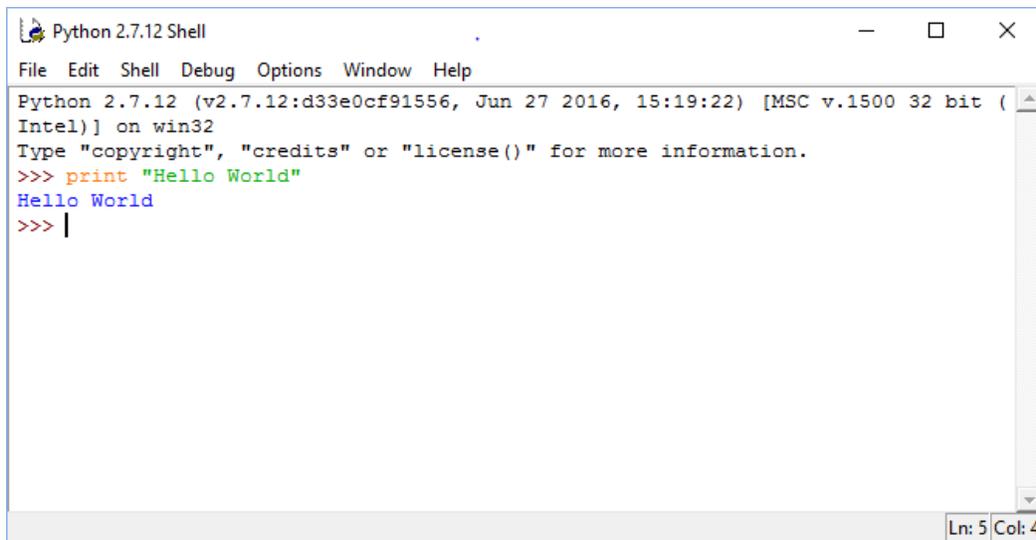
```
Python 2.7.12 Shell                                          —    □    ×
File  Edit  Shell  Debug  Options  Window  Help
Python 2.7.12 (v2.7.12:d33e0cf91556, Jun 27 2016, 15:19:22) [MSC v.1500 32 bit (
Intel)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> print "Hello World"
Hello World
>>> |


                                                                    Ln: 5 Col: 4
```

Installing Packages

As long as you have installed the latest version of Python, it will include pip, a Python package manager. It allows you to install third party packages such as Beautiful Soup and Requests with a simple command at the Windows command prompt.
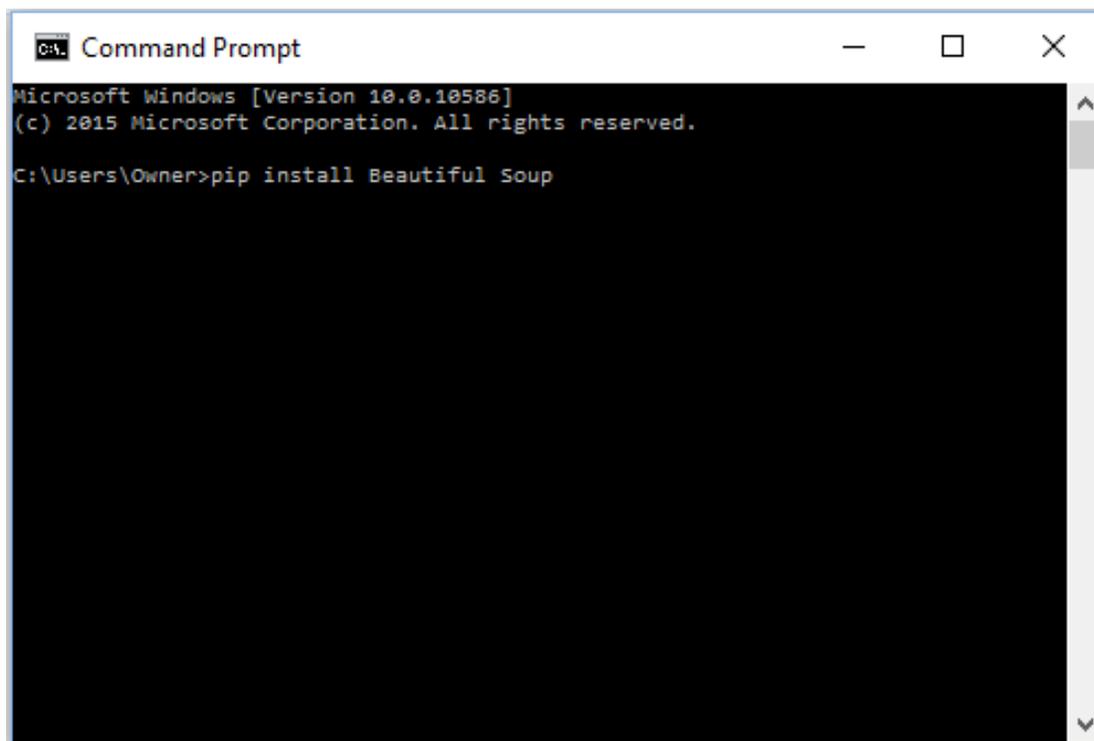

```
Command Prompt                                      —    □    ×
Microsoft Windows [Version 10.0.10586]
(c) 2015 Microsoft Corporation. All rights reserved.

C:\Users\Owner>pip install Beautiful Soup
```

With your installation complete, you are now ready to start writing and running your code.

Installation on Mac OS X/Mac OS

Macs come with Python 2.x pre-installed, so if you are content to use the installed version, you should not have to do anything. However, the version on your computer may be out of date and may not have useful features such as the pip package installer. As such, it can be advisable to download and install the latest version. You will find the latest files and instructions are at Python.org under the download tab.

In the next dialogue that opens, choose **Open With**, and click **Save File**. You can also choose to save the package file and run it later.
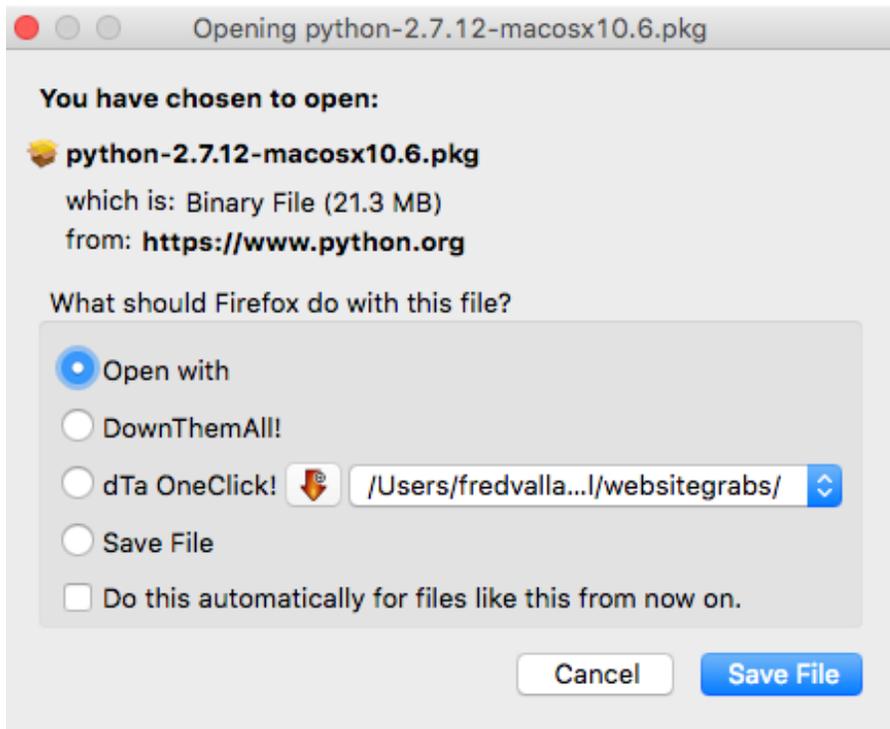
If you choose **Open with**, the installation package will download and you will see this dialogue.

Click Continue. In the next dialogue, if you wish, review the Read Me information.

Again, click Continue.

In the next window, you will have the opportunity to review the license conditions. Click Continue again, then in the license popup that follows, click Agree if you agree with the license terms. You can also choose Disagree, but the install will be halted.

Next, you will be asked to confirm the hard drive for the installation. When you are satisfied, click Continue.

In the next dialogue you have the opportunity to change the installation location. Finally, click Install to run the installation. Python will be installed.

Once installed, you should be able to begin using Python immediately. Go to the Terminal window on your Mac and type python at the $ prompt. You should see a response that includes the version number, and you will be able to interactively type Python statements at the $ prompt. For more on getting ready to run your Python scripts, see the companion tutorial **Running Your Python Scripts**.

You can also install Python on your Mac using HomeBrew. This is beyond the scope of this tutorial, but one of many excellent online guides can be found here: http://docs.python-guide.org/en/latest/starting/install/osx/