Getting Started with Spyder

A4.1 Overview

An integrated development environment (IDE) lets you enter, run, and debug your programs. There are several IDEs available for Python. The Spyder IDE is a professional development tool and is also an option for getting started with Python. Like other Python IDEs, Spyder lets you enter and run one statement at a time, or you can create a program with multiple statements. In this appendix, we'll cover how to get started with Spyder.

Spyder is available at spyder-ide.org. (It is also included as part of the Anaconda distribution, which includes several tools and packages.) There are versions of Spyder for Windows, Mac, and Linux. This appendix covers installing and using Spyder with Windows 10, but the other versions are very similar.

A4.2 Installing Spyder

In order to install Spyder on your computer, visit spyder-ide.org in a web browser. On the Spyder home page, there is a choice for Download.

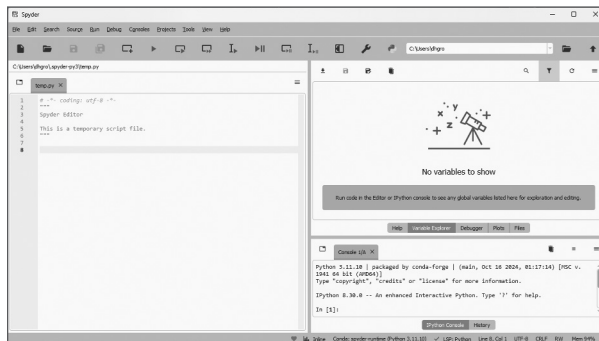Clicking on Download will move you to the instructions for downloading Spyder.

After clicking on the Download button, your browser downloads an installer file. In Windows, locate and run this file in order to install Spyder. You will be presented with a sequence of screens by the installer; you can generally select Next without changing any of the default settings. After several screens, a screen will include an Install button. After selecting this, the installer will take several minutes to install the Spyder program.

Once Spyder is installed, the Windows Start menu will have an entry for Spyder. Alternatively, if you installed the Anaconda distribution, there will be an entry for Spyder within the Anaconda folder within the Windows Start menu.
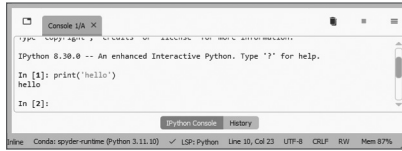
For easier access to Spyder, you can place it in the Windows taskbar. To do this, right-click on the Spyder menu entry, then select More, then Pin to the taskbar.

A4.3 Using Python Interactively in Spyder

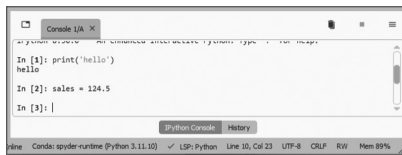When you run Spyder, the application will look as follows:

At the lower right of the screen is the interactive Python shell. This is where you can enter one statement at a time and immediately see the result. The In [1]: prompt indicates that you can enter a statement there. For example, in the image below, a print statement is entered, and Python displays the output result.
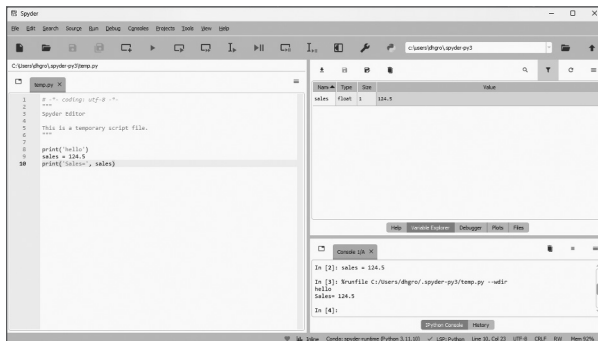

In order to clear the shell area, right-click in this area and select Clear console from the menu.

A variable can be set in the interactive shell. For example, below, the variable *sales* is set to 124.5. Unlike the print() example above, setting a variable does not result in output being displayed. In a subsequent statement, the variable can be displayed by simply typing the name of the variable at the [#]: prompt.

A4.4 Running Python Programs in Spyder

In the previous section, we reviewed how single statements can be run interactively in the Spyder shell. You can also enter multiple lines in a file and run the file as a program. This is done in the left half of the Spyder screen. For example, below, a three-line program is entered:

To run your program, click on the run icon (green triangle in the toolbar). Spyder will save your .py file, run it, and display the results (or error messages, if any) at the console in the bottom right of your screen.