

Appendix A3

Getting Started with Thonny

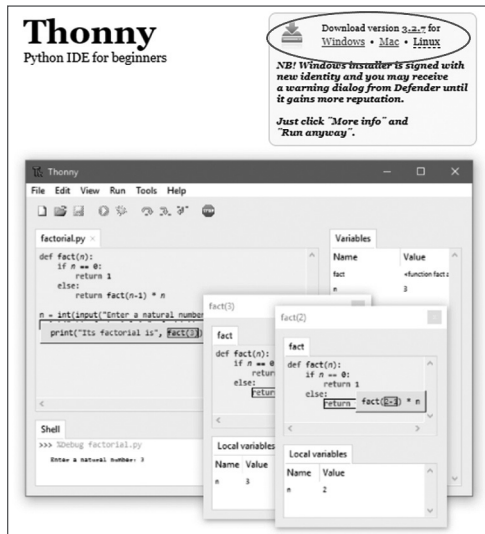
A3.1 Overview

An integrated development environment (IDE) lets you enter, run, and debug your programs. There are several IDEs available for Python. The Thonny IDE is designed with new Python programmers in mind, and is a great tool for getting started with Python. Like other Python IDEs, Thonny 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 Thonny.

Thonny is available at thonny.org. There are versions for Windows, Mac, and Linux. This appendix covers installing and using Thonny with Windows 10, but the other versions are very similar.

A3.2 Installing Thonny

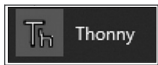
In order to install Thonny on your computer, visit thonny.org in a browser. On the Thonny home page there are links to download installers for Windows, Mac, and Linux. Click on the link for your computer's operating system.



After clicking on one of the download links, your browser should download an installer file. In Windows, locate and run this file in order to install Thonny. 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 Thonny program. Once it completes successfully, you should see this screen:



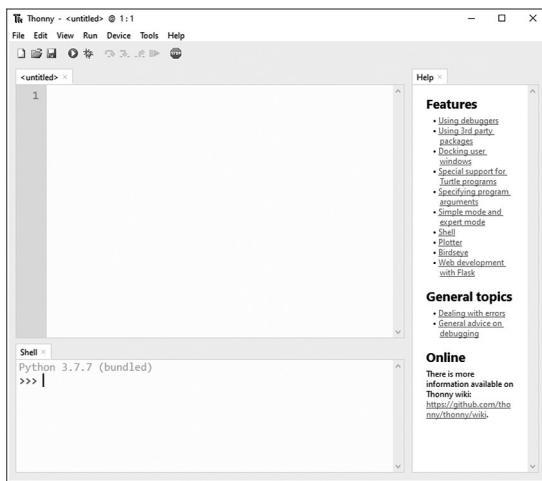
The Windows Start menu will have this entry:



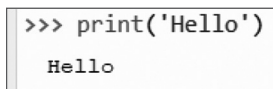
For easier access to Thonny, you can place it in the Windows taskbar. To do this, right-click on the Thonny menu entry, then select More, then Pin to the taskbar.

A3.3 Using Python Interactively in Thonny

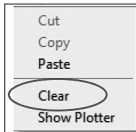
When you run Thonny, the application will look as follows:



At the bottom 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 >>> prompt indicates that you can enter a statement there. For example, 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 from the menu.



A variable can be set in the interactive shell. For example, below, the variable *i* is set to 1. 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.

```
>>> i = 1
>>> i
1
>>>
```

A3.4 Running Python Programs in Thonny

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

 A screenshot of the Thonny editor window. The title bar says '<untitled> *'. The editor contains two lines of code:


```
1 i = 1
2 print(i)
```

To run your program, click on the run icon (white triangle within the green circle). Python will run your program and display the results (or error messages, if any) in the bottom section.

To save your program, from the main menu choose File > Save or File > Save as . . .

 A screenshot of the Thonny interface. The editor window is titled 'print-i.py' and contains the same two-line code as before. Below the editor is a 'Shell' window. The shell shows the output of running the program:


```
Python 3.7.2 (bundled)
>>> %Run print-i.py
1
>>>
```