Using the Python Debugger

Debugging Code: pdb

As a novice programmer, you will frequently need to debug your code. Mistakes are common, and being able to fix them effectively will make the difference between a frustrating programming experience and an enjoyable one. Many novice and intermediate programmers say they like programming, but dislike spending all of their time debugging their code. As you gain more experience, not only will you make fewer mistakes in your code (the best way to debug is to write perfect code the first time!) but you will also gain skills and fluidity in debugging.

We will talk more about debugging in a few days, including how you should use the Scientific Method to approach debugging problems. For now, however, we want to introduce you to pdb, the Python debugger. We are giving you this introduction early on so you have a tool now to start approaching debugging problems. Later, when we talk about debugging and the Scientific Method, you can put your experience with pdb over the next few days into that context.

We will note that while pdb is Python-specific, debuggers are common to many programming languages. Each one has some differences from the others, but they all follow generally the same principles. Accordingly, if you become good at debugging in Python, and need to transition into another language, you should be able to pick up the debugger for that language easily.

Using pdb: The Python Debugger