

Python Editors

Introduction to Python Editors

So far we have written programs that can be written one line at a time and typed directly into the Python window (Shell), so to write programs with multiple lines we can also use programs called *IDEs*, or *Integrated Development Environments*, that work in much the same way as a text editor like Microsoft Word works – you open a screen and start typing text starting in the top left corner, and use the “ENTER” key to bring yourself onto the next line. Also, a lot of text editors will highlight words that appear to be misspelled or have grammar issues, and in the same way IDEs will highlight keywords (as detailed on Page 14), and issues with grammar (or more correctly *syntax*). There are many possible Python editors (or IDEs) available, and each have their benefits, but when you download the Python interpreter, it already comes with an editor called *IDLE*, which is a very good editor, so we’ll start there.

IDLE

According to Python creator Guido van Rossum, IDLE stands for "Integrated Development and Learning Environment", but since we know van Rossum is a big fan of Monty Python, it’s likely it’s also a tribute to Eric Idle. The IDLE editor allows you to open multiple editing windows, it highlights keywords and syntax, it helps with the formatting of text, and has tools to help you find and fix errors in your programs (these are called *debugging tools*).

PyCharm

A popular alternative to IDLE is PyCharm which has all of the main features of IDLE, as well as the ability to navigate and manage larger programs more easily, and manage multiple versions of the same program easily. It also works well with tools for building web applications, and it’s also very easy to change the PyCharm interface, you can choose different themes, colour schemes, and change what happens when you press the function keys on your keyboard.

Spyder

Spyder also has similar features to IDLE but focuses on looking at how well the programs you write are performing – so are they efficient? Or are there parts of the program that could be written more simply? It also allows you to edit the program code in more visual ways, and is very useful for people who are creating programs for data analysis and data science.

Jupyter Notebook

Jupyter Notebook is part of a larger project called *Project Jupyter* which is a web-based editor that helps you write programs in Python that work easily that work with web applications and other web-based program. It also has some nice visualisation tools that make it useful data analysis and data science programs (like Spyder).

Atom

Atom is an editor that can be used by a wide range of programming languages and provides all of the features of IDLE, and it also integrates with version control systems, and has a big community of programmers who keep adding new features to Atom, so you have to try to keep up with all the new features. It can also be integrated easily with a range of databases.