

Python Introductory Course

3 – 5 December

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Location: Cork Airport Hotel

Prerequisites:

Prior programming experience in another language such as Perl, Java, Basic or C.

Overview:

Python is powerful, portable, object-oriented open source programming language for writing stand along programs, quick scripts, and prototypes for large applications.

This course starts at the fundamentals of Python – statements, variables, comments, conditionals and loops then goes on to study Python’s collections – Lists, Tuples and Dictionaries. Functions, modules and packages are then covered, as is the use of and creation of data types (objects) in Python.

Object oriented principles and capabilities are built in to the Python language, and the course discusses how these can be exploited most effectively.

After coverage of the fundamentals of the language as described above, the course covers specifically more advanced libraries, such as Twisted for network programming, SQLAlchemy for database access and Stackless for concurrent programming.

Course Content:

- Basic language principles
- Execution models, the Python interpreter and IDE support
- Basic types and control flow
- Defining and using functions
- Operating on files – input and output
- Analysing text with regular expressions
- Data structures – lists, tuples and dictionaries
- Defining and using modules
- Classes and objects
- Accessing databases with SQLAlchemy
- Network programming using the Twisted library
- Concurrent programming using Stackless Python