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		Python
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	Nota di contenuto	Introduction -- Where is Python Used -- Setting up the Python Environment -- A First Python Program -- Python Strings -- Numbers, Booleans and None -- Flow of Control using if statements -- Number Guessing Game -- Recursion -- Introduction to Structured Analysis -- Functions in Python -- Implementing a Calculator using Functions -- Introduction to Functional Programming -- Curried Functions -- Introduction to Object Orientation -- Class Side and Static Behaviour -- Why Bother with Object Orientation? -- Operator Overloading -- Error and Exception Handling -- Python Modules and Packages -- Abstract Base Classes -- Error and Exception Handling -- Python Modules and Packages -- Protocols, Polymorphism and Descriptors -- Decorators -- Iterables and Iterators -- Generators and Coroutines -- Collections Tuples and Lists -- Sets -- Dictionaries -- Frozensets -- Collection Related Modules -- ADTs, Queues and Stacks -- Map, Filter and Reduce.-Sorting and Higher Order Functions -- Python Enumerated Values, Structural Pattern Making -- Python Virtual Environments -- Monkey Patching -- Attribute Lookup -- The Python Bites Back -- TicTacToe Game.

Sommario/riassunto

This textbook is aimed at readers who have little or no knowledge of computer programming but want to learn to program in Python. It starts from the very basics including how to install your Python environment, how to write a very simple program and run it, what a variable is, what an if statement is, how iteration works using for and while loops as well as important key concepts such as functions, classes and modules. Each subject area is prefaced with an introductory chapter, before continuing with how these ideas work in Python. The second edition has been completely updated for the latest versions of Python including Python 3.11 and Python 3.12. New chapters have been added such as those that consider where and how Python is used, the use of Frozensets, how data can be sorted, enumerated types in Python, structural pattern matching and how (and why) Python Virtual Environments are configured. A new chapter 'The Python Bites back' is introduced to present the fourteen most common / biggest gotchas for someone new to Python. Other sections have been updated with new features such as Exception Groups, string operations and dictionary operations. A Beginners Guide to Python 3 Programming second Edition provides all you need to know about Python, with numerous examples provided throughout including several larger worked case studies illustrating the ideas presented in the previous chapters.