1. Record Nr. UNINA9910349288903321 Autore **Hunt John** Titolo A Beginners Guide to Python 3 Programming [[electronic resource] /] / by John Hunt Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2019 **ISBN** 3-030-20290-9 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XXVII, 433 p. 934 illus., 102 illus. in color.) Collana Undergraduate Topics in Computer Science, , 1863-7310 005.133 Disciplina Soggetti Programming languages (Electronic computers) Python (Computer program language) Database management Programming Languages, Compilers, Interpreters **Python Database Management** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Setting up the Python Environment -- A First Python Program -- Python Nota di contenuto 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 -- Protocols, Polymorphism and Descriptors -- Iterables, Iterators, Generators and Coroutines -- Collection Related Modules -- ADTs, Queues and Stacks -- Map, Filter and Reduce -- TicTacToe Game. . This textbook on Python 3 explains concepts such as variables and Sommario/riassunto what they represent, how data is held in memory, how a for loop works and what a string is. It also introduces key concepts such as functions, modules and packages as well as object orientation and functional

programming. Each section is prefaced with an introductory chapter,

before continuing with how these ideas work in Python. Topics such as generators and coroutines are often misunderstood and these are explained in detail, whilst topics such as Referential Transparency, multiple inheritance and exception handling are presented using examples. A Beginners Guide to Python 3 Programming 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.