



METADATA

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Abstract

The purpose of this book is to teach undergraduate students of Computer Science, Computer Engineering, and related fields the fundamentals of software programming with high-level languages, using the Python language. The book introduces students to the principles of object-oriented programming as well as more advanced topics such as systems programming with an emphasis on multi-process/thread synchronization techniques, network programming, and introductory topics in distributed systems programming.

The book contents include introduction to programming, introduction to Python, values, types, variables, keywords, commands, expressions, operators, comments, functions and conditional execution, looping with the while command, strings, lists, tuples, dictionaries, files, exceptions and debugging, classes and objects, concurrent programming and threads, network programming, introduction to programming distributed software systems, and technology trends and future developments.

