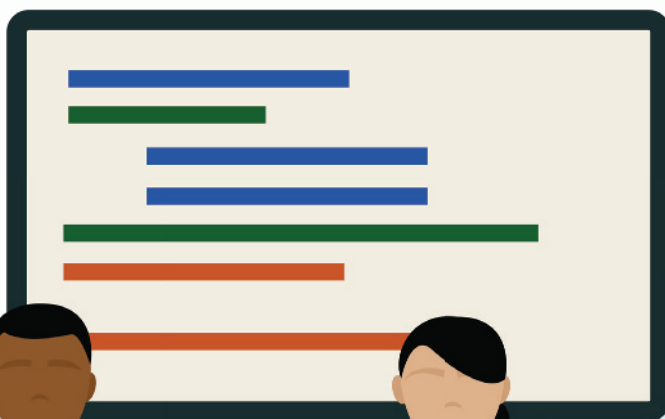
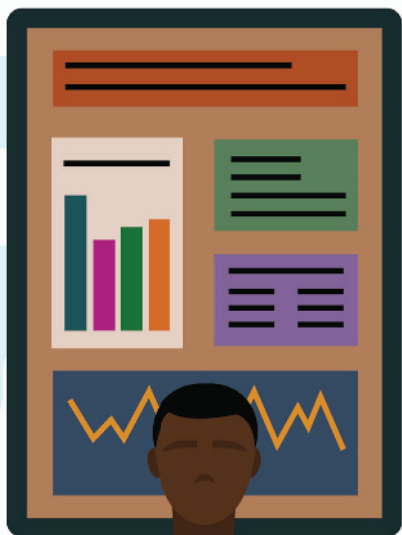






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What Is Python?

Welcome to the world of Python programming!
By opening this book, you've opened your world to infinite possibilities in creating with code. Python is a beginner-friendly programming language, and its structure is often compared to the English language.



So, what can you do with Python? Python can be used to instruct robots how to behave or to give commands to artificial intelligence (AI) assistants. With Python, you can automate everyday processes, such as receiving daily reminders to walk the dog or sending a weekly e-newsletter to the community. You can use it to create a blog, build a social media app like Instagram, or even make your own adventure games. In addition, learning Python is the stepping-stone to exploring advanced concepts in web development, data integration with application programming interfaces (APIs), blockchain technology, data science, and AI (such as computer vision, machine learning, and natural language processing to name a few). The possibilities are endless!

How Is This Book Formatted?

This book was written with the true beginner in mind. Never written a line of code in your life? No problem! This book will get you started with the basics of programming to help you gain a solid foundation for Python.

The chapters in this book are written to build upon each other. If you have never written Python code, consider reading the chapters in this book in the order in which they are presented. The following sections explain what you can expect to find in each chapter.

Syntax

Syntax represents a set of rules to follow when writing code. Whenever syntax is introduced for a new concept, the words you should change are shown in *italics*.

Code Blocks

Throughout this book, you will be introduced to code examples in a *code block*. Whenever a code block is presented, the code will appear as such:

```
>>> print('Welcome to the world of Python!')
Welcome to the world of Python!
```

You are welcome to copy the code as written in the code block into the code editor to try the examples. In addition, you may also notice that some of the words in the code block are written in color. This is known as *syntax highlighting*. Syntax highlighting is a helpful feature designed to help you keep track of the syntax elements within your code.

Checkpoints

Checkpoints throughout each chapter help you confirm that you understand the material presented and give you the confidence to continue learning. Checkpoints are presented in quiz format and may consist of multiple-choice questions, matching, or fill-in-the-blank questions. You can find all the answers for the checkpoints in the appendix, “Checkpoint Answers.”

Projects

As you complete the chapters in this book, you will have the opportunity to practice your skills with a project. Each project requires you to write your own Python program. A *program* is a collection of commands within a file that will be run to complete a task. Projects are designed to enable you to use the knowledge you gained in the current and previous chapters. A detailed walk-through of how to complete each project is



provided as well. You can find the code for all project files on the Wiley website at www.wiley.com/go/bitesizepython.

You are encouraged to use the projects in this book to build even greater Python programs. Once you start to develop a better understanding of how to use Python, you will find yourself motivated to build. Use the projects in this book as guidance to help bring your ideas to life!

