LEARN SMARTER

Python

Interactive Guide

1st Edition

By: Nesta Saint. Clever Parchment

Python

Interactive Study Guide - 1st Edition

By **Nesta Saint. Clever Parchment**

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Dedication

This book is tribute to my parents (Adina & Claude Parchment). Thank you both for everything.

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Each chapter will include practical examples, exercises, and challenges to reinforce learning. The appendix will serve as a reference guide and provide further resources for readers to continue their Python journey.

Introduction

Welcome to **“Learn Smarter - Python 1st edition”** a technical beginner's guide to learning one of the most popular programming languages in the world. In this book, you'll embark on a journey to understand the fundamental concepts of Python programming and how to apply them in real-world scenarios. Within “Learn Smarter" every chapter covered you’ll encounter a challenge to catapult your programming skills to the next level.

Preface

This book is designed for absolute beginners with no prior programming experience. Whether you're a student, a professional looking to switch careers, or simply curious about coding, this book will provide you with a solid foundation in Python programming.

In writing this book, my goal is to provide entry and junior level coders a with a practical and technical guide for developing their coding skills.

Acknowledgments

I would like to express my sincere gratitude to my parents for their support and encouragement throughout the writing of this book.

Chapter 1 - Introduction to Python

Welcome to Python programming! Python is a versatile, easy-to-learn language used in web development, data analysis, AI, and more. It's known for its readability and simplicity.

- **Who created Python?**
  Python was created by **Guido van Rossum, a Dutch** programmer, and it was first released in 1991.

- **Why learn Python?**
  Python is versatile, readable, boasts a large community, and is in high demand in the job market.

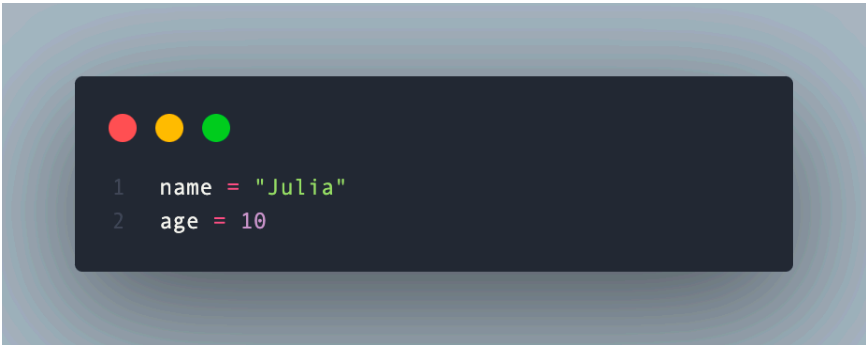
How to set up Python?
We'll install python from **python.org**, however for the first few chapters we'll use an embedded code editor.

Chapter 1 - Introduction to Python Challenge

Chapter 2 - Variables and Data Types

We'll learn about variables and basic data types. Imagine variables like boxes where you can put stuff, and data types like the different kinds of information you can put in those boxes.

- **What are Variables and Data Types?**
  Variables are like labeled containers. Within these containers we place our information to be used for later use. The information placed in these containers can be numbers, words, and lists of things, just like how you might have separate boxes for your shoes, clothes, and books. Each container holds a specific type of information, making it easier for the computer to understand what we're working with.

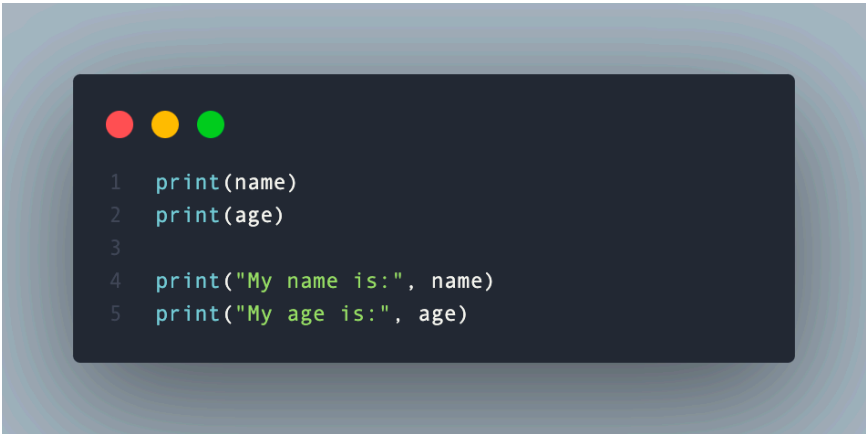


variable = information

The image above displays two variables. A variable called name with the information of someone named Julia, and a variable called age with someones age as 10.

Did you Notice “Julia" is in quotes and our number / integer is not? That’s because strings are represented as quotes. Think of strings like colored beads placed on a string necklace. Each bead represents a letter or a symbol, while integers are plain number blocks used for counting and math.

- **What is print?**
  Suppose we want to see what’s stored in our variables. We can use a special Python key word called print.



Chapter 2 - Variables and Data Types Challenge

Chapter 3 - User Input and Output

We'll learn about variables and basic data types. Imagine variables like boxes where you can put stuff, and data types like the different kinds of information you can put in those boxes.

- **What are Variables and Data Types?**
  Variables are like labeled containers. Within these containers we place our information to be used for later use. The information placed in these containers can be numbers, words, and lists of things, just like how you might have separate boxes for your shoes, clothes, and books. Each container holds a specific type of information, making it easier for the computer to understand what we're working with.

About the Author

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