

Python Basic Track

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Introduction

0.1 About this book

0.2 About the authors

0.2.1 Vincent Velthuisen

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0.2.3 Nick Szirbik

0.3 Acknowledgements

Chapter 1

What it is and what it isn't

1.1 Computers

1.2 Programming

1.3 Software engineering

1.4 This course

Part I

Codecademy course

Chapter 2

Python syntax

2.1 Variables

2.1.1 Datatypes

int, float, bool

2.1.2 Duck typing

https://en.wikipedia.org/wiki/Duck_typing

2.2 Whitespace

2.2.1 Keep code together

2.3 Comments

2.4 Arithmetic operations

2.5 Apply these concepts

2.5.1 Tip calculator

Chapter 3

Strings & Console Output

TL;DR

- We can combine simple variables, like characters;
- into more complex ones, like strings.
-

3.1 Strings

In the previous chapter you have seen some basic data types. One of the basic types is the ‘character’. As the name suggests this type of variable can represent any¹ single character. Often being able to represent a single character will not be enough. After all, characters are usually combined to form words, sentences, paragraphs, etc.

To help us do this a new type of variable was created. It is called a `string` because it represents a string of characters. This concept is available in most (if not all) programming language but can have slight variations. Here we will focus on how strings work in python.

To create a string we need to tell the system where the string starts and where it ends. Like in most languages you can use `"` and `'`. Since these are characters themselves we cannot just use them inside of a string. We need to ‘escape’ them by putting a `\` in front of them. That makes `\` a special character in its own right requiring it to be escaped as well. An overview of common escape sequences is given in Table 3.1.

Table 3.1: Common escape sequences

Sequence	Represents
<code>"\'"</code>	<code>'</code>
<code>"\""</code>	<code>"</code>
<code>"\\"</code>	<code>\</code>
<code>"\n"</code>	newline
<code>"\t"</code>	tab

¹Clearly there is a limited ‘character set’, but if you stay within the characters used in English you should be safe. More about this topic later.

3.2 Index

3.3 (String) Methods

3.4 Print

3.4.1 Concatenation

3.4.2 Explicit string conversion

3.4.3 String formatting

3.5 Apply these concepts

3.5.1 Date and Time

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Conditionals and Control Flow

Chapter 5

Functions

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Lists & Dictionaries

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