

Python Bootcamp

Week 2 - Day 2

Control Structures

Note:

As this is a guide, do not expect everything to be covered, the most essential and basic information will be provided. You are free and encouraged to Google or research at your own pace.

Control Structures in Python

Control structures are a way in which we direct order of execution of statements within a program. They are considered as major building blocks of computer programs.

Python uses if statements as control structures; these were discussed in the previous week.

This week we will focus on Loops.

Iteration

Iteration means executing the same block of code over and over, potentially many times. A programming structure that implements iteration is called a loop.

Programming has two types of iterations, indefinite and definite;

- **Definite** - The number of times the block will be executed is explicitly specified at the beginning of the loop.
- **Indefinite** - The number of times the loop is executed is not explicitly specified in advance.

While Loops

The while loop executes a block of statements provided that a condition is true.

For more on while loops, visit:

- [RealPython](#)
- [W3Schools](#)

For Loops

A **for** loop is used for iterating over a sequence (that is either a list, a tuple, a dictionary, a set, or a string).

This is less like the **for** keyword in other programming languages and works more like an iterator method as found in other object-orientated programming languages.

With the **for** loop, we can execute a set of statements, once for each item in a list, tuple, set etc.

For more on while loops, visit [RealPython](#)

Course Material

Look and the demonstrations and examples in the folder [loops](#) in this Boot Camp's GitHub repository. You are encouraged to go through and run each file, ask questions and discuss on Discord and finally, open Pull Requests and Issues - to help contribute to and improve the code - on Github.