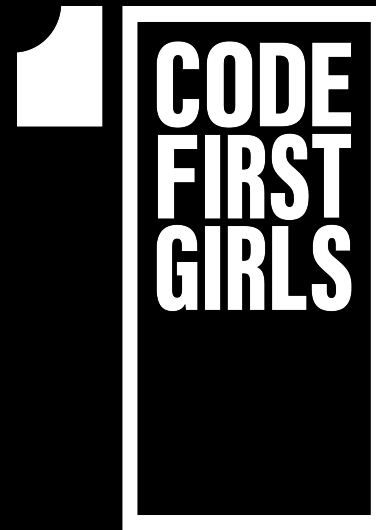


Itertools Module

LESSON 7



NANODEGREE → ENGINEERING MODULE

AGENDA



- 01 Itertools Module
- 02 Types of iterators
- 03 Practice and coding

ITERTOOLS IN PYTHON

[DOCUMENTATION](#)



The **itertools** module includes a set of functions for working with iterable (sequence-like) data sets.

- **Itertools** – Iterator functions for efficient looping

TYPES OF ITERATORS

INFINITE

COUNT
CYCLE
REPEAT

TERMINATING

ACCUMULATE
CHAIN
COMPRESS
DROPWHILE
FILTERFALSE
GROUPBY
ISLICE
STARMAP
TAKEWHILE
TEE
ZIP_LONGEST

COMBINATORIC

PRODUCT
PERMUTATIONS
COMBINATIONS
COMBINATIONS
_WITH
_REPLACEMENT

- **Itertools**
provide us with
three different
types of
iterators

ITERTOOLS

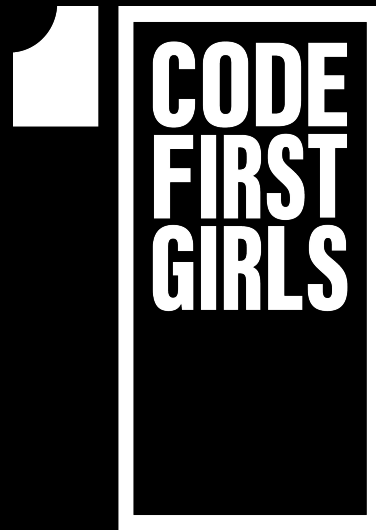
- It is a standard Python library
- It is one of the functional programming modules
- Itertools need to be imported first in order to use its functions in our code
- Itertools functions are very memory efficient and fast
- Itertools functions are best used for complex iteration based algorithms
- We need to have the core knowledge of the main Itertools functions and understand how they are applied in practice.





**DEMO &
EXERCISES**

ITERTOOLS MODULE EXERCISES & PRACTICE



THANK YOU!