CHAPTER 7 - FUNCTIONS

7.1

Custom functions are blocks of code to which a name is assigned, which can contain other functions and which are executed when explicitly called.

The advantages of using a function are:

-chance to reuse the code

-simpler code

-improvement of the test phase

7.2

To create a function we must define it, the syntax for this is:

def functionname(parameters):

instruction

instruction

etc.

The instructions are executed sequentially

The name of the function must:

-have an underscore or letter as its first character

-not contain spaces

-not be a Python keyword

Python keeps all the functions and their instruction blocks in memory

7.3

Parameters are values used in the definition of the function.

Data passed to a function are called arguments.

Parameters can be mandatory or optional.

Mandatory parameters must always go before optional ones.

Optional parameters must always indicate the default value to be used if they are not specified.

Keyword arguments allow to assign arguments in random order, the syntax is:

parametername=value

7.4

A productive function is a group of instructions that performs a specific task and, when it ends, returns a value to the instruction that called it, its general syntax is:

def functionname (parameters) :

instruction

instruction

etc.

return expression

Anything written after return is not taken into account

The return statement allows to store the result of a function

Void functions are functions that execute a task but don’t return any value to the instruction that called them.

7.5

A global variable can be reached by any program instruction, a local variable can only be reached within its scope (i.e. the part of the program in which it is defined)

7.6

A docstring allows to comment on a function created which is shown with the help function and in the call tip, it is enclosed in triple quotes and placed immediately after the header in the definition of a function:

def functionname (parameters) :

“””docstring”””

instruction

instruction

etc.

7.7

A modularized program defines functions to be used inside other functions to increase reada