**Argument and Parameter:**

There can be two types of data passed in the function.

1) The First type of data is the data passed in the function call. This data is called arguments.

2) The second type of data is the data received in the function definition. This data is called parameters.

Arguments can be literals, variables and expressions. Parameters must be variable to hold incoming values.

Alternatively, arguments can be called as actual parameters or actual arguments and parameters can be called as formal parameters or formal arguments.

## Passing Parameters

Apart from matching the parameters, there are other ways of matching the parameters.

Python supports following types of formal argument:

1) Positional argument (Required argument).

2) Default argument.

3) Keyword argument (Named argument)

**Positional/Required Arguments:**

When the function call statement must match the **number and order of arguments as** defined in the function definition it is Positional Argument matching.

## Default Arguments

Default Argument is the argument which provides the default values to the parameters passed in the function definition, in case value is not provided in the function call.

**Default args has to be declared from right to left with in the fun def.**

## Keyword Arguments:

Using the Keyword Argument, the argument passed in function call is matched with function definition on the basis of the name of the parameter.

**Anonymous Function:**

Anonymous Functions are the functions that are not bond to name.

Anonymous Functions are created by using a keyword "lambda".

Lambda takes any number of arguments and returns an evaluated expression.

Lambda is created without using the def keyword.

**Syntax:**

lambda arg1,args2,args3,?,argsn :expression

## Scope of Variable:

Scope of a variable can be determined by the part in which variable is defined. Each variable cannot be accessed in each part of a program. There are two types of variables based on Scope:

1) Local Variable.

2) Global Variable.

**a) Local Variables:**

Variables declared inside a function body is known as Local Variable. These have a local access thus these variables cannot be accessed outside the function body in which they are declared.

**b) Global Variable:**

Variable defined outside the function is called Global Variable. Global variable is accessed all over program thus global variable have widest accessibility.

## Argument Pass by reference or value

Call by reference means passing the address of a variable where the actual value is stored. All arguments in the Python language are passed by reference. The called Python function uses the value stored in the past address; any changes to it do affect the source variable.