Python Function

The **function is a block of code defined with a name**. We use functions whenever we need to perform the same task multiple times without writing the same code again. It can take arguments and returns the value.

Function improves efficiency and reduces errors because of the reusability of a code. Once we create a function, we can call it anywhere and anytime. The benefit of using a function is reusability and modularity.

Types of Functions

Python support two types of functions

1. Built-in function
2. User-defined function

User-defined function

Functions which are created by programmer explicitly according to the requirement are called a user-defined function.

```
def function_name(parameter1, parameter2):
       # function body
       # write some action
    return value
```

- `function_name`: Function name is the name of the function. We can give any name to function.
- `parameter`: Parameter is the value passed to the function. We can pass any number of parameters. Function body uses the parameter's value to perform an action
- `function_body`: The function body is a block of code that performs some task. This block of code is nothing but the action you wanted to accomplish.
- **return value**: Return value is the output of the function.

Benefits of using Functions

- **Write once use multiple:** Sometimes in the program, we write some code and then later we need that code again to perform the same task. What we do is we write the same code again. This is not the best practice to go through. We use the concept of functions in python. We define the function once and call it multiple times when required.
- **Easy Readability:** Using the concept of functions, we do not write the same code again and again. Hence our program became structured and readable. Hence it improves the readability of our program/code.
- **Reduce Execution Time:** Using functions our lines of code is reduced and hence it results in the fast execution of our program.

Non-Parameterized and Parameterized Functions

Functions are either be **parameterized** or **non-parameterized.**

(i). Non_Parameterized Function: Normal and simple functions are non-parameterized functions.

(ii). Parameterized Function: Functions that get values externally or at the calling time, these types of functions are called functions with the parameter or parameterized function. Parameters are one or more than one also